# Magentus

# PM-03 Evolution vLab® Manual – My Menu

Document Version   v6.0

Software Version   5.3.0 Major Release and Related Builds

# United Kingdom Edition

# Revision History

The following changes have been made to this document:

| Version | Date | Author | Change Description |
|---|---|---|---|
| **6.0** | 31-Jul-2023 | Colin Sheppard | This update includes the rebranding of the company from Citadel Health to Magentus. |
| | | | Document Number and Type updated from CD-49 Evolution vLab™ Manual - My Menu to PM-03 Evolution vLab™ Manual - My Menu. |
| | | | Improvements in styling over the previous versions for better consistency, particularly in relation to screen elements, which will appear in **bold** in most instances. |
| | | | The Purpose and Scope in Chapter 1 and 2 have been updated. |
| | | | These updates are based on past Release Notes. |
| | | | • Chapter 8, (Page 45) - FULL Reception Entry - Registration Demographic Enquiry Box (Medicare Column). |
| | | | • Chapter 8, (Page 46) - FULL Reception Entry - New Identifier for Doctor Provider Number. |
| | | | • Chapter 8, (Page 55) - Report (Extra) Copies [CF5] - Allow device modification for Copy Doctor. |
| | | | • Chapter 8, (Page 59) - Aliquots [SF7] - Ability to change an Aliquot tube container. |
| | | | • Chapter 8, (Page 59) - Aliquots [SF7], (Page 63) - Billing Status [CF2], and (Page 68) - Container Assignment [CF10],  – for Duplicate Function Key takes users to the incorrect place. |
| | | | • Chapter 8, (Page 72) - UR Health Funds - User not able to Modify Health Fund details (to enter > End Date field) from Reception screen. |

| Version | Date | Author | Change Description |
|---------|------|--------|--------------------|
| | | | • Chapter 17, (Page 228) - Evolution Function Keys - Character limit of Evolution Function Keys. |
| | | | • Chapter 21, (Page 333) - Tabulated Report [CF12] - Modify the word document code to all a version to be 'removed |
| | | | These updates are based on version 5.3.0 Release Notes |
| | | | • Section 8.1 - FULL Reception Entry (Page 45) for New Patient Search Functionality. Added detail to the point starting with "Once the following have been added - Patient Surname and First Name, and DOB and Sex, a demographic search is automatically done against existing patient details to see if a patient already exists. If a patient exists a pop-up window". |
| | | | • Section 4.1 - Processing Samples (Page 17) for New Patient Search Functionality. Added the sub-section "Search by Client Specific Identifier". |
| | | | • Section 8.1 - FULL Reception Entry (Page 45) for New Patient Search Functionality. Changed the Demographics Enquiry [F5] function description to include Identifier Type and Patient Identifier. |
| | | | • Section 8.1 - FULL Reception Entry (Page 47) for Automatic Printing of Request Form Labels. Added the sub-section "CHI Number". |
| | | | • Section 9.2 - Label Lists (Page 85) for Automatic Printing of Request Form Labels. Added the sub-section "Automatic Printing of Request Form Labels". |
| | | | • Section 8.11 - Container Assignment [CF10] (Page 69) for Accept External Container Identifiers. Added the sub-section "External Container Identification". |
| | | | • Chapter 20 - Results Enquiry (Page 306) for "Allow Technical Validation (L1) of manually entered results". Added detail to the point starting with "". |
| | | | • Section 18.3 - Product Reception (Page 243) for "Ability to record special requirements in Product Reception Screen: HLA". Added the field "HLA Matched", to the Data Fields Table. |

| Version | Date | Author | Change Description |
|---|---|---|---|
| | | | • Section 18.3 - Product Reception (Page 243) for "Ability to record the prices of products". Added the field "Price", to the Data Fields Table.<br>• Section 18.3 - Product Reception (Page 243) for "Special Requirement & Transfusion Product component characteristics". Added the field "HbS Negative", to the Data Fields Table, as well as the related fields: "High AB Titre Negative", "Volume", and "Condition".<br>• Section 18.3 - Product Reception (Page 243) for "Ability to assess both reserved and unreserved stock by Unit shelf life". Added the field "Time to Expiry", to the Data Fields Table.<br><br>Other Significant Updates:<br><br>• Section 3.1 Documentation and Usage Conventions: Added section to explain basic conventions used in this Manual about Data Entry, Navigation and Display Formats. |
| 5.0 | 20-Jul-2022 | T. Zafrin | Template updated.<br>Product branding and trademark updated:<br>• EVOLUTION to Evolution vLabTM<br>• AUSLAB to Evolution vLabTM<br>• AUSCARE to Evolution vLabTM Clinical Viewer |
| 4.0 | 18-Jun-2020 | N. Burgess | Addition of **Evolution vLab®** functionality up to and including release version 2019.4. This includes the new **BloodNet** and NCSR functionality. |

# Document Approval

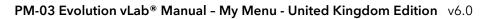| Role | Name | Position | Signature & Date |
|------|------|----------|------------------|
| **Author** | Colin Sheppard | Technical Writer | |
| **Reviewer** | Emma Jones-Perrin | Product Specialist | |
| **Reviewer** | Vasavi Nagalla | Quality Manager | See QT-15 approval form relating to PM-01. |
| **Approver** | Jeffrey Anderson | Manager of PMO | |
| **Approver** | Lara Fletcher | Head of Product - Pathology | |

This document has been reviewed and approved by the respective staff noted in the table above. However, the actual approvals are captured using QT-15 internal template.

# Table of Contents

# 1      Purpose

The purpose of this manual is to describe the key features within the My Menu area, of the Evolution vLab® software product.

The users of this document are Applications Administration and Management Staff of Client Organisations, as well as the Magentus Product Specialist and Support Staff.

# 2      Scope

The scope of this manual covers some of these areas: E-Orders, Reception, Processing, Tracking, Batch Functions, Analyzers, Inventories, and Results Enquiry.

# 3      General Information

## 3.1      Documentation and Usage Conventions

**Evolution vLab®** encourages use of both the mouse and keyboard, though many navigation steps and functions may be performed using the designated keyboard shortcuts. They are indicated throughout this manual in bold text and enclosed in square brackets, such as **[F1]** for the F1 function key.

### Function Key Shortcuts

Many keyboard shortcuts via the Menus involve Function Keys **[F1]** to **[F10]** in combination with the **[Shift]** or **[Control]** key, which are indicated by **S** and **C** respectively. For example:

**Function Key Shortcut Examples**

| Function | Description |
|---|---|
| **[SF5]** | **[Shift]** key plus **[F5]** function key |
| **[CF9]** | **[Control]** key plus **[F9]** function key |

### Data Entry Fields

Data entry fields that can be edited have a light-blue border whereas the non-editable fields do not have the border.

## Data Entry Shortcuts

Data entry is often streamlined by alphanumeric/Mnemonics shortcuts when choosing from a set list of options. These sets are indicated throughout this manual in round brackets. Unless otherwise stated the shortcuts are not case sensitive. For example:

**Data Entry Shortcuts Examples**

When presented with a yes or no question the keyboard set will be represented as (Y/N) and the keyboard shortcut keys will be represented as **Y** or **N**.

| Keyboard Key | Description |
|:---:|---|
| **Y** | **Y** for Yes, (y)es lower or upper case 'y' |
| **N** | **N** for No, (n)o lower or upper case 'n' |

## Important Notes, Cautions and Tips

Important Notes, Cautions and Tips are indicated with bold and underlined text.

It may contain a Light Grey Background Rectangle Box behind the text for added emphasis.

For example:

**Note:** The system will populate the created date/time, last modified date/time and the username that created or modified the message.

## Report Field Modified Date and Time Postfix

In some Reports, a time can have a postfix to indicate when it was last modified as follows:

| Postfix Key | Description |
|:---:|---|
| **y** | **y** for yesterday, a lower case 'y', for example: 10:30y. |
| **t** | **t** for today, a lower case 't', for example: 10:30t. |

## Programming and Equation Code

Snippets of equation and mask code are formatted in Courier New font. For example:

```
if (HGB) exit;
```

## User Configuration

User configuration determines the users' access to the system, the screens that can be viewed and functions available. For some privilege levels a user may have access to a screen, however some of the functions may be disabled and therefore the tabs or buttons will not display or will be disabled.

## Top Toolbar

The icons are displayed in the toolbar across the top of the **Evolution vLab®** interface.  Icons are greyed out when they are not applicable to the current screen.

| Icon | Hotkey(s) | Description |
|------|-----------|-------------|
| Help | **[Alt]** and minus **[-]** key | Opens the online manual relevant to the current **Evolution vLab®** screen. |
| Lookup | **[F1]** | Opens information relevant to the field the cursor has been placed in. This information provides the user with valid entries for the field by way of Data Selection Lists or help screens with examples of the correct syntax for the field. |
| Back | **[Esc]** | Exits the current screen and returns to the previous screen. |
| Edit | **[F2]** | Places all fields in the results screen into edit mode. |
| Save | **[F4]** | Saves information entered in the fields. |
| Delete | **[Delete]** | Deletes the contents of the field the cursor is currently in, or the information highlighted.  [excludes word report result fields] |
| Validate | **[F6]** | Validates the result/s currently displayed on screen. |
| Select | **[F12]** | Selects an item within a table or executes a function, for example: a search. |
| Previous | **[SF3]** | Scrolls back to display the previous entry within a table or list. |
| Next | **[F3]** | Scrolls forward to display the next entry within a table or list. |

**3. General Information : Documentation and Usage Conventions**

| Icon | Hotkey(s) | Description |
|---|---|---|
| List Insert | **[SF12]** | Inserts the current laboratory record into a user defined list. |
| Export | **[CF11]** | Exports the data to the local computer as a csv file (comma separated file). This file can be opened using any standard editor, for example: Excel. |
| Clear | **[Scroll Lock]** | Clears the current screen of data entered without saving. |
| Print | **[F11]** | Prints the information currently on screen. |
| ˅ | **[SF11]** | Allows ad-hoc printing to a selected printer from a list. |

## Results Screen

The results screen displays in 'read-only' mode until it is placed into edit mode.  When in edit mode, editable fields that are not validated will have a brown border whereas editable fields that are validated will have dark blue border.

## Data Selection Lists

Data Selection Lists – **[F1]** or Lookup Icon

These are pop-up windows that can be moved around the screen for easy viewing.  Data is sorted using the column with the title displayed in yellow.  Lists can be sorted by any column by clicking on the heading with the mouse.

Clicking again will arrange the list in ascending/descending order.

Highlight the entry and press **[Enter]** or double click with the mouse to select items from the list.

To initiate a search before the list opens, type a character into the data field and then press **[F1]** which will open an already filtered list.  To close the pop-up window use **[Esc]** or click on the red cross.

## Pop-Up Window

At the bottom of the pop-up window are the following fields:

**Data Fields**

| Field | Description |
|---|---|
| Locate | Filters the characters at the start of the entry in the sorted column. |
| Advanced Search | Filters the list using character/s located anywhere within the entry of the sorted column. |
| Clear (button) | Clears the search to display the complete list. |
| Search (button) | Initiates the search. |

## Primary Menu Group

The **Primary Menu Group** can be selected from any screen within **Evolution vLab®**.  These are displayed in the bottom-left corner, in the **Primary Menu Pane**. Access to these menu groups is privilege based.  Select a menu group using the mouse.  Each Menu Group is defined in the following sub-headings:

### My Menu

**My Menu** provides access to screens for processing samples and the registration of laboratory requests.

Selecting the **My Menu** button defaults to the **Messages** sub-menu which displays any messages/alerts and system messages.

Some Departments have additional menu items via sub-menus, for example: Transfusion Medicine. The Department selected will determine which sub-menu options are available to the user.

These tasks are detailed in this manual.

### Management

This menu displays **Management** features and provides access to screens for Management Level tasks.

These tasks are detailed in the **Management Manual**.

### Administration

This menu displays administration options and provides access to the configuration tables and functions used to define the workflows for **Evolution vLab®**.

The configuration options are detailed in the **Administration Manual**.

# 4      My Menu

**Laboratory Level Functions** are accessible via the **My Menu** button of the Primary Menu Pane in the bottom left-hand corner of the main screen of **Evolution vLab®**.

Selecting "My Menu" from the Primary Main Pane at the bottom left-hand corner of the screen will display sub-options to perform functions at a laboratory level.

> **Note:** Some **Evolution vLab®** features are subject to license and therefore may not be available to all clients. Clients are encouraged to contact Magentus if they are interested in having additional functionality enabled for use.

## 4.1      Processing Samples

My Menu also contains sub-options to process samples via the laboratory. As a user progresses through, there are tabs visible across the main screen. Some fields may be associated with a red asterisk (*) and which are mandatory fields – information is to be entered before the user can proceed.

### Laboratory Number Field

Allows the user to enter the laboratory number of an episode.  Most of these fields can accept a location number as an alternative.

### Laboratory and Department Selection Fields

User logins can provide access to several laboratories and departments within a division.  The level of access is determined by the access group assigned to the user's login.

Laboratories and departments available to the user can be viewed and selected via the drop-down boxes in the top left of the screen.

Hotkeys are **Alt+** (department alphabet key). For example: **[Alt + T]** will access Transfusion Medicine if **'T'** has been configured to be Transfusion Medicine.

### Lists and Table Sorting

Lists and tables can be sorted by mouse clicking on a column heading. The column displayed in **bold** is the column being sorted.

By clicking again on the already sorted column, the information is sorted into ascending/descending order.

### Search Pane

Located in the top left of the screen, a search can be initiated from any screen (except the Specimen Reception screen) enabling access to patient's enquiry results screen or test result screen.

The fields available within the search pane are configured by the system administrator and can therefore vary between sites.  Each field has in grey text what information to enter to perform a search, that is:  *'Enter Lab No.'* is where you enter the laboratory number (or location number or container id) to begin a search.  You can search using multiple fields and **Lookup [F1]** is available depending on the field selected.

The **Clear** button is used to clear the search fields.

The arrow button (next to the word Search) is used to collapse or expand the fields.

The orange file icon (next to the word Search) is used to open the **Advanced Search** function.

Information returned from a search may be limited due to privilege settings that have been applied to the login.

> **Note:** An historical record may also be viewed via this function by simply entering the Laboratory Number. If another user if viewing the same record, the USERNAME of the user ID who has the UR record locked is displayed.

The first message refers to the Lab No and displays as '[USERNAME] is changing this record: READ ONLY mode set'. This message indicates that another user is already accessing this lab record.

The second message refers to the UR number stating, 'Record locked by [USERNAME], try again later'. This message indicates that another user is already accessing this UR record and it is currently locked.

### Search by Client Specific Identifier

1. The top field of the pane is a Client Specific Identifier, for example: *'Patient NHS No'*, enter the NHS number.
2. Press **[Enter]** or click the **Search** button.
3. The result of the search displays the patient for this NHS number.
4. The identifier is configurable by the System Administator.

### Search by Laboratory or Location Number

1. Place the cursor via the *'Enter Lab No'* field and scan or manually type in the laboratory (or location) number, omitting the '-'.
2. Press **[Enter]** or click the **Search** button.

3. The laboratory numbers' test results screen is displayed.

> **Note:** Location numbers must be entered with a prefix for example: H123 or CH2017H123.

## Search by Patient UR Number

1. Via the *'Enter UR No'* field, enter the patient UR number.

2. Press **[Enter]** or click the **Search** button.

3. The result of the search displays all laboratory numbers for this patient including linked episodes.

4. The entries are listed with the most recent at the top.

5. Click on the column headings to sort the results.

6. To locate a specific laboratory number, click on the laboratory number column heading field and type the laboratory number (using the '-'). Use the space bar to clear the search.

## Search by Name, Sex, and DOB

1. Patient details can be searched by surname or name. The *'Enter Sex'* and *'Enter DOB'* fields are not essential but limit the number of potential matches.

> **Note:** you cannot perform a search by entering a DOB only.

2. In each of the fields, enter the required information, for example: *'Enter Patient Name'* means to enter the patient Surname then given name (some or all of the first name) in that field.

> **Note:** you cannot perform a search by entering the first name only.

3. **Lookup [F1]** will provide you with hints on the format required for each field.

4. Use the Search button to initiate the search.

5. Results are displayed via the right side of the screen. Matches of the entered 'Surname' and similar sounding names are displayed. If there are no results, the message '**No Entries**' is displayed.

**Evolution vLab®** also facilitates enquiry searches on partial entry of name details.

Examples of search criteria:

| Example | Description |
|---------|-------------|
| **SMI***  | Returns all surnames that begin with SMI. |
| **SM?TH** | Returns all surnames that match regardless of the third character. |

**4. My Menu : Processing Samples**

| Example | Description |
|---|---|
| **SMITH T\*** | Returns all patient names that match the surname with a given name starting with 'T'. |

**Search by Doctor or Ward**

1.  Enter the required doctor and/or ward mnemonic in the *'Enter Doctor'* and *'Enter Ward'* fields. The alias may also be used.

2.  **Lookup [F1]** is available.

3.  A list of patients is displayed.

4.  The *'Doctor'* and *'Ward'* details displayed via the demographics banner will be the ward and doctor details entered at registration.

5.  Click on the column headings to sort the search results.

**Note:** Doctor and ward searches cannot be used in conjunction with any other demographic search.

# 5 Messages

**Evolution vLab®** provides automated message systems to provide essential information to laboratory staff.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Messages/Alerts** | Used to alert staff of important information. |
| **System Messages** | Used for laboratory messages or laboratory procedure updates. |

There are three types of messages:

- Broadcast Messages
- Menu Messages
- System Messages

## 5.1  Broadcast Messages

Broadcast messages are displayed as a scrolling message across the top of the screen.  These messages can be configured by the system administrator or system generated, for example: urgent results available.

They can have a time limit of display and can be colour coded, for example: red for critical. Broadcast messages are viewable from any screen within **Evolution vLab®**.

## 5.2  Menu Message/Alerts

Menu messages are used to alert staff of important information.

The Alert Message will display information in relation to stock levels when the user is in the Transfusion Medicine department.

The Menu Message displays the message configured by the system administrator. A count of unread System Messages will also be displayed.

## 5.3  System Messages

System messages are laboratory messages or laboratory procedure updates.  Message status can be 'read' or 'unread'.  The default sort order is by status and then date/time.  Unread messages are displayed first.

To read a message, highlight the message and press **[Enter]** or double click with the mouse.

A **red 'M'** icon displays via the bottom menu bar when there are unread system messages. Hovering the mouse over this icon will show you how many unread system messages you have.

# 6      E-Orders

This submenu is used for the electronic receipt of test requests and samples via a clinical system that has been interfaced with **Evolution vLab®**.

**The Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| eOrder Sample Reception | Used to receipt the samples received at the laboratory. When a Container ID is scanned, the eOrder details are displayed including patient demographics and tests requested. |
| eOrder Pending Registrations | Lists laboratory numbers (and Containers) for which the registration process is incomplete. Laboratory numbers will remain on this list until the mandatory Sample Reception details have been entered and saved. |
| eOrder Pending Addons | Lists the eOrder add-on requests pending attachment to an existing registration. |
| Outstanding eOrders | Lists all outstanding (unregistered) eOrders received by **Evolution vLab®**. |
| Pending Registrations | Lists the requests submitted via **Evolution vLab®** once the manual collection of the sample has been completed. |
| Cancelled Orders | Lists the requests cancelled via **Evolution vLab®**. |
| Daysheets | Lists all the requests created on a given day. |

## 6.1     eOrder Sample Reception

eOrder samples are registered via the eOrder Sample Reception screen.

The user may barcode scan or type one or more Container IDs for the sample(s) to be registered or enter a patient's UR Number to view the outstanding eOrders for that patient.

Scanning of Container IDs is the recommended approach as it aids the positive identification of samples received and registered by the laboratory. The user may register samples for more than one patient at a time; **Evolution vLab®** allocates laboratory numbers accordingly.

**Note:** Where the Container identifier derived from the message cannot be matched for the supplied container type, the error description *"Lookup failed on field (Invalid tube type [Container])"* is returned, where [Container] represents the identifier derived from the message. For example, '*Lookup failed on field (Invalid tube type 6 mL EDTA Purple)*'.

The eOrder will be rejected, and hence will not appear as an outstanding eOrder for the patient.

Upon specifying the Container ID(s) or UR Number the relevant eOrder entries populate the sub-table, at which point additional function keys become available.

Once populated, the sub-table displays the following information for each entry:

**Data Fields**

| Column | Description |
|---|---|
| **Container ID** | Container ID assigned by the third-party clinical system. |
| **Container Type** | Sample Container type (Description) |
| **Specimen Type** | Specimen Type |
| **Request List** | Tests and/or Panels requested against the container |
| **Priority** | Priority |
| **Collected Date/Time** | Collected Date/Time |
| **Status** | Status of the sample (Ordered, Collected or Received) |

## Processing Request

When all the entries have been marked *Received* and any expected containers have been dealt with, **Evolution vLab®** displays the message *Processing request* to indicate that it is saving the eOrders and allocating them to one or more laboratory numbers.

Where possible, **Evolution vLab®** groups eOrder requests and allocates them to the same laboratory number, that is: when the orders are for the same patient, Sample Type and Collected Date/Time.

**Note:** eOrders involving more than 30 requests (and multiples thereafter) with the same Specimen Type and Primary Site, **Evolution vLab®** generates an additional lab number after assigning the first 30 to an episode. This process is repeated until all request are assigned.

The user is then presented with the Sample Registration screen for each laboratory number (in turn) to allow completion of the registration process.

The Registration screen is automatically populated with patient and order details from the eOrder and PMI as appropriate.

When an eOrder contains a UR Number that does not exist in **Evolution vLab®**, the following registration fields are populated from the HL7 message: UR Number, Surname, Given Names, Address (lines 1 and 2), Suburb, Pcode, DOB, Sex, IS.

Perform any data entry as required and ensure that all mandatory fields are populated.

Access the **Container Assignment [CF10]** screen, if required, to print labels and/or manage the Containers.

When ready, select the **Save icon** or press **[F4]** to save as normal.

The episode is now registered in **Evolution vLab®**. The requests appear on any relevant Work Lists, Worksheets and System Lists, and the sample is ready for processing by the laboratory.

**Evolution vLab®** automatically generates an electronic request form for the eOrder and attaches it to the laboratory number. It is viewed in the same manner as a scanned form.

> **Note:**  Should the user abandon the registration screen without saving, the laboratory number is added to the eOrder Pending Registrations screen. From there a user may access and complete the registration at a later time.

Where **Evolution vLab®** has generated more than one laboratory number, the user is presented with the Sample Registration screen for the next laboratory number.

Once all laboratory numbers have been registered, the user is returned to the eOrder Sample Reception screen.

## To register one or more samples:

Identify the eOrder samples to register by specifying the Container ID(s) or a patient UR Number in the Container ID / URNO field.

### Container ID Approach

- Barcode scan or type the first Container ID. The sub-table updates to include the order details specific to that container.

- Specify additional Container IDs, as required; each appears as a new entry in the table. The user may scan samples for more than one patient at a time.

- The Status is automatically updated to *Received* for each Container ID entered in this manner.

- When the user enters a Container ID for which an eOrder does not exist, **Evolution vLab®** displays the message *'No record for container id number [Container ID entered]'*.

- When the sub-table contains the desired entries, hit the **[Enter]** or **<Down Arrow>** key to proceed. The focus shifts into the sub-table and the screen updates to include the patient banner and additional function keys.

> **Note:** The demographic banner displays the patient details associated with the Container that is currently highlighted in the table.

The Doctor field reflects the Ordering Provider supplied in the eOrder message. The Collection Date/Time is blank when **Evolution vLab®** has not received a Collection Date/Time from the third-party system.

- From the sub-table, the user may hit the **[Esc]** key to return to the Container ID / URNO field to scan additional Containers. Repeat step iv to proceed.

### UR Number Approach

- Enter a patient UR number to display all expected containers for that patient.
  The **Demographics Enquiry [F5]** function is available to aid selection of a UR Number.

- Since this allows the user to view details for containers that have not yet arrived in the laboratory, no automatic Status changes are applied.

- When the user enters a UR Number for which an eOrder does not exist, **Evolution vLab®** displays the message 'No eOrders are available for patient [UR Number entered]'.

> **Note:** eOrders are rejected when a match cannot be found for the supplied container type. **Evolution vLab®** will display the message *'No eOrders are available for patient [UR Number entered]'*.

The following functions become available when a valid Container ID or patient UR Number has been entered.

### Function Buttons

| Functions | Description |
|---|---|
| **Container Notes [F5]** | Allows the user to view/edit notes about the selected Container. These notes are later viewed on the Container Assignment screen, accessible via the Reception screen for the laboratory number. <br> 1. Select the **Container Notes [F5]** function button; <br> 2. Type the required notes about the sample. Multi-line entry is supported; <br> 3. Select the **Save [F4]** icon to save. |

| Functions | Description |
|---|---|
|  | While the user is still viewing the eOrder Sample Reception screen, the function may be invoked again to view and edit the saved notes. |
| **Save & Allocate [F6]** | Saves the eOrder for each container marked *Received* and allocates it to an auto-generated **Evolution vLab®** laboratory number. The user is then presented with the pre-populated Registration screen for the new laboratory number.<br><br>**Note:** Every entry in the list must have the status *Received* for the Save & Allocate function to proceed.<br><br>Once the containers are registered, they are no longer accessible from the eOrder Sample Reception screen. |
| **Toggle Received Status [F8]** | Toggles the status of the selected container. Typically, this function is used to toggle the status from *Collected* to *Received* (or vice versa).<br><br>When attempting to toggle the status from Ordered to Received, the user receives the prompt '*Container has not been collected, receive it anyway (Y/N)?*' Select Y to proceed or N to abort. |
| **Remove Entry [SF5]** | Removes the selected entry from the eOrder Sample Reception screen.<br><br>**Note:**   This does not delete or cancel the eOrder or change its status. |
| **Cancel eOrder [SF8]** | Allows the user to cancel the selected eOrder.<br><br>1. Select the **Cancel eOrder [SF8]** function button**;**<br><br>2. At the prompt '***Cancel** current eOrder (Y/N)?*' enter *y* to proceed or *n* to abort;<br><br>3. At the prompt '*Select reason for iEMR **Cancel** (F1-Lookup)*' enter the cancel reason. **Lookup [F1]** available;<br><br>4. The user may be prompted for a '*Comment'* (multi-line entry supported). Enter the relevant explanation and select the **Save icon** or press **[F4]** to save;<br><br>5. The eOrder is cancelled. It is removed from the eOrder Sample Reception screen and a cancellation message is transmitted to the third-party clinical system, with the cancel reason as appropriate. |

1. Remove any entries that are not to be registered at this time, using the **Remove Entry [SF5]** function. This function does not cancel any eOrders.

2. If required, use the **Cancel eOrder [SF8]** function and follow the prompts.

3. Ensure all remaining entries in the list have the status Received. Use the **Toggle Received Status [F8]** function, if required.

4. When ready, select **Save & Allocate [F6]**.

The user may receive the prompt *'Additional containers expected. Do you want to Save and Allocate? (y/n)'*.

This occurs when one or more outstanding eOrders (not populated on screen) contain the same third-party Accession Number as any of the entries the user is attempting to Save & Allocate.

If one or more of the entries have a status other than Received, **Evolution vLab®** displays the message *'No lab records could be created'* and no further action is taken.

Otherwise, **Evolution vLab®** displays the message 'Processing request' and presents the user with the Sample Registration screen.

## Additional Containers Expected

- At the prompt *'Additional containers expected. Do you want to Save and Allocate? (y/n)'*, enter y to proceed or n to abort. When the user aborts, **Evolution vLab®** remains on the eOrder Sample Reception screen with the same entries populated and registration does not proceed.

  o The user should abort if they wish to investigate the additional containers before proceeding with registration of the current samples.

- Upon selecting **Y** the user is presented with the Expected Additional Containers screen, which lists all of the outstanding eOrders with Accession Numbers matching one or more of the entries being saved and allocated.

**Function Buttons**

| Functions | Description |
|---|---|
| **Reassign Request [F6]** | Reassigns the selected Request to one of the containers being saved and allocated, as nominated by the user. |
| | At the prompt *'Enter new container id'*, barcode scan or type the Container ID to which the request is to be reassigned. Upon barcoding or pressing **[Enter]** the Status column for that entry updates to include the specified Container ID. |
| | When the supplied Container ID does not match one of the containers being saved and allocated, **Evolution vLab®** displays the prompt *'Invalid container id'*. |

| Functions | Description |
|---|---|
| **Cancel eOrder [F8]** | Allows the user to cancel the selected eOrder.<br><br>1. Select the **Cancel eOrder [F8]** function button;<br><br>2. At the prompt '*Cancel current eOrder (Y/N)?*' enter *y* to proceed or *n* to abort;<br><br>3. At the prompt '*Select reason for iEMR Cancel (F1-Lookup)*' enter the cancel reason. **Lookup [F1]** available;<br><br>4. The user may be prompted for a '*Comment*' (multi-line entry supported). Enter the relevant explanation and select the **Save icon** or press **[F4]** to save;<br><br>The eOrder is cancelled. A cancellation message is transmitted to the third-party clinical system, with the cancel reason as appropriate. |

- Use the **Reassign Request [F6]** function to reassign each entry to one of the Container IDs being saved and allocated, if desired.

- The user may cancel the eOrder for an expected container via the **Cancel eOrder [F8]** function.

- When ready, hit the **[Esc]** key to proceed to registration. Any expected containers that have been reassigned are registered along with the entries that were marked as *Received* on the eOrder Sample Reception screen.  Where the user has not invoked the **Reassign Request [F6]** or **Cancel eOrder [F8]** functions on this screen, the expected containers are ignored and remain as outstanding eOrders.

## 6.2    eOrder Pending Registrations

The eOrder Pending Registrations screen lists the incomplete eOrder registrations in **Evolution vLab®**. These incomplete registrations have **Evolution vLab®** laboratory numbers already assigned via the Save & Allocate process but were abandoned by the user without performing the final **Save [F4]** from the Registration screen.

The laboratory numbers are tabulated along with the UR Number, Patient Name, Sample Type, Container Ids, Priority and Allocated Date/Time for each. Where multiple containers have been assigned to a laboratory number, **Evolution vLab®** displays the Container IDs in a comma-separated list.

## Complete a Pending eOrder Registration:

- Select the relevant entry in the list. The user may type, or barcode scan the Container ID or highlight an entry manually.

- Select the **Reception [SF10]** function button to view the Specimen Reception screen for the selected entry.

- Perform any data entry as required and ensure that all mandatory fields are populated.

- Access the **Container Assignment [CF10]** screen, if required, to print labels and/or manage the Containers.

- When ready, select the **Save icon** or press **[F4]** on the Registration screen to save as normal.

The registration is now finalised in **Evolution vLab®**. The entry is removed from the eOrder Pending Registrations screen.

**Note:** If the user abandons this screen without saving, the laboratory number remains via the eOrder Pending Registrations list.

## 6.3     eOrder Pending Addons

The eOrder Pending Addons screen facilitates the management of add-on requests received from the third-party clinical system. Each add-on request is assigned by the user to an existing laboratory number for the patient.

**Function Buttons**

| Functions | Description |
|---|---|
| **Cancel eOrder [F8]** | Allows the user to cancel the selected eOrder. |
| | At the prompt *'Cancel selected add-on eOrder (Y/N)?'* enter y to proceed or n to abort. Upon selecting y at this prompt, the eOrder is cancelled regardless of the user's selections at the subsequent prompts. |
| | At the prompt 'Select Reason for Cancel (F1-Lookup)' enter the cancel reason. **Lookup [F1]** available. |
| | The user may be prompted for a Comment.  Multi-line entry and Coded Comments are supported. Enter the relevant explanation and select the **Save icon** or press **[F4].** |
| | The eOrder is cancelled. A cancellation message is transmitted to the third-party clinical system, with the cancel reason as appropriate. |
| **Filter [SF8]** | Filters the Pending Addons according to criteria specified by the user. |

Add-on eOrders are listed by UR Number (URNO), along with other details as described in the table below:

**Data Fields**

| Column | Description |
|---|---|
| URNO | UR Number for the add-on eOrder. |
| LABNO | This column is initially blank. When the user assigns an add-on to an existing episode, the selected laboratory number appears in this column. |
| Name | Patient's name, in the format Surname, Given Names. |
| Request | Test or Panel requested as the add-on. |
| Num | Quantity of tubes required for the request. Default value is '1'. |
| Specimen | Sample Type. |
| Requested | Requested Date/Time. |
| Doctor | Doctor mnemonic for the Ordering Provider. |

The eOrder Pending Addons list for a given Laboratory displays all pending add-on eOrders by default, regardless of patient location.

The system administrator may instead direct the add-on eOrders from a given HCF to a specific Laboratory, via the Associated Lab configuration for the Health Care Facility.

Each time **Evolution vLab®** receives an add-on eOrder it displays the *Broadcast Message eOrder ADD ON available* to users at the appropriate laboratory.

This message is displayed for up to 10 minutes but ceases earlier when all add-ons for the current laboratory are cancelled or added to laboratory records (registered).

## Filter Entry

The **Filter Entry** functionality is available via the **Filter [SF8]** function. It allows the user to filter the list of eOrders according to one or more criteria.

Populate the relevant filter fields and select the **Save icon** or press **[F4]** to apply the filter. The list is updated to display only entries matching the criteria. The **Filter** field on the main screen indicates the field(s) against which the list has been filtered.

**Filter Entry Fields**

| Field | Description |
|---|---|
| **UR Number** | Patient's UR Number |
| **Surname** | Patient's Surname |
| **Given Name** | Patient's Given Name<br><br>**Note:**   The **Surname** field must also be populated when filtering by patient name. The error message *'Name search requires surname'* is displayed when the user attempts to filter by **Given Name** in the absence of a **Surname**. |
| **eOrder Number** | Order ID assigned by the third-party clinical system. |
| **eOrder Container** | Container ID assigned by the third-party clinical system. |
| **eOrder Accession** | Accession Number assigned by the third-party clinical system. |
| **Ward** | Ward (**Lookup [F1]** available). |
| **Doctor** | Doctor (**Lookup [F1]** available); references the Ordering Provider from the eOrder. |
| **Request** | Test or Panel (**Lookup [F1]** available). |
| **Ordered Date** | References the date (not including time) from the Requested Date/Time in the eOrder. Enter a date in an accepted format (for example: DDMMYYYY).<br><br>Upon entering a date, it is displayed in the format dd-mmm-yy. |
| **Healthcare Facility** | Health Care Facility (**Lookup [F1]** available). |
| **Sample** | Sample Type (**Lookup [F1]** available). |
| **Collected** | Collected status; enter (y)es or (n)o.<br><br>**Note:**   This field is not necessarily relevant to filtering add-ons, which do not include a collection. |
| **Collected Date/Time** | Collected Date/Time; enter a date/time in an accepted format (for example: HHMMDDMMYYYY).<br><br>Upon entering a date/time, the screen is refreshed to display it in the format hh:mm dd-mmm-yy.<br><br>**Note:** This field is not necessarily relevant to filtering add-ons, which do not include a collection. |

## Assign an Add-on Request to a Laboratory Number

1. Highlight the relevant entry on the eOrder Pending Addons screen. The user may wish to first apply the **Filter [SF8]** function.

2. Select the entry by pressing **[Enter]** or **[F12]**.

Where one or more suitable laboratory records are available for the patient, **Evolution vLab®** displays the eOrder Addon Lab Selection list.

Otherwise, **Evolution vLab®** displays the message No lab records available for addon assignment.

- The eOrder Addon Lab Selection list displays only appropriate laboratory numbers for the add-on in question:
  - o The Sample Type on the laboratory number must be compatible with the add-on request.
  - o The request must not already exist on the laboratory number, either as a standalone request (Test/Panel) or as a Test included as part of a Panel.
  - o The laboratory number must include at least one Container on the Container Assignment screen.

- The user may browse the eOrder Addon Lab Selection list and view the details for any given laboratory number by highlighting it and pressing **[Enter]** or **[F12].** This opens a read-only view of the Tube Assignment screen for the episode.

- The user may return to the Lab Selection list by pressing **[Esc]**.

- With the desired laboratory number highlighted, select the **Assign To Lab No.** button or press **[F6]** function.

- At the prompt 'Assign [Request] to [Lab number]?' enter y to proceed or n to abort and hit **[Enter]**.

- Upon selecting Y, the user is presented with the Sample Registration screen for the laboratory number. The add-on request automatically appears in the request list and on the Tube Assignment screen. The audit trail includes the event eOrder Addon for the relevant request.

- When ready, select the **Save icon** or press **[F4]** to save the registration as normal.

**Evolution vLab®** automatically generates an electronic request form for the add-on eOrder and attaches it to the laboratory number. It is viewed in the same manner as a scanned form.

## 6.4   Outstanding eOrders

The Outstanding eOrders screen provides a tally of the outstanding (unregistered) eOrders, itemised by patient UR Number, separated into eOrders with status Ordered and Collected, along with the number of outstanding add-on requests.

## 6. E-Orders : Outstanding eOrders

This screen also provides direct access to the eOrder Sample Reception screen for a UR Number selected from the list. The user may therefore register one or more of the outstanding specimens without navigating back via the eOrders menu.

### Table Type 1

| Column | Description |
|---|---|
| URNO | The patient's UR Number |
| Name | The patient's name in the format *Surname, Given Name* |
| Specimen | **Evolution vLab®** Specimen Type |
| Ordered | The number of outstanding eOrders with status Ordered (not yet collected) |
| Collected | The number of outstanding eOrders with status Collected |
| Addons | The number of outstanding eOrder add-on requests |

### Table Type 2

| Column | Description |
|---|---|
| URNO | The patient's UR Number |
| Name | The patient's name in the format *Surname, Given Name* |
| Ordered | The number of outstanding eOrders with status Ordered (not yet collected) |
| Collected | The number of outstanding eOrders with status Collected |
| Addons | The number of outstanding eOrder add-on requests |
| Blood Orders | The number of outstanding Blood Orders not yet assigned |

Highlight a UR Number of interest and double-click the entry or press Enter. **Evolution vLab®** displays the eOrder Sample Reception screen with the list of containers bearing the status Ordered or Collected.

From here the user may register one or more specimens for the selected patient.

> **Note:**
>
> - Add-on eOrders are viewed via the eOrder Pending Addons screen. Please refer to eOrder Pending Addons section for more information.
>
> - Note: Blood Orders are viewed by selecting the Blood Orders [F6] function button.

**Function Buttons**

| Function | Description |
|---|---|
| **Blood Orders [F6]** | To view information about Blood Orders |
| **Filter [SF8]** | Filters the Pending Addons according to criteria specified by the user.<br><br>1. Select the **Filter [SF8]** function button.<br>2. Populate the relevant filter fields as required.<br>3. Press **Save [F4]** to apply the filter.<br><br>The eOrder Addons screen is updated to display only entries matching the criteria. The text *Filtered* displays via the top left corner of the screen to indicate that the list is filtered. |

## Viewing Blood Orders

Where the associated Blood Orders column is populated, select the **Blood Orders [F6]** function button.

The Outstanding Blood Orders dialog is displayed providing information via the following columns:

- Order Number

- Product

- Product Type

- Units

- Required

## Filter

The Filter functionality is available by selecting the **Filter [SF8]** function button via the eOrder Pending Addons screen and the Outstanding eOrders screen. It allows the user to filter the list of eOrders according to one or more criteria.

Populate the relevant fields and click **Save [F4]** to apply the filter. The list is updated to display only entries matching the criteria.

## 6. E-Orders : Outstanding eOrders

| Field | Description |
|---|---|
| **UR Number** | Patient's UR Number |
| **Surname** | Patient's Surname |
| **Given Name** | Patient's Given Name<br><br>**Note:**   The Surname field must also be populated when filtering by patient name. The error message *Name search requires surname* is displayed when the user attempts to filter by Given Name in the absence of a Surname. |
| **eOrder Number** | Order ID assigned by the third-party clinical system |
| **eOrder Container** | Container ID assigned by the third-party clinical system |
| **eOrder Accession** | Accession Number assigned by the third-party clinical system |
| **Ward** | Ward (**F1 Lookup** available) |
| **Doctor** | Doctor (**F1 Lookup** available); references the Ordering Provider from the eOrder |
| **Request** | Test or Panel (**F1 Lookup** available) |
| **Ordered Date** | References the date (not including time) from the Requested Date/Time in the eOrder. Enter a date in an accepted format (for example: DDMMYYYY).<br><br>Upon entering a date, the screen is refreshed to display it in the format dd-mmm-yy. |
| **Healthcare Facility** | Healthcare Facility (**F1 Lookup** available) |
| **Specimen** | Specimen Type (**F1 Lookup** available) |
| **Collected** | Collected status; enter (y)es or (n)o.<br><br>**Note:**   This field is more relevant to filtering on the Outstanding eOrders screen. It is not necessarily relevant to filtering add-ons, which do not include a collection. |
| **Collected Date** | Collected Date/Time; enter a date/time in an accepted format (for example: HHMMDDMMYYYY).<br><br>Upon entering a date/time, the screen is refreshed to display it in the format hh:mm dd-mmm-yy. |

## 6.5      Pending Registrations

The Pending Registrations screen facilitates registration of samples that have been manually collected after a request was submitted via **Evolution vLab®**.

**Function Button**

| Function | Description |
|---|---|
| **E-Event Audit [SF8]** | Allows the user to view the e-order history on the sample. |

Pending Registrations are listed by Laboratory Number, along with other details as described in the table below:

**Data Fields**

| Column | Description |
|---|---|
| **Lab No** | The assigned laboratory number appears in this column. |
| **Collected** | The time and date the sample was collected. |
| **UR No** | UR Number for the sample. |
| **Name** | Patient's name, in the format Surname, Given Names. |
| **Ward** | The mnemonic of the ward associated with the patient. |
| **Request** | Test or Panel requested. |
| **Order No** | The order number associated with the request. |

1.  Highlight the pending registration entry and double-click or press Enter.

2.  Perform any data entry as required and ensure that all mandatory fields are populated.

3.  Access the **Container Assignment [CF10]** screen, if required, to print labels and/or manage the Containers.

4.  When ready, select the **Save icon** or press **[F4]** on the Registration screen to save as normal.

5.  The registration is now finalised in **Evolution vLab®**. The entry is removed from the Pending Registrations screen.

## 6.6      Cancelled Orders

The Cancelled Orders screen lists the orders that have been cancelled via **Evolution vLab®**.

**Function Buttons**

| Functions | Description |
|-----------|-------------|
| **Enter Date [F8]** | Allows the user to view a specific month |
| **E-Event Audit [SF8]** | Allows the user to view the e-order history on the sample |

Cancelled orders are listed by Order Number, along with other details as described in the table:

**Data Fields**

| Column | Description |
|--------|-------------|
| **Order No** | The order number associated with the request |
| **UR No** | UR Number for the patient |
| **Name** | Patient's name, in the format Surname, Given Names |
| **Created** | The time and date the order was cancelled |
| **User** | The mnemonic of the user performing the cancellation |
| **Tests** | Test or Panel being cancelled |

## 6.7      Daysheets

The Daysheet screen lists the requests that have been received from **Evolution vLab®**.  This screen requires the user to enter a Health Care Facility or Wards (F1 Lookup is available) followed by the **Select** icon or **[F12]** button.

## 6. E-Orders : Daysheets

### Function Buttons

| Functions | Description |
|---|---|
| **Enter Date [F8]** | Allows the user to view a specific month |
| **E-Event Audit [SF8]** | Allows the user to view the e-order history on the sample |

### Data Fields

| Column | Description |
|---|---|
| **Order No** | The order number associated with the request |
| **Created** | The date the order was modified |
| **UR No** | UR Number for the patient |
| **Name** | Patient's name, in the format Surname, Given Names |
| **Ward** | The mnemonic of the ward associated with the patient |
| **Status** | The status of the request |
| **User** | The mnemonic of the user performing the task |

## 6. E-Orders : Daysheets

# 7      Collections

## 7.1      Manual Collections

The Manual Collections screen lists the requests that have been received from **Evolution vLab®** and require samples to be collected.

**Function Buttons**

| Functions | Description |
|---|---|
| **Filter [F8]** | Filters the Manual Collections according to criteria specified by the user |
| **Clear Filter [SF8]** | Allows the user to clear the filter |

**Data Fields**

| Column | Description |
|---|---|
| **UR No** | UR Number for the patient |
| **Name** | Patient's name, in the format Surname, Given Names |
| **Due Date** | The date the collection is required |
| **Time** | The time the collection is required |
| **Ward** | The mnemonic of the ward associated with the patient |
| **Bed** | The bed associated with the patient |
| **Priority** | The status of the request |
| **Requests** | The mnemonic of the tests requested |

## Filter

The filter functionality is available via the **Filter [SF8]** function button. It allows the user to filter the list of Manual Collections according to one or more criteria.

Populate the relevant filter fields and select the **Save [F4]** icon to apply the filter.

The list is updated to display only entries matching the criteria. The **Filter** field on the main screen indicates the field(s) against which the list has been filtered.

**Filter Entry Fields**

| Field | Description |
|-------|-------------|
| Date | Due Date; enter a date in an accepted format (for example: DDMMYYYY) |
| HCF | Health Care Facility (**Lookup [F1]** available) |
| Wards | Wards (**Lookup [F1]** available).  Multiple Wards can be entered separated by a ',' |

## Collection Details

Selecting an entry from the Manual Collections list displays the Collection Details dialog box for the order.

The first set of fields displays the demographic information available for the patient.  The lower field displays the specimens and tubes required for the collection.

The Patient Details screen includes the following interactive field:

**Collection Details Field**

| Field | Description |
|-------|-------------|
| UR | This field requires entry of the patient's UR number to proceed with the collection |

## Patient Details

Entering the UR number on the Collection Details dialog box and selecting **[Save]** displays the Patient Details dialog box for the order.

The first set of fields displays the demographic information available from the patient, to facilitate the Positive Patient ID process.

The Patient Details screen includes the following interactive fields:

**Patient Details Fields**

| Field | Description |
|---|---|
| **Identification Method 1-3** | A drop-down list that displays the list of Identification methods (these are configured by your system administrator). |
| **Response 1-3** | A drop-down list that displays the list of responses (these are configured by your system administrator). |

The Ordering Notes section on this dialog box displays any notes provided as part of the **Evolution vLab®** order by the clinician.  These notes cannot be edited on this screen.

Once the relevant fields have been entered the user selects the **Save icon** or presses **[F4]** to progress onto the Manual Collections screen. Use **Cancel** to return to the list of outstanding collections.

## Manual Collections for an Order

The Manual Collections screen for a selected **Evolution vLab®** order contains three components:

- A banner containing patient demographics and details pertinent to the order and collection.

- Two display-only fields to indicate the Label Printer and Collection Time. By default, the Collection Time indicates the date/time the user entered the screen; this may be adjusted via the **Collection Date [F7]** function button. The Collection Time is applied to the relevant entry or entries upon use of **Confirm all [F5]** or **Confirm [F8]**.

- A sub-table indicating the samples to be collected.

**Function Buttons**

| Functions | Description |
|---|---|
| **Confirm All [F5]** | Confirms that all samples listed in the sub-table have been collected. Each entry is assigned to a generated Laboratory Number and Unique ID as appropriate. |
| | Multiple entries are allocated to the same Laboratory Number when the Sample Type and Primary Site match. The Collection Date/Time is applied to all entries in the table. |
| | **Note:** Orders involving more than 30 entries (and multiples thereafter) with the same Specimen Type and Primary Site, **Evolution vLab®** generates an additional lab number after assigning the first 30 to an episode. This process is repeated until all request are assigned. |

| Functions | Description |
|---|---|
| **Reassign Request [F6]** | Allows the user to reassign a request to another entry in the sub-table. |
| **Collection Date [F7]** | Allows the user to change the 'Collection Time', which by default is the date/time the user entered the screen.<br><br>At the prompt 'Enter collection date and time', enter the desired date and time using a standard format (for example: HHMMDDMMYYYY).<br><br>Click OK to confirm or **Cancel** to abort. The 'Collection Time' field is updated, and this date/time is applied to the relevant entries upon **Confirm all [F5]** or **Confirm [F8]**. |
| **Confirm [F8]** | Confirms the selected sample has been collected. The entry is assigned a Laboratory Number and Unique Tube ID and the Collection Date/Time is applied. |
| **Patient Details [SF6]** | Displays a read-only view of the Patient Details dialog box. |
| **Documentation [SF7]** | Opens a web browser window and loads the 'Information URL' configured by the system administrator. |
| **Label Printer [CF8]** | Allows the user to nominate the label printer by scanning its serial number (identifying barcode).<br><br>The nominated printer populates the 'Label Printer' field. Scan (or type) the barcode at the Prompt 'Enter Serial Number for the Label Printer' and click **OK** to continue or **Cancel** to abort.<br><br>In the absence of a specified Label Printer the user is prompted for the print device for each relevant entry upon **Confirm all [F5]** or **Confirm [F8]**. |

**Data Fields**

| Column | Description |
|---|---|
| **Unique Tube ID** | The unique tube ID is populated once the collection has been confirmed. |
| **Lab No** | The Laboratory number is populated once the collection has been confirmed. |
| **Sample** | The mnemonic of the sample type. |
| **Primary Site** | The mnemonic of the primary site. |

| Column | Description |
|---|---|
| **Tube Type** | The mnemonic of the sample container. |
| **Order** | Suggested order or draw.  This is configured by the system administrator against the sample container. |
| **Volume** | Required volume.  This volume is calculated by ***Evolution vLab®***. |
| **Requests** | The mnemonic of the tests requested. |
| **Collection Date/Time** | The collection date/time is populated once the collection has been confirmed.<br><br>**Note:** Requests flagged as Fasting will have apply the flag citing the same Collected Date/Time that meet the existing criteria for grouping (such as Specimen Type) are allocated to the same lab record as normal, even |

The user highlights the entry being collected and selects the **Confirm [F8]** function button or can use **Confirm All [F5]** function button to add the same collection date and time to each request.

The confirmed entries are removed from the Manual Collections list and added to the 'Pending Registrations' list via the e-Orders menu.

# 8 Reception

The Reception menu is used for the registration of laboratory samples.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| Full Reception Entry | For the complete entry of a patient request, including clinical notes and billing details. |
| Fast Reception Entry | For minimal entry of patient details to expedite the testing process.  Useful for urgent samples or when full details are not available at the current time.<br><br>All registrations performed via the Fast Reception Option will need to be completed at a later time. |
| Bulk Entry | Allows bulk entry of specimens that are identical in specimen type, receive date, tests requested etc |
| Incomplete | Lists lab numbers registered via fast reception entry that require completion. |
| Images | Where request forms and other documents are scanned into **Evolution vLab®** and attached to a patient laboratory number. Image reception entry can be performed from the scanned request form. |
| Missing Forms | Laboratory numbers in the system that are missing an image of the request form. |
| Billing Estimate | Used to generate an estimate of the cost of the tests to be ordered before a sample is collected or an episode registered. |

## 8.1 FULL Reception Entry

The FULL Reception Entry function allows users to complete an entry of a patient request, including clinical notes and billing details.

- Layout and cursor navigation are configurable by the system administrator.  Each department can have its own sample reception screen with the layout and entries specific for that department.

- Mandatory fields are marked with a red asterisk (*).  An entry cannot be saved until mandatory fields are complete.  Once the cursor is placed into a mandatory field, this field must be populated before moving on.

- The **Lookup [F1]** function button can be used to access syntax help or data selection lists relevant to the field the cursor is in.

- Items can be selected directly from the lists.  Syntax help is a non-interactive pop-up screen to assist with correct data format.  It provides a description and examples relevant to the field.

- The laboratory number is entered in to the Lab Number field by scanning, manual entry or can be auto-generated using the (+) key.  When a laboratory number is entered, the demographics enquiry button appears.

- If the laboratory number has already been registered the user will be presented with the details of that registration entry.

- If another user is viewing the same lab number registration screen or on another registration record for the same patient, the USERNAME of the user login who has the UR record locked is displayed.

  o   The first message refers to the Lab No and will display as '[USERNAME] is changing this record: READ ONLY mode set'. This message indicates that another user is already accessing this lab record.

  o   The second message refers to the UR number stating, 'Record locked by [USERNAME], try again later'. This message indicates that another user is already accessing this UR record and it is currently locked.

- Once the following have been added - Patient **Surname** and **First Name**, and **DOB** and **Sex**, a demographic search is automatically done against existing patient details to see if a patient already exists. If a patient exists a pop-up window is shown automatically with the details of the existing patient. This patient can be selected and the rest of the details populated.

**Function Buttons**

| Functions | Description |
|---|---|
| **Demographics Enquiry [F5]** | Provides the user a demographics enquiry screen to search and locate a list of potential patients. If any patients are found a list will be provided for the user to select from, this will then auto populate the appropriate demographics fields displayed on the registration screen. <br><br> 1. Enter a new **Laboratory Number**. <br><br> 2. Once the laboratory number is entered and prior to a patient identifier being added, the user can select the **Demographics Enquiry [F5]** function button; <br><br> **Note:** The Demographics Enquiry dialog is displayed allowing the user to enter information via the following fields: <br><br>     • **Surname** <br>     • **Given Name** |

**8. Reception : FULL Reception Entry**

| Functions | Description |
|---|---|
| | <ul><li>**Sex**</li><li>**Date of Birth**</li><li>**Identifier Type**</li><li>**Patient Identifier**</li></ul><br><br>*Figure 1: Image of demographics enquiry from a UK environment*<br><br>3. Enter any known details (for example: surname, DOB, etc.), select **[OK];**<br><br>4. A list of matching patients is displayed with information available via the following fields:<ul><li>**UR No**</li><li>**Name**</li><li>**Address**</li><li>**DOB**</li><li>**Sex**</li><li>**Patient Identifier**</li></ul><br>**Note:** The DOB year displays in full, that is: 19xx or 20xx;<br><br>5. Highlight the appropriate entry and select **[OK]** or double-click to populate the demographics fields available on the reception screen. |

**Shortcut Examples**

| Shortcut | Description |
|---|---|
| **[Enter] t or d** | Current date |
| **y** | Yesterday |
| **Y** | Date prior to yesterday |

**8. Reception : FULL Reception Entry**

| Shortcut | Description |
|---|---|
| T | Tomorrow |
| m | For start of current month |
| M | For end of current month |
| w | For start of current week |
| W | For end of current week |
| l (lowercase L) | For end of year before last financial year |
| L | For end of last financial year |
| f | For start of current financial year |
| F | For end of current financial year |

**Time and Date Format**

This table applied to any time/date or date field.  The Time/Date can bet set after the time is entered then t, T, Y etc.

| Example | Description |
|---|---|
| 0830 | 8:30 am, current date |
| 0830y | 8:30 am, yesterday's date |
| 0830Y | 8:30 am, date previous to yesterday |
| 0830t | 8:30 am, today's date |
| 0830 12/05/20 | 8:30 am 12 May 2020 |
| [Enter] or ? or // | Unknown time on the current date |
| ?? or //// | Unknown time on an unknown date |

## Patient Identifiers

This section covers various characteristics of Patient Identifiers.

### CHI Number

The CHI Patient Identifier number (Community Health Index) can be validated if entered manually against the Patient's DOB or if received electronically against the DOB and the arithmetical check digit at the end of the number.

This CHI Patient Identifier also has these characteristics:

- Confirms the validity of the entered CHI number with a pop up error available to allow re-entry, Scotland did not want a hard stop of entering the patient data if the CHI validation failed.

- An alert is available if the CHI number is a duplicate

- CHI number displays in all reports and application screens

- Incorrect/invalid CHI number will be added to a error file

- Incorrect/invalid CHI number via eOrder or ADT goes into <identifier correction report> and <eOrder HL7 audit>

- CHI number is configurable ( only by System admin user and any updates made to the rule are captured via Audit

- Non System Admin user cannot turn off the CHI validation rules

- If CHI check against DOB cannot be validated - a warning is provided and the registration can still proceed. (This was released in 5.3.0.3.)

**Note:** This CHI number validation rule can be turned ON /OFF by System Admin User.

### Storage of Assigning Authority with Patient Identifier

**Evolution vLab®** allows the storage of any patient identifier along with the assigning authority at the patient level. Duplicate patient IDs from the same assigning authorities are not saved. Existing patient identifiers are not overwritten. Manually entered identifiers are saved as long as an assigning authority has been selected. There is also background functionality for multiple PID.3 values sent in eOrders.

It has these main characteristics:

- Storage of PID.3 values: identifier type, patient identifier and assigning authority are stored against the patient at the Patient level

- If different PatID from same assigning authority is received the stored one will not get overwritten and  the User scan create a new patient, using the details from the eorder.

- A pop up is displayed for the list of patients found using the PID.3 values for the user to select and process the order.

- When Results are sent outbound using the eOrder Demographics, then the list of PID values against the patient in Evolution MPI are sent out in PID3 (with the assigning authorities)

- Duplicate records (new patient and the mis-matched record) will be added to the Management>Patient Record>Duplicates tab for resolution

- A system Admin user will be able to configure the required  hierarchy order in PID.3 defined by the Client, to be sent outbound.,

- Outbound message have the full list of PID available for the patient but demographics in outbound displays only what was sent in eOrder

- Manually entered patient identifiers are stored along with the assigning authority.

---

**Note:** It is NOT configurable, as it is an integrated feature.

---

## Transfusion Details

This section can be configured by your system administrator to be a part of the full reception entry screen and fields available may vary depending on business requirements.

**Data Fields**

| Data Field | Description |
|------------|-------------|
| Antibody (AB) Alert | Displays any antibody alerts recorded in the patients Antibody register. This field is populated by the system and is read only. |
| Blood Group | Displays the current Blood Group of the patient. This field is populated by the system and is read only. |
| Last Screen | Last Antibody screen. This field is populated by the system and is read only. |
| MSBOS | Displays the number (configurable) of units recommended for the associated procedure selected. This field is populated by the system and is read only. |
| Procedure | Enter the mnemonic of the procedure/operation that the transfusion relates to. **Lookup [F1]** available. |
| Product (1-4) | Enter the product mnemonic. **Lookup [F1]** is available. |
| Quantity | Enter the amount of product required. |
| Recent Pregnancy | Determines if there has been a recent pregnancy based on existing records. This field is populated by the system and is read only. |
| Recent Transfusion | This check is automatically done by the system based on existing records and populates as 'No' if the time period since |

| Data Field | Description |
| --- | --- |
|  | the last transfusion is greater than the configured limit, set up in the Transfusion Options for the laboratory. |
| **Required By** | Time/date (in the format hh:mm dd/mm/yy) blood product(s) are required by required by. This field is used to calculate the corresponding product allocation expiry time. |
| **Special Requirements** | Enter any special requirements for the patient for example: CMV-, Irradiated etc. Select **Lookup [F1]** for the available syntax. |
| **TM Alert** | Displays any Transfusion Medicine alerts recorded in the patients Antibody register. This field is auto populated by the system based on existing records and cannot be edited. |

## Billing Details

This section can be configured by your system administrator to be a part of the full reception entry screen and fields available may vary depending on business requirements.

### Admissions Table

Where the identifier is used via the Reception screen, the 'Admissions' dialog can be accessed by invoking **Lookup [F1]** which provides a tabulated view of the admissions for the UR Number (MRN) in question, supplied by the ADT feed. The Admission Table is only available for UR Number (MRN) Prefixes configured with Adm Table set to 'yes'.

Under appropriate conditions the user is presented with the 'Admission Table' at registration after specifying the lab number and UR Number/MRN to facilitate selection of the appropriate admission for the specimen. This applies to both Full and Fast Registration, and registration of eOrders (where applicable). The user may select the appropriate admission or invoke the Esc key to proceed without making a selection.

Whether or not the user is presented with this screen during the registration process for an enabled UR Number/MRN is determined by several factors. For most clients the Admission Table is observed only when more than one open admission exists for that UR Number (MRN), that is: more than one admission for which a Discharge date is not populated.

Where only one open admission exists, **Evolution vLab®** auto-selects it and the Admission Table is not displayed.

The admission against a given lab number may be changed at any time by invoking the Admission Table from the relevant fields at registration (Admission number, Admission date/time or Discharged date/time).

From the ADMISSIONS dialog, the user can select a table entry and be automatically returned to the registration screen with all the respective admission fields populated from the selected admission.

The cursor will be placed via the first configured required field on the registration screen allowing the user to confirm or change the fields populated by the Admission details.

If further details about the admission need to be viewed, the function key 'View Detail **[F6]**' from the ADMISSIONS table displays additional details regarding the admission.

The following fields via the 'Admission Details' dialog are viewable and non-editable:

- Admitted
- Admission Id
- Discharged
- Admission Type
- Attending
- Consultant
- Provider No
- Location
- Ward
- Category
- Clinical Unit
- Bed
- Account
- Fund
- Fund Number
- Fund Level
- Consent Withdrawn

Updates may be via the editable fields via Reception or via the associated inbound HL7 interface, for a lab number and are recorded in the Specimen Audit.

Outbound HL7 Interface messages will also be generated with the new data. This will only occur when the appropriate configuration is enabled. (Refer to HL7 Options Configuration for more details).

## Submenu Tabs

When a laboratory number is entered, and all mandatory fields completed, the following sub menu tabs and functions are available to be accessed:

| Submenu Tab | Description |
|---|---|
| **Reception [CF6]** | Default screen |
| **Report Copies [CF5]** | Nominate additional doctors to receive a report |
| **Aliases [SF6]** | Nominate a patient alias for the surname and/or given name |

**8. Reception : FULL Reception Entry**

| Submenu Tab | Description |
|---|---|
| **Notes [F8]** | Enter and display the alerts, clinical, ordering, sample or UR notes for the patient |
| **Aliquots [SF7]** | Displays the system generated sample aliquots and provides the ability to manually create aliquots |
| **Request Forms [INSERT]** | Scanned images (request form) attached to patient record are displayed. |
| **Billing Status [CF2]** | Displays all requests saved against the registered laboratory number and allows billing information to be viewed and updated (for example: Billing Category). |
| **Histo Table [CF3]** | Display, add, print labels, and modify details on all samples received with a Histopathology, Cytology or Autopsy case. A location number is assigned to each sample added. The Histo table submenu is only available for cases with relevant Histopathology, Cytology, and Autopsy tests ordered. |
| **Location Numbers [CF11]** | Displays a list of any secondary unique identifiers assigned for specific tests which are used within specific work locations (for example: Microbiology, Serology). |
| **History [F9]** | Displays a list of previously registration episode for the patient. |
| **Patient Record Audit [SF8]** | Displays the audit history of the patient file number |
| **Audit [SF8]** | Displays the audit trail of the patient record. |
| **Container Assignment [CF10]** | For the receipt and assignment of tests to containers. Test assignment is automated based on configuration. |
| **UR Health Funds** | Displays the associated patient Health Fund Details |

**Submenu Function Buttons**

| Function | Description |
|---|---|
| **Transfusion History [F7]** | Opens the transfusion and Crossmatch/Allocation History for the patient file. |
| **Contact Details [SF3]** | Displays the contact details for the field that the cursor is placed in: |

| Function | Description |
|---|---|
| | 1. Place cursor via the field. Once data has been selected for the field, the Contact Details function will display the contact details for that selected entry, for example: Doctor, HCF, Ward, etc.;<br><br>2. Select the **Contact Details [SF3]** function button;<br><br>3. The read only details configured is displayed. |
| Copy Entry [SF5] | Copies the current registration details to a new registration screen and is useful for the registering of multiple samples for the same patient. A new laboratory number and sample details can be entered.<br><br>Depending on functionality:<br><br>1. Select the **Copy Entry [SF5]** function button;<br><br>2. Fields which are configured to copy will be transferred to the new screen based on the registration screen set up.;<br><br>3. Enter the new laboratory number, the sample type and the tests and panels required;<br><br>4. Select the **Save [F4]** icon or **Copy Entry [SF5]** to repeat the function.<br><br>OR<br><br>5. The previous entry is saved, and the screen displays the Container Assignment screen;<br><br>6. Enter the applicable containers and their quantity and select **Save** or press **[F4]**;<br><br>7. Select **Save** or press **[F4]** where the prompt 'Print labels (y/n)' is displayed;<br><br>8. Selecting (y)es or (n)o returns the user to the Reception screen;<br><br>9. With the laboratory number field cleared, the sample type cleared, and the request fields cleared;<br><br>10. Enter the new laboratory number, the sample type and the tests and panels required;<br><br>11. Select the **Save** icon or press **[F4]** or **Copy Entry [SF5]** to repeat the function. |

| Function | Description |
|---|---|
| **Edit Fee Rate [CF7]** | Enables the default fee rate to be updated for the nominated patient billing categories (billable): <br><br> 1. Select the **Edit Fee Rate [CF7]** function button**;** <br><br> 2. Enter the fee option required - (C)olumn, (P)ercentage or (F)lat Rate; <br><br> 3. If C, prompt displays 'Fee Rate Column'. Enter the column number (1 – 8); <br><br> 4. If P, prompt displays 'Fee Rate Percentage'. Enter the percentage (1 – 300); <br><br> 5. If F, prompt displays 'Fee Rate Flat Rate'. Enter the fee rate (0 - 300). |
| **Relationships [CF8]** | Shows any relationships for the patient file. <br><br> Select the **Relationships [CF8]** function button**.** <br><br> The Relationships screen displays all linked family members.  Family relationships can be added, edited and removed via the function buttons. |
| **Rebill [CF9]** | This is controlled by user credentials and re-sends the laboratory record to the consolidation queue for billing. <br><br> 1. Select **Rebill [F9]** function button**;** <br><br> 2. The message '*This record may already be in the consolidation queue, continue (y/n)?*' is displayed.  Select Yes or No; <br><br> 3. The message displays *Rebill complete;* <br><br> 4. Select **[OK]** to close. |
| **Pre-Payment** | Generates a receipt for pre-payment of the tests requested. |

## 8.2     Report (Extra) Copies [CF5]

This screen lists any doctor or person to receive an extra copy of results.  To create an extra copy:

1. Select the **Create [F6]** function button**;**

2. Enter the required details via the associated fields of the Create Extra Copy dialog. **Lookup [F1]** is available to search for a particular Doctor in the upper portion of the dialogue box.  Or a new Person's details can be added to the lower portion of the dialogue box;

3. Select **Save** or press **[F4].**

**Function Buttons**

| Field | Description |
|---|---|
| Doctor/Name | The name of the person who is going to receive the copy (**Lookup [F1]** is available in the Doctor field). |
| Address | This field auto populates when the Doctor entered has these details configured. The address can be manually entered if not auto populated. |
| Device | This field auto populates when the Doctor entered has these details configured. The printer, fax or email can be manually entered to where the extra report is to be directed to (**Lookup [F1]** is available).<br><br>It is possible to manually modify the device details if there are no pre-existing devices configured for the selected doctor.  If a user wants to use a reporting device that differs from the pre-existing configuration, the free text section must be used. |
| Destination | This field auto populates when the Doctor entered has these details configured. A fax number or email address can also be manually entered. |
| Report Trigger | This field auto populates when the Doctor entered has these details configured.<br><br>The manual entry for when the report will be sent is (**Lookup [F1]** is available):<br><br>• QUEUE report issued by print queue configuration time.<br><br>• ONVAL report issued upon Level 2 validation.<br><br>• ONVAL_ABN report issued upon Level 2 validation and abnormal results.<br><br>• ONVAL_CRIT report issued upon Level 2 validation and critical results.<br><br>• ONVAL_DELTA report issued upon Level 2 validation and delta check results.<br><br>• ONVAL_URG report issued upon Level 2 validation and urgent (as indicated at reception). |

| Field | Description |
|---|---|
|  | • ONVAL_ABN_URG report issued upon Level 2 validation and abnormal results and urgent (as indicated at reception).<br>• ONVAL_CRIT_URG report issued upon Level 2 validation and critical results and urgent (as indicated at reception).<br>• ONVAL_DELTA_URG report issued upon Level 2 validation and delta check results and urgent (as indicated at reception).<br>If left blank this field will default to 'ONVAL'. |
| Style | This field auto populates when the Doctor entered has these details configured.<br>Defines the style of the report, for example: A4, A5, HL7,PDF, PIT (**Lookup [F1]** is available). |
| Style ID | This field is used when a different style to that defined is required. |

## 8.3     Aliases [SF6]

The screen displays any recorded aliases for the patient.  Up to five additional names can be recorded.

1.   Select the Create **[F6]** function button;
2.   Via the *'Edit Alias'* dialog, enter the new surname and given name;
3.   Select **Save** or press **[F4].**

A search can be performed for the patient information using an alias.  The results display the name used during the registration process.

## 8.4     Notes [F8]

Lists additional information for the patient record.

Existing UR and Sample notes cannot be edited or deleted.

Coded comments can be used by entering the mnemonic of the coded comment followed by a backslash (\). **Lookup [F1]** is available for coded comments.

Typically Sample and UR notes are department based and relate to the condition of the sample or patient specific comments of the sample. Sample and UR notes entered at Sample reception are viewable by all departments.

Once notes are added a flag will appear in the demographics banner (blue square with an N) to alert the user that notes are available.  Any added alerts will have an A in a red square.

**Function Buttons**

| Function | Description |
|---|---|
| **Add Specimen Note [F6]** | Creates a new note relating to the specimen.<br><br>1. Select the **Add Specimen Note [F6]** function button**;**<br>2. Via the '*Enter New Specimen Note*' dialog, enter the desired text;<br>3. Select **Save** or press **[F4].**<br><br>Notes can only be added, existing notes cannot be edited or deleted.  This note will only be available for the associated laboratory number. |
| **Add UR Note [F7]** | Creates a new note relating to the UR number.<br><br>1. Select the **Add UR Note [F7]** function button**;**<br>2. Via the '*Enter New UR Note*' dialog, enter the desired text;<br>3. Select **Save** or press **[F4].**<br><br>Notes can only be added, existing notes cannot be edited or deleted.  This note will be available for the Patient File and visible regardless of the specimen being viewed. |
| **Add/Edit Alerts [SF5]** | Creates new or edits an existing alert or diagnosis relating to the patient.<br><br>1. Select the **Add/Edit Alerts [SF5]** function button**;**<br>2. Enter the alert/s (**F1 Lookup** is available);<br>3. Select OK or press **[F4].** |
| **Add/Edit Clinical Notes [CF7]** | Creates a new or edits an existing clinical note. Typically clinical notes related the patient history and/or reason for requests and are often entered/copied from the request form.<br><br>1. Select the Add/Edit Clinical Notes [CF7] function button;<br>2. Via the '*Enter Clinical Notes*' dialog, enter the desired text;<br>3. Select the **Save** icon or press **[F4].**<br><br>**Note:**  Deleting an existing note will only remove the content of the note.  The Clinical note entry will remain within the list. |
| **View All Notes [CF8]** | This is used to change the display of notes from the department currently logged into to display all notes. If logged in to *All Departments,* all notes will already be displayed.<br><br>1. Select **View All Notes [CF8]** function button to display all notes. |

| Function | Description |
|---|---|
| **Add/Edit Ordering Notes [CF9]** | Creates a new or edits an existing ordering note. These notes typically relate to the collection, site and/or temperature of the collection. <br><br> 1. Select the Add/Edit Ordering Notes [CF9] function button; <br> 2. Via the '*Enter Ordering Notes*' dialog, enter the desired text; <br> 3. Select **Save** or press **[F4].** <br><br> **Note:** Deleting an existing note will only remove the content of the note.  The Ordering note entry will remain within the list. |
| **Add/Edit Collection Notes [CF10]** | Creates a new or edits an existing collection note. These notes typically relate to the collection performed. <br><br> 1. Select the Add/Edit Collection Notes [CF10] function button; <br> 2. Enter a new note or edit an existing note; <br> 3. Select **Save** or press **[F4].** <br><br> **Note:** Deleting an existing note will only remove the content of the note.  The Collection note entry will remain within the list. |

**Data Fields**

| Field | Description |
|---|---|
| **Type** | Specifies the type of note entered. |
| **Time/Date** | Denotes the time and date the note was saved. |
| **User** | The mnemonic of the user who entered the note. |
| **Department** | The department the user was in when the note was saved. |
| **Notes** | The content of the note. |

## 8.5    Aliquots [SF7]

The Aliquots function groups samples together for the same testing area and can be automatically assigned at the time of sample reception or manually created.

The aliquot number is not generated until the screen is saved, or the label is printed.

Evolution vLab® can be configured to have aliquot rules.  These rules are applied based on the testing laboratory for the test.

**8. Reception : Aliquots [SF7]**

The Suffix Identifier is an additional identifier.  Evolution vLab® can support 52 unique identifiers per laboratory number.  The Suffix Identifier starts at 'AZ' and increments backwards, for example, AZ, AY, AX etc.  Once 'AA' is reached the 'A' is removed and the suffix added is 'Z'.  For example, AC, AB, AA, Z, X, Y etc.

It is possible to edit the Collection Tube in the Aliquot Create/Modify screen at any stage.

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Used to create a new aliquot. <br><br> 1. Select the **Create [F6]** function button**;** <br><br> 2. Via the '*Create New Aliquot*' dialog, complete as required. **Lookup [F1]** is available; <br><br> 3. Select **Save** or press **[F4].** |
| **Print All Labels [F7]** | Prints labels for all the aliquot tubes in the table. |
| **Display Default Aliquots/Return to Modified Aliquots [SF5]** | This function allows the user to display the original aliquots configured for the tests ordered, and to override any user modifications with these default aliquots if desired. <br><br> 1. Select the Display Default Aliquots [SF5] function button; <br><br> The message 'Default Aliquots Displayed [Save] to override previous modifications' displays in the top right corner of the screen. <br><br> The default aliquots for the laboratory number are displayed. <br><br> 2. Select the **Save** icon or press **[F4]** to override any user modifications or select the **Return to Modified Aliquots [SF5]** function button to retain the modified aliquots. |
| **Print Single Label [CF7]** | Prints the label for the highlighted entry in the table. <br><br> 1. Highlight an entry via the table; <br><br> 2. Select the **Print Single Label [CF7]** function button**;** <br><br> 3. At the prompt, type the printer mnemonic or its alias.  Use **Lookup [F1]** to open a list of printers to select from. Press **[Enter]** or double-click an entry to select a (highlighted) printer from the list. |

**Data Fields**

| Field | Description |
|---|---|
| Aliquot Location No | A unique location number for the aliquot. It is a non-editable field that is populated after an aliquot is saved. |
| Collection Tube/Parent Container | The container in which the sample was collected (**Lookup [F1]** is available). |
| Work Location | Where the aliquot will be processed and the location number prefix that will be used in the location number (**Lookup [F1]** is available). |
| Aliquot Tube | Type of container required for the aliquot (**Lookup [F1]** is available). |
| Volume (mL) | Volume in mL required to perform the tests. Only numerical values are valid. |
| Label | Label format to be used (**Lookup [F1]** is available). |
| Collection Tube | Auto populates with the Collection Tube (non-editable). |
| User | Auto populates with the user's mnemonic (non-editable). |
| Tests/Panels | Tests/Panels the aliquot will be used for (**Lookup [F1]** is available). |

## To Edit an Aliquot:

1.   Highlight an aliquot entry and double-click or press **[Enter]** to display the 'Modify Aliquot' dialog.

2.   Edit the required field/s.

3.   Select Save or press **[F4]**.

## To Delete an Aliquot:

1.   Highlight an aliquot entry and press the **[Delete]** key or icon from the top of the screen.

2.   At the prompt 'Remove Aliquot. Are you sure (y/n)?.'

3.   Select Yes to continue or No to cancel.

## 8.6      Request Forms [INSERT]

The Request Forms screen displays any scanned images associated with the laboratory number. These can be request forms, other results, certificates, etc.

- The images can be zoomed in and out using the left and right click of the mouse respectively.

- Thumbnails will appear on the right-hand side of the screen if multiple pages have been attached.  Clicking on a thumbnail will display the image in the main window.

- If there are no images attached, the message *'No image associated with this lab number'* is displayed.  Select OK and the user is returned to the **Reception [CF6]** tab.

**Function Buttons**

| Function | Description |
|---|---|
| **New Window** | Allows the image to be opened in a popup window.<br><br>1.  Select the **New Window** button;<br><br>2.  The image opens in a new window, can be zoomed in and out using the left and right mouse click respectively;<br><br>3.  To move the window around, click and drag the window with the mouse;<br><br>4.  The window automatically closes when another menu item is selected, or another laboratory number is viewed.  The window can be closed pressing the red X at the top right corner. |

## 8.7      Billing Status [CF2]

The Billing Status screen indicates if a test or panel request has been billed. The Billable Status can be:

| | |
|---|---|
| **Billed** | The request has been billed. |
| **Billable** | The request is billable but has not yet been billed. |
| **Non-billable** | The request is non-billable. |

**Function Buttons**

| Function | Description |
|---|---|
| **Pre-Payment [CF1]** | Generates a receipt for the pre-payment of the highlighted Test.  The category must be a valid patient category.  If the category is not valid, that is: a category that bulk bills, the error *'Not a Patient Account Type'* will display.<br><br>1. Select the **Pre-Payment [CF1]** function button**;**<br>2. Select the payment type (**Lookup [F1]** available);<br>3. Enter the relevant information;<br>4. Select **Save** or press **[F4]**.<br><br>**Note:** If a request has been billed an error message will display *'Lab record billed. Operation not permitted.'* If a request has a non-billable status the error message 'Request not billable, Operation not permitted.' will display. |
| **Toggle Billable Status [CF7]** | Changes the Billable Status between Billable and Non-billable.<br><br>1. Highlight the entry;<br>2. Select the Toggle **Billable Status [CF7]** function button;<br><br>The Billable Status field for the associated entry updates accordingly.<br><br>**Note:** Only billable tests or panels can be toggled between billable and non-billable status.  If a request cannot be billed the message *'Request not billable. Operation not permitted.'* is displayed. |
| **Billing Category [CF8]** | Adds or changes the billing category associated with the test.<br><br>1. Highlight the entry;<br>2. Select the **Billing Category [CF8]** function button**;**<br>3. At the prompt "*Enter Category*", enter the Category (**Lookup [F1]** available);<br>4. Select OK or **[Enter]** to continue;<br><br>The Category field for the associated entry updates accordingly. |
| **Billing Account [CF9]** | Adds or changes the billing account associated with test.<br><br>1. Highlight the entry;<br>2. Select the **Billing Account [CF9]** function button**;**<br>3. At the prompt "*Enter Account*", enter the Account (**Lookup [F1]** available);<br>4. Select OK or **[Enter]** to continue.<br><br>The Account field for the associated entry updates accordingly. |

| Function | Description |
|---|---|
| **Billing Quantity [SF11]** | The number of times the test or panel is to be billed.<br><br>(This is not available in Scotland. It maybe a licensed feature.) |

Once populated, the sub-table displays the following information for each entry:

**Data Fields**

| Column | Description |
|---|---|
| **Mnemonic/Request** | Displays the mnemonic of the requested test or panel. |
| **Test/Request Description** | Description of the request. |
| **Specimen Type** | The sample type entered at registration for that laboratory number. |
| **Billable Status** | Displays the status associated with the request<br>**Billed:** The request has been billed.<br>**Billable:** The request is billable but has not yet been billed.<br>**Non-billable:** The request is non-billable. |
| **Category** | The billing category entered at registration for that laboratory number. |
| **Account** | The account entered at registration for that laboratory number. |
| **Quantity** | The number of times the test or panel is to be billed.<br><br>(This is not available in Scotland. It maybe a licensed feature.) |

## 8.8   Location Numbers [CF11]

A location number is a secondary unique identifier for a sample that can be used interchangeably with a laboratory number.

- Typically used in specific departments or discliplines, for example: Microbiology, Histopathology, etc.
- This screen displays any location numbers associated with the laboratory number.
- Location numbers may be entered during initial registration automatically and this screen provides the facility to create and remove Location Numbers.

- Location numbers are configurable by the system administrator, meaning the prefix and sequence of numbers can be designed to suit the laboratory's needs.

> **Note:**  If sequential location numbers are required for sample storage, location numbers **should not** be assigned during the general sample reception process.

Instead, the laboratory/department where the sample is being tested will assign the location number through their own laboratory sample reception.

> **Note:** If sequential location numbers are required for sample storage, location numbers **should not** be assigned during the general sample reception process.  Instead, the laboratory/department where the sample is being tested will assign the location number through its own laboratory sample reception or workflow processes.

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Creates a new location number entry into the table. <br><br> 1. Select the **Create [F6]** function button**;** <br><br> 2. At the prompt "*XXX Location No*", enter a location number with the format \<prefix\> NNNNNNNN (where prefix is the work location prefix and where N = string of numbers); <br><br> 3. If the location number prefix is configured as year based, a year prefix will automatically be added; <br><br> 4. If the location number prefix is configured as laboratory based, a laboratory prefix will automatically be added; <br><br> 5. Tests that have not been configured to use location numbers will have a message displayed *Location numbers not allowed for \<test\>*. <br><br> Entering an auto-incrementing Location Number <br><br> 1. Enter the work location prefix followed by '+'. |
| **Print Single Label [CF4]** | Prints the label for a particular location number. <br><br> 1. Highlight the desired entry; <br><br> 2. Select the **Print Single Label [CF4]** function button**;** <br><br> 3. At the prompt "*Please enter label format*", enter the label format (**Lookup [F1]** available); <br><br> 5. Select OK or **[Enter]** to continue. |

| Function | Description |
|---|---|
| **Remove Location Number [CF7]** | Removes a location number entry from the table. 1. Highlight the desired entry; 2. Select the **Remove Location Number [CF7] function** button; 3. At the prompt "*Remove location XXXX for XXX (y/n)?*", select Yes or No. To remove a location number where multiple location numbers are recorded for a test/panel 1. Highlight the desired entry; 2. Select the **Remove Location Number [CF7]** function button; 3. Enter the Location Number to be removed; 4. Click **[OK]** to continue or **[Cancel]**; 5. At the prompt, select Yes or No. |

## 8.9 History [F9]

This screen lists all laboratory numbers and test history for a patient record including any linked records in reverse chronological order.

**To Access the Result Screen of a Laboratory Number Listed**

1. Highlight an entry of interest and double-click or press **[Enter]**.

## 8.10 Audit [SF8]

This screen displays all the changes and events made to a patient record and are stored permanently and cannot be edited or deleted.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Sample Audit [SF5]** | Displays the changes and events made to the sample. |

### 8. Reception : Audit [SF8]

| Submenu Tab | Description |
|---|---|
| **Patient Record Audit [F7]** | Displays the changes and events made to the patient record. |
| **Enquiry Audit [CF8]** | Displays the enquiries /access made on any of the patient episode results or reports. |
| **Orders Audit [SF6]** | Displays the events made in relation to the orders and collections. |
| **Materials Audit [SF7]** | Displays the changes and events made to consumables or equipment associated with the sample processing. |
| **Storage Audit [CF9]** | Displays any activities relating to storage of specimens for the laboratory episode. |
| **Secure Messaging Audit** | Displays the outgoing events to a secure messaging device. |

**Function Buttons**

| Function | Description |
|---|---|
| **Select Test/Panel [F6]** | Allows the user to specify a test or panel.<br>1. Select the **Select Test/Panel [F6]** function button;<br>2. At the prompt "Enter test/panel", enter the mnemonic for the test or panel (**Lookup [F1]** available);<br>3. Select OK or **[Enter]** to continue. |
| **Insert Audit Entry [CF7]** | Allows the manual entry of an event into a patient record.<br>1. Select the **Insert Audit Entry [F7]** function button**;**<br>2. At the prompt "Enter audit message", enter the desired audit message;<br>3. Select OK or **[Enter]** to continue. |
| **Full Audit [CF7]** | Allows the user to view the full audit on the sample. |

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**8. Reception : Container Assignment [CF10]**

## 8.11    Container Assignment [CF10]

Tube or Container assignments and Sample Receipts are linked.  The information entered via the Sample Receipt screen is transferred to the Container Assignment table.

- Collection tubes or containers are entered onto the Sample Receipt screen which is used to calculate which tubes can be used for the ordered tests.

**Function Buttons**

| Function | Description |
|---|---|
| **Reassign Request [F6]** | Use this to reassign a test request to another receipted tube/container tube type. |
| | 1.  Select the **Reassign Request [F6]** function button**;** |
| | 2.  At the prompt "*Please enter request(s)*", **Lookup [F1]** or enter the mnemonic of the test which requires reassigning.  Use a comma separated list to reassign multiple requests; |
| | 3.  Select **[OK]**; |
| | 4.  At the prompt "*Please enter destination tube*", enter the alphabetical suffix of the Unique ID (for example: D) for the tube to which the requests are to be reassigned. **Lookup [F1]** available; |
| | 5.  When the request (for example: THROMB) currently appears against multiple containers, the user receives the prompt '*<Request> on multiple tubes. Please enter source tube*'. Enter the alphabetical suffix of the Unique ID (for example: C) for the source container from which the request is to be moved; |
| | 6.  Select **[OK]**; |
| | 7.  When the user selects a destination container that already includes the request, the message *<Request> is already on <Container ID>*. The request is not reassigned; |
| | 8.  If the tube/sample container selected is not valid for that test the error message '*<test> not configured on <container>.  Continue anyway? (Y/N)*'. Select Yes to continue or No to cancel. |
| | The table updates with the test assigned to the new tube/container type. |
| | The requests are displayed as separate entries within the table. |
| | Requests will be grouped together if: |
| | 1.  They belong to the same department/laboratory; |

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| Function | Description |
|---|---|
| | 2.  They have compatible tube types; |
| | 3.  The total sum of the test volumes (including 'dead volume') does not exceed the configured sample container. |
| | **Note:**  You can assign more than one request to the same tube suffix on the condition that the same tube type has been configured for each request. |
| **Receipt Tubes [F7]** | Allows the entry of a collection tube or sample container. |
| | 1.  Select the **Receipt Tubes [F7]** function button**.** |
| | 2.  Via the '*Sample Containers*' dialog, complete the details via each Sample Container field, as required. **Lookup [F1]** is available to make your selection; |
| | 3.  Enter the desired quantity for each sample container. ; |
| | 4.  Click **[Save]** or press the **[F4]** to save; |
| | 5.  The **More [F6]** function button can be utilised when all fields have been exhausted.  The dialog will refresh and the existing tubes entered are saved and added to the container assignment screen once the user selects **[Save]** or **[F4]**. |
| | **Note:** External Containers is displayed when the user accesses the Receipt Tubes function. |
| **Container Notes [SF5]** | Allows the entry of notes to containers received via an eOrder. |
| | If the containers have not be received from an eorder, selected the function key will return a message. Notes are not available for non eOrder containers. |
| | Press **[OK]** to continue |
| **Print Single Label [CF4]** | Print the label with suffix for a highlighted entry. |
| **Print All Labels [CF9]** | Print labels with suffixes for all entries within the table. |

**Data Fields**

| Column | Description |
|---|---|
| **Container ID** | Container ID assigned by the third-party clinical system. |
| **Container Type** | Sample Container type (Description). |
| **Request List** | Tests and/or Panels requested against the container. |
| **Unique Id** | Unique tube ID, automatically assigned to the container. |
| **Notes** | Indicates whether notes exist for the container (Yes or No). |
| **Storage Location** | Enters the mnemonic of the location where the container is stored. |
| **List Membership** | List of Identifiers, that is: the Packing List/Receive List Name, for the Labno by identifier, that is: the Secondary ID. |

## External Container Identification

Container suffixes can be associated with a particular container type by configuration. This configuration will allow clients to utilise the barcodes provided by external ordering systems as sample identifiers within **Evolution vLab®**. The workflows that use this are described in the following sections.

### Manually Receipting Externally Labelled Containers

The process of assigning externally generated **Container IDs** begins after the initial registration process has been completed. Once the registration has been saved, users are taken to the Container Assignment screen and are presented with the Sample Containers prompt. The **Ext Containers [F7]** function button has been added to this table to allow users to define the **External Container Identification**.

Once the button has been selected it brings up a second table that allows users to provide the externally assigned identifier for any containers received as part of the request.

Users can provide the **External Container ID** value by manually entering or scanning the barcode. Once all containers have been entered into the table, selecting the **Save** icon or pressing the **Save [F4]** key will accept the entries and assign requests to the tubes based on the Order Settings configured for the Test or Panel.

### Electronic Order Requests

eOrders, that are received without unique Container ID(s) for the individual container(s), will utilise integration mapping to provide Evolution vLab® the Container ID for the container(s) received. The standard eOrder workflow can be followed from this point.

If the HL7 message received is unable to match a configured **External Container ID**, **Evolution vLab®** will respond with an Application Reject message informing the user with

"Lookup failure on field (Invalid tube type)" in the error segment. Users are also able to view the error message in **Evolution vLab®** with the **HL7 eOrder Audit** log.

System Administrators should ensure the External Identifier configuration is correct prior to re-transmitting the HL7 message.

### Errors and Warnings

When entering values into the **External Container ID** table, users may be presented with Errors or Warnings depending on the data provided.

Users will be presented with an error when:

• An External Container ID includes a suffix that is not assigned to a container.

• An External Container ID has been used for another registration.

• An External Container ID has already been used in the current episode.

Users will be presented with a warning when they attempt to enter **External Container IDs** that are not consistent for the episode. If the warning is accepted, then the **External Container IDs** are allocated to the episode and an audit entry is created to track which user accepted the values.

The prompt will be displayed when users enter **External Container IDs** that are not consistent during the initial entry or if additional containers are added to the episode.

## 8.12    Histo Table [CF3]

The Histo Table is used to display sample details of each specimen that have been received for Histology, Cytology and Autopsy. This is only available when requests specific to the department have been ordered. Specimens can be created and removed from this screen.

The location numbers are secondary unique identifiers for specific tests/panels which are used in specified work locations. The location numbers generated may include block and slide levels.

Location numbers may be entered during initial sample reception or at a later time.

Location numbers are configured by system administrators.

### Function Buttons

| Function | Description |
|---|---|
| **Create [F6]** | Creates a new entry into the table. <br><br> 1. Select the **Create [F6]** function button**.** The 'Add Histo Specimen' dialog is displayed; <br><br> 2. Enter the details (**Lookup [F1]** available); <br><br> 3. Select **Save** or press **[F4]** to save the new specimen. |

| Function | Description |
|---|---|
| | **Note:** For each additional location number saved the suffix will increment automatically. |
| **Print Labels [F7]** | Prints labels to the default printer.<br><br>1. Select the Print Labels [F7] function button;<br><br>2. At the prompt "*Print all labels?*", select Yes to print all labels, or No to print a label for the highlighted entry only. |
| **Print Labels (Select Printer) [CF7]** | Prints labels to a selected printer<br><br>1. Select the Print Labels (Select Printer) [CF7] function button;<br><br>2. Enter the required printer (**Lookup [F1]** is available), select **[OK]**;<br><br>3. At the prompt "*Print all labels?*", select Yes to print all labels, or No to print a label for the highlighted entry only. |

**Data Fields**

| Column | Description |
|---|---|
| **Location No** | The location number |
| **Specimen Type** | The type of sample |
| **Primary Site** | The primary site from where the sample was collected |
| **Specimen Site 1** | The secondary description of the primary site |
| **Sample Site 2** | The secondary description of the primary site |

## To Remove a Location Number

1. Highlight the desired entry;

2. Select the Delete icon from the top of the screen or press the **[Delete]** key;

3. At the prompt "Delete location XXX?", click **Yes** to delete, or **No** to cancel.

## 8.13   UR Health Funds

The UR Health Funds screen displays and allows the creation and modifying of a patient's Health Fund details. Users must use the UR Health Funds tab to create or modify entries.

A User can Modify Health Fund details (to enter > End Date field) from Reception screen.

Where Health Fund details have not been appropriately configured, on this screen and attempt to add the details directly onto the Reception screen, users will receive error message "Patient is not a valid member of [name of health fund]".

### To create a Health Fund entry

1.  Select create, a Modify UR Health Fund Details prompt is displayed.

2.  The Fund must be configured in Evolutions Administration>Accounts> Health Funds screen.

3.  **Lookup [F1]** can be used to view all available health funds.

4.  The Fund code is selectable from **Lookup [F1]**, Fund Number, Fund Level, and Start and End date.

5.  Select **Save** or **Cancel**.

    a.  The Health Fund details are now stored against the UR and will be available for any lab record using that UR number.

6.  To record the Health Fund details to the individual lab number, navigate back to the Reception screen and select the Health fund.  Evolution will allow the selection of the Active health fund details for the time the specimen was collected.

    **Note:** This is only applicable it HFUND is displayed on the registration screen.

7.  Where the start date and end date do not match the lab record, users will not be able to select the Health Fund on the Reception screen.

## 8.14   Fast Reception Entry

The Fast Reception Entry screen is a short version of the Full Reception Entry and is used to enter essential request information to fast track samples to analysers in high throughput laboratories.

*   The patient record will remain on the Incomplete tab, Reception Daysheet list until all mandatory details have been updated. Remove at a later time (redundant).

*   Layout and cursor navigation are configurable by the system administrator.

*   Mandatory fields are marked with a red asterisk (*).  An entry cannot be saved until mandatory fields are complete.

*   The **Lookup** icon at the top of the screen or **[F1]** function key can be used to access help or data selection lists relevant to the field the cursor is placed in.

- The laboratory number is entered into the Lab Number field by scanning or manual entry. If the laboratory number already exists, the previously registered information will display.

**Function Buttons**

| Function | Description |
|---|---|
| **Demographics Enquiry [F5]** | Provides the user a demographics enquiry screen to search and locate a list of potential patients. If any patients are found a list will be provided for the user to select from, this will then auto populate the appropriate demographics fields displayed on the registration screen.<br><br>1. Enter a new **Laboratory Number**.<br><br>2. Once the laboratory number is entered and prior to a patient identifier being added, the user can select the **Demographics Enquiry [F5]** function button;<br><br>**Note:** The Demographics Enquiry dialog is displayed allowing the user to enter information via the following fields:<br><br>  • **Surname**<br>  • **Given Name**<br>  • **Sex**<br>  • **Date of Birth**<br>  • **Identifier Type**<br>  • **Patient Identifier**<br><br><br>*Figure 1: Image of demographics enquiry from a UK environment*<br><br>3. Enter any known details (for example: surname, DOB, etc.), select **[OK];** |

| Function | Description |
|---|---|
| | 4. A list of matching patients is displayed with information available via the following fields:<br><br>   • **UR No**<br>   • **Name**<br>   • **Address**<br>   • **DOB**<br>   • **Sex**<br>   • **Patient Identifier**<br><br>**Note:** The DOB year displays in full, that is: 19xx or 20xx;<br><br>5. Highlight the appropriate entry and select **[OK]** or double-click to populate the demographics fields available on the reception screen. |
| **Contact Details [SF3]** | Displays the contact details for the field that the cursor is placed in:<br><br>1. Place cursor via the field. Once data has been selected for the field, the Contact Details function will display the contact details for that selected entry, for example: Doctor, HCF, Ward, etc.;<br><br>2. Select the **Contact Details [SF3]** function button;<br><br>3. The read only details configured is displayed. |
| **Copy Entry [SF5]** | Copies the current registration details to a new registration screen and is useful for the registering of multiple samples for the same patient. A new laboratory number and sample details can be entered.<br><br>Depending on functionality:<br><br>1. Select the **Copy Entry [SF5]** function button;<br><br>2. Fields which are configured to copy will be transferred to the new screen based on the registration screen set up.;<br><br>3. Enter the new laboratory number, the sample type and the tests and panels required;<br><br>4. Select the **Save [F4]** icon or **Copy Entry [SF5]** to repeat the function.<br><br>OR<br><br>5. The previous entry is saved, and the screen displays the Container Assignment screen; |

| Function | Description |
|---|---|
| | 6. Enter the applicable containers and their quantity and select **Save** or press **[F4]**; |
| | 7. Select **Save** or press **[F4]** where the prompt 'Print labels (y/n)' is displayed; |
| | 8. Selecting (y)es or (n)o returns the user to the Reception screen; |
| | 9. With the laboratory number field cleared, the sample type cleared, and the request fields cleared; |
| | 10. Enter the new laboratory number, the sample type and the tests and panels required; |
| | 11. Select the **Save** icon or press **[F4]** or **Copy Entry [SF5]** to repeat the function. |
| **Edit Fee Rate [CF7]** | Enables the default fee rate to be updated for the nominated patient billing categories (billable): <br> 1. Select the **Edit Fee Rate [CF7]** function button**;** <br> 2. Enter the fee option required - (C)olumn, (P)ercentage or (F)lat Rate; <br> 3. If C, prompt displays 'Fee Rate Column'. Enter the column number (1 – 8); <br> 4. If P, prompt displays 'Fee Rate Percentage'. Enter the percentage (1 – 300); <br> 5. If F, prompt displays 'Fee Rate Flat Rate'. Enter the fee rate (0 - 300). |
| **Relationships [CF8]** | Shows any relationships for the patient file. <br> Select the **Relationships [CF8]** function button**.** <br> The Relationships screen displays all linked family members.  Family relationships can be added, edited and removed via the function buttons. |

**8. Reception : Fast Reception Entry**

| Function | Description |
|---|---|
| **Rebill [CF9]** | This is controlled by user credentials and re-sends the laboratory record to the consolidation queue for billing.<br><br>1. Select **Rebill [F9]** function button**;**<br><br>2. The message '*This record may already be in the consolidation queue, continue (y/n)?*' is displayed.  Select Yes or No;<br><br>3. The message displays *Rebill complete;*<br><br>4. Select **[OK]** to close. |
| **Pre-Payment** | Generates a receipt for pre-payment of the tests requested. |

**Note:**  The fields that appear on this screen are configurable and may vary.

**Data Fields**

| Data Field | Description |
|---|---|
| **UR Number** | Can be called a file number or MR number.<br><br>Use the format <prefix>NNNNNNN (where N = string of numbers). If a prefix is not entered the default laboratory (currently logged into) prefix is used.<br><br>Where auto increment is configured the field is populated with <prefix><+> (where + is the next system generated incremented File Number).<br><br>The UR Number can also contain a sub-prefix and/or a suffix. |
| **City/Town/Suburb Search** | By entering a minimum of the first three letters of a suburb and pressing **[Enter]**, a condensed suburb/postcode selection list will display.<br><br>The correct suburb and postcode can be selected by highlighting the appropriate entry and selecting **[OK]** or double clicking with the mouse to insert the suburb and postcode into the reception screen. |
| **Time/Date Format** | This can vary from field to field and page to page.  Syntax help (**Lookup [F1]**) is available.<br><br>The time format HHMM |

| Data Field | Description |
|---|---|
| | The date format DDMMYYYY or DDMMYY<br><br>Time and date fields can be entered as a string of characters or with a forward slash (/), colon (:), comma, full stop or a space. |
| **Requests/Tests/Order Sets** | The test codes for the tests requested for a patient are entered in these fields.<br><br>**Evolution vLab®** links the tests to the sample type, meaning that valid tests can only be registered for sample types that the test can be performed on.<br><br>Invalid entries will not be saved and a dialogue box alerts the user that it is an invalid request for the privilege/sample type. |

## Shortcut Examples

These short cuts apply to the fields where date is included.

| Shortcut | Description |
|---|---|
| **[Enter] t or d** | Current date |
| **y** | Yesterday |
| **Y** | Date prior to yesterday |
| **T** | Tomorrow |
| **m** | For start of current month |
| **M** | For end of current month |
| **w** | For start of current week |
| **W** | For end of current week |
| **l (lowercase L)** | for end of year before last financial year |
| **L** | For end of last financial year |
| **f** | For start of current financial year |
| **F** | For end of current financial year |

### Time and Date Format

These Time and Date formats relate to to thes Data Fields: Requested date, Collected Date, and Received Date.

| Example | Description |
|---|---|
| **0830** | 8:30 am, current date |
| **0830y** | 8:30 am, yesterday's date |
| **0830Y** | 8:30 am, date previous to yesterday |
| **0830t** | 8:30 am, today's date |
| **0830 12/12/16** | 8:30 am 12 December 2016 |
| **[Enter] or ? or //** | Unknown time on the current date |
| **?? or ////** | Unknown time on an unknown date |

## Billing Details

This section can be configured by your system administrator to be a part of the full reception entry screen and fields available may vary depending on business requirements.

### Data Fields

| Data Field | Description |
|---|---|
| **Account** | Account number for who will receive the account and is based on the patient's category. |
| **Agency** | The area health service providing the services. |
| **Category** | Patients billing category. Determines how the episode will be invoiced, for example: Bulk billed or health fund. |
| **Fee Rate** | Rate for the services to be charged. |

## 8.15    Incomplete

The Incomplete Reception Daysheet displays laboratory records entered via fast reception for the specified date that still require a complete registration. The default date will display the current day's entries.

- Use the blue arrows to scroll through the dates.

**8. Reception : Incomplete**

- The list may be sorted by clicking on a column header and searched by selecting the relevant column and typing a letter/number.  Use the space bar to clear the search.

**Function Buttons**

| Function | Description |
|---|---|
| **Enter Date [F8]** | Use this to search for fast registrations created on a specific date.<br><br>1.  Select the **Enter Date [F8]** function button**;**<br><br>2.  At the prompt "Enter date", enter a date (DDMMYY or DDMMYYYY);<br><br>3.  Select OK to continue or **[Enter]**.<br><br>The table displays the laboratory records for the requested date that require further registration details to be completed.<br><br>Alternatively use the arrows to view past and future dates. |
| **Image Reception [F7]** | Registration can be completed via the scanned image attached to the laboratory number.<br><br>1.  Select the **Image Reception [F7]** function button**;**<br><br>2.  The image reception screen opens with the data fields and the image that has been assigned to the laboratory number;<br><br>3.  The fields can be populated using the sections of the image for information;<br><br>4.  Select the **Save** icon at the top of the screen or press **[F4]** to save the registration. |
| **Container ID Search [SF9]** | Allows the user to search for a specific laboratory number within the list.<br><br>1.  Select the **Container ID Search [SF9]** function button;<br><br>2.  Enter the Laboratory Number or Applied Container ID;<br><br>3.  Select **[OK]** to continue or **[Enter]**;<br><br>4.  If the laboratory number entered is not present in the list the message *'Container not in list'* will display. |

## To Complete the Full Reception Entry

1. Highlight an entry and double-click or press **Enter**, the full reception screen will display..

2. Complete all required details via the Specimen Reception screen, as detailed here.

3. Select the **Save icon** at the top of the screen or press **[F4]** to save the registration.

## 8.16    Images

The 'Images' screen lists all the scanning and fax devices currently configured and includes the number of images that have been scanned by each device and are waiting to be attached to a laboratory number.

From this screen, images can be scanned via the device, assigned to a registered laboratory number or an image reception can be performed.

**To Access the Scanned Images or Device Details**

1.    Highlight the device of interest and double-click or press Enter;

2.    The 'Request Form Images' screen is displayed.

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Entry [F5]** | Removes the highlighted entry from the list. <br><br> 1.    Highlight an entry in the table; <br><br> 2.    Select the **Remove Entry [F5]** function button; <br><br> 3.    Click 'Yes' to continue. |
| **Assign To Lab No. [F6]** | Links image to a specific laboratory number. <br><br> 1.    Highlight the entry of interest; <br><br> 2.    Select the **Assign To Lab No. [F6]** function button**;** <br><br> 3.    The Request Form Assignment screen is displayed. |
| **Scan [F7]** | Initiates the scanning function of a scanner. <br><br> 1.    Place the documents in the scanning device; <br><br> 2.    Select the **Scan [F7]** function button to initiate the scan function. <br><br> 3.    As the documents are scanned into the system, an entry is generated displaying the laboratory numbers detected and barcode count. |
| **Image Reception [F8]** | Accesses Image Registration screen. <br><br> 1.    Select the **Image Reception [F8]** function button; <br><br> 2.    Confirm the laboratory number and UR number; |

| Function | Description |
|---|---|
| | 3.  The 'Image Registration' screen displays with associated data fields and the image that has been assigned to the laboratory number. |
| **Clear List [SF5]** | Clears all entries in the list.<br><br>1.  Select **Clear List [SF5]** function button**;**<br><br>2.  Click 'Yes' to continue. |

## To Refresh the Status Column

1.  Press the Esc button and re-enter the screen.

**Locked Image**

If a request form is being accessed somewhere else, the entry displays a 'Locked' status via the 'Status' column. Once the image is processed, the entry is removed from the table.

## Image Registration

This function is accessed by selecting the **Image Reception [F8]** function button and is used to complete sample reception using a scanned request form.

This screen is configurable by the system administrator, therefore the fields and images displayed and the navigation through the fields can be changed.

A registration can be completed in a similar way to full reception, using the relevant zones of the request form displayed alongside corresponding data entry fields.  Page up/down can be used to access other sections of the request form.

**Note:**  It is possible to zoom in (left mouse click) and zoom out (right mouse click) on the image segments.

Mandatory fields are indicated with a red asterisk (*). The registration cannot be completed (or saved) until all mandatory fields are populated. The **Lookup** icon or **[F1]** function key can be used to access the syntax help or data selection lists available in the fields.

Once the cursor is placed in a mandatory field, the field must be populated with valid data before the cursor can be moved to another field.

Barcodes can be scanned to enter data into fields as an alternative to manual entry or selection of an item from a data selection list.

## Assign Request Form

This screen is accessed by selecting the **Assign To Lab No. [F6]** function button and is used to assign a scanned image to a laboratory number.

### Function Buttons

| Function Button | Description |
|---|---|
| **Confirm [F5]** | Assigns the currently displayed image to the laboratory number in the Lab No field.<br><br>1. Verify or enter the corresponding laboratory number via the field;<br><br>2. Select the **Confirm [F5]** function button**;**<br><br>3. The prompt "*Image attached to lab number*" is displayed.<br><br>4. Click OK. The screen returns to the list of images via the Request Form Images screen.<br><br>5. If an image already exists, the prompt '*[number of images] image already. (A)dd or (V)iew?*' is displayed. Type 'A' to add the image or 'V' to view the existing image/s on the laboratory number. Select **[OK]** or press **[Enter]**.<br><br>6. When the laboratory number does not exist, the prompt '*Laboratory record not registered in Evolution*' is displayed. Select **[OK]** or press **[Enter]**. |
| **Confirm/Next [F6]** | Assigns the currently displayed image to the indicated laboratory number and automatically moves onto the next image for assignment. |
| **Confirm Many [F7]** | Assigns the currently displayed image to multiple laboratory numbers for the same patient.  The image remains displayed until all laboratory numbers have been assigned. |
| **Image Reception [F8]** | Enables the completion of sample reception using the image as information for corresponding data fields.<br><br>When this button is selected, the Image Registration screen opens with all reception features.  See Image Registration for more information. |
| **Clockwise [SF5]** | Rotates the image 90 degrees clockwise. |
| **Anticlockwise [SF6]** | Rotates the image 90 degrees anticlockwise. |

| Function Button | Description |
|---|---|
| **Restore Orientation [SF7]** | Restores the orientation back to the original view. |

## 8.17    Missing Forms

The 'Missing Forms' screen lists all of the laboratory numbers registered that do not have a request form attached.

- The list is specific to the laboratory/department currently logged into.

- The list can be sorted by clicking on a column heading.

- The list is displayed according to the laboratory number in the left column.

- Items are removed from the list when an image has been assigned to the laboratory number.

### To View Details

1.  Highlight the desired Laboratory Number and double-click or press **Enter**;

2.  The table displays each Laboratory Number, Patient Name, Registration Created Date, Status, List or Requests;

3.  Highlight an entry and double-click or press Enter to view the results screens for the Laboratory Number.

## 8.18    Billing Estimate

This screen is used to quickly calculate an estimate cost for the patient episode.

### To Calculate an Estimate

1.  Enter a valid UR Number;

2.  Enter the billing category;

3.  Enter any other mandatory details as indicated by a red asterisk (**\***);

4.  Enter the desired requests;

5.  Select the **Calculate [F5]** function button**;**

6.  The 'Billing Quote' dialog is displayed detailing the Schedule ID, Details of the entered test(s)/panel(s) and the $ Amount.

# 9   Processing

This section is for the processing of samples.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Aliquoting** | By entering a laboratory number, the aliquots required for work locations are displayed and allows additional aliquots to be created. Aliquot labels can be printed from this screen. |
| **Label Lists** | Used to generate labels for samples.  Format and quantity of labels are configured by the system administrator.  Labels can contain patient information; sample and/or test information, barcodes and text. |
| **Adhoc Labels** | Creates a list of entered laboratory number via Label List Entry [F6] or used to print a list of sequential laboratory numbers via Sequential Labels [F5].<br><br>**Note:** A location number as an alternative to the laboratory number cannot be used in the creation of ad-hoc labels. |
| **Manual QC** | To create and report manually entered quality controls or view manual QC data. |
| **Consumable Reception** | Allows new consumables (lot numbers) to be receipted into the laboratory. |
| **Consumable Inventory** | Shows all consumables that have lot numbers receipted for the laboratory the user is logged into. |
| **Equipment Inventory** | Shows all equipment that has been configured for the laboratory the user is logged into. |
| **Consumable Search** | Search for configured consumables (both active and inactive) irrespective of the laboratory and department. There is also the ability to perform a laboratory-based search by specifying the ~LAB in the mnemonic field. |
| **Equipment Search** | Provides a global search of ALL configured equipment (both active and inactive) irrespective of laboratory and department. There is also the ability to perform a laboratory-based search by specifying the ~LAB in the mnemonic field. |

## 9.1     Aliquoting

This function groups samples together for the same testing area and can be automatically assigned at the time of sample reception or manually created.

Please refer **here** for more information.

## 9.2     Label Lists

This function is used to generate labels. The label format and numbers of labels to be generated is predefined by the system administrator.

The label lists vary depending on the department the user is logged into as the lists may be department specific.

Labels can contain patient demographic, sample information, barcodes or text.

Common uses for label lists include:

- Media plate labels for Microbiology;

- Film/Slide labels for Haematology/Microbiology and/or Anatomical Pathology;

- Tube labels for frozen samples.

### To View Details

1.   Highlight an entry double-click or press Enter;

### Automatic Printing of Request Form Labels

It is possible to enable the automatic printing of a label for a paper request form at the time of saving a manual registration (that is, when a laboratory number is created in the system).

It will automatically print off labels for paper request form on:

- Manual Registrations

- Fast Registrations

- Copy Entry

- Image Reception.

It will NOT automatically print off labels on a Incomplete Reception Daysheet, or for any eOrders.

## 9.3     Selected Label List

The information displayed via the columns is configured by the system administrator, and can include information such as laboratory number, UR number, patient name, etc.

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Entry [F5]** | Removes an entry from the list. <br><br> 1.  Highlight an entry via the list; <br><br> 2.  Select the **Remove Entry [F5]** function button**.** <br><br> If the list contains a Status column, 'Deleted' is displayed. <br><br> **Note:** It is recommended that the list is configured with the status column so users can tell which labels have been removed - so they can be re-instated if required. |
| **Reinstate Entry [F7]** | Reinstates an entry that has been removed from the list. <br><br> 1.  Highlight the deleted entry via the list; <br><br> 2.  Select the **Reinstate Entry [F7]** function button.  The entry will remain on the list when the screen is refreshed. <br><br> **Note:**  The reinstate function is only be applicable <u>before</u> exiting the screen or before the screen is refreshed. |
| **Clear List [SF5]** | Removes all entries from the table. <br><br> 1.  Select the **Clear List [SF5]** function button**;** <br><br> 2.  The message 'Clear all entries in <Name of label list> laboratory list (y/n)?' is displayed. <br><br> 3.  Selecting Yes clears the list and all entries are removed. Selecting No returns to the list. |
| **Print Labels [SF7]** | Prints labels for all entries within the table. <br><br> 1.  Select the **Print Labels [SF7]** function button; <br><br> 2.  Labels are printed to the default label printer. |
| **Container ID Search** | Finds a container ID within the displayed label list. |

## To View Patient Details

1.  Highlight an entry via the list and double-click or press Enter.

## 9.4     Ad-Hoc Labels

This function is used to print one-off labels for a specific laboratory number or to print for specified sequential laboratory numbers.

- Location numbers can be used in place of the laboratory number (except for sequential labels).

- Mandatory fields are marked with a red asterisk (*).

**Note:**  The label format is configurable.

**Function Buttons**

| Function | Description |
|---|---|
| **Sequential Labels [F5]** | Allows a label list that includes laboratory numbers in a sequential order to be printed. |
| **Label List Entry [F6]** | Allows a label list that includes multiple laboratory numbers in random order to be created and printed. |
| **Print Labels [F7]** | Prints the specified labels. |
| **Insert [F5]** | Inserts additional laboratory numbers. |

**Data Fields**

| Data Field | Description | Lookup [F1] |
|---|---|---|
| **Label Type** | Type of label, for example: faeces, micro plate. | Yes |
| **Copies** | The default number of label copies that is configured for that label type. This field is non editable. | |
| **Multiples of copies** | The system will multiply the Multiples of copies field by the Copies field. The default value is 1. | |
| **Label Printer** | Default Label Printer that is configured for the label type. | Yes |

**Note:**  The function buttons display when the Label Type field is populated.

## To Print Labels Sequentially

1.  Enter a 'Label Type'.

2.  Enter the desired 'Label Printer'.

3.  Select the **Sequential Labels [F5]** function button;

4.  Enter the starting laboratory number **without** the check digit via the 'Start Lab Number' field and press Enter;

5.  Enter the finishing laboratory number **without** the check digit via the 'Finish Lab Number' field and press Enter;

6.  Select the **Print Labels [F7]** function button.

## To Print a List of Labels

1.  Select the **Label List Entry [F6]** function button;

2.  At the prompt "Enter Lab Number", enter the desired laboratory number (manually or barcode scan) and click OK or press Enter.  Only valid laboratory numbers can be entered;

3.  Continue until all laboratory numbers have been entered and Click OK or **Cancel**;

4.  Select the **Insert [F5]** function button to add additional laboratory numbers;

5.  Select the **Print Labels [F7]** function button to print the labels;

6.  When all the labels have been printed, the Label List Entry screen is cleared.

## To Clear the Adhoc Label Fields

1.  Select the Adhoc Labels tab. The screen remains displayed and the fields are cleared.

## 9.5     Manual QC

### Active Table [CF8] and Inactive Table [CF9]

This function lists all quality control (QC) files performed manually. These quality control files are made up of the different batch lots of the particular QC product and are listed as active or inactive according to their expiry and the number in stock.

•   Each quality control lot has a set of tests recorded and the expected results.

•   Quality control results can be viewed in this screen as numeric values or as a graph or monthly statistics.

**Note:**  Quality control files for automated analysers are created via the Analysers menu on the My Menu pane.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Active Table [CF8]** | Lists controls that are currently being used. |
| **Inactive Table [CF9]** | Lists controls that are not being used. |
| **QC Reports [CF7]** | Used to create QC reports.<br><br>1. Complete the details within the data fields;<br><br>2. Select the **Select** icon or press **[F12]** to generate the report;<br><br>3. The report is displayed via the lower section of the screen;<br><br>4. To view more specific details, highlight an entry and double-click or press **[Enter]**. |

**Note:** QC files for automated instruments are created via the Analysers menu.

**Function Buttons**

| Functions | Description |
|---|---|
| **Create [F6]** | Creates a new QC entry<br><br>1. Select the **Create [F6]** function button;<br><br>2. Via the 'Create Manual Entry Control' dialog, enter the required information via the associated fields;<br><br>**Note:** Mandatory fields are marked with a red asterisk (**\***);<br><br>3. Select **Save** or press **[F4]**, conversely, press the **Cancel** button to cancel. |
| **Edit/View Current QC Data [F7]** | Allows the current (active) Lot to be viewed and allows the QC information to be edited.<br><br>1. Highlight the desired entry and select the **Edit/View Current QC Data [F7]** function button**;**<br><br>2. The 'Control Tests' screen for the current active lot displays.<br><br>The test QC values can be edited using the **Edit** icon from the top of the screen once in the Control Tests screen.<br><br>The QC Data points can be added and annotated via the function keys displayed via the Control Tests screen. |

**Data Fields**

| Data Field | Description |
|---|---|
| **Control Type** | This field is not editable and 'Manual Entry' is populated automatically. |
| **Description** | Description of the QC material (**Lookup [F1]** available). |
| **Mnemonic** | Alpha numeric name used as a quick reference. |
| **Alias** | An alternative unique alpha numeric name if created. |
| **Lot Number** | The lot number of the batch of QC. |
| **Supplier** | The supplier of the QC material. |
| **Remarks** | Comments regarding the QC material and relevant to this lot number. |
| **Start Date** | Start date (DDMMYYYY) the lot number will be used from. |
| **Expiry Date** | Expiry date (DDMMYYYY) for the lot number. |
| **Active** | Indicates if the entry is in use or not, including Yes or No. |

## Control Lots

This screen is accessed by selecting an entry from the Manual Entry Controls screen.

- Highlight an entry and double-click or press Enter.
- This screen shows the Description, Mnemonic and Alias and the lots associated with the selected QC.
- It also displays whether the lot is in current use (active) or not.

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Creates a new QC entry<br><br>1. Via the 'Create Manual Entry Control' dialog, enter the required information via the associated fields;<br><br>**Note:** Mandatory fields are marked with a red asterisk (**\***);<br><br>2. Select **Save** or press **[F4]**. |

**9. Processing : Manual QC**

| Function | Description |
|---|---|
| **Edit/View Current QC Data [F7]** | Allows the current (active) Lot to be viewed and allows the QC information to be edited.<br><br>1. Highlight the desired entry and select the **Edit/View Current QC Data [F7]** function button**;**<br><br>2. The 'Control Tests' screen for the current active lot displays.<br><br>The test QC values can be edited using the **Edit** icon from the top of the screen once in the Control Tests screen.<br><br>The QC Data points can be added and annotated via the function keys displayed via the Control Tests screen. |
| **Create & Copy [F8]** | Allows the configuration of a new Lot on the Create Manual Entry Control screen and copies the tests and test values from the Lot that was highlighted when the function key was selected.<br><br>1. Highlight the Lot Number from the Control Lots table from which the tests and test value data is to be copied;<br><br>2. Select the **Create & Copy [F8]** function button**;**<br><br>3. The 'Create Manual Entry Control Lot' dialog displays populated with the control file details;<br><br>4. Only the Lot information is editable;<br><br>5. Select **Save** or press **[F4]**. |

**Create or Modify Control Test**

| Field | Description |
|---|---|
| **Test** | Select the test for this QC Material.  **Lookup [F1]** available. |
| **Target** | The target result value expected for this QC material.  This information is generally supplied by the manufacturer. |
| **T Sdev** | The target Standard Deviation expected for this QC material.  This information is generally supplied by the manufacturer. Values may vary depending on QC protocols. |
| **Low** | The lowest result value expected for this QC material. |
| **High** | The highest result value expected for this QC material. |
| **Westgard 1 2S** | The action to be taken for the Westgard rules. Select (F)lag. |

| Field | Description |
|---|---|
| **1 3S** | Select (F)lag. |
| **2 2S** | Select (F)lag. |
| **R 4S** | Select (F)lag. |
| **4 1S** | Select (F)lag. |
| **10X** | Select (F)lag. |
| **Outside Range** | Select (F)lag. |
| **Auto validate** | For manual QC material this automatically populates with 'no'. |

## Editing a Control Lot

1. Highlight the desired entry;

2. Select the **Edit** icon from the top of the screen or press **[F2]**;

3. The 'Modify Manual Entry Control Lot' screen displays with the current settings for the QC;

4. Make the required changes;

5. Select **Save** or press **[F4]** when finished editing;

6. To cancel the edit, select the **[Cancel]** button.

**Note:**  When using this method each test must have target ranges and Westgard rules entered via the Create function from the control tests screen.

## Control Tests

The Control Tests is accessed by selecting an entry via the Control Lots screen and displays the results entered for a given QC test.

**Function Buttons**

| Functions | Description |
|---|---|
| **Create [F6]** | Allows a new test to be added to the control lot.<br><br>1. Select the **Create [F6]** function button;<br><br>2. Via the 'Control Test Create' dialog, enter the required information via the associated fields;<br><br>3. Select **Save** or press **[F4]**. |

| Functions | Description |
|---|---|
| **Graph Controls (Current Lot) [F7]** | Displays the Levey-Jennings plot for the highlighted test. Can be filtered to display specific data. |
| **Graph Lot(S) [SF5]** | Displays the Levey-Jennings plot for the highlighted test. Can be filtered to display specific data.<br><br>1. Highlight the desired test and select the **Graph Lot(s) [SF5]** function button**;**<br>2. The View Type can be changed to view the Actual value or the Target value;<br>3. The Display Width can be changed to display a day, week, fortnight, month, two months, three months, six months or a year.<br>4. A start and end date can be entered. The use a date range, enter the days and select **[Submit]**;<br>5. Y Axis displays the QC result values;<br>6. X Axis displays the date the QC point was run;<br>7. The mouse can be used to move the data points;<br>8. Click 'Close' to exit the graph. |
| **Graph All Tests [CF6]** | Displays the Levey-Jennings Plot for all tests for the control and lot number. Can be filtered to display specific data.<br><br>1. Select the **Graph All Tests [CF6]** function button**;**<br>2. The View Type can be changed to view the Actual value or the Target value;<br>3. The Display Width can be changed to display a day, week, fortnight, month, two months, three months, six months or a year.<br>4. Tests within the control and be viewed or removed from the plot using the **[Add]** and **[Remove]** buttons.<br>5. A particular start and end date can be entered. The use a date range, enter the days and select **[Submit]**;<br>6. Y Axis displays the QC result values;<br>7. X Axis displays the date the QC point was run;<br>8. The mouse can be used to move the data points;<br>9. Click 'Close' to exit the graph. |

| Functions | Description |
|---|---|
| **Data Points [CF7]** | Displays the time/date of entry, the user and the corresponding value for the test.  Annotations are also included.  Data points can be activated and deactivated.<br><br>1.  Highlight the desired test and select the **Data Points [CF7]** function button;<br><br>2.  Highlight an entry and select a function from the top of the table;<br><br>3.  Use the **Back** icon or **[Esc]** to return to the previous screen. |
| **Monthly Statistics [CF8]** | Displays the mean result for each test for each day of the month. Can filter using the date.<br><br>1.  Highlight the required test and select the **Monthly Statistics [CF8]** function button**;**<br><br>2.  Use the **Enter Date [F8]** function button to filter results;<br><br>3.  The blue arrows can be used to move backwards or forwards by month;<br><br>4.  Use the **Print** icon to print the report;<br><br>OR<br><br>5.  Use the **Export** icon to save the file.<br><br>When the export icon is selected, the data is exported to the PC as a CSV file (comma separated file). |

## To Edit Test Values and Westgard Rules

1.  Highlight an entry via the 'Control Tests' screen;

2.  Select the **Edit** icon from the top of the screen or press **[F2];**

3.  The 'Control Test Modify' dialog displays with the current settings for the associated QC;

4.  Make the required changes;

5.  Select **Save** or press **[F4]** when finished editing;

6.  To cancel the edit, click **Cancel**.

### Graphing Results

- If the display width is less than the date range as determined by the start and end date; (for example: the date range is a year and the display width is a fortnight), then the X-Axis of graph may be scrolled to the left and right using the mouse or the left and right arrows on

either side of the displayed date range at the bottom of the graph. The vertical scroll bar to the right side of screen is used to navigate to view graphs other tests.

- Reference Lines will be enabled if only one Lot is graphed. If more than one Lot is graphed then the Reference Lines may also be enabled, if they have been configured for the test.

- A selected area of the graph can be zoomed by selecting the right mouse and dragging to the right to display a box and then releasing the mouse.

- The display area of the graph can be scrolled by clicking and holding the mouse and dragging it to another side of the screen and then releasing the mouse.

## Manual Entry QC Points

This screen is where the results obtained from analysis of the test within the QC lot can be entered. Each test has a separate Manual Entry QC Points screen accessed from the Control Tests screen.

- The screen displays with a header pane and a table.

- The header pane is non-editable and displays information relating to the statistics of the results already obtained and the expected result parameters for this test relating to Lot and Control material.

- Abnormal results are highlighted.

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Add a QC test value or insert a comment (without a QC test value). <br><br> 1. Select the **Create [F6]** function button; <br><br> 2. Via the 'Manual Control QC Points' dialog, enter the required information via the associated fields; <br><br> 3. Select **Save** or press **[F4]**. |
| **Deactivate Datapoint [F7]** | Deactivates the data point and removes it from the statistical calculations. <br><br> 1. Highlight the data point and select the **Deactivate Datapoint [F7]** function button**.** The status field updates to 'Deactivated'. |
| **Date Range [F9]** | Filters the QC data points based on a particular date. <br><br> 1. Select the **Date Range [F9]** function button**;** <br><br> 2. Enter start date (DDMMYY or DDMMYYYY format); <br><br> 3. Enter end date (DDMMYY or DDMMYYYY format); |

| Function | Description |
|---|---|
| | 4.   The QC data points for the entered date range are displayed.<br><br>**To Cancel the Date Range Filter:**<br><br>1.   Select the **Date Range [F9]** function button, again.<br><br>2.   At the prompt "*Enter Start Date*", click OK;<br><br>3.   All QC data is displayed. |
| **Annotate [SF5]** | Adds a note to a data point. Amendments cannot be made to existing annotations.<br><br>1.   Highlight a data point in the table;<br><br>2.   Select the **Annotate [SF5]** function button.<br><br>3.   Enter a note;<br><br>4.   Select **[OK]** or press **[F4]** to save or **Cancel** to close.<br><br>**Note:** Data points can only be annotated if there are no other existing notes.  If an annotation exists, the error message *'Cannot change an existing annotation'* is displayed. |
| **Graph [CF5]** | Displays QC data in graph format (Levey-Jennings plot).<br><br>1.   Select the **Graph [CF5]** function button. The Levey-Jennings graph is displayed. |
| **Reactivate Datapoint [CF7]** | Reactivates a QC data point to be included in the statistical calculations.<br><br>1.   Highlight the data point and select the **Reactivate Datapoint [CF7]** function button.<br><br>2.   The 'Deactivated' status is removed from the Status field. |

## 9.6      QC Reports [CF7]

QC Reports can be generated for all analytes or individual analytes may be specified. The report may contain current lots only or include previous lots.

i)   The QC report may also be restricted by a date range or by the user who enters results.

ii)   The report will display the calculated mean, standard deviation, CV, target and target SD, the number of out of range, deactivated and total results.

### To Generate a QC Report

1.   Enter a start date via the *'Start Date'* field (DDMMYYYY or DDMMYY format). QC results entered from this date onwards will be collated;

2. Enter a finish date via the *'Finish Date'* field. QC result entered up to and including this date will be collated;

> **Note:** All tests will include all the tests contained in manual QC files for the current laboratory group.

3. Via the *'Control'* field, enter the control to be reported. **Lookup [F1]** is available. Leave this field blank if all controls are to be reported;

4. If a particular Control has been entered, a Lot Number can be entered in the *'Lot Number'* field. **Lookup [F1]** is available. Leave this field blank if all lot numbers are to be reported;

5. Enter the mnemonic of the test required via the 'Test' field. Leave this field blank if all tests are to be reported;

6. Select the **Select** icon from the top of the screen or press **[F12]** to generate the report;

7. The report may be printed or exported if required.

**Function Buttons**

| Function | Description |
|---|---|
| **Graph Lot(s) [SF5]** | Displays the Levey-Jennings Plot for the selected lot number. Can be filtered to display specific data. <br><br> 1. Highlight the desired test and select the **Graph Lot(s) [SF5]** function button. <br><br> 2. Y Axis displays the QC result values; <br><br> 3. X Axis displays the date the QC point was run. |

## 9.7    Consumable Reception

This function is used to receipt new consumables into the laboratory recording lot numbers and the corresponding expiry date and also provides electronic record of consumables for the laboratory.

Auditing is available for improved quality practices and processing.

> **Note:** Active pre-configured consumables can only be receipted for the department and laboratory currently logged into.

| Field | Description | Lookup [F1] |
|---|---|---|
| **Consumable** | The mnemonic is entered, or product barcode is scanned into this field.<br><br>**Note:**  Consumables are laboratory and department specific. | Yes |
| **Lot Number** | The lot number corresponding to the consumable being entered.  Alphanumeric characters can be included, that is: dashes (-) and slashes (/) | |
| **Expiry Date** | Expiry date in the format DDMMYYYY or DDMMYY. | |

Select the **Save** icon from the top of the screen or press **[F4]** to save new consumable lot.

## 9.8    Consumable Inventory

This is an electronic record of consumables for the laboratory and auditing is available for improved quality practices and processing.

Information displayed is department specific and the default primary sort is by manufacturer.

**Function Buttons**

| Function | Description |
|---|---|
| **View All Lots [F5]** | Displays all the lots irrespective of its status.<br><br>1.    Highlight the desired entry and select the **View All Lots [F5]** function button.<br><br>To view by status:<br><br>1.    Highlight an entry and double-click or press Enter. The default display shows lots currently in use. |

## View All Lots for a Selected Consumable

- Displays all lots for the selected consumable.

- Status may be Not In Use, In Use, Expired, or Recalled.

- Displays by received date.

**Function Buttons**

| Function | Description |
|---|---|
| **Consumable Lot Audit [SF8]** | Displays the audit history of the selected lot. <br> 1. Highlight the desired entry; <br> 2. Select the **Consumable Lot Audit [F8]** function button. <br> 3. The audit history for the selected consumable is displayed. |

## Consumable Audit for Selected Consumable

- Displays all recorded activity made against the selected consumable.

- The top half of the screen shows the consumable details.

- The lower half of the screen lists the audit events.

- Includes a time/date stamp, user login and the associated laboratory and a description of the event.

**Function Buttons**

| Function | Description |
|---|---|
| **Insert Audit Entry [CF7]** | Allows for the manual entry of an event relevant to the consumable <br> 1. Select the **Insert Audit Entry [F7]** function button. <br> 2. At the prompt "*Enter audit message*", enter the desired text. <br> 3. Select **OK** or press **[Enter]** or **[F4]** to save. <br> 4. Select **Cancel** to cancel. <br> **Note:** Audit entries can only be added, existing entries are stored permanently and cannot be deleted or changed. |

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## Consumable Inventory for a Selected Item

- Displays consumable lots that have the status set to *'In Use'*.

- To view lots with a different status, change the Status filter.

**Function Buttons**

| Function Button | Description |
|---|---|
| **Filter [F8]** | Allows access to the filter by Lot number, Status and Expiry.<br><br>1. Select the **Filter [F8]** function button.<br><br>2. Enter the filter requirement, for example: Lot number, Status or Expiry Date;<br><br>3. Press **[Enter]**;<br><br>4. The filtered items are displayed;<br><br>5. Click the **Select** icon or press **[F12]** to access an associated entry. |
| **Change Status [SF5]** | Changes the status of the consumable; *'Not In Use'*, *'In Use'*, 'Recalled' or *'Expired'*.<br><br>1. Highlight the desired entry.<br><br>2. Select the **Change Status [F5]** function button.<br><br>3. At the prompt *"Change status to?"*, enter the required status. **Lookup [F1]** is available.<br><br>4. At the prompt *"Confirm status change to XXXX (Y/N)?"*, click Yes to proceed or No to cancel. |
| **Consumable Lot Audit [SF8]** | Displays the audit history of the selected lot.<br><br>1. Highlight the desired entry and select the **Consumable Lot Audit [F8]** function button. |

## To View Consumable Configuration & Batch Groups

1. Highlight the desired entry and double-click or press Enter.

This is a non-editable screen.

## Consumable Configuration

This screen is non-editable and is for information purposes only.

**Data Fields**

| Field | Description |
|---|---|
| **Mnemonic** | A unique alphanumeric name for the consumable. |
| **Alias** | An alternative name for the consumable. |
| **Description** | Description of the consumable. |
| **Manufacturer** | The name of the manufacturer of the consumable. |
| **Product Barcode** | A barcode unique to the consumable. |
| **Sub Product Barcode** | A sub product barcode unique to the consumable. |
| **Sub Product Quantity** | A numerical value to specify the sub product quantity for the consumable. |
| **Trackable** | Specifies whether this consumable is trackable or not. |
| **Catalogue Number** | The catalogue/ordering number for the consumable. |
| **Preferred Supplier** | Enter the preferred supplier of the consumable. |
| **Division** | The division the consumable applies to. |
| **Department** | The department the consumable applies to. Multiple departments can be entered. |
| **Active** | Specifies whether the entry is active. |
| **Created, Modified** | The time and date (hh:mm dd-mmm-yyyy) the entry was created and last modified. |
| **Modified By** | The mnemonic of the user who last modified the entry. |
| **Batch Groups (multiple fields)** | The Batch Group(s) that have access to the consumable. |

## 9.9  Equipment Inventory

This function is an electronic record of equipment for the laboratory and auditing is available for improved quality practices and processing.

It displays equipment relevant to the department/laboratory currently logged into and the default primary sort order is by mnemonic.

**Function Buttons**

| Function | Description |
|---|---|
| **Change Status [SF5]** | Changes the equipment status to 'Not In Use' or *'In Use'*.<br>1. Highlight the desired entry.<br>2. Select the **Change Status [SF5]** function button;<br>3. At the prompt, enter the required status. **Lookup [F1]** available;<br>4. Click OK or press Enter;<br>5. At the prompt, click Yes or press Enter to confirm the status change. |
| **Audit [SF8]** | Displays the audit trail of the selected entry.<br>1. Highlight the desired entry.<br>2. Select the **Audit [SF8]** function button. |

**Note:** By default, new equipment is given the status *'Not In Use'*. This means that new equipment cannot be used until the status is altered to *'In Use'*.

## Equipment Audit for Selected Equipment

This function displays all recorded activity made against the selected equipment.

- It includes a time/date stamp, user login and the associated laboratory and a description of the event.
- The top half of the screen displays the equipment details.
- The lower half of the screen lists the audit events.

**Function Button**

| Function | Description |
|---|---|
| **Insert Audit Entry [CF7]** | Allows for the manual entry of an event relevant to the equipment.<br>1. Select the **Insert Audit Entry [CF7]** function button.<br>2. At the prompt, enter an audit message;<br>3. Select OK or press **[Enter]** or **[F4]** to save.<br>**Note:** Audit entries can only be added, existing entries are stored permanently and cannot be deleted or changed. |

## Equipment Configuration

This screen is non-editable and is for information purposes only.

**Data Fields**

| Field | Description |
|---|---|
| **Mnemonic** | A unique alphanumeric name for the equipment. |
| **Alias** | An alternative name for the equipment. |
| **Description** | Description of the equipment. |
| **Manufacturer** | The name of the manufacturer of the equipment. |
| **Serial Number** | The serial number associated with the equipment. |
| **Barcode** | A barcode unique to the equipment. |
| **Division** | The division the equipment applies to. |
| **Department** | The department the equipment applies to. Multiple departments can be entered. |
| **Active** | Specifies whether the entry is active. |
| **Created, Modified** | The time and date (hh:mm dd-mmm-yyyy) the entry was created and last modified. |
| **Modified By** | The mnemonic of the user who last modified the entry. |
| **Batch Groups** | The Batch Group(s) that have access to the equipment. |

## 9.10   Consumable Search

Complete a global search of all laboratory records associated with a configured consumables (both active and inactive) irrespective of laboratory and department.

**Data Fields**

| Field | Description | Lookup [F1] |
|---|---|---|
| **Mnemonic** | Enter the mnemonic of the consumable. Specifying the ~LAB for the consumable mnemonic will perform a laboratory-based search. To perform a global search, populate the field without the ~LAB. | Yes |
| **Lot Number 1 – 10** | Enter the Lot number of the consumable to refine the search. As many as 10 different Lot numbers can be entered. | |

1. As a minimum, enter a mnemonic (F1 Lookup is available).
2. Click the **Select** icon from the top of the screen or press **[F12]** to execute the search.

## Consumable Search Results

The Consumable Search results displays all the consumables as entered via the filter.

**Function Buttons**

| Function | Description |
|---|---|
| **Recall [F5]** | Changes the status of the consumable lot to Recalled. <br> 1. Select the **Recall [F5]** function button; <br> 2. Enter the reason for the recall; <br> 3. Click OK or press Enter to save. <br> **Note:** An audit event is recorded via the consumable lot audit and the patient's material audit when this action is performed. Once recalled, it cannot be assigned to a patient record.  The status will remain as 'Recalled' permanently and cannot be changed. Only specific users with privilege access can recall consumables. |
| **Display Patients [F7]** | Display patients who have been assigned the consumable <br> 1. Highlight the desired entry; <br> 2. Select the **Display Patients [F7]** function button. <br> To access details regarding the patient laboratory numbers and the lots assigned, highlight an entry and double-click or press Enter. |

| Function | Description |
|----------|-------------|
| **Recall All [SF5]** | Changes the status of all lots of the consumable to Recalled.<br><br>1. Select the **Recall All [SF5]** function button;<br>2. Click Yes to confirm your action;<br>3. Enter the reason for the recall;<br>4. Click OK or press Enter to save.<br><br>**Note:** An audit event is recorded via the consumable lot audit and the patient's material audit when this action is performed. Once recalled, it cannot be assigned to a patient record. The status will remain as 'Recalled' permanently and cannot be changed. Only specific users with privilege access can recall consumables. |

## To View Consumable Configuration Screen (Read Only Mode)

1. Highlight the desired entry and double-click or press Enter.

## 9.11　Equipment Search

This function allows a user to conduct a global search of all configured equipment (both active and inactive) irrespective of laboratory and the department.

**Data Field**

| Field | Description | Lookup [F1] |
|-------|-------------|-------------|
| **Mnemonic** | Enter the mnemonic assigned to the equipment being searched for.<br><br>Specifying the ~LAB for the equipment mnemonic will perform a laboratory-based search.<br><br>To perform a global search, populate the field without the ~LAB. | Yes |

1. Enter the equipment mnemonic via the mnemonic field and press Enter;
2. Use **Lookup [F1]** to access the 'Equipment' list to select the desired equipment mnemonic, then double-click or press Enter.

## Equipment Search Results

**Function Buttons**

| Function | Description |
|---|---|
| **Recall [F5]** | Changes the status of the equipment to Recalled.<br><br>• Select the **Recall [F5]** function button;<br>• At the prompt "Recall reason?", enter the reason for the recall;<br>• Click OK or press Enter to save.<br><br>**Note:** An audit event is recorded via the equipment audit and the patient's material audit when this action is performed.<br><br>Once recalled, it cannot be assigned to a patient record.  The status will remain as 'Recalled' permanently and cannot be changed.  Only specific users with privilege access are able to recall consumables. |
| **Display Patients [F7]** | Display patients who have been assigned the equipment.<br><br>1. Highlight an entry within the table;<br>2. Select the **Display Patients [F7]** function button;<br>3. To access details regarding the patient laboratory numbers and the equipment, highlight the desired entry and double-click or press Enter. |

# 10    Tracking

This function enables the tracking of samples within and across the laboratory network. Submenu tabs available in this section are:

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Packing** | Lists used to electronically transfer samples between laboratories. Caters for refrigerated and frozen samples. |
| **Receive** | Lists used to electronically receipt samples received into a laboratory from another location within the same **Evolution ®®** network. |
| **Storage** | Electronically records the storage location of samples in a designated area. |
| **Sample Storage Search** | Searches the system for a specific sample by Laboratory or UR number. |
| **Disposal Sample List** | Lists samples ready for disposal. |
| **Sample Review List** | Lists samples in need of review. |

## 10.1    Packing

This function is used to transfer samples between sites.

- Samples can be added to packing lists at the time of registration automatically via default laboratory configuration against the test or panel or via test processing rules.

- If the receiving laboratory is an external provider samples can still be added to a packing list. The work assigned for referral to an outside laboratory remains on the Outstanding Worklists of the sending laboratory.

- The Location number can be used as an alternative to the laboratory number.

- Packing Lists and Received Lists are configured by the system administrator. The Prefix and Definitions for these lists are as follows:

    o   PL_ are sample Packing Lists

        ▪   FPL_ is Frozen sample Packing List

        ▪   RPL_ is Room temperature Packing List

    o   RL_ are sample Receive Lists.

        ▪   FRL - Frozen Receive List

- ▪ RRL - Room temperature Receive List
- The suffix of the list denotes where the referred work is to be sent to, for example: PL_AT refers to the refrigerated sample packing list for the Atherton laboratory (AT = Atherton).

**To View Details**

1. Highlight the desired Packing List and double-click or press Enter. The laboratory records via the associated list are displayed.

## Selected Packing List

This is a list of samples to be sent to the corresponding laboratory for testing.

**Function Buttons**

| Function | Description |
|---|---|
| **Transfer And Clear [F6]** | Transfers the highlighted entry to the corresponding receive list and removes the sample from the packing list.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Transfer and Clear [F6]** function button. The Status column (if configured, recommended) updates to *'Transferred'*;<br><br>3. When the list is refreshed, the entry is removed;<br><br>4. The sample audit is updated with the transfer of the sample. |
| **Reinstate Entry [F7]** | Used to reverse a transfer or removal if performed in error. This function must be performed before leaving the screen.<br><br>1. Highlight the entry with the *Transferred* or *Deleted* status;<br><br>2. Select the **Reinstate Entry [F7]** function button. The status will be removed;<br><br>3. The entry will remain on the list when the list is refreshed. |

**10. Tracking : Packing**

| Function | Description |
|---|---|
| **Print Request [F8]** | Prints a system generated request form for the highlighted entry if a report has been configured for this packing list.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Print Request [F8]** function button;<br><br>3. At the prompt "Enter printer", enter a printer mnemonic. (**F1 Lookup** is available);<br><br>4. Select the required printer and click **OK** or press Enter to print the request form or click **Cancel** to close the dialog without printing. |
| **Create List [SF5]** | Creates a packing list of selected entries within the table.<br><br>1. Select the **Create List [SF5]** function button;<br><br>2. The 'Create Packing List' screen is displayed.<br><br>3. Select the **Insert Entries [SF7]** function button;<br><br>4. Enter or scan the laboratory number/s to be added to the packing list;<br><br>5. Click OK to add samples or **Cancel** to finish;<br><br>6. The table is updated with the samples;<br><br>7. Continue this procedure until all the entries required have been added to the packing list.<br><br>**Note:** If the laboratory or container number scanned does not exist on the list the system will prompt 'Identifier not in original list'. Press **OK** to continue. |
| **Transfer And Clear All [SF6]** | Transfers all the entries in the list to the corresponding receive list and removes them from the packing list.<br><br>1. Select the **Transfer and Clear All [SF6]** function button;<br><br>2. The Status column updates as '*Transferred*';<br><br>3. When the screen is refreshed, all the entries are removed;<br><br>4. The sample audit is updated with the transfer for each sample. |

| Function | Description |
|---|---|
| **Remove Entry [SF7]** | Deletes entries from the packing list<br><br>1. Highlight the desired entry;<br><br>2. Select the **Remove Entry [SF7]** function button;<br><br>3. Select Yes or press Enter to remove the entry;<br><br>4. The Status column updates as *'Deleted'*;<br><br>5. When the list is refreshed, the entry is removed;<br><br>6. The sample audit is updated with the removal of the sample;<br><br>7. Select the **Reinstate Entry [F7]** function button to reverse the action. |
| **Print All Requests [SF8]** | Prints system generated requests for the all entries if a report has been configured for the packing list.<br><br>1. Select the **Print All Requests [SF8]** function button;<br><br>2. At the prompt "Enter printer", enter a printer mnemonic. (**F1 Lookup** is available);<br><br>3. Select the required printer and click OK or press Enter to print the request form or click **Cancel** to close the dialog without printing. |
| **Container ID Search [SF9]** | Used to search for a Laboratory Number , Container ID or Location Number within the packing list.<br><br>1. Select the **Container ID Search [SF9]** function button;<br><br>2. At the prompt "*Container ID:*" enter a container ID;<br><br>3. Click OK or press Enter;<br><br>4. The requested entry is highlighted via the associated screen. |

## To View a Laboratory Record

1. Highlight the desired entry and double-click or press Enter. The associated results screen is displayed.

## Create Packing List

This function creates a packing list using selected entries from the existing table. This is useful if you only have some of the samples available.

• The screen is blank until entries are added.

**Note:** The associated function buttons can be viewed via the Selected Packing List section above or click **here**.

**Note:** Samples on packing lists are viewable via all incomplete lists until transferred to the testing laboratory. Requests sent are placed on hold at the sending laboratory until received at the testing laboratory.

## 10.2     Receive

This function is used to receipt samples into a laboratory. Once the transfer is accepted, sample requests are placed onto the appropriate system lists and work lists.

- The entry will be viewable on the applicable receive list at the destination laboratory specific to that sending laboratory. This only applies to laboratories in the network when, as soon as a sample is transferred:
    - from a packing list to the destination laboratory, and
    - the packing list is refreshed.

- When samples are accepted, they are placed on to corresponding system/work lists.  Prior to being accepted the sample will not populate system/work lists.

- Receive lists are configured by the system administrator.

- Lists with a prefix of RL_ are refrigerated sample receive lists.

- Lists with a prefix of FRL_ are frozen sample receive lists.

- The suffix following the _ refers to the laboratory where the referred work originated from, for example: RL_AT refers to the refrigerated sample receive list from the Atherton laboratory (AT = Atherton).

### To View Details of a Receive List

1.  Highlight the desired entry and double-click or press Enter. The laboratory records within that specific list are displayed.

### Selected Receive List

Displays all samples to be receipted into the laboratory.

**Function Buttons**

| Function | Description |
|---|---|
| **Accept Transfer [F6]** | Transfers the highlighted entry into the laboratory and removes the sample from the receive list. |

| Function | Description |
|---|---|
| | 1. Highlight the desired entry; |
| | 2. Select the **Accept Transfer [F6]** function button**.** The Status column (if configured, recommended) updates as *'Accepted'*; |
| | 3. When the list is refreshed, the entry is removed; |
| | 4. The sample audit is updated with the acceptance of the sample into the laboratory. |
| | 5. The sample is then added to corresponding system/work lists for its requested test/s at the receiving laboratory. |
| **Reinstate Entry [F7]** | Used to reverse a transfer or removal if performed in error. This function must be performed before leaving the screen. |
| | 1. Highlight the entry with the *Accepted* or *Deleted* status; |
| | 2. Select the **Reinstate Entry [F7]** function button. The status is removed; |
| | 3. The entry remains via the list when the list is refreshed. |
| **Remove Entry [SF7]** | Deletes entries from the receive list. |
| | 1. Highlight the desired entry; |
| | 2. Select the **Remove Entry [SF7]** function button. |
| | 3. Select Yes or press Enter to remove the entry; |
| | 4. The Status column is updated as *'Deleted'*; |
| | 5. When the list is refreshed, the entry is removed. |
| | 6. The sample audit is updated with the removal of the sample; |
| | 7. Select the **Reinstate Entry [F7]** function button to reverse the action. |
| **Container ID Search [SF9]** | Used to search for a Laboratory Number , Container ID or Location Number within the receive list. |
| | 1. Select the **Container ID Search [SF9]** function button; |
| | 2. At the prompt *"Container ID:"*, enter a container ID; |
| | 3. Click OK or press Enter; |
| | 4. The requested entry is highlighted via the associated screen. |

## 10.3    Storage

This function is used to record the storage of samples in the laboratory. This menu allows the addition, borrowing, returning or removing of patient samples into storage areas.

Some storage areas can have added security features and will only allow certain users to use the storage functions or require a user with certain privilege to authorise the movement.

These samples will have the status of Locked and normal functions can only be performed after an authorisation has occurred.

1.  Enter a storage area mnemonic and press **[Enter]**. **Lookup [F1]** is available to select from a list of configured storage areas;

2.  The returned table lists all samples stored within the selected storage area.

### Sample Storage – Details

Lists all the samples entered into the storage area.

**Function Buttons**

| Function | Description |
|---|---|
| **Add Sample [F5]** | Allows an individual sample to be added to the storage area.  By highlighting an available position of the storage area and using **Add Sample,** the sample is added to that position.  Otherwise the sample is added to the next available position. <br><br> 1.  Select the **Add Sample [F5]** function button; <br><br> 2.  At the prompt "*Enter Lab no for XXX*", enter or barcode scan the laboratory number or location number of the sample to be added; <br><br> **Note:** XXX is a description of the storage position, that is: Row 1, Column 1, etc. <br><br> 3.  Click **[OK]** or press **[Enter]**; <br><br> 4.  Enter a comment if required – optional; <br><br> 5.  Select **[OK]** or press **[Enter]** to add the sample; <br><br> 6.  The sample is added to the available position; <br><br> 7.  An audit event is recorded against the laboratory record via the Sample and Storage Audits. |
| **Remove Sample [F6]** | Removes a sample from its storage position. <br><br> 1.  Highlight the desired entry and select the **Remove Sample [F6]** function button; |

| Function | Description |
|---|---|
| | 2. At the prompt "*Are you sure you want to remove XXXX?*", select **[Yes]** to confirm the removal of the sample;<br><br>3. Enter a comment if required – optional;<br><br>4. Select **[OK]** or **[Enter]** to save;<br><br>5. The sample is immediately removed from the list;<br><br>6. An audit event is recorded against the laboratory record via both the Sample and Storage Audits.<br><br>**Note:**  A sample can only be removed from storage area if the status is *Occupied*. |
| **Borrow Sample [F7]** | Borrows a sample and reserves its position for when it is returned.<br><br>1. Highlight the desired entry and select the **Borrow Sample [F7]** function button;<br><br>2. Enter a comment if required – optional;<br><br>3. Select **[OK]** or **[Enter]**;<br><br>4. The sample status is immediately marked as *Borrowed*;<br><br>5. An audit event is r ecorded against the laboratory record via both the Sample and Storage Audits.<br><br>**Note:**  A borrowed sample can be added to another storage location without being returned to the original storage location. |
| **Return Sample [F8]** | Returns the sample (that was previously borrowed) to storage in its reserved position.<br><br>1. Highlight the sample to be returned and select the **Return Sample [F8]** function button;<br><br>2. Enter a comment if required – optional;<br><br>3. Select **[OK]** or **[Enter]** to save;<br><br>4. The status of the stored sample changes from *Borrowed* to *Occupied*;<br><br>5. An audit event is recorded against the laboratory record via both the Sample and Storage Audits.<br><br>**Note:**  A sample can only be returned to storage if the status is *Borrowed*. |
| **Fill Rack [SF5]** | Used to add multiple samples to the storage area at one time.<br><br>1. Select the **Fill Rack [SF5]** function button;<br><br>2. At the prompt "*Enter Lab no for XXX*", enter or barcode scan the laboratory number or location number of the sample to be added; |

| Function | Description |
|---|---|
|  | 3.   Select **[OK]** or press **[Enter]**; <br><br> 4.   The sample is added to the next available position; <br><br> 5.   Continue this procedure until all samples have been added; <br><br> 6.   Once all the samples have been added select **[OK]** or **[Cancel]** or press **[Enter]** when finished. |
| **Transfer Sample [SF7]** | Used to transfer samples from one storage area to another within the division. <br><br> 1.   Highlight the desired entry and select the **Transfer Sample [SF7]** function button; <br><br> 2.   At the prompt "*Bulk transfer?*", select **[Yes]** to transfer more than one sample or **[No]** to transfer a single sample. <br><br> **Note:** If *Yes* is selected, the user is prompted to enter the laboratory numbers or location numbers involved in the transfer. If *No* is selected, the highlighted sample will be transferred; <br><br> 3.   At the prompt "*Enter transfer destination:*", enter the transfer storage location. **Lookup [F1]** available; <br><br> 4.   At the prompt "*Confirm transfer to XX*", click **[OK]** or press **[Enter]** to transfer the sample; <br><br> 5.   At the prompt, select **[Yes]** or press **[Enter]** to confirm the transfer; <br><br> 6.   Enter a comment if required – optional; <br><br> 7.   Click **[OK]** or press **[Cancel]**; <br><br> 8.   The sample is removed from the storage area being viewed and is added to the transfer storage destination; <br><br> 9.   An audit event is recorded against the laboratory record via both the Sample and Storage Audits. |
| **Clear Rack [SF8]** | Deletes all samples from the storage area, making it available for new samples. <br><br> 1.   Select the **Clear Rack [SF8]** function button; <br><br> 2.   At the prompt "*Are you sure you want to remove ALL samples*", click **[Yes]** to confirm the removal of all samples; <br><br> 3.   Enter a comment if required – optional; <br><br> 4.   Select **[OK]** or **[Enter]**; |

| Function | Description |
|---|---|
|  | 5.   All samples are immediately removed from the list and audit events are recorded via both the Sample and Storage Audits. |
| **Authorise Sample [CF9]** | If the security feature has been enabled for a rack, a sample with the status *Locked* can only proceed with normal functions if authorised to do so.  These samples will have the status *Release Requested* and only users with a certain privilege will be able to use this function.<br><br>1.   Highlight the sample with the status '*Release Requested*';<br><br>2.   Select the **Authorise Sample [F9]** function button;<br><br>3.   The status of the sample is updated to '*Available*' and normal functions can be used.<br><br>All events are recorded via the Sample Audit. |
| **Reject Sample [CF10]** | If the security feature has been enabled for a rack, a sample with the status *Locked* can only proceed with normal functions if authorised to do so.  These samples will have the status *Release Requested* and only users with a certain privilege will be able to use this function.<br><br>1.   Highlight the sample with the status '*Release Requested*';<br><br>2.   Select the **Reject Sample [CF10]** function button;<br><br>3.   The status of the sample is updated to '*Locked'* and normal functions can only be used after authorisation.<br><br>All events are recorded via the Sample Audit. |

## To View Patient Results

1.   Highlight the desired sample and double-click or press Enter.

2.   The patient's results screen is displayed.

## Sample Storage - Outstanding Work [SF6]

This function is used to display samples currently in the selected storage location that have outstanding work, that is: one or more tests have not been validated.

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Sample [F6]** | Removes a sample from its storage position. <br><br> 1. Highlight the desired entry and select the **Remove Sample [F6]** function button; <br><br> 2. At the prompt "*Are you sure you want to remove XXXX?*", select **[Yes]** to confirm the removal of the sample; <br><br> 3. Enter a comment if required – optional; <br><br> 4. Select **[OK]** or **[Enter]** to save; <br><br> 5. The sample is immediately removed from the list; <br><br> 6. An audit event is recorded against the laboratory record via both the Sample and Storage Audits. <br><br> **Note:**  A sample can only be removed from storage area if the status is *Occupied*. |
| **Borrow Sample [F7]** | Borrows a sample and reserves its position for when it is returned. <br><br> 1. Highlight the desired entry and select the **Borrow Sample [F7]** function button; <br><br> 2. Enter a comment if required – optional; <br><br> 3. Select **[OK]** or **[Enter]**; <br><br> 4. The sample status is immediately marked as *Borrowed*; <br><br> 5. An audit event is r ecorded against the laboratory record via both the Sample and Storage Audits. <br><br> **Note:**  A borrowed sample can be added to another storage location without being returned to the original storage location. |
| **Remove All Outstanding Samples [SF6]** | Deletes all samples from the storage area. <br><br> 1. Select the **Remove All Outstanding Samples [SF6]** function button; <br><br> 2. At the prompt "*Are you sure?*", click **[Yes]** to confirm the removal of all samples; <br><br> 3. Enter a comment if required – optional; <br><br> 4. Select **[OK]** or **[Enter]**. <br><br> All samples are immediately removed from the storage location and audit events are recorded via the Sample and Storage Audits against each laboratory number. |

| Function | Description |
|---|---|
| **Transfer Sample [SF7]** | Used to transfer samples from one storage area to another within the division.<br><br>1. Highlight the desired entry and select the **Transfer Sample [SF7]** function button;<br><br>2. At the prompt "*Bulk transfer?*", select **[Yes]** to transfer more than one sample or **[No]** to transfer a single sample.<br><br>**Note:** If *Yes* is selected, the user is prompted to enter the laboratory numbers or location numbers involved in the transfer. If *No* is selected, the highlighted sample will be transferred;<br><br>3. At the prompt "*Enter transfer destination:*", enter the transfer storage location. **Lookup [F1]** available;<br><br>4. At the prompt "*Confirm transfer to XX*", click **[OK]** or press **[Enter]** to transfer the sample;<br><br>5. At the prompt, select **[Yes]** or press **[Enter]** to confirm the transfer;<br><br>6. Enter a comment if required – optional;<br><br>7. Click **[OK]** or press **[Cancel]**;<br><br>8. The sample is removed from the storage area being viewed and is added to the transfer storage destination;<br><br>9. An audit event is recorded against the laboratory record via both the Sample and Storage Audits. |

## 10.4   Sample Storage Search

This function is used to search for a sample in storage. The sample can be searched by Laboratory number or UR number.  Location numbers may be used in place of the laboratory number.

- If the Laboratory/UR number/Patient Identifer does not have any related samples in storage, a message will display *Unable to find any lab number(s)*.

### To Search for a Sample in Storage

- Enter or barcode scan the laboratory number or UR number via the appropriate field and press **[Enter]**.

### Sample Storage Results

This function lists all samples and their storage locations associated with the laboratory / UR number.

- The table displays all matching records, listing;

- o   Storage/rack name

- o   Location of the rack

- o   Position of the sample in the storage rack, that is: row and column

- o   Laboratory number of the sample

- o   Location number of the sample (if applicable)

- o   Type of sample

- o   Status, that is: occupied/borrowed

- o   User last associated with the sample storage

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Sample [F6]** | Removes a sample from its storage position. <br> 1.   Highlight the desired entry and select the **Remove Sample [F6]** function button; <br> 2.   At the prompt "*Are you sure you want to remove XXXX?*", select **[Yes]** to confirm the removal of the sample; <br> 3.   Enter a comment if required – optional; <br> 4.   Select **[OK]** or **[Enter]** to save; <br> 5.   The sample is immediately removed from the list; <br> 6.   An audit event is recorded against the laboratory record via both the Sample and Storage Audits. <br><br> **Note:**  A sample can only be removed from storage area if the status is *Occupied*. |
| **Borrow Sample [F7]** | Borrows a sample and reserves its position for when it is returned. <br> 1.   Highlight the desired entry and select the **Borrow Sample [F7]** function button; <br> 2.   Enter a comment if required – optional; <br> 3.   Select **[OK]** or **[Enter]**; <br> 4.   The sample status is immediately marked as *Borrowed*; <br> 5.   An audit event is r ecorded against the laboratory record via both the Sample and Storage Audits. <br><br> **Note:**  A borrowed sample can be added to another storage location without being returned to the original storage location. |
| **Return Sample [F8]** | Returns the sample (that was previously borrowed) to storage in its reserved position. |

| Function | Description |
|---|---|
| | 1. Highlight the sample to be returned and select the **Return Sample [F8]** function button;<br><br>2. Enter a comment if required – optional;<br><br>3. Select **[OK]** or **[Enter]** to save;<br><br>4. The status of the stored sample changes from *Borrowed* to *Occupied*;<br><br>5. An audit event is recorded against the laboratory record via both the Sample and Storage Audits.<br><br>**Note:**  A sample can only be returned to storage if the status is *Borrowed*. |
| **Transfer Sample [SF7]** | Used to transfer samples from one storage area to another within the division.<br><br>1. Highlight the desired entry and select the **Transfer Sample [SF7]** function button;<br><br>2. At the prompt "*Bulk transfer?*", select **[Yes]** to transfer more than one sample or **[No]** to transfer a single sample.<br><br>**Note:** If *Yes* is selected, the user is prompted to enter the laboratory numbers or location numbers involved in the transfer. If *No* is selected, the highlighted sample will be transferred;<br><br>3. At the prompt "*Enter transfer destination:*", enter the transfer storage location. **Lookup [F1]** available;<br><br>4. At the prompt "*Confirm transfer to XX*", click **[OK]** or press **[Enter]** to transfer the sample;<br><br>5. At the prompt, select **[Yes]** or press **[Enter]** to confirm the transfer;<br><br>6. Enter a comment if required – optional;<br><br>7. Click **[OK]** or press **[Cancel]**;<br><br>8. The sample is removed from the storage area being viewed and is added to the transfer storage destination;<br><br>9.    An audit event is recorded against the laboratory record via both the Sample and Storage Audits. |

## 10.5    Disposal Sample List

This function is used to view lists of samples ready for disposal.  This list is based on the set up of the storage area and the time frame designated for samples to be added to this list.

- It is useful for the disposal of a group of samples.

- Highlight a list and double-click or press Enter.

- All associated samples via their storage location, including position is displayed.

### Sample Storage Results

- Lists all samples and their storage locations associated with the laboratory / UR number.

- The table displays all matching records, listing;

  o   Storage/rack name

  o   Location of the rack

  o   Position of the sample in the storage rack, that is: row and column

  o   Laboratory number of the sample

  o   Location number of the sample (if applicable)

  o   Type of sample

  o   Status, that is: Dispose

  o   User last associated with the sample storage.

**Note:** The associated function buttons can be viewed via the Storage section above or click **here**.

## 10.6    Sample Review List

This function is used to view lists of samples ready for review.  This list is based on the set up of the storage area and the time frame designated for samples to be added to this list.

- Highlight a list and press **[Enter]** or double mouse click

- The screen opens to show all samples in the storage location, including position

### Sample Storage Results

- Lists all samples and their storage locations associated with the laboratory / UR number.

- The table displays all matching records, listing;

  o   Storage/rack name

  o   Location of the rack

  o   Position of the sample in the storage rack, that is: row and column

**10. Tracking : Sample Review List**

- o   Laboratory number of the sample

- o   Location number of the sample (if applicable)

- o   Type of sample

- o   Status, that is: Review

- o   User last associated with the sample storage.

**Note:** The associated function buttons can be viewed via the Storage section above or click **here**.

**10. Tracking : Sample Review List**

# 11     Work Lists

This section is used to manage work flow within the laboratory and can assist staff with their daily tasks and work load.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Workflow User Lists** | User defined lists that can contain groups of samples required to undergo a particular test or process. They can be used to group manual tests performed in a laboratory. |
| **Review User Lists** | User defined list that can group samples for the review of results. |
| **Worksheets** | Used to group together samples for a manual test.  Worksheets are retained permanently in the system. |

## 11.1     Workflow User List

This screen allows the user to view laboratory records which are displayed via associated lists that can be added or removed by automated or manual processes.

- These lists are also used to assist with the workflow processes of the laboratory by providing users with a list of the current laboratory records that need attention, whether for testing, reviewing or administrative purposes.

- Each list is customisable by system admin to have bespoke detail and layout.

### To View a List

1.   Highlight a user list, double-click or press Enter.

2.   The associated screen displays a list of all samples that require processing.

### Selected Workflow User List

The laboratory records assigned to the list are displayed.

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Entry [F5]** | Removes the selected entry from the workflow list. <br> 1. Highlight the desired entry; <br> 2. Select the **Remove Entry [F5]** function button; <br> 3. The status updates to '*Deleted*' (if the workflow user list has been configured with a status or priority column, recommended); <br> 4. The entry is removed once the list is refreshed; <br> 5. The sample audit is updated to record the removal from the worklist. |
| **Reinstate Entry [F7]** | Used to reverse a removal performed in error.  This must be done before leaving the screen. <br> 1. Highlight the entry that is marked as *Deleted*; <br> 2. Select the **Reinstate Entry [F7]** function button**.**  The *Deleted* status is removed from the associated entry; <br> 3. The entry remains on the list when the list is refreshed. |
| **Clear List [SF5]** | Removes all entries from the list <br> 1. Select the **Clear List [SF5]** function button; <br> 2. At the prompt "*Clear all entries in XXX laboratory list (y/n)?*", click Yes to remove all entries; <br> 3. At the prompt "*Are you sure (y/n)?*", click Yes to confirm the removal; <br> 4. The list is cleared and the user is returned to the Workflow User Lists table; <br> 5. The sample audit of each laboratory record is updated to reflect the removal from the worklist. |
| **Print Labels [SF7]** | Prints labels for all entries in the list <br> 1. Select the **Print Labels [SF7]** function button; <br> 2. The labels are printed to the default printer and the *'Printing Labels'* message displays in yellow at the top right corner of the screen. |

| Function | Description |
|---|---|
| **Container ID Search [SF9]** | Allows the user to search for a specific laboratory number within the list. |
| | 1. Select the **Container ID Search [SF9]** function button; |
| | 2. Enter the Laboratory Number or Container ID; |
| | 3. Select **[OK]** to continue or **[Enter]**; |
| | If the laboratory number entered is not present in the list the message *'Container not in list'* will display. |

## To View Patient's Results

1. Highlight the desired laboratory record and double-click or press Enter;

2. The results screen is displayed.

## 11.2    Review User Lists

These are work lists containing samples that require manual review by specific laboratory staff. The laboratory records displayed on these lists are transient and can be added or removed by automated or manual processes.

### To View a List

1. Highlight the desired review list;

2. Double-click or press Enter;

3. The associated review list is displayed.

### Selected Review User List

The laboratory records assigned to the list is displayed.

**Function Buttons**

| Function Button | Description |
|---|---|
| **Remove Entry [F5]** | Removes the selected entry from the workflow list.<br><br>1. Highlight the desired entry;<br>2. Select the **Remove Entry [F5]** function button;<br>3. The status updates to '*Deleted*' (if the workflow user list has been configured with a status or priority column, recommended);<br>4. The entry is removed once the list is refreshed;<br>5. The sample audit is updated to record the removal from the worklist. |
| **Reinstate Entry [F7]** | Used to reverse a removal performed in error.  This must be done before leaving the screen.<br><br>1. Highlight the entry that is marked as *Deleted*;<br>2. Select the **Reinstate Entry [F7]** function button**.**  The *Deleted* status is removed from the associated entry;<br>3. The entry remains on the list when the list is refreshed. |
| **Clear List [SF5]** | Removes all entries from the list<br><br>1. Select the **Clear List [SF5]** function button;<br>2. At the prompt "*Clear all entries in XXX laboratory list (y/n)?*", click Yes to remove all entries;<br>3. At the prompt "*Are you sure (y/n)?*", click Yes to confirm the removal;<br>4. The list is cleared and the user is returned to the Workflow User Lists table;<br>5. The sample audit of each laboratory record is updated to reflect the removal from the worklist. |
| **Print Labels [SF7]** | Prints labels for all entries in the list<br><br>1. Select the **Print Labels [SF7]** function button;<br>2. The labels are printed to the default printer and the '*Printing Labels*' message displays in yellow at the top right corner of the screen. |

| Function Button | Description |
|---|---|
| **Container ID Search [SF9]** | Allows the user to search for a specific laboratory number within the list.<br><br>1. Select the **Container ID Search [SF9]** function button;<br>2. Enter the Laboratory Number or Container ID;<br>3. Select **[OK]** to continue or **[Enter]**;<br><br>If the laboratory number entered is not present in the list the message *'Container not in list'* will display. |

## 11.3   Worksheets

Worksheets are user defined lists consisting of laboratory records and are permanent lists used in testing within the laboratory.

There are two distinct types of worksheets:

i)   Histopathology/Cytology/Autopsy

ii)  General

- General worksheets are defined by four stages:
  - **Daily Worksheets** – samples that have been allocated to a worksheet, which have been created on a particular day.
  - **Unallocated Work** – shows the laboratory records awaiting allocation to a numbered worksheet.
  - **Incomplete Worksheets** – shows the laboratory records allocated to worksheets and not yet completed.  The first number in the column denotes the number of samples allocated to worksheets.  The number in brackets denotes the number of worksheets.  For example, 55(5) shows 55 samples allocated across 5 worksheets.
  - **Review worksheets** – shows the laboratory records allocated to worksheets awaiting review.  The first number in the column denotes the number of samples allocated to worksheets.  The number in brackets denotes the number of worksheets.  For example, 55(5) shows 55 samples allocated across 5 worksheets.
- When work has been completed, the worksheet can be marked as completed or sent for review.
- General worksheets can be viewed by their created date using the daily worksheets screen.  The ID number for a worksheet is the date it was created followed by a number.  This allows multiple worksheets to be created on any given day.  For example, worksheet ID number 170131_05 was created on the 31st of January 2017 and it was the fifth worksheet created on that day.

- Histo/Cyto/Autopsy worksheets are not permanent records. These pass through three stages:
  - o **Trim** worksheet
  - o **Routine** worksheet
  - o **Recut** worksheet
- Individual entries or entire worksheets can be marked as completed, making it no longer visible.
- Worksheets displayed are dependent upon which laboratory/dept the user is logged into at the time.

## To View a Worksheet

1. Highlight the desired entry and double-click or press Enter.
2. The screen displays today's daily worksheets.
3. Other worksheets are available via other associated screen tabs.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Daily Worksheets [CF8]** | Displays all worksheets created for the date, regardless of the status (that is: incomplete/complete/review). |
| **Unallocated Work [SF9]** | Displays laboratory records that contain at least one unvalidated test related to the current worksheet group and have not been allocated to a worksheet. |
| **Incomplete Worksheets [SF10]** | Displays the list of worksheets that have been created and have samples that do not have validated results. |
| **Review Worksheets [CF10]** | Displays a list of worksheets assigned to Review. |

## Daily Worksheets [CF8]

**Functions**

| Function | Description |
|---|---|
| **Enter Date [F8]** | Displays the worksheets created on the date selected.<br><br>Select the **Enter Date [F8]** function button;<br><br>At the prompt "*Enter date*", enter a date and click **[OK]** button or press **[Enter]**;<br><br>The worksheets for the selected date is displayed.<br><br>Alternatively;<br><br>1. Use the blue left and right arrows to manually scroll through dates to display corresponding worksheets. |

## To View & Edit a Specific Worksheet

1. Highlight the desired worksheet and double-click or press Enter.

2. The associated worksheet is displayed.

3. Patient details can be accessed by selecting an entry.

## Unallocated Work [SF9]

The screen displays laboratory records that contain at least one unvalidated test related to the current worksheet.

- These unvalidated tests have not been allocated to a worksheet.

**Note:**  Fields marked with **XXXXXX** denote that the specified test was not requested for that laboratory number.

**Function Buttons**

| Function | Description |
|---|---|
| **Hold [F5]** | Holds a laboratory record from being included when the worksheet is created. Toggles the highlighted entry between *'Held'* and normal status. If the worksheet has a status column, the affected records display as *'Held'*.<br><br>1. Highlight the desired entry; |

| Function | Description |
|---|---|
| | 2. Select the **Hold [F5]** function button; |
| | 3. If the worksheet has a status column (recommended), the status displays as *Held;* |
| | 4. Selecting the **Hold [F5]** function button again removes the *Held* status from the highlighted entry; |
| | 5. The *Held* status is only applicable for that use of the worksheet.  When the list is refreshed the *Held* status is removed. |
| **Remove Entry [F6]** | Removes the highlighted entry from the Unallocated list.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Remove Entry [F6]** function button;<br><br>3. If the worksheet has a status column, the status displays as *Deleted;*<br><br>4. When the list is refreshed, the entry will no longer display;<br><br>5. The sample audit is updated with the removal of the sample from the worksheet. |
| **Build Worksheet [F7]** | Allows the user to build a worksheet containing one or more entries from the current Unallocated Work list. You can manually enter or scan the required laboratory numbers.  Useful when only some of the samples are available.<br><br>1. Select the **Build Worksheet [F7]** function button;<br><br>2. A blank worksheet is displayed ready for the user to create a defined worksheet. |
| **Cumulative Results [F9]** | View cumulative results for the highlighted entry.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Cumulative Results [F9]** function button;<br><br>3. The Cumulative Result screen is displayed. |
| **Create Worksheet [SF5]** | Creates a new worksheet containing all entries (up to the configured maximum number) in the current list, except those placed on hold.<br><br>1. Select the **Create Worksheet [SF5]** function button; |

| Function | Description |
|---|---|
| | 2. At the prompt "OK *to create XXX worksheet with XX items (y/n)?*", click **[Yes]** to create the worksheet with all entries on the Unallocated Work list; <br><br> 3. If the worksheet has QC material configured, the prompt *"Accept QC positions (y/n)?"* is displayed; <br><br> 4. Click **[Yes]** to create the worksheet with the QC; <br><br> 5. Select **[No]** to manually enter QC positions within the worksheet by following the prompts; <br><br> 6. If QC samples are configured to be repeated within a sample run, follow the message prompts to confirm; <br><br> 7. Worksheets created includes all samples on the list except those with a '*Held'* status; <br><br> 8. Worksheets are assigned their own system generated unique number using the date.  If two worksheets are created on the same date, the ID number will be followed by _XX, for example: 01, 02, etc. |
| **Append Entry [SF6]** | Adds the highlighted entry to an existing worksheet. <br><br> 1. Highlight the desired entry; <br><br> 2. Select the **Append Entr**y **[SF6]** function button; <br><br> 3. At the prompt "*Enter worksheet ID number*", enter the worksheet ID number (YYMMDD_NN), click **[OK]** or press **[Enter]** to add the highlighted entry to the worksheet. |
| **Reinstate Entry [SF7]** | Used to reverse a removal when performed in error. This must be done before leaving the screen. <br><br> 1. Highlight the entry with the *Deleted* status; <br><br> 2. Select the **Reinstate Entry [SF7]** function button. The *Deleted* status is removed; <br><br> 3. The entry remains via the list when the list is refreshed. |

## Build Worksheet [F7]

This function is used to custom build a worksheet of selected samples and is useful when some samples are not available on the bench at the time of testing.

### Function Buttons

| Function | Description |
|---|---|
| **Insert Entries [F5]** | Inserts the entries into a worksheet from within the selected unallocated work list.<br><br>1. Select the **Insert Entries [F5]** function button;<br><br>2. At the prompt "*Enter Labno*", manually enter or barcode scan the desired laboratory number/s;<br><br>3. Click **[Cancel]** or press **[Esc]** when finished;<br><br>4. Select the **Create Worksheet [SF5]** function button to create a new numbered worksheet with the laboratory numbers entered previously;<br><br>5. Follow the Create Worksheet steps below. |
| **Remove Entry [F6]** | Removes an entry from the worksheet.<br><br>1. Highlight the entry of interest;<br><br>2. Select the **Remove Entry [F6]** function button;<br><br>3. If the worksheet has a status column, the status is updated to *Deleted;*<br><br>4. When the list is refreshed, the entry no longer displays;<br><br>5. The sample audit is updated with the removal of the sample from the worksheet. |
| **Create Worksheet [SF5]** | Creates a new worksheet containing all entries (up to the configured maximum number) in the current list, except those placed on hold.<br><br>1. Select the **Create Worksheet [SF5]** function button;<br><br>2. At the prompt "OK *to create XXX worksheet with XX items (y/n)?*", click **[Yes]** to create the worksheet with all entries on the Unallocated Work list;<br><br>3. If the worksheet has QC material configured, the prompt "*Accept QC positions (y/n)?*" is displayed;<br><br>4. Click **[Yes]** to create the worksheet with the QC;<br><br>5. Select **[No]** to manually enter QC positions within the worksheet by following the prompts;<br><br>6. If QC samples are configured to be repeated within a sample run, follow the message prompts to confirm; |

| Function | Description |
|---|---|
| | 7. Worksheets created includes all samples on the list except those with a '*Held'* status; <br><br> 8. Worksheets are assigned their own system generated unique number using the date. If two worksheets are created on the same date, the ID number will be followed by _XX, for example: 01, 02, etc. |
| **Reinstate Entry [SF7]** | Used to reverse a removal when performed in error. This must be done before leaving the screen. <br><br> 1. Highlight the entry with the *Deleted* status; <br><br> 2. Select the **Reinstate Entry [SF7]** function button. The *Deleted* status is removed; <br><br> 3. The entry remains via the list when the list is refreshed. |

## 11.4    Incomplete Worksheets [SF10]

This screen displays a list of worksheets that have not been completed.

### To Access & Edit Incomplete Worksheets

1. Highlight the desired entry and double-click or press Enter.
2. The associated incomplete worksheet is displayed.

### Incomplete Worksheet

- The columns displayed can vary between worksheets and tests.
- Test fields marked as **XXXXXX** indicates that there is no request, for this particular test which is listed via the column header, on the laboratory number.

**Notes:**

Function buttons for QC samples will only display when a QC is highlighted in the worksheet.

Function buttons specific to patient samples will only display when a patient sample is highlighted.

**Function Buttons**

| Function | Description |
|---|---|
| **QC Material [CF6]** | Displays the Control Tests screen for the QC material selected. <br><br> **Note:**  If QC samples are required for a worksheet, this button will be available. <br><br> 1. Highlight the desired QC via the worksheet; <br> 2. Select the **QC Material [CF6]** function button to view its corresponding details. |
| **Bulk Modify [F5]** | Used to access and edit multiple results within the worksheet <br><br> 1. Highlight the desired entry; <br> 2. Select the **Bulk Modify [F5]** function button; <br> 3. The result screen displays allowing the user to make changes using the **Edit** icon or pressing **[F2]** to edit; <br> 4. Select the **Next [F3]** or **Previous [SF3]** icon to navigate to the next or previous patient result screen in the worksheet; <br> 5. When the **Next** icon is selected on the last entry in the worksheet, the user is returned to the incomplete worksheet table. |
| **Re-Allocate [F7]** | Places the highlighted patient entry back onto the unallocated worksheet list. <br><br> 1. Highlight the desired entry. <br> 2. Select the **Re-Allocate [F7]** function button**;** <br> 3. At the prompt "*Reallocating Lab XXXX-XXXX (y/n)?*", click **[Yes]** to move the entry to the unallocated work; <br> 4. At the prompt "Select reason for re-allocat® (R)ework or (D)ilution or (P)roblem or leave blank:", enter the reason; <br> 5. Select OK or press **[Enter]** to confirm the reallocation; <br> 6. The highlighted entry is displayed via the Unallocated Work screen; <br> 7. The entry is not removed from the current worksheet as these are a permanent record; <br> 8. The sample audit is updated with the reallocation of the sample. |

**11. Work Lists : Incomplete Worksheets [SF10]**

| Function | Description |
|---|---|
| **Cumulative Results [F9]** | View cumulative results of the patient<br><br>1. Highlight the desired entry;<br><br>2. Select the **Cumulative Results [SF9]** function button. |
| **Complete [SF5]** | Used to change the worksheet status to *'Complete'* once all work has finished.<br><br>1. Select the **Complete [SF5]** function button;<br><br>2. At the prompt "OK *to complete XXX worksheet no XXX (y/n)?"*, click **[Yes]** to complete the worksheet;<br><br>3. The title of the screen changes to display the new status of the worksheet. |
| **Worksheet Export [SF6]** | Allows the worksheet to be exported with the details included.<br><br>1. Select the **Worksheet Export [SF6]** function button;<br><br>2. At the prompt "OK *to save table to disk? (y/n)"*, click **[Yes]** to export the worksheet;<br><br>3. Via the 'Save As' dialog, select the preferred folder or location and enter a filename. Click Save; |
| **Move To Review [SF7]** | Changes the worksheet status to 'Review'.  Used if results require review.<br><br>1. Select the **Move to Review [SF7]** function button;<br><br>2. At the prompt "OK *to move XXX worksheet no XXX to review (y/n)?"*, click **[Yes]** to move the worksheet for review;<br><br>3. The title of the screen changes to display the new status of the worksheet.<br>**Note:** Worksheets listed as Complete cannot be moved to Review. |
| **Edit Results [CF5]** | The Edit Results dialog has three function buttons: **Bulk Edit [F5], Add Result [F6]** and **Delete Result [F7].**<br><br>1. Select the **Edit Results [CF5]** function button;<br><br>2. The "*XXX W/S Edit Results*" dialog is displayed; |

| Function | Description |
|---|---|
| | 3.   Select the entries requiring editing by checking the box on the left of each sample, or select all; |

| | | |
|---|---|---|
| **Bulk Edit [F5]** | 1. | Select the **Bulk Edit [F5]** function button; |
| | 2. | The result screen of the first selected sample is displayed in edit mode; |
| | 3. | Enter results and select the **Next [F3]** function icon; |
| | 4. | The previous entry is saved and you are able to move onto the next entry until all results have been entered. Once the last sample is reached, the user is returned to the Incomplete Worksheet screen; |
| | 5. | Repeat steps 1 – 3; |
| | 6. | Select the test or tests to be edited; |
| **Add Result [F6]** | 1. | Select the **Add Result [F6]** function button; |
| | 2. | Enter the result for the test selected **(Lookup [F1]** available); |
| | 3. | At the prompt "Are you sure you want to add this result to the selected laboratory numbers?", click **[Yes]** to add the result to the selected sample/s; |
| | 4. | The confirmation "*Results have been added*" is displayed. |
| | 5. | Repeat steps 1 – 3; |
| | 6. | Select the test or tests to be edited; |
| **Delete Result [F7]** | 1. | Select the **Delete Result [F7]** function button; |
| | 2. | At the prompt "*Delete Results?*", click **[Yes]** to delete the results; |
| | 3. | The confirmation "*Results have been deleted*" is displayed. |

| Function | Description |
|---|---|
| **Default Result [CF7]** | Allows the results for a given test to be entered without entering into the sample's result page.<br><br>1.   Highlight the desired entry;<br><br>2.   Select the **Default Result [CF7]** function button; |

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**11. Work Lists : Incomplete Worksheets [SF10]**

| Function | Description |
|---|---|
| | 3. Enter the test requiring the result (**Lookup [F1]** is available).  Click **[OK]**; |
| | 4. Enter the test result (**Lookup [F1]** is available).  Click **[OK]**; |
| | 5. The results are added to the worksheet and the results screen. |

## Edit Worksheet Using Edit

1. Highlight the desired entry;

2. Select the **Edit** icon from the top of the screen or press **[F2]**;

3. The 'Worksheet Entry' screen is displayed;

4. The patient information is viewable across the top of the screen;

5. Edit the results as required;

6. Use the function keys to progress through the worksheet or select the **Save icon** or press **[F4]** to save and exit from the edit screen.

**Function Buttons**

| Function | Description |
|---|---|
| Save/Next [F5] | Once all the results have been entered for the displayed sample, use the **Save/Next** button or press **[F5]** to save the results and move onto the next sample on the worksheet. |
| Save/Validate/Next [F6] | Once all the results have been entered for the displayed sample, use the **Save/Validate/Next** button or press **[F6]** to save and validate the results and move onto the next sample on the worksheet. |
| Cumulative Results [F9] | View cumulative results for the highlighted entry. |

## QC Worksheet Entry

This page opens automatically in Edit mode, indicated by the yellow message displayed at the top right of the screen.

1. The top part of the screen is the details about the QC sample and cannot be edited.

2. Edit the results as required, press **[Enter]** after making the change.

3. Select the **Save/Next** button or press [F5] when done.

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4.  In the next screen you can press [Esc] to return to the worksheet or continue to edit results.

**Function Buttons**

| Function | Description |
|---|---|
| **Save/Next [F5]** | Saves the current QC results and moves to the next QC result entry screen.<br><br>1.  Enter the results into the corresponding fields;<br>2.  Select the **Save/Next** button or press **[F5];**<br>3.  The results are saved (not validated);<br>4.  The screen opens to the next QC result. |

## 11.5    Review Worksheets [CF10]

This screen displays a list of worksheets with sample results in need of review.

### To Access & Edit Worksheet

1.  Highlight the desired entry, double-click or press Enter.
2.  The associated worksheet is displayed.

### Selected Review Worksheet

This is a list of samples that have been allocated to the worksheet, with results that need review.

**Notes:**

- Fields marked with **XXXX** denote this test is not requested for the corresponding laboratory number.
- Function buttons specific to QC sample will only be displayed when a QC is highlighted from the worksheet.
- Function buttons specific to patient sample will only be displayed when a patient sample is highlighted.

**Function Buttons**

| Function | Description |
|---|---|
| **QC Material [CF6]** | Displays the Control Tests screen for the QC material selected.<br><br>**Note:**  If QC samples are required for a worksheet, this button will be available.<br><br>1. Highlight the desired QC via the worksheet;<br>2. Select the **QC Material [CF6]** function button to view its corresponding details. |
| **Bulk Modify [F5]** | Used to access and edit multiple results within the worksheet<br><br>1. Highlight the desired entry;<br>2. Select the **Bulk Modify [F5]** function button;<br>3. The result screen displays allowing the user to make changes using the **Edit** icon or pressing **[F2]** to edit;<br>4. Select the **Next [F3]** or **Previous [SF3]** icon to navigate to the next or previous patient result screen in the worksheet;<br>5. When the **Next** icon is selected on the last entry in the worksheet, the user is returned to the incomplete worksheet table. |
| **Re-Allocate [F7]** | Places the highlighted patient entry back onto the unallocated worksheet list.<br><br>1. Highlight the desired entry.<br>2. Select the **Re-Allocate [F7]** function button**;**<br>3. At the prompt "*Reallocating Lab XXXX-XXXX (y/n)?*", click **[Yes]** to move the entry to the unallocated work;<br>4. At the prompt "Select reason for re-allocat® (R)ework or (D)ilution or (P)roblem or leave blank:", enter the reason;<br>5. Select OK or press **[Enter]** to confirm the reallocation;<br>6. The highlighted entry is displayed via the Unallocated Work screen;<br>7. The entry is not removed from the current worksheet as these are a permanent record;<br>8. The sample audit is updated with the reallocation of the sample. |

**11. Work Lists : Review Worksheets [CF10]**

| Function | Description |
|---|---|
| **Cumulative Results [F9]** | View cumulative results of the patient<br><br>1. Highlight the desired entry;<br><br>2. Select the **Cumulative Results [SF9]** function button. |
| **Complete [SF5]** | Marks the selected entry as *Completed*.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Complete [SF5]** function button;<br><br>3. The status column is updated to *'Completed'*. |
| **Worksheet Export [SF6]** | Allows the worksheet to be exported with the details included.<br><br>1. Select the **Worksheet Export [SF6]** function button;<br><br>2. At the prompt "OK *to save table to disk? (y/n)*", click **[Yes]** to export the worksheet;<br><br>3. Via the 'Save As' dialog, select the preferred folder or location and enter a filename. Click Save; |
| **Move To Review [SF7]** | Changes the worksheet status to 'Review'.  Used if results require review.<br><br>1. Select the **Move to Review [SF7]** function button;<br><br>2. At the prompt "OK *to move XXX worksheet no XXX to review (y/n)?*", click **[Yes]** to move the worksheet for review;<br><br>3. The title of the screen changes to display the new status of the worksheet.<br>**Note:** Worksheets listed as Complete cannot be moved to Review. |
| **Edit Results [CF5]** | The Edit Results dialog has three function buttons: **Bulk Edit [F5]**, **Add Result [F6]** and **Delete Result [F7].**<br><br>1. Select the **Edit Results [CF5]** function button;<br><br>2. The "*XXX W/S Edit Results*" dialog is displayed;<br><br>3. Select the entries requiring editing by checking the box on the left of each sample, or select all; |

| Function | Description | |
|---|---|---|
| | **Bulk Edit [F5]** | 1. Select the **Bulk Edit [F5]** function button;<br><br>2. The result screen of the first selected sample is displayed in edit mode;<br><br>3. Enter results and select the **Next [F3]** function icon;<br><br>4. The previous entry is saved and you are able to move onto the next entry until all results have been entered. Once the last sample is reached, the user is returned to the Incomplete Worksheet screen;<br><br>5. Repeat steps 1 – 3;<br><br>6. Select the test or tests to be edited; |
| | **Add Result [F6]** | 1. Select the **Add Result [F6]** function button;<br><br>2. Enter the result for the test selected **(Lookup [F1]** available);<br><br>3. At the prompt "Are you sure you want to add this result to the selected laboratory numbers?", click **[Yes]** to add the result to the selected sample/s;<br><br>4. The confirmation "*Results have been added*" is displayed.<br><br>5. Repeat steps 1 – 3;<br><br>6. Select the test or tests to be edited; |
| | **Delete Result [F7]** | 1. Select the **Delete Result [F7]** function button;<br><br>2. At the prompt "*Delete Results?*", click **[Yes]** to delete the results;<br><br>3. The confirmation "*Results have been deleted*" is displayed. |
| **Default Result [CF7]** | Allows the results for a given test to be entered without entering into the sample's result page.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Default Result [CF7]** function button;<br><br>3. Enter the test requiring the result (**Lookup [F1]** is available). Click **[OK]**; | |

| Function | Description |
|---|---|
|  | 4.  Enter the test result (**Lookup [F1]** is available).  Click **[OK]**; |
|  | 5.  The results are added to the worksheet and the results screen. |

## Edit Worksheet Using Edit

1.  Highlight the desired entry;

2.  Select the **Edit** icon from the top of the screen or press **[F2]**;

3.  The 'Worksheet Entry' screen is displayed;

4.  The patient information is viewable across the top of the screen;

5.  Edit the results as required;

6.  Use the function keys to progress through the worksheet or select the **Save icon** or press **[F4]** to save and exit from the edit screen.

**Function Buttons**

| Function | Description |
|---|---|
| Save/Next [F5] | Once all the results have been entered for the displayed sample, use the **Save/Next** button or press **[F5]** to save the results and move onto the next sample on the worksheet. |
| Save/Validate/Next [F6] | Once all the results have been entered for the displayed sample, use the **Save/Validate/Next** button or press **[F6]** to save and validate the results and move onto the next sample on the worksheet. |
| Cumulative Results [F9] | View cumulative results for the highlighted entry. |

## 11.6 Histopathology / Autopsy / Cytology Worksheets

These associated worksheets are not permanent records, but transient worksheets designed to assist the workflow of cases specific to histopathology, cytology, and autopsies.

These transient worksheets are not permanent records within **Evolution vLab®**.

Three stages of workflow (high level):

1. Trim;

2. Routine;

3. Recut.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Trim Worksheet [CF5]** | Used to assist the workflow of cases during specimen cut-up/dissection or preparation stages. Block printing, entering fragments, editing gross procedure, processor allocation, and worksheet exporting/printing are key functions that can be easily and quickly accessible in this worksheet.. |
| **Routine Worksheet [CF6]** | Used to assist the workflow of cases during tissue processing, embedding, microtomy, staining, QC & work allocation stages (all or a combination). Slide/label printing, processor/pathologist/task allocation, and worksheet exporting/printing are key functions that can be easily and quickly accessible in this worksheet. |
| **Recut Worksheet [CF7]** | Used to assist the workflow of cases requesting additional procedures including recut blocks/stained slides and extra blocks/stained slides. Similar functionality to the 'Routine' worksheet. |

## To View Trim, Routine or Recut Worksheets

1.  Highlight the desired entry, double-click or press Enter.
2.  The corresponding worksheet is displayed.

## 11.7    Trim Worksheet [CF5]

All anatomical pathology requests initially insert via the trim worksheet upon registration of specific tests.

Selecting the trim worksheet displays a table of cases awaiting sample cut-up.

**Function Buttons**

| Function | Description |
|---|---|
| **Print Blocks [F5]** | Produces the cassettes and prints the number of blocks as defined in the gross procedure.<br><br>1.  Highlight the desired entry;<br>2.  Select the **Print Blocks [F5]** function button; |

| Function | Description |
|---|---|
| | *3.* At the prompt "*Enter printer name*", enter a printer name (**Lookup [F1]** available);<br>*4.* Select **[OK]** or press **[Enter]** to print. |
| **Accept [F6]** | Marks the entry as *'Accepted'*, removes the sample from the trim worksheet and adds it to the routine worksheet.<br>1. Highlight the desired entry;<br>2. Select the **Accept [F6]** function button;<br>3. The status column of the highlighted entry updates to *Accepted;*<br>4. The entry is moved to the routine worksheet when the trim worksheet is closed. |
| **Reinstate Entry [F7]** | Removes the *'Held'* or *'Accepted'* status from an entry.<br>1. Highlight an entry with *Held* or an *Accepted* status;<br>2. Select the **Reinstate Entry [F7]** function button. The associated entry via the status column is removed. |
| **Enter Fragments [F8]** | Used to change the number of fragments from the default of 1.<br>1. Highlight the desired entry;<br>2. Select the **Enter Fragments [F8]** function button;<br>3. Highlight block number and double-click or press Enter;<br>4. At the prompt "*Change block X fragments to?*", change the required number of fragments;<br>5. Select **[OK]**;<br>6. Once finished, select the **Save icon** or press **[F4].** |
| **Accept All [SF6]** | Marks all entries as *'Accepted'*, removes them from the trim worksheet and adds them to the routine worksheet.<br>1. Select the **Accept All [SF6]** function button;<br>2. The status column of all the entries updates to *Accepted*;<br>3. The entries are moved to the routine worksheet when the trim worksheet is closed. |
| **Edit Gross Proc [SF7]** | Allows the default gross procedure entered at registration to be changed.<br>1. Highlight the desired entry;<br>2. Select the **Edit Gross Proc [SF7]** function button; |

**11. Work Lists : Trim Worksheet [CF5]**

| Function | Description |
|---|---|
|  | 3. At the prompt "*Do you want to delete Default_P?*", select **[Yes]** to delete the default gross procedure; |
|  | 4. At the prompt "*Replace with?*", enter the new gross procedure (**Lookup [F1]** available); |
|  | 5. The new gross procedure is displayed via the Def GP column. |
| Hold [CF8] | Places the sample on hold. |
|  | 1. Highlight the desired entry; |
|  | 2. Select the **Hold [CF8]** function button; |
|  | 3. The status column updates to *Held;* |
|  | 4. The entry remains via the Trim worksheet when it is closed. |

## To View Histo Table

1. Highlight the desired entry, double-click or press Enter.
2. The Histo Table is displayed.

## Routine Worksheets [CF6]

This function lists all slides required for cutting and staining and is produced on a daily basis with all work ordered for that day.

## To View Details of a Routine Worksheet

1. Highlight the desired entry, double-click or press Enter.
2. The Routine Worksheet is displayed.

## Selected Incomplete Routine Worksheet

**Function Buttons**

| Function | Description |
|---|---|
| **Complete Worksheet [F5]** | Marks all samples in the worksheet as 'Completed', except those with a *'Held'* status. |

**11. Work Lists : Trim Worksheet [CF5]**

| Function | Description |
|---|---|
| | 1. Select the **Complete Worksheet [F5]** function button;<br><br>2. At the prompt "*Mark worklist complete?*", select Yes to mark the worksheet as complete;<br><br>3. Select **[OK]** to acknowledge that the worksheet has been completed;<br><br>4. The status column will update to *Completed*. |
| **Write Slides [F6]** | Etches a slide. Slides may be etched regardless of status.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Write Slides [F6]** function button;<br><br>3. At the prompt "*Enter printer name*", enter a printer name (**Lookup [F1]** available);<br><br>4. Select **[OK]** or press **[Enter]** to write the slides. |
| **Reinstate Entry [F7]** | Removes the *'Held'* or 'Completed' status from an entry.<br><br>1. Highlight an entry with a *Held* or *Completed* status;<br><br>2. Select the **Reinstate Entry [F7]** function button;<br><br>3. The entry via the status column is removed. |
| **Embedding Complete [F9]** | Marks the selected entry as *Embedded*.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Embedding Complete [F9]** function button;<br><br>The status column is updated as *'Embedded'*. |
| **Complete [SF5]** | Marks the selected entry as *Completed*.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Complete [SF5]** function button;<br><br>3. The status column is updated to *'Completed'*. |
| **Print Labels [SF7]** | Prints the slide labels. All labels within the worksheet will print unless they have a *'Held'* or 'Completed' status.<br><br>1. Highlight the desired entry; |

| Function | Description |
|---|---|
| | 2.  Select the **Print Labels [SF7]** function button; |
| | 3.  At the prompt "*Enter printer*", enter a printer name (**Lookup [F1]** available); |
| | 4.  Select **[OK]** or press **[Enter]** to print labels. |
| Hold [CF8] | Places the sample on hold. |
| | 1.  Highlight the desired entry. |
| | 2.  Select the **Hold [CF8]** function button; |
| | 3.  The status column updates to *Held;* |
| | The entry remains via the Routine worksheet when it is closed. |

## To View Histo Table

1.  Highlight the desired entry, double-click or press Enter.
2.  The Histo Table is displayed.

## Recut Worksheets [CF7]

Entries via this screen are produced on a daily basis and lists all work ordered for a recut for the day.

**Note:** Recut worksheets display individual entries for each recut ordered that does not have a status of complete.

## To View the Details of a Recut Worksheet

1.  Highlight the desired entry, double-click or press Enter.
2.  The Incomplete Recut Worklist is displayed.

## Selected Incomplete Recut Worksheet

**Function Buttons**

| Function | Description |
|---|---|
| **Complete Worksheet [F5]** | Marks all samples in the worksheet as 'Completed', except those with a *'Held'* status.<br><br>1. Select the **Complete Worksheet [F5]** function button;<br><br>2. At the prompt "*Mark worklist complete?*", select Yes to mark the worksheet as complete;<br><br>3. Select **[OK]** to acknowledge that the worksheet has been completed;<br><br>4. The status column will update to *Completed*. |
| **Write Slides [F6]** | Etches a slide. Slides may be etched regardless of status.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Write Slides [F6]** function button;<br><br>3. At the prompt "*Enter printer name*", enter a printer name (**Lookup [F1]** available);<br><br>4. Select **[OK]** or press **[Enter]** to write the slides. |
| **Reinstate Entry [F7]** | Used to reverse a removal performed in error.  This must be done before leaving the screen.<br><br>1. Highlight the entry that is marked as *Deleted;*<br><br>2. Select the **Reinstate Entry [F7]** function button**.**  The *Deleted* status is removed from the associated entry;<br><br>3. The entry remains on the list when the list is refreshed. |
| **Complete [SF5]** | Marks the selected entry as *Completed*.<br><br>1. Highlight the desired entry;<br><br>2. Select the **Complete [SF5]** function button;<br><br>3. The status column is updated to *'Completed'*. |

| Function | Description |
|---|---|
| **Print Labels [SF7]** | Prints labels for all entries in the list<br><br>1. Select the **Print Labels [SF7]** function button;<br><br>2. The labels are printed to the default printer and the *'Printing Labels'* message displays in yellow at the top right corner of the screen. |
| **Hold [CF8]** | Places the sample on hold.<br><br>1. Highlight the desired entry.<br><br>2. Select the **Hold [CF8]** function button;<br><br>3. The status column updates to *Held;*<br><br>The entry remains via the Routine worksheet when it is closed. |
| **Change Status [CF10]** | Change the user configurable status<br><br>1. Highlight the desired entry;<br><br>2. Select the **Change Status [CF10]** function button;<br><br>3. At the prompt, enter the status (**Lookup [F1]** available); |

## To View Histo Table

1. Highlight the desired entry, double-click or press Enter.
2. The Histo Table is displayed.

# 12     Batch Functions

This function is used to process samples together as one batch and is integrated with automation.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Batch Worksheets** | Lists all outstanding samples and batches and allows batch creation and batch allocation. Incomplete and Outstanding batches can also be viewed. |
| **Batch Details** | Accesses batches by entering a batch number to show completed and outstanding batches. |

## 12.1     Batch Worksheets

**Function Buttons**

| Function | Description |
|---|---|
| **Batch Allocation [F5]** | Used to create a batch for processing.<br>1.   Highlight the desired entry.<br>2.   Select the **Batch Allocation [F5]** function button. |
| **Incomplete Batches [F6]** | Lists all batches that have  been created/started and not yet moved to completed.<br>Some may be waiting sample allocation, label printing, worksheet reprinting,  entering of consumable/equipment lot information or moving to completion.<br>1.   Highlight the desired entry.<br>2.   Select the Incomplete **Batches [F6]** function button;<br>3.   Batches and corresponding number of entries is displayed. |
| **Outstanding Batches [F7]** | Lists all batches that have not yet been completed.<br>Some may be waiting label printing, worksheet reprinting, completion checks, entering of consumable/equipment lot information and/or final completion.<br>1.   Highlight the desired entry.<br>2.   Select the **Outstanding Batches [F7]** function button; |

| | 3.  Batches and corresponding number of entries is displayed. |
| --- | --- |

**Data Fields**

| Column | Description |
| --- | --- |
| **Batch Type** | Displays all configured 'Batch Types' that have samples registered. |
| **Samples** | Shows the number of outstanding samples registered for the 'Batch Type'. These samples are awaiting allocation. |
| **Priority 1** | Displays the number of samples that have the highest priority. This relates to the field 'Batch Priority' if entered at registration. Options are 1 (Urgent), 2, (High), 3 (Medium), 4 (Low) and 5 (Cease). |
| **Overdue** | Displays the number of samples that have exceeded the configured turnaround time (TAT). |
| **Outstanding** | Displays the number of outstanding batches for the 'Batch Type'. These batches have been created but not completed. Select the **Outstanding Batches** button or press **[F6]** to view a list of all outstanding batches. |

## To Create a Batch

1.  Select the **Batch Allocation [F5]** function button;

2.  The Batch Allocation screen displays listing all outstanding samples for the associated Batch Type.

**Note:** The status via the batch allocation screen displays as 'Outstanding' as the samples are not yet part of a batch.

**Function Buttons**

| Function | Description |
| --- | --- |
| **Create Batch [F6]** | Creates a new batch. |
| **Remove Sample [SF5]** | Removes a highlighted entry from the Batch Allocation screen<br>1.  Highlight the desired entry;<br>2.  Select the **Remove Sample [SF5]** function button; |

| Function | Description |
|---|---|
| | 3. At the prompt "*Are you sure you want to remove XXX? (Y/N)*", select **[Yes]** to confirm the removal; |
| | 4. At the prompt "*Enter reason*", enter a reason for removal (mandatory) and select OK or press **[Enter]**; |
| | 5. The lab number is removed from the Batch allocation table. |
| | **Note:** Two audit events are logged via the sample audit history for the removal of a sample from batch allocation table. One for the removal of the sample from the batch and another for the reason entered. |

## Print Allocation Table

- Select the **Print** icon from the top of the screen or press **[F11]** to print to the default printer.

- Alternatively, select the **(V)** icon or press **[SF11]** to print to a specific printer.

- The batch allocation table is printed with details such as:

  o Batch Type

  o Date Created

  o Printed By

- Specific details include:

  o Batch No

  o Pos

  o Laboratory No / UR No

  o Priority

  o Request(s)

  o Requested Date

  o Details of all storage locations per laboratory number (Rack) and Positions.

## Batch Creation

- Select the **Create Batch [F6]** function button.

- The batch creation screen displays with all samples assigned to the batch.

> **Note:**
>
> - Batch Number/ID = <batch mnemonic><creation date YYYYMMDD>_<No. of batch created that day>

- The status displays 'Interim' as the samples are not yet part of a batch and processing is incomplete.

- Samples are sorted firstly by priority and then by request date.

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Sample [SF5]** | Removes a sample from the batch and returns it to the outstanding batch allocation list. Should be completed prior to accepting the batch.<br><br>1. Highlight the desired sample for removal;<br><br>2. Select the **Remove Sample [SF5]** function button;<br><br>3. At the prompt "*Are you sure you want to remove XXX? (Y/N)*" select **[Yes]** to confirm the removal;<br><br>4. At the prompt "*Enter reason*", enter a reason for the removal, and select OK or press **[Enter]**;<br><br>5. The sample is removed;<br><br>6. Audit events are logged via the sample audit log and the batch audit log. |
| **Accept Batch [SF6]** | Accepts the batch and sends the plate map to the configured analyser (if interfaced) / file path. |
| **Print Menu [F8]** | Accesses sub menus:<br><br>**Print Storage Label [F5]**<br><br>- Reprints the configured storage label. After reprinting an entry will appear in the 'Batch Audit'.<br><br>**Print Batch Label [F6]**<br><br>- Reprints the configured batch label. After reprinting an entry will appear in the 'Batch Audit'.<br><br>**Print Sample Labels [F7]**<br><br>- Reprints the configured sample labels. After reprinting an entry will appear in the 'Batch Audit' AND the 'Sample Audit'.<br><br>**Print Worksheet [F8]**<br><br>- Reprints worksheet details. The user may print as many times as desired. After reprinting an entry will appear in the 'Batch Audit'. |

| | **Main Menu [SF5]**  •   Returns to the Batch Details Main Menu. |
|---|---|

**Note:**

Three audit events are logged via the sample audit history for the removal of a sample from the batch creation table:

- The removal of the sample from its position within the batch (lists the batch ID);
- The reason for the removal that was entered at the prompt;
- The outstanding batch where the sample has been returned.

Two audit events are logged via the batch audit history for the removal of a sample:

- The removal of the sample from the batch;
- The reason entered at the prompt.

## Print Batch Table

- Select the **Print** icon or press **[F11]** to print to the default printer.
- Alternatively, select the **(V)** icon or press **[SF11]** to print to a specific printer.
- The batch creation table is printed with:
    - Batch type
    - Date created
    - Printed by
- Specific details include:
    - Batch No.
    - Pos
    - Laboratory No / UR No.
    - Priority
    - Request(s)
    - Requested Date
    - Details of all storage locations per laboratory number (rack) and positions

## 12.2    Auto Batch Assignment

This function is an alternative method to creating a batch from an external plate map file. It uses a pre-existing file where samples are in a particular sequence/order.

- Samples are allocated to the designated outstanding batch type (as per 'batch creation').

- A file name and path including the file extension is required to be entered at the prompt when the create batch button is selected.

- For example: *'Please enter filename'*  C:\hbvpq.txt

- This imports the external plate map file (from macro) into **Evolution vLab®**.

- The Batch Creation screen will display the newly created batch (Imported from external plate map).

- Select the **Accept Batch** button or press **[SF6]** to export the external plate map file to the configured analyser file path.


### To Access Incomplete Batches

- From the Batch Workflow Table, highlight the desired 'Batch Type' and select the **Incomplete Batches [F6]** function button.

- The 'Incomplete Batches' screen displays with the Batch Type and Status at the top of screen.

- To view a batch in greater detail, highlight an entry and double-click or press Enter. The 'Batch Details' screen is displayed.

- To print the 'Batch Details' table for a specific batch number, highlight and select the **Print** icon or press **[F11]** to print to the default printer. Alternatively, select the **(V)** icon or press **[SF11]** to print to a specific printer.

- The 'Batch Details' table prints with details such as;

    o   Batch Type

    o   Batch ID

    o   Date Created

    o   Printed By

- Specific details include (configurable per batch type):

    o   Pos

    o   Laboratory No / UR No

    o   Priority

    o   Request(s)

    o   Requested Date

    o   Details of all storage locations per laboratory number (Rack) and positions.

> **Note:**  Once a batch is completed it is no longer accessible from this screen and can be viewed via 'Outstanding Batches.

## To Access Outstanding Batches

- From the Batch Workflow Table, highlight the desired 'Batch Type' and select the **Outstanding Batches [F7]** function button.

- The 'Outstanding Batches' screen displays with the Batch Type and Status at the top of screen.

- To view a batch in greater detail, highlight an entry and double-click or press Enter. The 'Batch Details' screen is displayed.

- To print the 'Batch Details' table for a specific batch number, highlight and select the **Print** icon or press **[F11]** to print to the default printer. Alternatively, select the **(V)** icon or press **[SF11]** to print to a specific printer.

- The 'Batch Details' table prints with details such as;
    - Batch Type
    - Batch ID
    - Date Created
    - Printed By

- Specific details include:
    - Pos
    - Laboratory No / UR No
    - Priority
    - Request(s)
    - Requested Date
    - Details of all storage locations per laboratory number (Rack) and positions.

> **Note:**  Once a batch is completed it is no longer accessible from this screen and must be viewed via 'Batch Details'.

## 12.3    Batch Details

This is an alternative way of viewing the details of a batch.

- Enter the batch number or batch ID (for example: COAG20170112_03) and press **[Enter]**.

- Batch ID's can be scanned with a barcode scanner.

> **Note:**  Only 'Outstanding' and 'Completed' batches can be accessed from this screen.

The Batch Details screen will open showing the batch type, batch number, time/date created and status at the top of screen.

- The status can be:

  - **Outstanding** - after sequence check is performed and batch is being processed;

  - **Interim** - batch is created and processing is incomplete;

  - **Completed** - if processing of batch is complete.

To print the 'Batch Details' table for a specific batch number, highlight and select the **Print** icon or press **[F11]** to print to the default printer. Alternatively, select the **(V)** icon or press **[SF11]** to print to a specific printer.

**Function Buttons**

| Function | Description |
| --- | --- |
| **Sequence Check [F5]** | The function prompts the user to scan or manually enter the details of the batch number again. |
| | Used as a second check to ensure that work about to be performed on the batch is true and accurate and matches the details of the batch. |
| | It is necessary to perform the sequence check before further work to this batch can be done. In an event where the sequence check is not performed, an error message displays. |
| | You cannot commence further work until the sequence check is complete. |
| **Reagents [F6]** | Used to assign consumables and/or equipment to a batch. |
| | **Note:**  Assignment of at least one consumable or equipment is mandatory prior to completing a batch. |
| **Complete Batch [F7]** | Used to complete a batch when the batch does **not** have results to be uploaded. |
| | To complete a batch: |
| | 1. The sequence check and reagent assignment must be completed by an independent user; |
| | 2. The same user **cannot** perform all 3 tasks; |
| | 3. The same user can perform the sequence check and reagent assignment however a different user must perform completion of the batch; |

| Function | Description |
|---|---|
| | 4.   Completion of a batch can also be performed directly from the results table screen. This is used when results have been imported from an analyser. |
| **Print Menu [F8]** | Accesses sub menus:<br><br>**Print Storage Label [F5]**<br><br>• Reprints the configured storage label. After reprinting an entry will appear in the 'Batch Audit'.<br><br>**Print Batch Label [F6]**<br><br>• Reprints the configured batch label. After reprinting an entry will appear in the 'Batch Audit'.<br><br>**Print Sample Labels [F7]**<br><br>• Reprints the configured sample labels. After reprinting an entry will appear in the 'Batch Audit' AND the 'Sample Audit'.<br><br>**Print Worksheet [F8]**<br><br>• Reprints worksheet details. The user may print as many times as desired. After reprinting an entry will appear in the 'Batch Audit'.<br><br>**Main Menu [SF5]**<br><br>• Returns to the Batch Details Main Menu. |
| **Reload Batch [SF5]** | Reloads or resends files/plate maps to the configured network drive or analyser.<br><br>Useful if the batch has had samples removed or the initial file/plate map has been lost.<br><br>**Note:**  To reload a batch an export analyser must be configured for the batch. |
| **Remove Menu [SF7]** | Accesses sub menus:<br><br>**Remove Sample [F6]**<br><br>• Used to remove a sample from the batch and place it back on the outstanding batch allocation list.<br><br>**Remove All Samples [SF6]**<br><br>• Used to remove all samples from the batch and place them back on the outstanding batch allocation list.<br><br>**Note:**  Audit events are logged in the batch and sample audit trails. The 'Batch Audit' details the laboratory number that was |

| Function | Description |
|---|---|
| | removed. The 'Sample Audit' details the batch ID and position from where the sample was removed. |
| | **Return Sample [F8]** |
| | • Used to return a sample to the batch. |
| | **Return All Samples [SF8]** |
| | • Used to return all samples to the batch. |
| | **Main Menu [SF5]** |
| | • Returns to the Batch Details Main Menu. |
| | **Note:**  If a sample(s) are removed or returned from the batch, the file/plate map must be recreated using the Reload Batch function as described above. |
| | **Recommendation:**  If sample(s) are removed after the initial sequence check, a manual batch audit entry should be created to indicate that you have physically removed the sample from the batch. A second user should also manually create a batch audit entry to indicate they have checked this. |

## Import Results or Log Files

Select the **Files [CF6]** tab to import results or log files from a specified file path.

- Log files are imported at any stage a log file is available.

- Result files are only imported when available from an analyser.

**Function Buttons**

| Function Button | Description |
|---|---|
| **Import Results [SF6]** | Imports results into the results import table. |
| | • Select the **Import Results [SF6]** function button; |
| | • Via the 'Open' dialog, select the file path and file; for example: C:\auslab\hbvpq20201002_01.txt); |
| | • Click **[Open]**; |
| | • At the prompt; *'Is this a result file (y/n)?'*; |
| | • To import a log: click **[No]**. The file is stored as a log against the batch; |
| | • To import results: click **[Yes]**. The file is stored as results against the batch. |

| Function Button | Description |
|---|---|
| | **To view the imported results/log file**<br><br>1. Select the file type via the results import table and double-click or press **[Enter]**;<br><br>2. If a result file is selected, the results table is displayed.<br><br>**Note:** By selecting any of the table entries from the 'Results Table' screen and pressing **[Enter]**, there is direct access to the 'Results History' to view all the results performed on the sample.<br><br>**Note:** The 'Results History' screen is also available from the patient record of Results Enquiry if results have been uploaded into **Evolution vLab®**. |
| **Export File** | This function key is used to export files. |

## To View the Audit History

1. Select the **Audit [SF8]** sub-tab;

2. The batch audit logs all actions that have been performed on a particular batch. These actions include who created the batch, at what time, how many entries were added, which (if any) were removed or returned, who performed the sequence check, who printed or reprinted labels and worksheets and who completed the batch.

**Functions**

| Function | Description |
|---|---|
| **Insert Audit Entry [CF7]** | Adds a manual audit entry to the audit log.<br><br>**Note:** Entries can only be added, they cannot be deleted or edited. |

# 13   System Lists

System lists are user defined lists and therefore, the columns displayed may vary across each department.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **All Incomplete Requests** | System generated list of tests or panels that do not have results or the results that have not been validated.  Entries remain in this list until the tests or panels are either validated or deleted. |
| **Overdue Requests** | System generated list of test or panels that have exceeded their configured routine analysis time (overdue time).  Also includes outstanding requests and those ready for validation.  Entries will remain in this table until validated or deleted. |
| **Outstanding Requests** | System generated list of test or panels that do not have any results attached.  Entries remain in this table until they are edited and a result is entered. |
| **Requests Ready to Validate** | System generated list of test or panels with results ready for final validation.  Results can be viewed for final checking and validation. Entries remain in this table until validated or deleted. |
| **Full Daysheet** | System generated list of all the laboratory entries that have been registered or received (via tracking) for a specified date, with a summary of patient information and tests/panels requested.

On entry into the Full Daysheet, data for the current day is displayed. Full Daysheets may be department based or display all Laboratory records dependent upon the option defined by the System Administrator.

Selecting the Department allows access to Full Daysheets from other than the users default department. |
| **Package Daysheet (FOR)** | This screen is for the Forensics division only. It is a system generated list of all the case numbers that have been registered for a specified date, with a summary of and tests/panels requested.

Upon entry via the Package Daysheet, data for the current day is displayed. This type of daysheet may be department based or display all case records dependent upon the option defined by the System Administrator.

Selecting the Department allows access to Package Daysheets from other than the users default department. |

| Submenu Tab | Description |
|---|---|
| **Incomplete Packages** | This screen is for the Public Health division only and allows the monitoring of incomplete packages. "Incomplete" is defined as registered packages with either no results or containing requests which have not been level 2 validated. |
| **Package Daysheet (PH)** | This screen is for the Public Health division only. It is a system generated list of all the case numbers that have been registered for a specified date, with a summary of and tests/panels requested.<br><br>Upon entry via the Package Daysheet, data for the current day is displayed. This type of daysheet may be department based or display all case records dependent upon the option defined by the System Administrator.<br><br>Selecting the Department allows access to Package Daysheets from other than the users default department. |

## 13.1    All Incomplete Requests

This screen is a system generated list of test or panels that do not have results or results that have not been validated.

- Entries remain in this list until they are either validated or deleted.

### To View Details

1. Highlight the desired entry, double-click or press Enter.
2. The laboratory records for the specific system list are displayed.

### Selected All Incomplete Request List

1. This table lists all the laboratory records assigned to this particular test/panel (displayed in the blue banner).
2. The information on display is configurable at the department level by the system administrator and the entries can vary across laboratories.

### To View Details

1. Highlight the desired entry, double-click or press Enter.
2. The result screen/s for the associated entry is displayed.

## 13.2    Overdue Requests

This screen is a system generated list of test or panels that have exceeded their configured routine analysis time (overdue time).

- It also includes outstanding requests and those ready for validation.

- Entries will remain via this table until validated or deleted.

### To View Details

1. Highlight the desired entry, double-click or press Enter.

2. The laboratory records for the specific system list are displayed.

### Selected Overdue Requests System List

1. This table lists all the laboratory records assigned to this particular test/panel (displayed in the blue banner).

- The information on display is configurable at the department level by the system administrator and the entries can vary across laboratories.

### To View Details

1. Highlight the desired entry, double-click or press Enter.

2. The result screen/s for the specific entry is displayed.

## 13.3    Outstanding Requests

This screen is a system generated list of tests/panels that do not have any results attached.

- Entries remain via this table until they are edited, and a result is entered.

### To View Details

1. Highlight the desired entry, double-click or press Enter.

2. The laboratory records on the specific system list aredisplayed.

### Selected Outstanding Requests System List

This table lists all the laboratory records assigned to this particular list (displayed in the blue banner).

- The information on display is configurable at the department level by the system administrator and the entries can vary across laboratories.

### To View Details

1. Highlight the desired entry, double-click or press Enter r.

2. The result screen/s for the specific entry is displayed.

## 13.4 Requests Ready to Validate

This screen is system generated list of tests/panels with results ready for final validation.

- Results can be viewed for final checking and validation.

- Entries remain via this table until validated or deleted.

### To View Details

1. Highlight the desired entry, double-click or press Enter.

2. The laboratory records for the specific system list are displayed.

### Selected Requests Ready to Validate System List

This table lists all the laboratory records assigned to this particular list (displayed in the blue banner).

- The information on display is configurable at the department level by the system administrator and the entries can vary across laboratories.

### To View Details

1. Highlight the desired entry, double-click or press Enter.

2. The results screen for the specific entry is displayed;

3. Proceed to validate the patient results should your login have the privilege to do so.

## 13.5 Full Daysheet

This screen is a system generated list of all the laboratory entries that have been registered for a specified date, with a summary of patient information and tests/panels requested.

- The Full Daysheet shows data for the current day.

- Full Daysheets may be department based or display all laboratory records dependent upon configuration. Selecting the department allows access to full daysheets other than the department currently logged in to.

**Function Buttons**

| Function | Description |
|---|---|
| **Enter Date [F8]** | Enter the date to view the daysheet for that day. <br><br> Format is ddmmyy or ddmmyyyy or dd/mm/yy or dd/mm/yyyy. <br><br> Alternatively, use the blue left and right arrows to manually scroll through dates to display full daysheets from other days. |
| **Container ID Search [SF9]** | Allows the user to search for a specific laboratory number or container ID within the list. <br><br> 1. Select the **Container ID Search [SF9]** function button; <br><br> 2. Enter the laboratory number; <br><br> 3. Select **[OK]** to continue or **[Enter]**. <br><br> If the laboratory number or container ID entered is not present in the list the message *'Container not in list'* will display. |

## To View Details

i)   Highlight the desired entry, double-click or press Enter.

ii)  The results screen for the specific entry is displayed.

## 13.6   Package Daysheet (FOR)

This screen is a system generated list of all the case numbers that have been registered for a specified date, with a summary the tests/panels requested.

- The Forensics Package Daysheet displays data for the current day.

- It may be department based or display all case numbers dependent upon configuration. Selecting the department allows access to full daysheets other than the department currently logged in to.

**Function Button**

| Function | Description |
|---|---|
| **Enter Date [F8]** | Enter the date to view the daysheet for that day.<br><br>Format is ddmmyy or ddmmyyyy or dd/mm/yy or dd/mm/yyyy.<br><br>Alternatively, use the blue left and right arrows to manually scroll through dates to display full daysheets from other days. |

## 13.7   Incomplete Packages

This screen is system generated and only available to the Public Health Division that allows users to view & monitor packages which are incomplete. "Incomplete" is defined as registered packages with either no results or containing requests which have not been level 2 validated.

- The Forensics Package Daysheet displays data for the current day.

- It may be department based or display all case numbers dependent upon configuration. Selecting the department allows access to full daysheets other than the department currently logged in to.

**Function Button**

| Function | Description |
|---|---|
| **PKG Status [SF6]** | To access the associated departments Package Status screen. |

## 13.8   Package Daysheet (PH)

This screen is a system generated list of all the package numbers that have been registered for a specified date, with a summary the tests/panels requested.

- The Public Health Package Daysheet displays data for the current day.

- It may be department based or display all case numbers dependent upon configuration. Selecting the department allows access to full daysheets other than the department currently logged in to.

**Function Buttons**

| Function | Description |
|---|---|
| **Enter Date [F8]** | Enter the date to view the daysheet for that day. |
| | Format is ddmmyy or ddmmyyyy or dd/mm/yy or dd/mm/yyyy. |
| | Alternatively, use the blue left and right arrows to manually scroll through dates to display full daysheets from other days. |
| **PKG Status [SF6]** | To access the associated departments Package Status screen. |

# 14    Analysers

Accesses workflow functions for individual analysers, analyser groups or processing groups in the laboratory.

### Submenu Tabs

| Submenu Tab | Description |
|---|---|
| **Analysers 1** | Lists analysers interfaced with **Evolution vLab®** and includes the number of samples waiting processing, and also the number of patients and QC results awaiting validation. |
| **Analyser 2** | Lists all interfaced analysers with **Evolution vLab®** including the number of samples waiting processing and also the number of patients and QC results awaiting validation. These analysers can have the validation table configured in matrix or table format. |
| **Analyser Groups** | Lists analysers grouped together of the same class.  Data related to the load list, level 1 validation list and QC are presented in a consolidated format on the one table.<br><br>This functionality has the potential of streamlining laboratory workflow as it eliminates the need for users to access multiple validation and load lists. For example: immunology group of analysers. |
| **Processing Groups** | Processing Groups are a group of analyser groups.  They can potentially belong to different departments and different analyser classes.<br><br>They serve a similar purpose to analyser groups but at a higher level. They similarly provide the ability for the user to view a consolidated load list, level 1 validation and QC validation list for all of the analysers that make up that processing group, for example: All chemistry analysers. |
| **Generic Instrument Interface** | A Generic Instrument Interface can be used to upload finalised result data into **Evolution vLab®** from non-networked instruments.  Status files, audit history and error logs for a particular analyser can be viewed.  There is the ability to:<br><br>1.  View the list of samples waiting to be processed or in process.<br><br>2.  View and validate the QC performed on the analysers.<br><br>3.  Validate patient results. |
| **BloodNet Interface** | The **BloodNet** Interface tab allows a user to view and utilise the following functions of the interface through a series of sub-menus. |

| Submenu Tab | Description |
|---|---|
| | 1. Transfer – Initiate file transfer |
| | 2. View details of the recent transactions |
| | 3. History – Review historical transactions |
| | 4. Audit – Audit entries of transactions |

## 14.1 Analysers 1

Analysers displayed are dependent upon which department the user is currently logged into, that is: Microbiology will only list analysers for micro.

- The table lists:
  - o Number of tubes (samples) awaiting processing or are currently being processed.
  - o Number of patient results awaiting validation.
  - o Number of QC results awaiting validation.

### To View Analyser Details

1. Highlight the desired analyser, double-click or press Enter
2. The validation list displays as the default tab.

**Submenu Tabs**

| Submenu Tabs | Description |
|---|---|
| **Load List [F5]** | Selection of this tab displays a list of the laboratory numbers that require loading onto the analyser. |
| **Quality Control [SF6]** | Selection of this tab displays and gives the user access to the list of the configured quality control material for the analyser. |
| **QC Validation [SF7]** | Summary of QC results ready for validation. |
| **Validation List [SF8]** | Selection of this tab displays the summary level 1 validation table for the analyser, that is: laboratory numbers with results for level 1 validation. |

### 14.1.1 Load List [F5]

The screen lists all samples ready for processing by a specific analyser, analyser group or processing group (listed in the blue banner).

- The primary sort order of this table is by priority, that is: most urgent samples are displayed first.

- The secondary sort order is by date where the oldest date/time is displayed first.

- The date column that displays via the load list is the event trigger, for example: can be triggered during registration, receipt of Receive List, rejection from Level 1 table, etc.

**Note:** Information displayed via the load list is configurable by the system administrator, which can vary across laboratories and analysers.

**Triggers that *add* an entry to the load list**

- Sample registration. The request must be configured for processing at the appropriate laboratory.  The 'Received' time/date is displayed.

- Receipt of a sample/request from a Receive List.

- Deletion of a Level 2 validated result (that is: sample re-run).

- Rejection of a result during Level 1 validation.

**Triggers that *remove* an entry from the load list**

- When a host query is performed for a sample.

- When a request is deleted at sample registration.

- When a result is manually entered and there are no further outstanding results for the request that require level 2 data entry.

- When results are transferred to the result screen (for Level 1 or Level 2 validation) without a host query (for example: in the case of broadcast download or no host query).

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Entry [F6]** | Use this to remove an entry from the load list.  The sample will not have results recorded.<br>1.   Highlight the entry of interest in the list;<br>2.   Select the **Remove Entry [F6]** function button;<br>3.   The status column is updated as *'deleted'*. |
| **Container ID search [SF9]** | Allows the user to search for a specific laboratory number or container ID within the list.<br>1.   Select the [Container ID Search] button, or press the **Container ID Search [SF9]** function button;<br>2.   Enter a Laboratory Number or Container ID; |

| Function | Description |
|---|---|
| | 3. Select the **[OK]** button to continue, or press the **[Enter]** key; <br><br> 4. If the Laboratory Number or Container ID entered is not present via the list, the message 'Container not in list' is displayed. |

## 14.1.2    Quality Controls [SF6]

This screen lists all quality controls currently in use.

- If the QC is for an analyser, the name of the analyser is displayed via the blue banner.

- QC's are user defined and information is stored on a lot by lot basis.

- Each control lot is configured for test, target, high and low values.

- Sorted by source, control name, lot number and test.

- QC data for analysers is collected automatically.

- QC data can be viewed as a table, as Levey/Jennings plots (graph), QC Reports or monthly statistics.

**Submenu Tabs**

| Sub Tab | Description |
|---|---|
| **Active Table [CF8]** | Lists controls that are currently being used for the analyser. |
| **Inactive Table [CF9]** | Lists the analyser controls that are not in use. |
| **QC Reports [CF7]** | Used to create QC reports. <br><br> • Complete the details within the data fields; <br><br> • Select the **Select** icon from the top of the screen or press **[F12]** to generate the report; <br><br> • The report is displayed via the lower section of the screen; <br><br> • To view more specific details, highlight an entry and double-click or press **[Enter]**. |

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Creates a new Control (QC) file into the list |
| | 1.   Select the **Create [F6]** function button; |
| | 2.   Enter the details via the mandatory fields marked with a red asterisk (**\***); |
| | 3.   Determine whether the QC will be active or not by setting the Active field, as required; |
| | 4.   Select the **Save** icon, or press the **Save [F4]** function key. |
| **Edit/View Current QC Data [F7]** | Allows the current (active) Lot to be viewed and allows the QC information to be edited |
| | 1.   Highlight the desired entry and select the **Edit/View Current QC Data [F7]** function button; |
| | 2.   The screen for the current active lot is displayed; |
| | 3.   The test information can be edited using the **Edit** icon or **[F2]** via the Control Tests screen. |
| | The QC Data points can be added and annotated via the function keys displayed on the control tests screen. |

**Data Fields**

| Data Field | Description |
|---|---|
| **Analyser** | This is system generated, that is: cannot be edited. |
| **Description** | Description of the QC material. |
| **Mnemonic** | Alpha numeric name used as a quick reference. |
| **Alias** | An alternate unique alpha numeric name. |
| **Lot Number** | The lot number of the batch of QC. |
| **Supplier** | The supplier of the QC. |
| **Remarks** | Comments regarding the QC material relevant to this lot number. |
| **Start Date** | Start date (DDMMYY) this lot number will be used from. |
| **Expiry Date** | Expiry date (DDMMYY) for this lot number. |
| **Active** | Indicates if the entry is in use or not. Valid entries Yes or No. |

## Control Lots

This screen shows the Control Description, Mnemonic and Alias of the QC.

- The table shows the lots associated with the QC.

- The far-right column of the table displays whether the lot is in current use (active) or not.

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Used to create a new control lot number for the QC. |
| **Edit/View QC Data [F7]** | Allows the Lot to be viewed and allows the QC information to be edited.<br><br>1. Highlight the desired entry and select the **Edit/View QC Data [F7]** function button;<br><br>The test information can be edited using the Edit icon via the control tests screen.<br><br>The QC Data points can be added and annotated via the function keys displayed on the Control Tests screen. |
| **Create & Copy [F8]** | Allows the configuration of a new Lot and copies the tests and test values from the Lot that was highlighted when the function key was selected. |

## Create New Lot Number for Existing Control File

1. Select the **Create [F6]** function button. The 'Create Analyser Control Lot' screen is displayed.

2. The Create Analyser Control screen displays  the Control File details. Only the Lot information is editable.

**Note:**  When using this method each test must have target ranges and Westgard rules entered via the Create function from the control tests screen.

## Editing a Control Lot

1. Highlight the desired entry;

2. Select the **Edit** icon or press **[F2];**

3. The create Analyser control screen will open with prefilled data;

4.   Make the required changes;

5.   Select the **Save** icon, or press the **Save [F4]** function key when finished editing;

6.   To cancel the edit, select the **back** icon.

**Note:**  When using this method each test must have target ranges and Westgard rules entered via the Create function from the control tests screen.

## Create New Lot & Copy the Existing Tests & Test Value Data

1.   Highlight the desired entry with the tests and test value data  to be copied;

2.   Select the **Create & Copy [F8]** function button. The 'Create Analyser Control Lot' screen displays populated with the Control File details.  Only the Lot information is editable.

## Control Tests

This screen is accessed by selecting an entry from the Control Lots screen.

• The Control Tests screen displays the results entered for a given QC test.

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Allows a new test to be added to the control lot.<br><br>1.   Select the **Create [F6]** function button;<br><br>2.   Enter the required information via the associated fields of the 'Control Test Create' dialog;<br><br>3.   Select **Save**. |
| **Graph Lot(S) [SF5]** | Displays the Levey-Jennings plot for the highlighted test.  Can be filtered to display specific data.<br><br>1.   Highlight the desired test and select the **Graph Lot(s) [SF5]** function button;<br><br>2.   The View Type can be changed to view the Actual value or the Target value;<br><br>3.   The Display Width can be changed to display a day, week, fortnight, month, two months, three months, six months or a year;<br><br>4.   A particular start and end date can be entered.  To use a date range, enter the days and select **[Submit]**;<br><br>5.   Y Axis displays the QC result values; |

| Function | Description |
|---|---|
| | 6.   X Axis displays the date the QC point was run;<br><br>7.   The mouse can be used to move the data points;<br><br>8.   Select **[Close]** to exit the graph. |
| **Graph All Tests [CF6]** | Displays the Levey-Jennings Plot for all tests for the control and lot number.  Can be filtered to display specific data.<br><br>1.   Select the **Graph All Tests [CF6]** function button;<br><br>2.   The View Type can be changed to view the Actual value or the Target value;<br><br>3.   The Display Width can be changed to display a day, week, fortnight, month, two months, three months, six months or a year;<br><br>4.   Tests within the control can be viewed or removed from the plot using the **[Add]** and **[Remove]** buttons;<br><br>5.   A particular start and end date can be entered.  To use a date range, enter the days and select **[Submit]**;<br><br>6.   Y Axis displays the QC result values;<br><br>7.   X Axis displays the date the QC point was run;<br><br>8.   The mouse can be used to move the data points;<br><br>9.   Select **[Close]** to exit the graph.<br><br>**<u>Notes:</u>**<br><br>1.   If the display width is less than the date range as determined by the start and end date; (for example: the date range is a year and the display width is a fortnight), then the X-Axis of graph may be scrolled to the left and right using the mouse or the left and right arrows on either side of the displayed date range at the bottom of the graph. The vertical scroll bar to the right side of screen is used to navigate to view graphs other tests.<br><br>2.   Reference Lines will be enabled if only one Lot is graphed. If more than one Lot is graphed then the Reference Lines may also be enabled, if they have been configured for the test.<br><br>3.   A selected area of the graph can be zoomed by selecting the right mouse and dragging to the right to display a box and then releasing the mouse.<br><br>4.   The display area of the graph can be scrolled by clicking and holding the mouse and dragging it to another side of the screen and then releasing the mouse. |

| Function | Description |
|---|---|
| **Data Points [CF7]** | Displays the time/date of entry, the user and the corresponding value for the test.  Annotations are also included.  Data points can be activated and deactivated.<br><br>1.  Highlight the desired test and select the **Data Points [CF7]** function button;<br><br>2.  Highlight an entry and select a function from the top of the table;<br><br>3.  Use the **Back** icon or **[Esc]** to return to the previous screen. |
| **Monthly Statistics [CF8]** | Displays the mean result for each test for each day of the month. Can filter using the date.<br><br>1.  Highlight the desired test and select the **Monthly Statistics [CF8]** function button;<br><br>2.  Use the **Enter Date [F8]** function button to filter results;<br><br>3.  The blue arrows can be used to move backwards or forwards by month;<br><br>4.  Use the print icon to print the report;<br><br>Or<br><br>5.  Use the **Export** icon to save the file.<br><br>When the export icon is clicked, the table data is exported to the local computer as a CSV file (comma separated file).  This file can be opened using any standard editor for example Excel |

## To Edit Test Values & Westgard Rules

1.  Highlight an entry within the Control Tests screen table;

2.  Select the **Edit** icon from the top of the screen or press **[F2];**

3.  The Control Test Modify screen will open with the current settings for the QC;

4.  Make the required changes;

5.  Select the **[Save]** button or press **[F4]** when finished editing;

6.  To cancel the edit, select the **[Cancel]** button.

**List Display**

| Column | Description |
| --- | --- |
| **Test** | Select the test for this QC Material.  **Lookup [F1]** available. |
| **Target** | The target result value expected for this QC material.  This information is generally supplied by the manufacturer. |
| **T Sdev** | The target Standard Deviation expected for this QC material.  This information is generally supplied by the manufacturer. Values may vary depending on QC protocols. |
| **Low** | The lowest result value expected for this QC material. |
| **High** | The highest result value expected for this QC material. |
| **Westgard 1 2S** | The action to be taken for the Westgard rules. Select (F)lag.  <br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **1 3S** | Select (F)lag.  <br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **2 2S** | Select (F)lag.  <br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **R 4S** | Select (F)lag.  <br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **4 1S** | Select (F)lag.  <br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **10X** | Select (F)lag.  <br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |

| Column | Description |
|---|---|
| **Outside Range** | The outside range. |
| **Auto validate** | Whether to auto validate the results if all conditions are met. |

Notes when graphing results:

- If the display width is less than the date range as determined by the start and end date; (for example: the date range is a year and the display width is a fortnight), then the X-Axis of graph may be scrolled to the left and right using the mouse or the left and right arrows on either side of the displayed date range at the bottom of the graph. The vertical scroll bar to the right side of screen is used to navigate to view graphs other tests.

- Reference Lines will be enabled if only one Lot is graphed. If more than one Lot is graphed then the Reference Lines may also be enabled, if they have been configured for the test.

- A selected area of the graph can be zoomed by selecting the right mouse and dragging to the right to display a box and then releasing the mouse.

- The display area of the graph can be scrolled by clicking and holding the mouse and dragging it to another side of the screen and then releasing the mouse.

### 14.1.3   Monthly Statistics [CF8]

This function provides a snapshot of how the QC is performing on a monthly basis.

- The screen defaults to the current month

The table displays the following information in each column:

**List Display**

| Column | Information |
|---|---|
| **Test** | The test which the information in the column relates to. |
| **Target** | The target result expected for this QC. |
| **Mean** | The mean value calculated from the data points. |
| **S.D.** | The standard deviation calculated from the data points. |
| **C.V.** | The coefficient of variation calculated from the data points. |

**Function Button**

| Function | Description |
|---|---|
| **Enter Date [F8]** | Used to specify the date (month and year) to display. The screen display defaults to the data for the current month<br><br>• Select the Enter Date [F8] function button;<br>• Enter the date in the format MMYYYY;<br>• Select OK or press **[Enter]**.<br><br>Alternatively use the Left and Right arrow keys adjacent to the Enter date button to select the date. |

## To Print or Export the data:

1. Use the **Print** icon to print the report, or

2. Use the **Export** icon to save the file.

3. When the export icon is selected, the table data is exported to the local computer as a csv file (comma separated file). This file can be opened using any standard editor for example Excel.

### 14.1.4   Analyser QC Points

This screen is where the results obtained from analysis of the test within the QC lot are entered. Each test has a separate QC Points screen accessed from the Control Tests screen.

• The screen displays with a header pane and a table.

• The header pane is non-editable and displays information relating to the statistics of the results already obtained and the expected result parameters for this test relating to Lot and Control material.

• Abnormal results are highlighted.

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Add a QC test value or insert a comment (without a QC test value).<br><br>1. Select the **Create [F6]** function button;<br>2. Enter the required information into the fields of the dialogue box; |

| Function | Description |
|---|---|
| | 3.  Select the **Save** icon or press the **Save [F4]** function key. |
| **Deactivate Datapoint [F7]** | Deactivates the data point and removes it from the statistical calculations.<br><br>1.  Highlight the data point and select the **Deactivate Datapoint** button or press **[F7].** The status field will update to 'Deactivated'. |
| **Date Range [F9]** | Filters the QC data points based on a particular date.<br><br>1.  Select the **Date Range** button or press **[F9];**<br><br>2.  Enter start date (DDMMYY or DDMMYYYY format);<br><br>3.  Enter end date (DDMMYY or DDMMYYYY format);<br><br>4.  The QC data points in this date range will appear in the table.<br><br>**To cancel the date range filter**<br><br>1.  Select the **Date Range** button or press **[F9];**<br><br>2.  At the prompt– '*Enter Start Date*'. Press the **[OK]** button.<br><br>3.  All QC data will appear in the table. |
| **Annotate [SF5]** | Adds a note to a data point. Amendments cannot be made to existing annotations.<br><br>1.  Highlight a data point in the table;<br><br>2.  Select the **Annotate** button or press **[SF5];**<br><br>3.  Enter a note;<br><br>*4.*  Select the **[OK]** button or press the **Save [F4]** function key to save or **Cancel** to close.<br><br><u>**Note:**</u> Data points can only be annotated if there are no other existing notes.  If an annotation exists, the error message '*Cannot change an existing annotation*' will display. |
| **Graph [CF5]** | Displays QC data in graph format (Levey-Jennings plot).<br><br>1.  Select the **Graph** button or press **[CF5].** The Levey-Jennings graph will display. |
| **Reactivate Datapoint [CF7]** | Reactivates a QC data point to be included in the statistical calculations.<br><br>1.  Highlight the data point and select the **Reactivate Datapoint** button or press **[CF7];**<br><br>2.  Deactivated status will be removed from the status field. |

14.1.5   QC Reports [CF7]

- QC Reports can be generated for all analytes or individual analytes may be specified.

- The report may contain current lots only or include previous lots.

- The QC report may also be restricted by a date range or by the user who enters results.

- The report will display the calculated mean, standard deviation, CV, target and target SD, the number of out of range, deactivated and total results.

### To generate a QC report:

1. Enter the start date in the *'Start Date'* field (DDMMYYYY or DDMMYY format). QC results entered from this date onwards will be collated;

2. Enter the finish date in the *'Finish Date'* field. QC result entered up to and including this date will be collated;

   **Note:** All tests will include all the tests contained in QC files for the current laboratory group.

3. In the *'Control'* field enter the control to be reported. **Lookup [F1]** is available. Leave this field blank if all controls are to be reported;

4. If a particular Control has been entered, a Lot Number can be entered in the *'Lot Number'* field. **Lookup [F1]** is available. Leave this field blank if all lot numbers are to be reported;

5. Enter the mnemonic of the test required in the 'Test' field. Leave this field blank if all tests are to be reported;

6. Select the **Select** icon from the top of the screen or press **[F12]** to generate the report;

7. The report may be printed or exported if required.

**Function Button**

| Function | Description |
|---|---|
| **Graph Lot(s) [SF5]** | Displays the Levey-Jennings Plot for the selected lot number. Can be filtered to display specific data. <br><br> 1. Highlight the required test and select the Graph Lot(s) button or press [SF5]; <br><br> Y Axis displays the QC result values; <br><br> X Axis displays the date the QC point was run. |

14.1.6   QC Validation [SF7]

- This screen displays the selected analyser QC that is awaiting validation (that is: Results are outside the acceptable range and configured to be held).

- By highlighting an entry within the table and double clicking with the mouse or pressing **[Enter]**, the QC results screen will open.

## QC Results

- Lists all the QC results for the selected QC, outlined in the top data fields.

- Results are colour coded:
    - **Orange**    Low/high
    - **Black**    Accepted
    - **Blue**    Held
    - **Grey**    Rejected
    - **Green**    Normal

- To view the error flag, place the cursor into the field.

- Error codes will display in the Error Flags data field.

- L1 Text displays the analyser instructions, for example: 'val override' or 'instrument flag'.
    - **Val override** – results are within range, so the auto validation rules have been applied
    - **Instrument flag** – means there is an analyser generated flag for the test result
    - Other text will be determined by the instrument interface

**Note:**  Functions will only be available to those with Validation (Level 1, Level 2) privileges.

### Function Buttons

| Function | Description |
|---|---|
| **Accept [F4]** | Accepts the selected QC result into the QC file, Result changes to black.<br><br>1.  Place cursor into selected QC result field;<br><br>2.  Select the Accept button or press **[F4]**. |
| **Dilution [F7]** | This function is unavailable for QC samples. |
| **Accept Page [SF4]** | Accepts all displayed QC results, into the QC file<br><br>**Note:**  Not available in analyser groups. |
| **Graph QC (Current Lot) [CF7]** | Produces a graph of the QC results.<br><br>1.  Highlight the QC within the table;<br><br>2.  Select the Graph QC button or press **[CF7]**;<br><br>3.  A separate window opens with the graph of results; |

| Function | Description |
|---|---|
|  | 4. Use the filter options to change the style and appearance of the graph. |

The **Previous** and **Next** icons at the top of the screen or **Previous [SF3]** and **Next [F3]** function keys respectively, can be used to navigate through entries.

## 14.1.7    Validation List [SF8] - Level 1 Summary

- The validation table is used to review and validate results from an analyser that does NOT pass auto-validation rules.

- Tests will appear on the validation screen as results become available from the analyser.

- Only the requests/tests on the laboratory number ready for Level 1 validation will display on the screen (not the entire panel of tests registered against a laboratory number).

- The requests/tests will be removed from the list as they are Level 1 validated (after screen is refreshed).

- Error flags and L1 Text will be updated according to results transmitted.

- The default sort order for entries on the summary table are:

  o **Priority**    Urgent sample display first (on registration) followed by the;

  o **Date/Time**   Oldest processed date/time

**Note:**  Date/time does not display on the table but is calculated in the background

1. Highlight a patient entry and press **[Enter]** or double click with the mouse;

2. The analyser level 1 results screen for the patient will open.

### Level 1 Results

- A key to the colour-coded results is listed in the top right corner of the table.

- Colour coding of patient results:

  o **Orange**    Low/High

  o **Pink**    Failed Delta Check

  o **Red**    Critical

  o **Green**    Transmitted

  o **Black**    Accepted

  o **Grey**    Rejected

  o **Blue**    Held

  o Sample location is recorded in the 'Sample Location' field.

> **Note:**  Functions will vary across analysers.  All functions will only display to staff who have validation privilege settings.  Reception and Cumulative Result functions are available to staff without validation privileges.

**Function Buttons**

| Function | Description |
|---|---|
| Accept [F4] | Accepts the highlighted results into the patient file (Level 1 validation). The result will change colour to Black.<br><br>• Place cursor into the result field;<br><br>• Select the **Accept** button or press **[F4].** |
| Dilution [F7] | Adds a dilution factor for the selected test. The re-calculated result will then display on the validation table.<br><br>1. Place the cursor into the result field;<br><br>**2.** Select the **Dilution** button or press **[F7];**<br><br>3. At the prompt, enter a dilution factor;<br><br>4. Select **[OK]**;<br><br>5. When the sample is re-run, the dilution factor will be applied.<br><br>**Note:**  This is only available for patient samples, not QC. |
| Cumulative Results [F9] | Displays cumulative results for the patient<br><br>1. Select the **Cumulative Results** button or press **[F9];**<br><br>2. The cumulative results page opens. |
| Accept Page [SF4] | Accepts all results on the page with a Level 1 validation status.<br><br>1. Select the **Accept Page** button or press **[SF4];**<br><br>2. Results will change to black;<br><br>3. If results have already been accepted, a message prompt will appear, select *yes* or *no*. |
| Reject Page [SF5] | Rejects all results on the page.<br><br>1. Select **Reject Page** button or press **[SF5];**<br><br>2. At the prompt, select *yes* to reject all results;<br><br>3. Results will change to grey;<br><br>4. Tests will then be rescheduled for testing again and will appear on corresponding load lists. |

| Function | Description |
|---|---|
| **Reception [SF10]** | Accesses the reception screen for the lab number. |
| **Reject [CF5]** | Rejects a selected result.<br><br>1. Place the cursor into a results field;<br>2. Select the **Reject** button or press **[CF5];**<br>3. At the prompt, select *yes* to reject the result;<br>4. The result will change to grey;<br>5. The test will then be rescheduled for testing again and will appear on corresponding load lists. |
| **Graph QC (Current Lot) [CF7]** | Produces a graph of the QC results<br><br>1. Select the **Graph QC** button or press **[CF7];**<br>2. At the prompt enter the test mnemonic of the QC you wish to view and select OK or press **[Enter]**;<br>3. A separate window opens with the graph of results;<br>4. Use the filter options to change the style and appearance of the graph. |
| **Hold [CF8]** | Places a selected result on hold, preventing it from being validated or added to additional load lists.<br><br>1. Place cursor into results field;<br>**2.** Select the **Hold** button or **[CF8];**<br>3. At the prompt, enter a reason, select **[OK]**;<br>Result will change to blue.<br>4. To remove the *Hold* status select the **Hold** button or **[CF8].** |

The **Previous** and **Next** icons or **Previous [SF3]** and **Next [F3]** function keys can be used to navigate through entries.

Select the **[Enter]** key or the **Select** icon or **[F12]** function key to access the results screen for the patient record.

## 14.2    Analysers 2

- Lists all analysers
- Those displayed are dependent upon which department the user is currently logged into, that is: Microbiology will only list analysers for micro

- The table displays the number of entries on the load list and the number of entries that need validating

- Results can be recorded against a patient episode without validating

## To view analyser details:

1. Select an analyser in the table and press the **[Enter]** key or double click with the mouse;

2. The validation list opens as the default screen.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Load List [F5]** | Selection of this tab displays a list of the laboratory numbers that require loading onto the analyser. |
| **Quality Control [SF6]** | Selection of this tab displays and gives the user access to the list of the configured quality control material for the analyser. |
| **Validation List [SF8]** | Selection of this tab displays the summary level 1 validation table for the analyser, that is: laboratory numbers with results for level 1 validation. |

**Note:**  Some analysers display a level 1 summary results table as a default screen (for example: Bact/Alert).

## 14.2.1   Analysers 2 Load List [F5]

- Lists all samples ready for processing by an analyser.

- The primary sort order of this table is Priority, that is: most urgent samples will display first.

- The secondary sort order is Date where the oldest date/time will display first.

   o  To access the results screen for any sample, highlight the sample and press **[Enter]** or double click with the mouse

**Triggers that** *add* **an entry to the load list**

- Sample registration.  The request must be configured for processing at the appropriate laboratory to display.  The 'Received' time/date will display.

- Receipt of a sample/request from a Receive List.

- Deletion of a Level 2 validated result (that is: sample re-run).

- Rejection of a result during Level 1 validation.

**Triggers that** *remove* **an entry from the load list**

- When a host query is performed for a sample.

- When a request is deleted at sample registration.

- When a result is manually entered and there are no further outstanding results for the request that require level 2 data entry.

- When results are transferred to the result screen (for Level 1 or Level 2 validation) without a host query (for example: in the case of broadcast download or no host query).

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Entry [F6]** | Use this to remove an entry from the load list.  The sample will not have results recorded.<br><br>1. Highlight the entry of interest in the list;<br><br>2. Select the **Remove Entry** button or press **[SF5];**<br><br>3. The status column will be updated with *'deleted'*. |
| **Container ID Search [SF9]** | Allows the user to search for a specific laboratory number or container ID within the list.<br><br>1. Select the [Container ID Search] button, or press the **Container ID Search [SF9]** function button;<br><br>2. Enter a Laboratory Number or Container ID;<br><br>3. Select the **[OK]** button to continue, or press the **[Enter]** key;<br><br>4. If the Laboratory Number or Container ID entered is not present via the list, the message 'Container not in list' is displayed. |
| **Reception [SF10]** | Allows the user to access the reception screen for the highlighted sample.<br><br>1. Highlight the entry of interest in the list;<br><br>2. Select the **Reception** button or press **[SF10];** |

## 14.2.2   Quality Controls [SF6]

- This lists all quality controls currently in use.

- If the QC is for an analyser, the name of the analyser will be displayed in the blue banner.

- QC's are user defined and information is stored on a lot by lot basis.

- Each control lot is configured for test, target, high and low values.

- Sorted by source, control name, lot number and test.

- QC data for analysers is collected automatically.

- QC data can be viewed as a table, as Levey/Jennings plots (graph), QC Reports or monthly statistics.

**Submenu Tabs**

| Sub Tab | Description |
|---|---|
| **Active Table [CF8]** | Lists controls that are currently being used for the analyser. |
| **Inactive Table [CF9]** | Lists the analyser controls that are not in use. |
| **QC Reports [CF7]** | Used to create QC reports.<br><br>1. Complete the details within the data fields;<br><br>2. Select the **Select** icon from the top of the screen or press **[F12]** to generate the report;<br><br>3. The report will be displayed in the lower section of the screen;<br><br>4. To view more specific details, highlight an entry within the table and double click with the mouse or press **[Enter]**. |

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Creates a new Control (QC) file into the list<br><br>1. Select the **Create** button or press **[F6];**<br><br>2. Enter the details into the mandatory fields marked with a red asterisk (**\***);<br><br>3. Determine whether the QC will be active or not by entering 'Y' or 'N' in the *'Active'* field and pressing **[Enter]**;<br><br>4. Select the **Save** icon from the top of the screen or press **[F4].** |
| **Edit/View Current QC Data [F7]** | Allows the current (active) Lot to be viewed and allows the QC information to be edited |

|  | 1. Highlight the required entry and select the **Edit/View Current QC Data** button or press **[F7];** |
|---|---|
|  | 2. The screen for the current active lot displays; |
|  | 3. The test information can be edited using the **Edit** icon or **[F2]** via the Control Tests screen. |
|  | The QC Data points can be added and annotated via the function keys displayed on the control tests screen. |

## Create a Quality Control [F6]:

1. Enter the required details into the data fields;

2. Mandatory fields are marked with a red asterisk (**\***);

3. Select the **Save** icon from the top of the screen or press **[F4]** when complete.

### Data Fields

| Data Field | Description |
|---|---|
| **Analyser** | This is system generated, that is: cannot be edited. |
| **Description** | Description of the QC material. |
| **Mnemonic** | Alpha numeric name used as a quick reference. |
| **Alias** | An alternate unique alpha numeric name. |
| **Lot Number** | The lot number of the batch of QC. |
| **Supplier** | The supplier of the QC. |
| **Remarks** | Comments regarding the QC material relevant to this lot number. |
| **Start Date** | Start date (DDMMYY) this lot number will be used from. |
| **Expiry Date** | Expiry date (DDMMYY) for this lot number. |
| **Active** | Indicates if the entry is in use or not. Valid entries Yes or No. |

## Control Lots

- Shows the Control Description, Mnemonic and Alias of the QC.

- The table shows the lots associated with the QC.

- The far-right column of the table displays whether the lot is in current use (active) or not.

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Used to create a new control lot number for the QC. |
| **Edit/View QC Data [F7]** | Allows the Lot to be viewed and allows the QC information to be edited.<br><br>1. Highlight the required entry and select the **Edit/View QC Data** button or press **[F7];**<br><br>The test information can be edited using the Edit icon via the control tests screen.<br><br>The QC Data points can be added and annotated via the function keys displayed on the Control Tests screen. |
| **Create & Copy [F8]** | Allows the configuration of a new Lot and copies the tests and test values from the Lot that was highlighted when the function key was selected. |

## To create a new Lot number for the existing control file:

1. Select the **Create** button or press **[F6]**. The Create Analyser Control screen displays;

2. The Create Analyser Control screen displays populated the Control File details. Only the Lot information is editable.

**Note:**  When using this method each test must have target ranges and Westgard rules entered via the Create function from the control tests screen.

## Editing a control lot:

1. Highlight an entry within the table;

2. Select the **Edit** icon, or press **[F2];**

3. The create Analyser control screen will open with prefilled data;

4. Make the required changes;

5. Select the **Save** icon, or press the **Save [F4]** function key when finished editing;

6. To cancel the edit, select the back icon.

**Note:**  When using this method each test must have target ranges and Westgard rules entered via the Create function from the control tests screen.

## To create a new lot and copy the existing tests and test value data:

1. Highlight an entry in the table from which the tests and test value data is to be copied;

2. Select the **Create & Copy** button or press **[F8]**.  The Create Analyser Control screen opens populated with the Control File details.  Only the Lot information is editable.

## Control Tests

- This screen is accessed by selecting an entry from the Control Lots screen.

- The Control Tests screen displays the results entered for a given QC test.

**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Allows a new test to be added to the control lot. <br><br> 1. Select the **Create** button or press **[F6]**; <br><br> 2. Enter the required information into the fields of the dialogue box; <br><br> 3. Press the **Save** icon, or press the **Save [F4]** function key. |
| **Graph Lot(S) [SF5]** | Displays the Levey-Jennings plot for the highlighted test.  Can be filtered to display specific data. <br><br> 1. Highlight the required test and select the **Graph Lot(s)** button or **[SF5];** <br><br> 2. The View Type can be changed to view the Actual value or the Target value; <br><br> 3. The Display Width can be changed to display a day, week, fortnight, month, two months, three months, six months or a year; <br><br> 4. A particular start and end date can be entered.  The use a date range, enter the days and select **[Submit]**; <br><br> 5. Y Axis displays the QC result values; <br><br> 6. X Axis displays the date the QC point was run; <br><br> 7. The mouse can be used to move the data points; <br><br> 8. Select **[Close]** to exit the graph. |
| **Graph All Tests [CF6]** | Displays the Levey-Jennings Plot for all tests for the control and lot number.  Can be filtered to display specific data. <br><br> 1. Select the **Graph All Tests** button or **[CF6];** |

| Function | Description |
|---|---|
| | 2.  The View Type can be changed to view the Actual value or the Target value; |
| | 3.  The Display Width can be changed to display a day, week, fortnight, month, two months, three months, six months or a year; |
| | 4.  Tests within the control and be viewed or removed from the plot using the **[Add]** and **[Remove]** buttons; |
| | 5.  A particular start and end date can be entered.  The use a date range, enter the days and select **[Submit]**; |
| | 6.  Y Axis displays the QC result values; |
| | 7.  X Axis displays the date the QC point was run; |
| | 8.  The mouse can be used to move the data points; |
| | 9.  Select **[Close]** to exit the graph. |
| | **Notes:** |
| | 1.  If the display width is less than the date range as determined by the start and end date; (for example: the date range is a year and the display width is a fortnight), then the X-Axis of graph may be scrolled to the left and right using the mouse or the left and right arrows on either side of the displayed date range at the bottom of the graph. The vertical scroll bar to the right side of screen is used to navigate to view graphs other tests. |
| | 2.  Reference Lines will be enabled if only one Lot is graphed. If more than one Lot is graphed then the Reference Lines may also be enabled, if they have been configured for the test. |
| | 3.  A selected area of the graph can be zoomed by selecting the right mouse and dragging to the right to display a box and then releasing the mouse. |
| | 4.  The display area of the graph can be scrolled by clicking and holding the mouse and dragging it to another side of the screen and then releasing the mouse. |
| Data Points [CF7] | Displays the time/date of entry, the user and the corresponding value for the test.  Annotations are also included.  Data points can be activated and deactivated. |
| | 1.  Highlight the required test and select the **Data Points** button or **[CF7]**; |
| | 2.  Highlight an entry and select a function from the top of the table; |
| | 3.  Use the **Back** icon or **[Esc]** to return to the previous screen. |

| Function | Description |
|---|---|
| **Monthly Statistics [CF8]** | Displays the mean result for each test for each day of the month. Can filter using the date. <br><br> 1. Highlight the required test and select the **Monthly Statistics** button or **[Control+ F8];** <br><br> 2. Use the **Enter Date** button or **[F8]** to filter results; <br><br> 3. The blue arrows can be used to move backwards or forwards by month; <br><br> 4. Use the print icon to print the report; <br><br> Or <br><br> 5. Use the export icon to save the file. <br><br> When the export icon is clicked, the table data is exported to the local computer as a CSV file (comma separated file). This file can be opened using any standard editor for example Excel |

## To edit test values and Westgard rules:

1. Highlight an entry within the Control Tests screen table;

2. Select the **Edit** icon from the top of the screen or press **[F2];**

3. The Control Test Modify screen will open with the current settings for the QC;

4. Make the required changes;

5. Select the **[Save]** button, or press the **Save [F4]** function key when finished editing;

6. To cancel the edit, select the **[Cancel]** button.

### List Display

| Column | Description |
|---|---|
| **Test** | Select the test for this QC Material. **Lookup [F1]** available. |
| **Target** | The target result value expected for this QC material. This information is generally supplied by the manufacturer. |
| **T Sdev** | The target Standard Deviation expected for this QC material. This information is generally supplied by the manufacturer. Values may vary depending on QC protocols. |
| **Low** | The lowest result value expected for this QC material. |
| **High** | The highest result value expected for this QC material. |

| Column | Description |
|---|---|
| **Westgard 1 2S** | The action to be taken for the Westgard rules. Select (F)lag.<br><br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **1 3S** | Select (F)lag.<br><br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **2 2S** | Select (F)lag.<br><br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **R 4S** | Select (F)lag.<br><br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **4 1S** | Select (F)lag.<br><br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **10X** | Select (F)lag.<br><br>**Note:**  The 'Hold' option should only be used for QCs processed from an interfaced analyser, where auto validate is set to 'yes'.  For all other QC processing select 'Flag'. |
| **Outside Range** | The outside range. |
| **Auto validate** | Whether to auto validate the results if all conditions are met. |

**Notes when graphing results:**

- If the display width is less than the date range as determined by the start and end date; (for example: the date range is a year and the display width is a fortnight), then the X-Axis of graph may be scrolled to the left and right using the mouse or the left and right arrows on either side of the displayed date range at the bottom of the graph. The vertical scroll bar to the right side of screen is used to navigate to view graphs other tests.

- Reference Lines will be enabled if only one Lot is graphed. If more than one Lot is graphed then the Reference Lines may also be enabled, if they have been configured for the test.

- A selected area of the graph can be zoomed by selecting the right mouse and dragging to the right to display a box and then releasing the mouse.

- The display area of the graph can be scrolled by clicking and holding the mouse and dragging it to another side of the screen and then releasing the mouse.

### 14.2.3   Monthly Statistics [CF8]

- Provides a snapshot of how the QC is performing on a monthly basis.

- The screen defaults to the current month

The table displays the following information in each column:

**List Display**

| Column | Information |
|--------|-------------|
| **Test** | The test which the information in the column relates to. |
| **Target** | The target result expected for this QC. |
| **Mean** | The mean value calculated from the data points. |
| **S.D.** | The standard deviation calculated from the data points. |
| **C.V.** | The coefficient of variation calculated from the data points. |

**Function Button**

| Function | Description |
|----------|-------------|
| **Enter Date [F8]** | Used to specify the date (month and year) to display. The screen display defaults to the data for the current month<br><br>1. Select the **Enter Date** button or press **[F8];**<br>2. Enter the date in the format MMYYYY;<br>3. Select OK or press **[Enter]**.<br><br>Alternatively use the **Left** and **Right** arrow keys adjacent to the **Enter date** button to select the date. |

## To Print or Export the data:

1.  Use the **Print** icon to print the report,

or

2.  Use the **Export** icon to save the file.

When the export icon is selected, the table data is exported to the local computer as a csv file (comma separated file). This file can be opened using any standard editor for example Excel.


### 14.2.4   Analyser QC Points

-   This screen is where the results obtained from analysis of the test within the QC lot are entered.

-   Each test has a separate QC Points screen accessed from the Control Tests screen.

-   The screen displays with a header pane and a table.

-   The header pane is non-editable and displays information relating to the statistics of the results already obtained and the expected result parameters for this test relating to Lot and Control material.

-   Abnormal results are highlighted.


**Function Buttons**

| Function | Description |
|---|---|
| **Create [F6]** | Add a QC test value or insert a comment (without a QC test value). <br><br> 1.  Select the **Create** button or press **[F6]**; <br><br> 2.  Enter the required information into the fields of the dialogue box; <br><br> 3.  Select the **[Save]** button, or press the **Save [F4]** function key. |
| **Deactivate Datapoint [F7]** | Deactivates the data point and removes it from the statistical calculations. <br><br> 1.  Highlight the data point and select the **Deactivate Datapoint** button or press **[F7].** The status field will update to 'Deactivated'. |
| **Date Range [F9]** | Filters the QC data points based on a particular date. <br><br> 1.  Select the **Date Range** button or press **[F9];** <br><br> 2.  Enter start date (DDMMYY or DDMMYYYY format); |

| Function | Description |
|---|---|
|  | 3.   Enter end date (DDMMYY or DDMMYYYY format); |
|  | 4.   The QC data points in this date range will appear in the table. |
|  | **To cancel the date range filter** |
|  | 1.   Select the **Date Range** button or press **[F9];** |
|  | 2.   At the prompt– '*Enter Start Date*'. Press the **[OK]** button. |
|  | 3.   All QC data will appear in the table. |
| **Annotate [SF5]** | Adds a note to a data point. Amendments cannot be made to existing annotations. |
|  | 1.   Highlight a data point in the table; |
|  | 2.   Select the **Annotate** button or press **[SF5];** |
|  | 3.   Enter a note; |
|  | *4.*   Select the **[OK]** button or press **Save [F4]** to save or **Cancel** to close. |
|  | **Note:** Data points can only be annotated if there are no other existing notes.  If an annotation exists, the error message '*Cannot change an existing annotation*' will display. |
| **Graph [CF5]** | Displays QC data in graph format (Levey-Jennings plot). |
|  | 1.   Select the **Graph** button or press **[CF5].** The Levey-Jennings graph will display. |
| **Reactivate Datapoint [CF7]** | Reactivates a QC data point to be included in the statistical calculations. |
|  | 1.   Highlight the data point and select the **Reactivate Datapoint** button or press **[CF7];** |
|  | 2.   Deactived status will be removed from the status field. |

## 14.2.5   QC Reports [CF7]

- QC Reports can be generated for all analytes or individual analytes may be specified.

- The report may contain current lots only or include previous lots.

- The QC report may also be restricted by a date range or by the user who enters results.

- The report will display the calculated mean, standard deviation, CV, target and target SD, the number of out of range, deactivated and total results.

## To generate a QC report:

1. Enter the start date in the *'Start Date'* field (DDMMYYYY or DDMMYY format). QC results entered from this date onwards will be collated;

2. Enter the finish date in the *'Finish Date'* field. QC result entered up to and including this date will be collated;

   **Note:** All tests will include all the tests contained in QC files for the current laboratory group.

3. In the 'Control' field enter the control to be reported.  Lookup [F1].is available.  Leave this field blank if all controls are to be reported;

4. If a particular Control has been entered, a Lot Number can be entered in the 'Lot Number' field. Lookup [F1].is available.  Leave this field blank if all lot numbers are to be reported;

5. Enter the mnemonic of the test required in the 'Test' field. Leave this field blank if all tests are to be reported;

6. Select the Select icon from the top of the screen or press [F12] to generate the report;

7. The report may be printed or exported if required.

**Function Button**

| Function | Description |
|---|---|
| **Graph Lot(s) [SF5]** | Displays the Levey-Jennings Plot for the selected lot number.  Can be filtered to display specific data. <br><br>1. Highlight the required test and select the **Graph Lot(s)** button or press **[SF5]**; <br><br>2. Y Axis displays the QC result values; <br><br>3. X Axis displays the date the QC point was run. |

## 14.2.6   Analyser 2 Validation List [SF8]

• The validation table is used to review and validate results from an analyser that does NOT pass auto-validation rules.

• Tests will appear on the validation screen as results become available from the analyser

• Only the requests/tests on the laboratory number ready for Level 1 validation will display on the screen (not the entire panel of tests registered against a laboratory number).

• The requests/tests will be removed from the list as they are Level 1 validated (after screen is refreshed).

• Error flags and L1 Text will be updated according to results transmitted.

• The default sort order for entries on the summary table is:

- o   **Priority**        Urgent sample will display first (on registration) followed by
- o   **Date/Time**    Oldest processed date/time

> **Note:**  Date/time does not display on the table but is calculated in the background

- Highlight a patient entry and press **[Enter]** or double click with the mouse;
- The analyser level 1 results screen for the patient will open.

**L1 Validation table**

The right-hand side of the validation table displays colour coded results and L1 text applicable to the highlighted patient and tests.

Colour coding of patient results:

- **Orange**        Low/High
- **Pink**            Failed Delta Check
- **Red**             Critical
- **Green**          Transmitted
- **Black**          Accepted
- **Grey**            Rejected
- **Blue**            Held

Different modes of operation are available within the matrix screen. These include:

| Mode | Description |
| --- | --- |
| **Column Mode** | This is the default mode for the Matrix screen. The highlighted bar is positioned in a column of results.<br><br>This allows function key operations to be performed on ALL displayed results for a single laboratory number. Use the arrow keys to locate the column required. |
| **Row Mode** | Select 'R' to change the highlighted bar position to a row of results. This allows function key operations to be performed on a row of results for an individual test.<br><br>Use the arrow keys to locate the row required. 'R' operates as a toggle key between row and column mode. |

| Mode | Description |
|------|-------------|
| **Cell Mode** | Select 'C' to change the highlighted bar position to an individual result within the matrix. This allows all function key operations to be performed on an individual matrix cell.<br><br>Use the arrow keys to locate the cell required. 'C' operates as a toggle key between cell and column mode. |
| **Page Mode** | Select 'P' to change the highlighted bar position to a page of results within the matrix.<br><br>This allows all function key operations to be performed on the page of cells. 'P' operates as a toggle key between page and column mode |

## To edit results:

1. Highlight the required result (which is not held);
2. Select the **Edit** icon or press **[F2]**;
3. At the prompt enter the test result;
4. Select the OK button or **Cancel** button to abort.

## To enter comments:

1. Position the cursor on the required column;
2. Select the **[Enter]** key or the **Select** icon from the top of the screen or press **[F12]**;
3. The results screen opens.  This facilitates entry of coded comments and/or free text. Press **[Esc]** to return to the validation table.

**Note:**  Functions will vary between analyser screens.  Function buttons will only display if the user has access to Level 1 or 2 validation privilege settings.  Restricted access will display reception and cumulative results.

**Function Buttons**

| Function | Description |
|----------|-------------|
| **Accept [F4]** | Accepts the highlighted results into the patient file (Level 1 validation). The result will change colour to Black.<br><br>1. Place cursor into the result field;<br>2. Select the **Accept** button or press **[F4].** |

| Function | Description |
|---|---|
| **L2 Validate [F6]** | Allows final Validation (Level 2 validation) of the result. Result will change to black |
| | **<u>Note:</u>** 'Validated' status displays in the patient banner on the results  screen. |
| | Highlight an entry within the list and press this button to Level 2 Validate the result. |
| **Dilution [F7]** | Adds a dilution factor for the selected test. The re-calculated result will then display on the validation table. |
| | 1.   Place the cursor into the result field; |
| | **2.**   Select the **Dilution** button or press **[F7];** |
| | 3.   At the prompt, enter a dilution factor; |
| | 4.   Select **[OK]**; |
| | 5.   When the sample is re-run, the dilution factor will be applied. |
| | **<u>Note:</u>**  This is only available for patient samples, not QC. |
| **Cumulative Results [F9]** | Displays cumulative results for the patient |
| | 1.   Select the **Cumulative Results** button or press **[F9];** |
| | 2.   The cumulative results page opens. |
| **Alternate Table [SF5]** | Displays an alternative screen (summary table) that is not in matrix form.  This is only available for some analysers, for example: Haematology Sysmex analysers and Bact/Alert. |
| **L2 Validate Page [SF6]** | Allows final Validation (Level 2 validation) of the result. Result will change to black |
| | **<u>Note:</u>** 'Validated' status displays in the patient banner on the results  screen. |
| **Reject Page [SF5]** | Rejects all results on the page. |
| | 1.   Select **Reject Page** button or press **[SF5];** |
| | 2.   At the prompt, select *yes* to reject all results; |
| | 3.   Results will change to grey; |
| | Tests will then be rescheduled for retesting  and will appear on corresponding load lists. |

| Function | Description |
|---|---|
| **Reinstate [SF7]** | Removes the reject status on the highlighted result. This must be done before exiting the screen and before the next action. |
| **Reception [SF10]** | View the reception screen for the laboratory number |
| **Reject [CF5]** | Rejects a selected result.<br><br>1. Place the cursor into a results field;<br>2. Select the **Reject** button or press **[CF5];**<br>3. At the prompt, select *yes* to reject the result;<br>4. The result will change to grey;<br><br>The test will then be rescheduled for retesting and will appear on corresponding load lists. |
| **Hold [CF8]** | Places a selected result on hold, preventing it from being validated or added to additional load lists.<br><br>1. Place cursor into results field;<br>2. Select the **Hold** button or **[CF8]**;<br>3. At the prompt, enter a reason, select **[OK]**;<br><br>Result will change to blue.<br><br>4. To remove the *Hold* status select the **Hold** button or **[CF8].** |

## Non- Matrix L1 Validation Summary Table

## To validate:

1. Highlight an entry within the table;
2. Press the **[Enter]** key or double click with the mouse to access the level 1 data screen;
3. Select the **Accept** button or press **[F4]** to Level 1 validate and accept the highlighted results into the patient file.

OR

1. Select the **L2 Val** button or press **[F6]** to Level 2 validate the displayed results;
2. Using the **Select** icon or pressing **[F12]** to access patients' results, the status of 'Validated' displays  in the patient banner.

> **Notes:**
>
> • Once the screen is exited the Level 1 validated results are removed from the screen and a record of L1 validation is recorded in the patient audit history.
>
> • The **Previous** and **Next** icons or **Previous [SF3]** and **Next [F3]** function keys can be used to navigate through entries on the summary table.

## Unique Test Results

Unique test results for the same laboratory number received within 1hr from the first test result, are consolidated into a single column.

• The analysed time for each of the tests **must** be within 1hr of the first received test result in order for them to be displayed in the single column.

• If a test result is received outside of the 1hr, results will be displayed in separate columns.

• If a sample needs to be re-run or repeated, it is not considered a unique test and will be displayed in separate columns, irrespective of the analysed time.

## 14.3    Analyser Groups

• Displays a group of analysers of the same class that have been configured into a group.

• Data related to the load list, level 1 validation and QC are in a consolidated format on one table.

### To view analyser details:

1.  Select an analyser in the table and press the **[Enter]** key or double click with the mouse;

2.  The validation list opens as the default screen.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Load List [F5]** | Selection of this tab displays a list of the laboratory numbers that require loading onto the analyser. |
| **Quality Control [SF6]** | Selection of this tab displays and gives the user access to the list of the configured quality control material for the analyser. |
| **Validation List [SF8]** | Selection of this tab displays the summary level 1 validation table for the analyser, that is: laboratory numbers with results for level 1 validation. |

> **Note:**  Some analysers display a level 1 summary results table as a default screen. (For example: Bact/Alert).

## 14.3.1    Analyser Group Load List [F5]

- Lists all samples ready for processing by an analyser group.

- The primary sort order of this table is Priority, that is: most urgent samples will display first.

- The secondary sort order is Date where the oldest date/time will display first.

   o  To access the results screen for any sample, highlight the sample and press **[Enter]** or double click with the mouse

**Triggers that** add **an entry to the load list**

- Sample registration.  The request must be configured for processing at the appropriate laboratory to display.  The 'Received' time/date will display.

- Receipt of a sample/request from a packing receive list.

- Deletion of a Level 2 validated result (that is: sample re-run).

- Rejection of a result during Level 1 validation.

**Triggers that** remove **an entry from the load list**

- When a host query is performed for a sample.

- When a request is deleted at sample registration.

- When a result is manually entered and there are no further outstanding results for the request that require level 2 data entry.

- When results are transferred to the result screen (for Level 1 or Level 2 validation) without a host query (for example: in the case of broadcast download or no host query).

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Entry [F6]** | Use this to remove an entry from the load list.  The sample will not have results recorded. <br><br> 1.   Highlight the entry of interest in the list; <br><br> 2.   Select the **Remove Entry** button or press **[SF5];** <br><br> 3.   The status column will be updated with *'deleted'*. |

| Function | Description |
|---|---|
| **Container ID search [SF9]** | Allows the user to search for a specific laboratory number or container ID within the list.<br><br>1. Select the [Container ID Search] button, or press the **Container ID Search [SF9]** function button;<br><br>2. Enter a Laboratory Number or Container ID;<br><br>3. Select the **[OK]** button to continue, or press the **[Enter]** key;<br><br>4. If the Laboratory Number or Container ID entered is not present via the list, the message 'Container not in list' is displayed. |

## 14.3.2   Analyser Group QC Validation [SF7]

- This screen displays the selected analyser QC that is awaiting validation (that is: Results are outside the acceptable range and configured to be held).

- By highlighting an entry within the table and double clicking with the mouse or pressing **[Enter]**, the QC results screen will open.

### QC Results

- Lists all the QC results for the selected QC, outlined in the top data fields.

- Results are colour coded:
    - o   **Orange**   Low/high
    - o   **Black**   Accepted
    - o   **Blue**   Held
    - o   **Grey**   Rejected
    - o   **Green**   Normal

- To view the error flag, place the cursor into the field.

- Error codes will display in the Error Flags data field.

- L1 Text displays the analyser instructions, for example: 'val override' or 'instrument flag'.
    - o   **Val override** – results are within range, so the auto validation rules have been applied
    - o   **Instrument flag** – means there is an analyser generated flag for the test result
    - o   Other text will be determined by the instrument interface

**Note:**  Functions will only be available to those with Validation (Level 1, Level 2) privileges.

**Function Buttons**

| Function | Description |
|---|---|
| **Accept [F4]** | Accepts the selected QC result into the QC file, Result changes to black.<br>1. Place cursor into selected QC result field;<br>2. Select the **Accept** button or press **[F4].** |
| **Dilution [F7]** | This function is unavailable for QC samples. |
| **Graph QC (Current Lot) [CF7]** | Produces a graph of the QC results.<br>1. Highlight the QC within the table;<br>2. Select the **Graph QC** button or press **[CF7];**<br>3. A separate window opens with the graph of results;<br>4. Use the filter options to change the style and appearance of the graph. |

The **Previous** and **Next** icons at the top of the screen or **Previous [SF3]** and **Next [F3]** function keys respectively, can be used to navigate through entries.

### 14.3.3   Analyser Validation List [SF8]

- The validation table is used to review and validate results from an analyser that does NOT pass auto-validation rules.
- Tests will appear on the validation screen as results become available from the analyser
- Only the requests/tests on the laboratory number ready for Level 1 validation will display on the screen (not the entire panel of tests registered against a laboratory number).
- The requests/tests will be removed from the list as they are Level 1 validated (after screen is refreshed).
- Error flags and L1 Text will be updated according to results transmitted.
- The default sort order for entries on the summary table is:
  - **Priority**    Urgent sample will display first (on registration) followed by the
  - **Date/Time**   Oldest processed date/time

  **Note:**  Date/time does not display on the table but is calculated in the background

1. Highlight a patient entry and press **[Enter]** or double click with the mouse;
2. The analyser level 1 results screen for the patient will open.

**L1 Validation table**

The right-hand side of the validation table displays colour coded results and L1 text applicable to the highlighted patient and tests.

Colour coding of patient results:

- **Orange** Low/High
- **Pink**     Failed Delta Check
- **Red**      Critical
- **Green**    Transmitted
- **Black**    Accepted
- **Grey**     Rejected
- **Blue**     Held

To edit results:

1. Highlight the required result (which is not held);
2. Select the **Edit** icon or press **[F2]**;
3. At the prompt enter the test result;
4. Select the OK button or **Cancel** button to abort.

To enter comments:

1. Position the cursor on the required column;
2. Select the **[Enter]** key or the **Select** icon from the top of the screen or press **[F12]**;
3. The results screen opens.  This facilitates entry of coded comments and/or free text. Press **[Esc]** to return to the validation table.

**Note:**  Functions will vary between analyser screens.  Function buttons will only display if the user has access to Level 1 or 2 validation privilege settings.  Restricted access will display reception and cumulative results.

**Function Buttons**

| Function | Description |
| --- | --- |
| **Accept [F4]** | Accepts the highlighted results into the patient file (Level 1 validation). The result will change colour to Black.<br><br>1.  Place cursor into the result field; |

| Function | Description |
|---|---|
| | 2.  Select the **Accept** button or press **[F4].** |
| Dilution [F7] | Adds a dilution factor for the selected test. The re-calculated result will then display on the validation table.<br><br>1.  Place the cursor into the result field;<br>**2.**  Select the **Dilution** button or press **[F7];**<br>3.  At the prompt, enter a dilution factor;<br>4.  Select **[OK]**;<br>5.  When the sample is re-run, the dilution factor will be applied.<br>**Note:**  This is only available for patient samples, not QC. |
| Cumulative Results [F9] | Displays cumulative results for the patient<br><br>1.  Select the **Cumulative Results** button or press **[F9];**<br>2.  The cumulative results page opens. |
| Accept Page [SF4] | Accepts all the results into the patient files (Level 1 validation). The result will change colour to Black.<br><br>1.  Select the **Accept Page** button or press **[SF4].** |
| Reject Page [SF5] | Rejects all results on the page.<br><br>1.  Select **Reject Page** button or press **[SF5];**<br>2.  At the prompt, select *yes* to reject all results;<br>3.  Results will change to grey;<br><br>Tests will then be rescheduled for testing again and will appear on corresponding load lists. |
| Reception [SF10] | View the reception screen for the laboratory number. |
| Reject [CF5] | Rejects a selected result.<br><br>1.  Place the cursor into a results field;<br>2.  Select the **Reject** button or press **[CF5];**<br>3.  At the prompt, select *yes* to reject the result;<br>4.  The result will change to grey;<br><br>The test will then be rescheduled for testing again and will appear on corresponding load lists. |

| Function | Description |
|---|---|
| **Graph QC (Current Lot) [CF7]** | Produces a graph of the QC results.<br><br>1.  Highlight the QC within the table;<br><br>2.  Select the **Graph QC** button or press **[CF7];**<br><br>3.  A separate window opens with the graph of results;<br><br>Use the filter options to change the style and appearance of the graph. |
| **Hold [CF8]** | Places a selected result on hold, preventing it from being validated or added to additional load lists.<br><br>1.  Place cursor into results field;<br><br>**2.**  Select the **Hold** button or **[CF8];**<br><br>3.  At the prompt, enter a reason, select **[OK]**;<br><br>Result will change to blue.<br><br>4.  To remove the *Hold* status select the **Hold** button or **[CF8].** |

## 14.4    Processing Groups

Lists work areas (for example: Chemistry) with the number of samples for processing, results and QC results.

### To view analyser details:

1.  Select an analyser in the table and press the **[Enter]** key or double click with the mouse;

2.  The validation list opens as the default screen.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Load List [F5]** | Selection of this tab displays a list of the laboratory numbers that require loading onto the analyser. |
| **QC Validation [SF7]** | Summary of QC results ready for validation. |
| **Validation List [SF8]** | Selection of this tab displays the summary level 1 validation table for the analyser, that is: laboratory numbers with results for level 1 validation. |

> **Note:**  Some analysers display a level 1 summary results table as a default screen. (For example: Bact/Alert).

## 14.4.1    Processing Group Load List [F5]

- Lists all samples ready for processing by an analyser group.

- The primary sort order of this table is Priority, that is: most urgent samples will display first.

- The secondary sort order is Date where the oldest date/time will display first.

   o   To access the results screen for any sample, highlight the sample and press **[Enter]** or double click with the mouse

**Triggers that** *add* **an entry to the load list**

- Sample registration.  The request must be configured for processing at the appropriate laboratory to display.  The 'Received' time/date will display.

- Receipt of a sample/request from a Receive List.

- Deletion of a Level 2 validated result (that is: sample re-run).

- Rejection of a result during Level 1 validation.

**Triggers that** *remove* **an entry from the load list**

- When a host query is performed for a sample.

- When a request is deleted at sample registration.

- When a result is manually entered and there are no further outstanding results for the request that require level 2 data entry.

- When results are transferred to the result screen (for Level 1 or Level 2 validation) without a host query (for example: in the case of broadcast download or no host query).

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Entry [F6]** | Use this to remove an entry from the load list.  The sample will not have results recorded. <br><br> 1.   Highlight the entry of interest in the list; <br><br> 2.   Select the **Remove Entry** button or press **[SF5];** <br><br> 3.   The status column will be updated with *'deleted'*. |

| Function | Description |
|---|---|
| **Container ID search [SF9]** | Allows the user to search for a specific laboratory number or container ID within the list.<br><br>1. Select the [Container ID Search] button, or press the **Container ID Search [SF9]** function button;<br><br>2. Enter a Laboratory Number or Container ID;<br><br>3. Select the **[OK]** button to continue, or press the **[Enter]** key;<br><br>4. If the Laboratory Number or Container ID entered is not present via the list, the message 'Container not in list' is displayed. |

## 14.4.2    Processing Group QC Validation [SF7]

- This screen displays the selected analyser QC that is awaiting validation (that is: Results are outside the acceptable range and configured to be held).

- By highlighting an entry within the table and double clicking with the mouse or pressing **[Enter]**, the QC results screen will open.

### QC Results

- Lists all the QC results for the selected QC, outlined in the top data fields.

- Results are colour coded:

  - **Orange**     Low/high

  - **Black**     Accepted

  - **Blue**     Held

  - **Grey**     Rejected

  - **Green**     Normal

- To view the error flag, place the cursor into the field.

- Error codes will display in the Error Flags data field.

- L1 Text displays the analyser instructions, for example: 'val override' or 'instrument flag'.

  - **Val override** – results are within range, so the auto validation rules have been applied

  - **Instrument flag** – means there is an analyser generated flag for the test result

  - Other text will be determined by the instrument interface

**Note:**  Functions will only be available to those with Validation (Level 1, Level 2) privileges.

**Function Buttons**

| Function | Description |
|---|---|
| **Accept [F4]** | Accepts the selected QC result into the QC file, Result changes to black. <br><br>1. Place cursor into selected QC result field; <br>2. Select the **Accept** button or press **[F4].** |
| **Dilution [F7]** | This function is unavailable for QC samples. |
| **Graph QC (Current Lot) [CF7]** | Produces a graph of the QC results. <br><br>1. Highlight the QC within the table; <br>2. Select the **Graph QC** button or press **[CF7];** <br>3. A separate window opens with the graph of results; <br>4. Use the filter options to change the style and appearance of the graph. |

The **Previous** and **Next** icons at the top of the screen or **Previous [SF3]** and **Next [SF3]** function keys respectively, can be used to navigate through entries.

## 14.4.3   Validation List [SF8]

- The validation table is used to review and validate results from an analyser that does NOT pass auto-validation rules.

- Tests will appear on the validation screen as results become available from the analyser

- Only the requests/tests on the laboratory number ready for Level 1 validation will display on the screen (not the entire panel of tests registered against a laboratory number).

- The requests/tests will be removed from the list as they are Level 1 validated (after screen is refreshed).

- Error flags and L1 Text will be updated according to results transmitted.

- The default sort order for entries on the summary table is:

  o **Priority**     Urgent sample will display first (on registration) followed by the

  o **Date/Time**   Oldest processed date/time

**Note:**  Date/time does not display on the table but is calculated in the background

1. Highlight a patient entry and press **[Enter]** or double click with the mouse;

2. The analyser level 1 results screen for the patient will open.

### L1 Validation table

The right-hand side of the validation table displays colour coded results and L1 text applicable to the highlighted patient and tests.

Colour coding of patient results:

- **Orange** Low/High
- **Pink**     Failed Delta Check
- **Red**      Critical
- **Green**   Transmitted
- **Black**    Accepted
- **Grey**    Rejected
- **Blue**    Held

### To edit results:

1. Highlight the required result (which is not held);
2. Select the **Edit** icon or press **[F2]**;
3. At the prompt enter the test result;
4. Select the OK button or **Cancel** button to abort.

### To enter comments:

1. Position the cursor on the required column;
2. Select the **[Enter]** key or the **Select** icon from the top of the screen or press **[F12]**;
3. The results screen opens.  This facilitates entry of coded comments and/or free text. Press **[Esc]** to return to the validation table.

**Note:**  Functions will vary between analyser screens.  Function buttons will only display if the user has access to Level 1 or 2 validation privilege settings.  Restricted access will display reception and cumulative results.

**14. Analysers : Processing Groups**

**Function Buttons**

| Function | Description |
|---|---|
| **Accept [F4]** | Accepts the highlighted results into the patient file (Level 1 validation). The result will change colour to Black.<br><br>1. Place cursor into the result field;<br>2. Select the **Accept** button or press **[F4].** |
| **Dilution [F7]** | Adds a dilution factor for the selected test. The re-calculated result will then display on the validation table.<br><br>1. Place the cursor into the result field;<br>**2.** Select the **Dilution** button or press **[F7];**<br>3. At the prompt, enter a dilution factor;<br>4. Select **[OK]**;<br>5. When the sample is re-run, the dilution factor will be applied.<br><br>**Note:**  This is only available for patient samples, not QC. |
| **Cumulative Results [F9]** | Displays cumulative results for the patient<br><br>1. Select the **Cumulative Results** button or press **[F9];**<br>2. The cumulative results page opens. |
| **Accept Page [SF4]** | Accepts all the results into the patient files (Level 1 validation). The result will change colour to Black.<br><br>1. Select the **Accept Page** button or press **[SF4].** |
| **Reject Page [SF5]** | Rejects all results on the page.<br><br>1. Select Reject Page button or press **[SF5]**;<br>2. At the prompt, select yes to reject all results;<br>3. Results will change to grey;<br><br>Tests will then be rescheduled for testing again and will appear on corresponding load lists. |
| **Reception [SF10]** | View the reception screen for the laboratory number. |

| Function | Description |
|---|---|
| **Reject [CF5]** | Rejects a selected result. <br><br>1. Place the cursor into a results field; <br>2. Select the **Reject** button or press **[CF5];** <br>3. At the prompt, select *yes* to reject the result; <br>4. The result will change to grey; <br><br>The test will then be rescheduled for testing again and will appear on corresponding load lists. |
| **Graph QC (Current Lot) [CF7]** | Produces a graph of the QC results. <br><br>1. Highlight the QC within the table; <br>2. Select the **Graph QC** button or press **[CF7];** <br>3. A separate window opens with the graph of results; <br><br>Use the filter options to change the style and appearance of the graph. |
| **Hold [CF8]** | Places a selected result on hold, preventing it from being validated or added to additional load lists. <br><br>1. Place cursor into results field; <br>**2.** Select the **Hold** button or **[CF8];** <br>3. At the prompt, enter a reason, select **[OK]**; <br><br>Result will change to blue. <br><br>4. To remove the *Hold* status select the **Hold** button or **[CF8].** |

## 14.4.4   Generic Instrument Interface

- The generic instrument interface is a highly configurable interface that uses FTP to transfer and process information via incoming masks where it is not feasible to utilise HL7 as a messaging standard.

- Used to upload finalised result data from a non-networked instrument using FTP.

- Supported data file formats are CSV, TXT and XML.

- The screen displays configured generic instruments.


The following columns are present on the Generic Instrument Interfaces Status screen:

**Data Fields**

| Column | Description |
|---|---|
| **Description** | Displays the description of the generic instrument interface. |
| **Mnemonic** | The mnemonic of the generic instrument interface. |
| **Date/Time** | The date and time of the last attempted FTP. |
| **Files** | The number of files received from the instrument. |
| **Added** | The number of laboratory numbers registered by the import of the file. |
| **Modified** | The number of laboratory numbers modified by the import of the file. |
| **Type** | The type of FTP upload:<br>1. Queue – for a queued FTP.<br>2. Manual – for a manual transfer. |
| **Status** | A short description of the status of the last transfer.<br><br>• Success – The file was successfully uploaded without errors.<br><br>• Error – One or more errors or notifications were encountered in processing the file.  See the error log for further details.<br><br>• No Files to Process – there are no files available for upload for the current date. |

**Function Buttons**

| Function | Description |
|---|---|
| **Refresh Screen [F5]** | Refreshes the screen for the current record. |
| **Transfer [F8]** | Initiates the FTP transfer.  A message appears stating that the manual run is queued. |

| Function | Description |
|---|---|
| **History [SF5]** | Displays historical records by month.<br><br>• Select the **History** button or press **[SF5]** to access the history;<br><br>• Use the **Enter Date** button or press **[F8]** to enter a defined date (MMM YYYY);<br><br>• Alternately use the navigational arrows, or **Previous [F5]** or **Next [F6]** function keys to display the previous or next month's history respectively. |
| **Error Log [SF6]** | Displays the interface error log for the highlighted entry.<br><br>1. Select the **Error Log** button or press **[SF6];**<br><br>2. Use the **Enter Date** button or press **[F8]** to enter a defined date (MMM YYYY);<br><br>3. Alternately use the navigational arrows, or **Previous [F5]** or **Next [F6]** function keys to display the previous or next month's error log respectively;<br><br>4. Select the **View File** button or press **[SF7]** to view the contents of the uploaded file.<br><br>**Note:**The message *File was not completely processed* appears in the Error Log when the incoming file was not processed to completion. |
| **Audit [SF8]** | Lists all activity made against the highlighted entry.  This is a non-editable, permanent record within **Evolution vLab®**.<br><br>1. Select the Audit button or press [SF8];<br><br>2. Use the **Enter Date** button or press **[F8]** to enter a defined date (MMM YYYY);<br><br>Alternately use the navigational arrows, or **Previous [F5]** or **Next [F6]** function keys to display the previous or next month's interface audit log respectively. |

## 14.5   BloodNet Interface

**Note:** Bloodnet is not available at all client sites. It depends on the whether the interface is required.

The 'BloodNet Interface' tab is accessed via the 'Analysers' sub-menu. The user can view and utilise the following functions of the interface through a series of sub-menu items:

i)   Current status

ii)   Data Transfer event records

iii)   Data Transfer error records

iv)   Import data records

v)   Export data records

vi)   Daily audit of products received

Functions, processing and log files will only be available/display for the interface for the currently selected Laboratory interface.

The **BloodNet** Interface screen displays the following detail:

i)   Time and date of last data import

ii)   Time and date of last data export

A function key [F8] Transfer is available to manually initiate a query to **BloodNet**.

Selection of the [F8] Transfer function key invokes a query to **BloodNet** for electronic transfer of data for the "Current Laboratory", that is: The Laboratory which is currently being accessed in **Evolution vLab®** by the user.

**Evolution vLab®** receipts blood product data from **BloodNet** into **Evolution vLab®** in a timely manner to enable users to utilise blood products delivered to the laboratory within 2 minutes of receipting those products in **BloodNet**.

Timeliness of the transfer of data depends on several factors that are outside the control of Magentus and **Evolution vLab®**. In such cases **Evolution vLab®** data transfers will be performed as soon as is possible.

**Data Fields**

| Column | Description |
|---|---|
| **Interface** | Displays the configured interface |
| **Last In** | Time and date of the last data import |
| **Last Out** | Time and date of the last data export |

**Function Buttons**

| Function | Description |
|---|---|
| **Transfer [F8]** | To manually initiate a query to **BloodNet** |

## 14.5.1   BloodNet Interface Status Log – Details

Selection of the **BloodNet** Interface entry displays the **BloodNet** Interface Status Table and provides additional information relating to the incoming, outgoing, associated times and dates plus events.

**Data Fields**

| Column | Description |
|---|---|
| **Time/Date** | Time and date of the associated event |
| **Event** | A description of the event |

**Function Buttons**

| Function | Description |
|---|---|
| **Refresh [F8]** | To update/refresh whilst viewing the status log |

## 14.5.2   BloodNet Interface Status Log – History

By default, the History function displays the transactions for the current month in reverse chronological order with one unit/batch number transaction per line.

The History function displays the following:

i)   each event where the system queried, imported or exported data to the **BloodNet** web service

ii)   the number of line items (products) that were processed at each event

iii)   success status of each data transfer

**Evolution vLab®** displays and identifies the type of electronic interaction that took place at each event:

i)   Polling for receipted order lines from **BloodNet**

ii)   Import of receipted order lines from **BloodNet**

iii)   Acknowledgement of order lines received to **BloodNet**

iv)   Export of fate product data to **BloodNet**

v)   Export of product real-time inventory levels to **BloodNet**

A user can identify how many products were added to the inventory during an import of receipted order lines and, in the case of existing products (manually entered unit products), how many products were updated with **BloodNet** data.

A user can search (by month), identify, access, view and download from **Evolution vLab®**, the electronic product data transferred to or from **BloodNet** for an event (that is: particular time and date) including:

i)   All receipted order lines imported from **BloodNet**

ii)   All acknowledged order lines exported to **BloodNet**

iii)   All fate product data exported to **BloodNet**

iv)   All product inventory levels exported to **BloodNet**

The export function will download the electronic product data for a particular event into a tabulated format as per current standard Data Export functionality:

i)   Each data field is identified in the export file

ii)   The exported file identifies the Event Type and Time and Date of the event

**Data Fields**

| Column | Description |
|---|---|
| **Transfer Type** | The type of event |
| **Time/Date** | The time/date of the event |
| **Lab** | The associated lab where the event occurred |
| **Entries** | The number of entries in the message |
| **Prods Added** | The products added to the respective inventories |
| **Prods Updated** | The products which have been updated, that is: added quantity |
| **Status** | The status of the event |

**Function Buttons**

| Function | Description |
|---|---|
| **Previous [F5]** | To view the previous date |
| **Next [F6]** | To view the next date |
| **Enter Date [F8]** | Use this function to enter and search for a date to display associated events |

### 14.5.3    BloodNet Interface Status Log – Error Log

The 'Error Log' displays:

i)   time and date of the event

ii)  reference to the type of data transfer (polling for data, import receipt data, export fate data, export inventory levels)

iii) reference to the data file, line (product) item, field on which the error occurred

iv)  type of error detected (for example: mandatory data missing, duplicate unit, incorrect data format, incorrect data structure)

v)   remedial action taken by **Evolution vLab®** (if any)

The Error Log records/displays any transmission errors received from **BloodNet**. The Log allows the user to correct and resubmit the changed record.

The Product Reception screen for the associated product is accessible by selecting the highlighted log entry.

Transmission errors received from **BloodNet** will need to be rectified in **BloodNet** and the products retransmitted to ensure the integrity of the **BloodNet** database is maintained.

**Data Fields**

| Column | Description |
|---|---|
| **Time/Date** | The time/date of the event |
| **Transfer Type** | The type of transfer event |
| **Note ID** | The associated **BloodNet** Note Identification Number |
| **Error Type** | The associated type of error |
| **Details** | Any further information applicable to the error |

**Function Buttons**

| Function | Description |
|----------|-------------|
| **Previous [F5]** | To view the previous date |
| **Next [F6]** | To view the next date |
| **Enter Date [F8]** | Use this function to enter and search for a date to displayed associated events |
| **Display Message [CF5]** | Displays an audit entry via another screen to expand on the message in more detail |

## 14.5.4   BloodNet Interface Status Log – Audit

The Audit Log records/displays all products receipted via the **BloodNet**-**Evolution vLab®** Interface for the "Current" Laboratory.

The Audit Log displays and provides access to the following data fields:

i)    Time and date of receipt in **Evolution vLab®**

ii)   Facility ID (Laboratory)

iii)  Product ID

iv)  Product Type

v)   Quantity (for Batch Products)

vi)  Expiry Date

vii) Patient details (if data exists)

viii) Receipted Issue Note

ix)  IssueNoteLineID

x)   Feedback associated with the product item (if data exists)

xi)  Comment field associated with the Issue Note (if data exists).

The Product Reception screen for the associated product is accessible by selecting the highlighted audit entry.

The comment/feedback for the Receipt Issue Note received from **BloodNet** is accessible via a function key.

The sort order for the audit log is based on:

i)    Primary sort order- time and date (most recent time and date at the top of the list)

ii)   Secondary sort order- receipt order of products as received via the **BloodNet** interface.

**14. Analysers : BloodNet Interface**

A Unit/Batch number search function is available from the Audit Log to locate an entry or entries for a product.

**Data Fields**

| Column | Description |
|---|---|
| **Time/Date** | The time/date of the event |
| **Lab** | The associated lab where the event occurred |
| **Prod ID** | The product's Unit/Batch Number |
| **Note ID** | The associated **BloodNet** Note Identification Number |
| **Product Type** | The product's type |
| **Quantity** | The amount of the associated batch number |
| **UR No** | A patient's file (UR) number, if applicable |
| **Expiry Date** | The expiration of the product |

**Function Buttons**

| Function | Description |
|---|---|
| **Previous [F5]** | To view the previous date |
| **Next [F6]** | To view the next date |
| **BloodNet Details [F7]** | To view additional details of the product received from **BloodNet** |
| **Date [F9]** | Use this function to enter and search for a date to display associated events |
| **Selection [CF5]** | To filter for specific criteria |
| **Clear Selection [CF6]** | To clear the entered specific criteria |
| **Toggle [CF7]** | To view the audit of the logged in laboratory or all labs |

# 15    PoCT Analysers

The **PoCT Analysers** (Point of Care Testing)  interfaced with the **Evolution vLab®** network are listed here.

PoCT interfaces (or middleware) allow patient information to be entered once a UR number is entered into the analyser.

The login name and other details display in the top of the screen to record who is accessing a particular PoCT analyser.

**Note:**  Specific privileges are required to access individual Point of Care Testing (PoCT) Analysers.

**Function Buttons**

| Function | Description |
|---|---|
| **Wash [F5]** | Used to instruct the analyser to perform a wash cycle. Only available for certain analysers that are interfaced with **Evolution vLab®**. |
| **Toggle Lock [F6]** | Changes the status of the PoCT analyser to Locked (Busy) or Blank (Unlocked). |

# 16    Stores

- Used in conjunction with the Appointment Scheduling system of **Evolution vLab®**, for the ordering of equipment relevant to a patient appointment at a service location. That is: ensuring the correct blood collection tube is available for a patient's blood test requests.

- Also used to automatically order an item that has met configured re-order levels.  Refer to ADMIN> Processing> Consumables, Details-Create/Modify Consumable

| Function Button | Description |
|---|---|
| **Create [F6]** | Creates a new stock order.<br><br>1. Select the **Create** button or press **[F6]**<br><br>   The screen opens to enter details for the stock order<br><br>   Mandatory fields are marked with a red asterisk (**\***)<br><br>2. Use the **Check Stock [F8]** button to check if stock is available<br><br>   A separate dialogue box opens to display available stock<br><br>3. Select **Close** when finished<br><br>4. Select **Save** icon from top of the screen, or press the **Save [F4]** function key to save the order |
| **Refresh [F7]** | Refreshes the screen to update with real-time information |
| **Filter [F8]** | Use this to filter your search for orders<br><br>1. Select the **Filter** button or press **[F8]**<br><br>   The filter fields at the top of the table become active<br><br>2. Enter details into the fields<br><br>3. Use **Lookup [F1]** for help<br><br>4. Press the **Select** icon from the top of the screen to complete the search |
| **Clear Filter [SF8]** | Use this to clear the filter search.  Pressing this button will remove the entries from the filter fields. |

## Create Stock Order

1. Press the **[Create]** button, or press the **Create [F6]** function key.

2. The **Order Details** open.

3. Enter the required information.

4. Mandatory fields are marked with a red asterisk (**\***).

5. Use the **Check Stock** button or press **[F8]** to see if there is available stock to order from.

6. Select the **Save** icon from the top of the screen,  or press the **Save [F4]** function key when done.

7. The lower part of the screen will be updated with the order details.

## Stock Order Details

Lists the details of the stock that has been ordered.

| Function Button | Description |
|---|---|
| **Edit Comment [F5]** | Use this to edit the comment that is located in the comments field |
| **Add Item [F6]** | Use this to add an item to the stock order <br> • Select the **Add Item** button or press **[F6]** <br> • Enter the details in the dialogue box <br> • Press OK to add the item <br> • The table will be updated |
| **Check Stock [F8]** | Use this to check that stock is available <br> 1. Select the **Check Stock** button or press **[F8]** <br> 2. A window opens listing all available stock |
| **Edit Details [SF6]** | Use this to edit details about the order <br> 1. Select the **Edit Details** button or press **[Shift]+ [F6]** <br> 2. Edit the details in the dialogue box <br> 3. Select Save to change the details. |
| **Save [F4]** | When finished making changes, select the **save** icon from the top of the screen, or press the **Save [F4]** function key. |

**To Print a Stock Order**

1. Select **Print** icon from the top of the screen.

2. A yellow message displays at top right of screen.

# 17    Utilities

The **Utilities** are a collection of functions that allow a user to manage various details of their profile and account.

**Submenu Tabs**

| Submenu Tab | Description |
|---|---|
| **Training** | Online training section for **Evolution vLab®**. |
| **Change Password** | Use this section to change your password for your login.  Enter the details according to the fields on screen. |
| **User Settings** | This enables you to determine what you'd like to see on the screen.  For example: Show keyboard Hot keys |
| **Evolution vLab® Function Keys** | This allows you to create your own Hotkeys (short-cut keys), to enable fast access to an area within **Evolution vLab®** that you frequently use. |
| **Counters** | Allows you to create a counter profile for the use in cell counting. Profiles can be assigned to tests/panels or to individual users. This means you can assign specific keyboard keys to count particular cells. |

## 17.1    Training

This section of the system allows users to access the Pathology Training Academy which contains Evolution vLab system documentation and eLearning Modules which can be played on-line or downloaded and deployed via the customers own learning management system (LMS).

## 17.2    Change Password

### To change a password:

1.  Enter your user name (if not populated by default);

2.  Enter a new password;

3.  Retype your new password;

4.  Select the **Save icon** from the top of the screen or press **[F4]**;

5.  Select **[Yes]** at the prompt to confirm the change.

**Notes:**

- The password must be at least 6 characters.

- A combination of alpha, numeric and special characters can be used.

- Users should always ensure confidentiality of their password  to prevent unauthorised access.

- The password cannot equal the user name.

- The password cannot equal '123456789'.

- The password cannot equal 'qwerty' or 'password'.

- If the entered password does not satisfy Evolution vLab®'s requirements, the user will receive an Insufficient password strength error message. The system will not permit the re-use of the last three passwords.

## 17.3    User Settings

- The user settings can be used for activating the display of keyboard short cuts (hotkeys) on menu tabs and buttons.

- Fields are assigned Yes or No to activate or not. Default it No

- Select the **Save icon** from the top of the screen or press **[F4]**.

- Note:  Activating the keyboard short cuts is recommended as it assists new staff in learning which function keys are linked to various functions.

## 17.4    Evolution Function Keys

### Create / Modify Function Keys

There is the option to create 8 function keys (also referred to as 'hot keys') specific to your user login, with each containing a combination of keystrokes of your choosing.

These function keys will only be active when logged in as the user specified in the User field.

The character limit of **Evolution vLab®** Function Keys is 80 characters per line.

The configured commands are executed with the key combination displayed on screen. For example, the '**Ctrl-1**' function key is invoked by pressing the **[Control]**  and **[1]** keys on the keyboard at the same time.

Mandatory fields must be populated and are indicated on screen by a red asterisk (*). All other fields are optional. Select the **Save** icon or press **Save [F4]** to store the new entry or to commit any changes.

**Function Button**

| Function | Description |
|---|---|
| **Create [F6]** | Used to create a selection of hotkeys. |

## To create or edit function keys:

1.   Select the **Create** button or press **[F6];**

Or

2.   Highlight an entry within the table and double click with the mouse or press **[Enter];**

3.   The Create/Modify screen will open.

**Configuration Fields**

| Field | Description |
|---|---|
| **User** | Enter the username to which the hot keys apply. This must be an exact match for the person's username (login). |
| **Alias** | Enter an alternate name if desired. |
| **Description** | Enter the name or meaningful description of the entry, such as the user's full name. |
| **Ctrl-1 to Ctrl-8** | Enter the sequence of commands that the function key will perform. <br><br> A second field has been provided for the function keys Ctrl-1 through Ctrl-7 to permit entry of longer sequences of commands. The function key sequence is simply split across the two fields when required. <br><br> Example: <br><br> [My Menu/System Lists/Full Daysheet]<F8>y<CR> <br><br> This hot key sequence opens yesterday's Full Daysheet. <br><br> See below for an explanation of syntax and more examples. <br><br> **Note:**   When a hot key invokes a function or process involving multiple dialog prompts, the user must ensure the sequence addresses all of the prompts. **Evolution vLab®** knows when a hot key is in play and will not display the next prompt if the hot key does not include an appropriate response for it. |
| **Active** | Enter (y)es or (n)o to specify whether the entry is active. Default is 'no' (inactive). This must be set to 'yes' for the hot keys to work. |

| Field | Description |
|---|---|
| **Created, Modified By** | The time and date (hh:mm dd-mmm-yyyy) the entry was created and last modified (system populated). |

## Hot key syntax and examples:

### Change Laboratory and/or Department

The name of the Laboratory or Department must be typed exactly as it appears in the relevant drop-down selection box and enclosed in {curly brackets}. Note that the user's ability to change Laboratory and Department is subject to the configured access privileges.

### Examples:

| | |
|---|---|
| **{Central Laboratory}{Microbiology}** | Logs the user into the Central Laboratory's Microbiology Department |
| **{Central Laboratory}** | Logs the user into the Central Laboratory |
| **{Serology}** | Logs the user into the Serology Department of the current Laboratory |

### Navigate menus, sub-menus and tabs

A hot key sequence can be used to navigate to a particular screen in **Evolution vLab®**. The name of each menu, sub-menu and tab must be typed exactly as it appears on screen (including spaces where required) and separated by a forward slash (/). The entire sequence must be enclosed in [square brackets].

In general, the format is:

**[Menu Name/Submenu Name/Tab Name]**

### Examples:

| |
|---|
| **[My Menu/Reception/Images]** |
| **[My Menu/System Lists/Full Daysheet]** |
| **[Management/Devices/Printer Status]** |

### 17. Utilities : Evolution Function Keys

> **<u>Note:</u>** Any keyboard shortcuts displayed on tabs must be omitted from the tab name. For example, when configuring a hot key to open the **Reception [SF10]** screen, **omit [SF10]** as above.

### Use Evolution vLab® Functions (Buttons and Icons)

The hot key sequence may invoke one or more **Evolution vLab®** functions associated with function buttons and icons. In almost all cases they are specified using the notation for the standard keyboard shortcut, enclosed in <angle brackets>, though a few notable exceptions are included in the list below. These commands are not case sensitive.

### Examples:

| Syntax | Hotkey Response |
|---|---|
| **<F12> or <select>** | **Select [F12]** function |
| **<F4>** | **Save [F4]** |
| **<pnext>** | Next (that is: next page) |
| **<pprev>** | Previous (that is: previous page) |
| **<Esc>** | Back **[Esc]** function |
| **<CF12>** | **[CF12]** |
| **<SF10>** | **[SF10]** |

### Other keystrokes and entry of text

Hot key sequences commonly include other keyboard commands and entry of **Evolution vLab®** Mnemonics, Aliases or free text.

- To select **Yes** or **No** at a dialog prompt, use Y or N (not case sensitive) without any brackets or other notation.

- Standard data entry shortcuts such as 'y' (yesterday), 'Y' (day before yesterday),'t' (today) and **'T'** (tomorrow) may be used in hot keys. These are case sensitive where relevant.

- **Evolution vLab®** Mnemonics, Aliases and free text are entered without any special formatting.

### Examples:

| Syntax | Hotkey Response |
|---|---|
| **Y** | Selects 'Yes' at a prompt |
| **N** | Selects 'No' at a prompt |
| **The white cells appear normal.** | Free text entered in to a field |
| **LASER~BH** | Mnemonic for a printer |

The following keystrokes may be used in some instances, and must be enclosed in <angle brackets>:

| Syntax | Hotkey Response |
|---|---|
| **<cr>** | Executes a carriage return (equivalent to the Enter key) |
| **<tab>** | Tab key |
| **<home>** | Home key |
| **<up>** | Up Arrow key |
| **<down>** | Down Arrow key |
| **<left>** | Left Arrow key |
| **<right>** | Right Arrow key |

## 17.5  Counters

Some tests/panels can be set up to use counters, for example: Differential cell count in Haematology.

Cell counters can be customised to individual users which will be available when the user is logged in.

There are active and inactive tables listing cell counters accordingly.

If assigned to a particular test/panel, when entering results, the counter button will be made available (in the results screen).

If assigned to a particular person, the counter will be made available when that person is logged in.

**Function button**

| Function | Description |
|---|---|
| **Create [F6]** | Used to create a counter. |

## To edit/modify an existing counter:

1. Highlight an entry within the table and press **[Enter]** or double click with the mouse;

2. The create/modify counter screen will open;

3. Complete the required changes, mandatory fields are marked with a red asterisk (**\***);

4. Select the **Save** icon from the top of the screen or press **Save [F4]** when done.

## To create a counter:

1. Select the **Create** button or press **[F6];**

2. The create/modify counter screen will open;

3. Enter information into the corresponding fields, mandatory fields are marked with a red asterisk (**\***);

4. Select the **Save** icon from the top of the screen or **Save [F4]** when done.

> **Note:**  There are 20 cells available.

**Data Fields**

| Field | Description | Lookup [F1] |
|---|---|---|
| **Mnemonic** | A short cut code for the name of the counter. The format must be the users' login id followed by the panel's counter name (defined on the panel configuration) separated by '_'. For example: PJA_FBE where PJA is login ID FBE is the test/panel the counter will be used for. | |
| **Alias** | Enter Alias of the counter (if required). | |
| **Description** | Enter a description for the counter (for example: your name). | |
| **Store %** | Enter (Y)es or (N)o. | |

| Field | Description | Lookup [F1] |
|---|---|---|
|  | Enter Yes to convert scores over 100 to a percentage using the **Calculate [F5]** button. Enter No to store the physical values, not a percentage. |  |
| **Active** | Enter (Y)es for active or (N)o. |  |
| **Test** | Enter the test (mnemonic) to be associated with the Counter Cell. | Yes |
| **Tag** | Enter the tag that will appear on the screen for this cell. |  |
| **Key** | Enter the keyboard key that will be used to count the cells. |  |
| **Factor** | This value is used to adjust the final result on calculation. For example: to store the exact count this value should be 1.0.  To store half of the counted result, this value should be 0.5. The default factor is 0.00. |  |
| **Sum** | Enter (Y)es or (N)o.  The default is yes. Enter Yes if the counter cell is to be accumulated into the Total. Counters which are not to be accumulated are displayed within [  ].  For example: the cell recording nucleated RBC would be set to *NO* so that these results are not included in the final count. |  |

# 18   Blood Bank

The **Blood Blank** menu  becomes available only when the **Transfusion Medicine Department** is selected from the drop-down menu box in the top left of the screen.

**Submenu Tabs**

| Submenu tab | Description |
|---|---|
| **Sign In** | Allows the return of any unused products to the product inventory.<br><br>Cellular units may be returned to the fridge from this menu or the 'Crossmatch Inventory'. |
| **Sign Out** | Allows the despatch of blood products that have been allocated or crossmatched to a patient.<br><br>Only cellular units that have been allocated and validated via a crossmatch request may be despatched.<br><br>Plasma and platelet products may be allocated and despatched from this menu without the need for a product request. |
| **Product Reception** | Used to add blood products (including batch products) to the product stock inventory within **Evolution vLab®**. |
| **Confirm Group** | Products awaiting confirmation of their blood group will be listed in this table.  These won't be made available for despatch until their blood group has been confirmed.<br><br>Group confirmation can be uploaded from an analyser or manually entered.<br><br>Confirmation of grouping reactions is automatically performed by **Evolution vLab®** when a direct match is achieved between entered reactions and the unit group register via product reception.<br><br>Once the group has been confirmed, the product will then be made available for allocation and despatch. |
| **Confirm Transfusion** | Units that require their transfusion status to be confirmed will appear on this list.  Transfusion can be configured to be confirmed as soon as the unit has been despatched.  This table lists those that need manual confirmation. |
| **Transfer** | Used to transfer blood and blood products from one location to another. |
| **Units in Transit** | Lists blood and blood products that are currently in transit from one location to another and allows the user to accept the transfer. |

## 18.1    Sign In

The Sign In screen allows users to manually return product, that has been previously despatched, to bring it back into control the of the lab.  Product will appear in the appropriate allocation inventories until it is returned to stock unless it was despatched to a location only.

> **Note:**  The product must have been despatched before it can be signed in.

**Function Buttons**

| Function | Description |
|---|---|
| **Enter Products [F5]** | Allows the user to enter details in the 'Unit/Batch No', 'Product' and 'Collected' fields. |
| **Confirm [F6]/Sign In [F6]** | Confirm the sign in of the listed products. |

### To Sign In a Product

1.  If applicable select the **Enter Products** button ;

2.  Enter or scan the product number/barcode in the Unit/Batch No. field and press **[Enter]**;

3.  Enter the amount of product to be signed for batch products and press **[OK]** or **[Enter]**. Enter the product type for unit products if required and press **[OK]** or **[Enter]**;

4.  Enter the UR Number or Patient ID the batch product was despatched to and press **[OK]** or **[Enter]**;

5.  Note if the product despatch period has elapsed a message will display: 'Product despatch period has elapsed enter reason'

    a.   Enter a reason and press **[OK]** or **[Enter]**

6.  Continue entering if more than one product is required to be signed in, each time the table below will be updated;

7.  After entering all product/s to be signed in, select the **Confirm** button or press **[F6];**

8.  At the prompt ' Are the product details correct (y/n), select **[Yes]** to confirm the unit details are correct or select [No] to cancel;

9.  A message 'Products returned' will display.

10. Select **[OK]** or press **[Enter]**.

## 18.2    Sign Out

**Function Buttons**

| Function | Description |
|---|---|
| **Enter Products [F5]** | Allows the user to enter details in the 'Unit/Batch No', 'Product' and 'Collected' fields. |
| **Allocate [F5]** | Allows the entered product to be allocated to the UR number. |
| **Confirm [F6]/Despatch [F6]** | Confirm the sign out of the listed products. |

### To Sign Out a Product

**Note:**  Mandatory fields are marked with a red asterisk (**\***)

1.  Enter the patient's UR number or Patient Identifier and press **[Enter]**;

    a.   The Identifier Type should default based on the client

    b.   Enter the Patient Identifier applicable to the Identifier Type (example CHI)

    c.   When the Identifier Type is left blank enter a UR Number into the Patient Identifier field

2.  The patient's details and any special requirements and antibody alerts are displayed;

3.  Enter the product's destination in the 'Despatch to' field, press **[Enter]**.  Use **Lookup [F1]** to select from a list of wards/locations.  Fill out any other mandatory fields (**Lookup [F1]** available);

4.  Enter or scan the product type in the 'Product Type**'** column and press **[Enter]**.   **Lookup [F1]** to select from a list of valid product types is enabled

5.  Enter or scan the unit number in the 'Number' column and press **[Enter]**;

    a.   For **cellular/non cellular product**: The remaining fields will populate automatically.

    b.   For **batch products**: The 'Expiry' date/time will automatically populate. Enter the quantity of batch product to be despatched in the 'Qty' column and press **[Enter]**.

6.  When all details have been entered, select the **Confirm** button or press **[F6];**

### To allocate a product to a patient (if available from this screen)

1.  Complete steps 1-5 as outlined above;

2.  Select the **Allocate** button or press **[F5]**;

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3. The products will not be despatched, but allocated to the patient and will remain reserved for this patient within the system.  Products allocated to a patient will not be able to signed out to another patient;

4. Proceed to despatch by selecting the **Confirm** button or press **[F6]**.

duplicate
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Notes:

- Products being despatched with a transfusion sample that has past its expiry date will have a warning message displayed.  Select Yes or No to go ahead or cancel the despatch respectively.

- Where plasma or platelet units have been allocated from the sign out screen they can only be despatched from the sign-out screen and not from the crossmatch inventory.

- All units despatched from the sign out screen will then display in the confirm transfusion table if they are not assumed transfused on despatch.

- A warning prompt when attempting to allocate a Product to a patient under particular conditions, such as:

  o  *"Immunoglobulin Rh(D) warning - do you wish to override (y/n)"*

     At the prompt, specify (Y)es to proceed or (N)o to abort. Upon selecting Yes, the user is prompted for a Reason and must specify one in order to proceed with the allocation.

     Otherwise the allocation is aborted.

**The logic for the warning is as follows:**

# Is 'Check Rh D Group' set to yes for the Product being allocated? If yes, proceed to step 2. Otherwise, skip to step 4 (existing functionality).

# Is 'RhD IG Warning' set to yes for the Blood Group of the patient? If yes, proceed to step 3. Otherwise, skip to step 4.

# Display the warning message as described. If the user chooses to override and provides a reason, proceed to step 4. Otherwise, abandon the proposed Product allocation and abort.

# Allocate the Product as normal.

**The following checks are performed by Evolution vLab® during sign out:**

**Despatch of cellular products:**

- Checks the unit status is 'crossmatched' for the patient entered.

- Checks the transfusion expiry is valid.

- Checks the sample expiry is valid.

**Allocation and despatch of plasma or platelet products:**

- Checks the unit availability (this includes expiry, reserved, directed, autologous, allocated, special requirements).

- Checks the configured compatibility rules for the patient blood group.

- Checks the special requirements of the patient.

- Where no blood group exists on the patient's record, **Evolution vLab®** will allow only AB POS or AB NEG plasma products to be allocated.

**Messages**

| Error or alert message | Description |
|---|---|
| Unit not allocated for this patient | Appears when entering a cellular unit that is **not** allocated to the patient |
| Unit not crossmatched | Appears when entering a cellular unit that is **not** crossmatched to the patient |
| Cannot despatch. Crossmatch expired | Appears when despatching a cellular unit that does **not** pass the sample/transfusion/crossmatch expiry checks. |
| Unit previously despatched | Appears when entering a unit that has been previously despatched. |
| Unit not despatched | Appears when entering a unit that has **not** previously been despatched. |
| Acceptable time elapsed.  Contact Blood Bank staff | Appears for a unit that has exceeded the laboratory expiry. |

## 18.3   Product Reception

To allocate and crossmatch products for a patient they must first be receipted in **Evolution vLab®** via Product Reception or receipted via an electronic delivery method. If the product has been previously registered, the product details will be recalled automatically upon entry of the unit/batch number complete with full audit details.

When  receipted, the products are added to the relevant laboratory's inventory with an audit entry on the product detailing the user who receipted the product. When receipted via an electronic delivery method the products are added to the relevant laboratory's inventory with an audit entry on the product detailing the user who receipted the product in via the electronic delivery method  and when **Evolution vLab®** received the product information.

**Evolution vLab®** will automatically (or manually depending on configuration) query the delivery method to electronically import and receipt blood products. An audit of all actions is kept within **Evolution vLab®**.

A Unit product is considered new to the inventory if there is not an existing product in **Evolution vLab®** with a unique combination of the:

- Unit Number

- Unit Product Type

- Collected Date and Time

Upon receipt of a Unit via an **electronic delivery method**, **Evolution vLab®** will not calculate the expiry time and date from the collected date and instead use the expiry time and date provided by the **electronic delivery service**. The following fields will be stored and displayed on the Product Reception screen for new Unit products:

- Unit Number

- Unit Type

- Collected Time/Date

- Expiry Time/Date

- Blood Group

- Phenotypes

- Modifiers

- Comments

- Source

- Product Location

On receipt of a duplicate Unit product, **Evolution vLab®** will update the data stored in the Supplier generated fields only.

The following fields will be stored and displayed on the Product Reception screen for new Batch products:

- Batch Number

- Product Type

- Collected time/date (stored but not displayed in **Evolution vLab®**)

- Expiry time/date

- Source

- Product Location

A Batch product is considered new to the inventory if there is not an existing product in **Evolution vLab®** with a unique combination of:

- Batch Number

- Product Type

Products received electronically will also display on the product details screen Electronic Receipt 'Yes or No' this will impact whether the unit can be issued via Electronic Issue (Computer Crossmatch). Only units with Electronic Receipt set to 'Yes' can be issued for an Electronic Issue.

If the Batch product already exists in **Evolution vLab®** for a given laboratory, the quantity of the Batch received will be added to both the 'Quantity' and 'Qty in Stock' fields on the Product Reception screen.

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An audit entry will be added to all products detailing the user who receipted the products via the electronic delivery method and when **Evolution vLab®** received the electronic receipt. For Batch products, an entry will be stored in the Product Audit trail for each receipt event where a further quantity of product was receipted.

**Function Buttons**

| Function | Description |
|---|---|
| **Edit Comment [F5]** | To add/edit comments as free text. <br><br> • Select the **Edit Comment** button or press **[F5]** <br><br> • Enter/edit comments in the dialogue box (max. 539 characters) <br><br> • Select OK <br><br> • The comment is added to the comments field. <br><br> • Select the **Save icon** or press **[F4]** |
| **Unit Reissue [F6]** | Enables the reissue of a registered product. <br><br> Select the **Unit Reissue** button or press **[F6].** <br><br> The unit will be reissued. An audit event is recorded for the unit. <br><br> **Note:** The system does not allow reissue of 'Disposed' units.  An error message will display. |
| **Add To Batch [F6]** | This button displays if the batch number entered has previously been registered, or after the batch no has been saved. <br><br> Used to add extra products to a particular batch to update quantity available. <br><br> When this button is selected, enter the quantity at the prompt and then press **[OK]**. |

| Function | Description |
|---|---|
| **Reinstate [F7]** | Reinstates batch products. Enter a quantity at the prompt and then press **[OK]**. |
| **Grouping Reactions [F8]** | Displays the blood group confirmation results.<br><br>Results cannot be entered in this screen.<br><br>1.  Select the **Grouping Reactions** button or press **[F8]**.<br><br>Note this is only applicable if Unit Group Reaction is set to Yes in the Transfusion Options for the laboratory and units require groups to be confirmed. |
| **Reverse Disposal [SF7]** | This key only appears if the product has a status of 'Disposed'.<br><br>Allows the user to reverse a disposal performed in error. |
| **Insert Audit Entry [CF7]** | Use this button to manually insert an audit entry.  A maximum of 40 characters is allowed. |
| **BloodNet Notes [SF5]** | The table accessed via the **BloodNet Notes [SF5]** function key displays the IssueNote ID and Comments received via the **BloodNet** interface.<br><br>For Batch Products where there may be multiple receipt notes the display will be in reverse chronological date order.<br><br>The message "BloodNet Notes" is displayed in the header section of the Product Reception screen to indicate the presence of **BloodNet** Notes.<br><br>**Note:** Bloodnet is not available at all client sites. It depends on the whether the interface is required. |
| **Remove Product [SF6]** | This function button is available from the Product Reception screen for both Unit and Batch products. |
| **Modify Product [SF7]** | To modify a product |

**Data Fields**

| Field | Description | Lookup [F1] |
|---|---|---|
| **Received** | Displays the time/date (hh:hh dd-mmm-yyyy) the product was received.<br><br>Read only field populated after the product has been saved. | |
| **Unit/Batch No** | Displays the Unit or Batch number.<br><br>Read only field after the product has been saved. | |
| **Product** | Displays the product type (cellular or non-cellular)<br><br>Read only field after the product has been saved. | |
| **Collected** | The time (if applicable tt:tt) date (dd-mmm-yyyy) the product was collected.<br><br>Read only field after the product has been saved. | |
| **Blood Group** | The Blood Group of the product.<br><br>For example: O Pos, A Neg, etc. | Yes |
| **Collected** | The collected time (if applicable tt:tt) date (dd-mmm-yyyy) can be only be edited for products with the following status:<br><br>• Group unconfirmed<br><br>• Available for despatch<br><br>• Available for crossmatch<br><br>**Evolution vLab®** will complete a number of validation checks for the new collected date entered.<br><br>A reason must be entered for the date change at the prompt.<br><br>An audit entry will be recorded for the date change. | |
| **Expiry** | The date the product will expire in format TT:TT (if applicable) DD-MM-YYYY. | |

**18. Blood Bank : Product Reception**

| Field | Description | Lookup [F1] |
|-------|-------------|-------------|
| | **Note:  Evolution vLab®** automatically calculates the product expiry date if the product has a shelf life configured.<br><br>You can manually alter the date if it does not match, then press **[Enter]** or scan the date in using the barcode scanner.<br><br>An audit entry is recorded if the date is changed. | |
| TM Alert | Used to assign this product with a transfusion alert. | Yes |
| Price | Use this field to record price for each item and allow access for authorised users to make amendments as and when required. Any amendment to a price will need to be fully audited. The Currency field within the service, should display in the currency applicable to the region. The information is extractable for statistical analysis in SQL or Extended Enquiries.<br><br>It has these main characteristics:<br><br>• Price is configurable against products.<br><br>• Price can be modified against products.<br><br>• Price is displayed against a product.<br><br>• Existing price is not updated on products already stocked in the inventory when a new price is configured against products.<br><br>• Identifier can be used in reporting functions.<br><br>• The price field can display up to an including 9999.99 .<br><br>• All areas within the system that display currency, should display the currency applicable to the region. | |
| Modifiers | The "Modifiers' field allows the entry of further modifiers configured for use. Press the **Lookup [F1]** function key for a list of valid Modifiers. Users can enter multiple modifiers by separating each modifier with comma. | Yes |

| Field | Description | Lookup [F1] |
|---|---|---|
|  | The CMV Negative, Filtered, Irradiated and Washed fields default to 'No'. If required enter (Y)es in the appropriate field and press **[Enter]**. |  |
| **CMV Negative** | Enter *Y* or *N*.  Default entry is *No*. |  |
| **Filtered** | Enter *Y* or *N*.  Default entry is *No*. |  |
| **HbS Negative** | Enter *Y* or *N*.  Default entry is *No*.  This status on a unit of blood can be recorded during receipt of the product and provide a warning when HbS Positive blood is allocated to a patient who has a requirement to receive only HbS Negative blood which can only be over-ridden by authorised users.  It can be also be recorded for all actions audit as expected.  When using this field, it is also possible to record the High AB Titre Negative, Volume and Condition on a unit of blood during receipt of the product.  **Note:** Client system administrators can set up Transfusion Options to enable the recording of HbS Negative, High AB Titre Negative, Volume and Condition against product reception. |  |
| **Irradiated** | Enter Y or N.  Default entry No.  On update of the "Irradiated" data field from 'no' to 'yes' **Evolution vLab®** will prompt for a new Expiry Time and Date.  On entry of the Expiry Time/Date, **Evolution vLab®** will:  1. Update the Product Expiry Time/Date field, and  2. Assign the Product a **BloodNet** Fate of 'Convert type 0'. |  |

| Field | Description | Lookup [F1] |
|---|---|---|
| **Washed** | Enter *Y* or *N*. | |
| **High AB Titre Negative** | Enter *Y* or *N*.  Default entry is *No*.<br><br>This is used as part of recording the **HbS Negative** status result on this same screen.<br><br>It can be recorded against a unit of blood during product receipt and all actions audit as expected. | |
| **Quantity** | This field default is 1. | |
| **Volume** | This is used as part of recording the **HbS Negative** status result on this same screen.<br><br>It can be recorded against a unit of blood during product receipt and all actions audit as expected.<br><br>It is also configurable and the Volume outputs on reports and labels. | |
| **Condition** | This is used as part of recording the **HbS Negative** status result on this same screen.<br><br>It can be recorded against a unit of blood during product receipt and all actions audit as expected.<br><br>It is also configurable and outputs on reports and labels. | |
| **Laboratory Phenotypes** | A laboratory user can edit this field. **Note:** Multiple phenotypes are entered by separating each phenotype with a comma (no space). | Yes |
| **Supplier Phenotypes** | This field is usually not-editable. Phenotypes recorded against a product when receipted via **BloodNet** are recorded in this field | |
| **Quarantined** | Enter *Y* or *N*. | |
| **Autologous** | Enter the patient's UR number if this unit will be used for an autologous transfusion.  At the prompt select *Yes* (or no).<br><br>The patient must have the same blood group as the unit for it to be accepted. | Yes for UR prefix |

| Field | Description | Lookup [F1] |
|---|---|---|
| **Directed** | Use this field if the unit is to be directed toward a particular patient (does not reserve the unit for this patient).<br><br>Enter the patient UR number.  At the prompt select *Yes* (or no).<br><br>The patient must have a compatible blood group for this to be accepted. | Yes for UR prefix |
| **Reserve** | Use this field if the unit is to be reserved for a particular patient.<br><br>Enter the patient UR number.  At the prompt select *Yes* (or no).<br><br>The patient must have a compatible blood group for this to be accepted. | Yes for UR prefix |
| **HLA Matched** | The HLA Matched Product Status can be recorded (and audited) against a unit of blood during receipt, treated as a special requirement, outputed on compatibility reports and labels and allows an override option.<br><br>• HLA Matched data field is available this  Product Reception screen, where:<br><br>    o  User able to assign a patient UR on the HLA matched field.<br><br>    o  The HLA Matched product status can be recorded against a unit of blood during registration on laboratory record.<br><br>    o  The HLA Matched product status can be recorded against a unit of blood during a registration on patient UR record.<br><br>• Updates to HLA Matched field within Product Reception are in the product audit.<br><br>• Updated to HLA Matched product special requirement against a patient | Yes |

| Field | Description | Lookup [F1] |
|---|---|---|
| | on the reception screen are in the patient audit.<br><br>• HLA Matched status is displayed on the patient result screen.<br><br>• Over-ride of the HLA Matched product warning is displayed in product audit and TM supervisor Log.<br><br>• Patient HLA Matched status is displayed on the crossmatch compatibility labels.<br><br>• A unit HLA Matched status is displayed on:<br><br>    o  Product Inventory Screen<br>    o  Unit Compatibility Labels<br>    o  Compatibility Reports.<br><br>• When a patient has an HLA Special Requirement assigned the system will perform a check against the product being allocated to ensure the patient details are correct. | |
| **Source** | Where the product came from, for example: Red Cross | Yes |
| **Location** | The current laboratory | Yes |
| **Orig. Product** | Read only field. Allows for the entry of an alternate product code.<br><br>The function of the Processed Product field is to facilitate the recording and appropriate handling, allocation management, fating and reporting of thawed and other processing of products whilst retaining full traceability.<br><br>The Orig. Product data field has the following attributes:<br><br> Field width: 20 characters<br><br>• Valid Entries: Valid **Evolution vLab®** Products which are configured as Processed | |

**18. Blood Bank : Product Reception**

| Field | Description | Lookup [F1] |
|---|---|---|
| | Products for current product in the Product Configuration Table<br><br>• Entry of the Processed Product is supported via keyboard entry and/or selection from a valid list of Products from the **Lookup [F1]** function table | |
| Time to Expiry | This field allows users to view from the transfusion product inventories, the time remaining until expiry on each line item and allow users to query an inventory and determine what products or batches will expire within a given timeframe. This will readily identify which units and products held in the inventory will expire and when.<br><br>It also has these characteristics:<br><br>• Users are able to view time to expiry on any product/s and product inventories.<br><br>• Time to expiry is refreshed each time users access the product and inventory lists.<br><br>• Users are able to perform query based on days/weeks/months.<br><br>**Note:** The Time to Expiry value that is displayed by default is configurable on the Product Reception and Unit Inventories screens. | |
| Status | Read only field.  This is automatically updated by **Evolution vLab®** as the product moves through the system valid entries are:<br><br>• Current units, that is: Not expired<br><br>• Available for crossmatch<br><br>• Available for despatch<br><br>• Autologous/Directed/Reserved units<br><br>• Units with special requirements<br><br>• Quarantined (Q) | |

**18. Blood Bank : Product Reception**

| Field | Description | Lookup [F1] |
|---|---|---|
| | • EXPIRED<br>• Crossmatched<br>• In Transit<br>• Unavailable<br>• Allocated<br>• Group UNCONFIRMED<br>• Hold UNCONFIRMED | |
| **Quantity in Stock** | This is a non-editable field. | |
| **Quantity in Transit** | This is a non-editable field. | |
| **Quantity Transferred** | This is a non-editable field. | |
| **Comments** | Any comments about the product. These are manually added using the **Edit Comment** button at the top of the table or pressing **[F5].** | |

**To register a Unit product manually**

1.  From the Blood Bank menu, select <Product Reception>.

> **Note:**
>
> The Unit/Batch Noa. field format accepts and displays Product IDs up to 15 characters in length including alphanumeric characters and spaces. The ISBT 128 barcode/datamatrix barcodes will display up to 15 characters and the current Codabar barcodes will display up to 7 characters as per current functionality.
>
> When registering a new product by manually entering the 13-digit DIN, the check character must be entered for verification purposes. The DIN is case-sensitive.
>
> An incorrectly entered DIN will display the error message "Invalid Unit Number".
>
> Please note the entry of the check character is not required when scanning the DIN barcode.

2.  Enter or scan the product number into the 'Unit/Batch No' field.

3.  Enter or scan the product type into the 'Product' field. **Lookup [F1]** function key displays a list of product types for easy selection.

4.  Enter or scan the collected date in the 'Collected' field.

**Note:** The Collected field displays Collected time/date in the format hh:mm dd-mmm-yy for Unit Products. On manual entry of a ? and a date (ddmmyy or ddmmyyyy) in the Collected field, Evolution vLab® will display a time of 00:00 and the date entered.

5.  Enter or scan the blood group in the 'Blood Group' field and press **[Enter]**. **Lookup [F1]** to a list of valid blood groups is enabled.

6.  Enter or scan a time and date in the 'Expiry' field.

**Note:** On manual entry of ? and a date (ddmmyy or ddmmyyyy) in the Expiry Date field, **Evolution vLab®** will display a time of 23:59 and the date entered. **Evolution vLab®** can be configured to automatically calculate the product expiry date based on the entered collection date and time. If the date does not match the expiry date shown on the product you can alter the expiry date. On auto-calculation of Expiry, **Evolution vLab®** displays the time as 23:59 on the calculated expiry date.

## To edit the collected date

The 'Collected' date may be edited for products with a status of 'Group Unconfirmed', 'Available for Despatch' or 'Available for Xmatch'.

1.  At the Collected field enter the new Collected date (dd-mmm-yyyy) either via manual entry or scanning a barcode date;

2.  At the prompt: 'Do you wish to change the Collected date. Y/N?' Select 'Yes' to update the collected date;

**Note:** Validation checks are applied for field entry. If an invalid collection time is entered a message will be displayed. Example: Collected time > Received time.

3.  At the prompt enter a reason and then select OK or press **[Enter]**;

4.  The new collected date will be updated. This will automatically populate a new expiry date;

5.  Select the **Save icon** from the top of the screen or press **[F4]** to save the modified data.

**Note:** An audit event is recorded for the unit.

## To edit expiry date

**Note:** It is possible to override the expiry date of a product.

1.  At the Expiry field enter the new Expiry date (dd-mmm-yyyy) either via manual entry or scanning barcode date;

2.  An **Evolution vLab®** message displays: Product already expired. Continue (y/n)?;

3.  Select Yes to override expiry date or No to cancel;

4.  Press the **Save icon** from the top of the screen or press **[F4]** to save the modified data.

> **Note:**  An audit event is recorded for the unit.

## To update or change the modifiers for cellular products

1.  Enter 'yes' or 'no' in the relevant modifier field.  At the Irradiated field, if yes is entered, an **Evolution vLab®** prompt displays:  'Unit has been irradiated. Enter Expiry Date:';

2.  Enter the new expiry date for the unit and select OK or **[Enter]** key.;

3.  The new date will update for the Expiry date.

> **Note:**  Two audit events are recorded for the unit.

## To view product reception audit

1.  Select the product to open the Product Reception screen;

2.  The audit table will display in the lower portion of the screen.

## To reverse disposal of a product

This key only appears if the product has a status of *'Disposed'*.

1.  Select the **Reverse Disposal** button or press **[SF7];**

2.  At the prompt, enter a free text reason and press **[Enter]**. The reason is mandatory.  You cannot proceed until the reason is entered;

3.  The product status will re-instate to its former state prior to being disposed. The reinstatement of status will be updated in all product 'status' fields within **Evolution vLab**®, for example: 'Unit Inventory' screen.

> **Notes:**
>
> *   The product will only be reinstated to the laboratory/location where it was disposed.
>
> *   If the user attempts to reverse the disposal of a product whilst logged in at a differing laboratory to which the unit was disposed, a system error will appear- *'Cannot reverse disposal' product did not originate from this location.*
>
> *   The reason for reversing the disposed status of a product is recorded in FULL in both the 'TM Supervisor Log' AND in the product audit trail.

## To register a batch product manually

1.  From the Transfusion Stock Control menu, select **<Product Reception>**.

> **Note:** The Unit/Batch No. field format accepts and displays Product IDs of variable lengths and allows for alphanumeric characters and spaces.

2. Enter or scan the product number into the 'Unit/Batch No' field.

3. Enter or scan the product type into the 'Product' field. function key displays a list of product types for easy selection.

4. Enter the quantity in the 'Quantity' field

5. Enter or scan a time and date in the 'Expiry' field.

> **Note:** On man*ual entry of ? and a date (ddmmyy or ddmmyyyy)* in the Expiry Date field, **Evolution vLab®** will display a time of 23:59 and the date entered.

6. The *'Status'* and *'Location'* fields will be automatically updated as work is performed and the product is despatched.

7. Press the **Save [F4]** function key to save the Batch.

**Evolution vLab®** can recognise the check character of the ISBT 128 Donation Identification Number (DIN) barcodes.

When registering a new product by manually entering the 13-digit DIN, the check character must be entered for verification purposes. The DIN is case-sensitive.

An incorrectly entered DIN will display the error message "Invalid Unit Number".

Please note the entry of the check character is not required when scanning the DIN barcode.

## 18.4    Entering Supplier and Laboratory Phenotypes

**Evolution vLab®** has the capability to record, display and distinguish between phenotyping provided by the product supplier and that performed by the laboratory to enable users to select and process blood Units for patients. The addition of rules based on crosschecking of laboratory and supplier generated Phenotype data means **Evolution vLab®** provides appropriate alerts, warnings and comprehensive auditing.

Phenotypes are displayed as the Phenotype mnemonic. Users can enter multiple phenotypes by separating each phenotype with a space or comma; maximum 100 characters including delimiters. After selecting **Save [F4]**, Phenotypes are displayed with the space delimiter.

A delimiter is NOT required to be entered when utilising the **Lookup [F1]** function.

**Evolution vLab®** can convert the Weiner phenotypes received from a supplier to the Fisher Race phenotypes and display the Fisher Race phenotypes on the Product Reception screen automatically.

Phenotypes display in the sort order nominated by the System Administrator. The two Phenotype fields are aligned such that the 100-character fields are vertically aligned above each other with the same left-hand margin to facilitate visual matching.

Data validation and checking is performed on entry of each Phenotype and editing of existing Phenotype data. Entry of an invalid/incompatible Phenotype results in a system error message

being generated. Pressing any key will clear the message and the cursor will remain active in the Phenotypes field allowing the user to continue to make additional entries/selections.

Where valid phenotype data has been entered prior to the addition of invalid data the valid data will remain.

**Evolution vLab®** performs 'Phenotype Conflict' data checking during data entry and editing in the Laboratory Phenotype field of Unit products to ensure the phenotypes being entered in the Laboratory Phenotype field for a product do not conflict with each other, with existing Laboratory phenotypes or with data in the Supplier Phenotype field. Conflicting phenotypes are configured by the System Administrator.

If a conflict is detected during data entry the prompt *"WARNING: Conflict exists with Supplier/Laboratory Phenotype/s x,y. Accept (y/n)"* (where x and y are conflicting phenotypes) is displayed.

1. If **Y** is selected the prompt will be removed and a secondary prompt will appear requesting entry of a mandatory reason to accept the conflict; maximum 20 characters. On entry of a reason the conflicting phenotype entered will be accepted. If **[Esc]** is selected prior to entering a reason the action will be cancelled.

2. If **N** or **[Esc]** is selected the prompt is removed and the conflicting phenotype entered is deleted. Any other non-conflicting data is retained.

3. Selection of any other key displays a further prompt indicating an invalid entry.

**Note:** A separate prompt displays for each conflicting set of phenotypes where multiple phenotypes have been entered together as a string.

## 18.5   To Reissue a Product

The **[F6] Unit Reissue** function available on the Unit Product Reception screen will only allow the reissue of Unit products that have the following statuses:

i)   Transferred - "Transferred";

ii)  Returned to Red Cross - "-→Red Cross"; or

iii) Unit Error - "Error".

iv)  [SF5] Reinstate on Confirm Blood Group menu item (or remove this key)

**Evolution vLab®** will display a warning message and not allow the reissue of unit products with a status of 'Allocated', 'Allocated Transferred', 'Crossmatched', 'In transit', 'Group UNCONFIRMED', 'Expired', 'Available for despatch', 'Available for Xmatch', or 'Transfusion Confirmed'.

i)   On selection of the *'Unit Reissue'* function on a 'Transferred' product, **Evolution vLab®** will prompt for a location.

ii)  The **Lookup [F1]** list will display the External Location list.

iii) On entry of an External Location, **Evolution vLab®** will prompt for a reason.

iv) Entry of a reason will not be mandatory and will allow for entry of up to 40 characters of free text.

v) The user will be able to exit / cancel the reissue (via **[Esc]**) at any stage prior to the final data entry. On **[Esc]**, the user will be returned to the Product Reception screen and no action will be taken or recorded for the product.

On actioning the *'Unit Reissue'* function, **Evolution vLab®** will perform the following actions:

i) Change the Status of the product back to *"Available for despatch" / "Xmatch"* subject to the current expiry rules

ii) Record and display the Default Location as configured in the Transfusion Options screen for the "current" site in the Location field in Product Reception

iii) Add the unit to the inventory in which the user is currently logged and be available to be counted in the Product Summary and All Laboratories Inventory subject to expiry rules

iv) Record an audit for the reissue in the Product Audit trail Record an audit for the reissue in the Inventory Log

v) Reissued products will be able to be processed in the same way as products that have never been transferred or reissued.

**Evolution vLab®** will update and report the **BloodNet** fate of the reissued product from 'Transferred' to Return to Stock.

## 18.6    To Reverse Disposal a Product

1. From the Product Reception screen, enter the Unit/Batch number and **[Enter]**

2. Press the **Reverse Disposal [SF7]** key.

    **Note:** This function button only appears if the product has a status of 'Disposed'.

3. A prompt appears- *"Reason for disposal reversal"*. Enter free text reason up to 50 characters and press **[Enter]**. The reason is mandatory.

    **Note:** To cancel the operation, press the **[Esc]** key. The status of the product will remain as 'disposed'.

4. A prompt appears- *"Are you sure you want to reverse disposal (y/n)"*. Enter 'n' to cancel the function. Enter 'y' to complete the reversal.

5. After accepting the reversal, the product status will re-instate to its former state prior to being disposed. The reinstatement of status will be updated in all product 'status' fields within **Evolution vLab®**, for example: 'Unit Inventory' screen.

6. The product will only be reinstated to the laboratory/location where it was disposed. For example, if the product was disposed from the Atherton Unit Inventory then it will be returned to the Atherton Unit Inventory. If the user attempts to reverse the disposal of a

product whilst logged in at a differing laboratory to which the Unit was disposed, a system error will appear- *"Cannot reverse disposal' product did not originate from this location"*.

7. **Evolution vLab®** will assign a **BloodNet** fate of 'Return To Stock' for the Unit product and quantity of Batch products.

8. The reason for reversing the disposed status of a product is recorded in the laboratory Inventory Log, 'TM Supervisor Log' and the product audit trail.

## 18.7    To Modify a Product

The function of the Modify Product key is to facilitate the recording of the appropriate handling, allocation management, fating and reporting of thawed and other processing of products whilst retaining full traceability. The processed product will be configured with its own shelf life. A product can be modified multiple times.

1. From the Product Reception screen, enter the Unit number and **[Enter]**.

2. Press the **<SF7 Modify Product>** key.

3. A prompt appears- *"Change product types (y/n)"*. Enter 'n' to cancel the function. Enter 'y' to modify the current product.

4. After accepting to modify the product, a prompt appears- *"Please enter product type"*. **Lookup [F1]** is available. Only a valid process product configured against the primary product can be selected.

5. Once a process product is selected a prompt appears- *"Enter modified time and date"*. Enter the time and date the product was processed. The 'Expiry' field will update according to the configured shelf life of the modified product.

6. Enter the number of sets of labels required.

7. Once the function has been completed the 'Orig. Product' field will display the original product received into the inventory. The 'Prod.' field will now display the processed product.

## 18.8    To Reinstate a Batch Product

The **Reinstate [F7]** function available on the Batch Product Reception screen for batch products has been modified to allow a quantity of batch products that has been externally transferred, returned to Red Cross to be reinstated.

• On selection of the Reinstate function **Evolution vLab®** will prompt for a quantity.

• On entry of a quantity, **Evolution vLab®** will prompt for the entry of the Location Type:

• *"Internal (i) or External (e) location?"*

• **Evolution vLab®** will then prompt for a location:

• If *"Internal Location"* is entered - **Lookup [F1]** will display the configured list of wards and internal locations.

• Only valid internal locations entries will be allowed as valid entries.

- If External Location "e" was selected - **Lookup [F1]** will display the configured list of External Locations.

- Only valid external locations will be allowed as valid data entries.

- On entry of a ward or location, **Evolution vLab®** will prompt for a reason.

- Entry of a reason for reinstating the product will allow for entry of up to 40 characters of free text to be entered.

- Entry of a reason is not mandatory.

- If the user selects the **[Esc]** key before the final action (that is: before entering a reason), **Evolution vLab®** will cancel the action and return the user to the Product Reception screen without making any changes to the quantity of product.

- On actioning the Reinstate function, **Evolution vLab®** will perform the following actions:

- Add the quantity of batch product to the Qty in Stock at Product Reception.

- The Quantity field at Product Reception will NOT be increased.

- Record the Transfer audit in the Product Audit trail including the external site from which the product was returned and the reason for the return.

- Record the transfer in the Inventory Log.

- Reinstated batch products can be processed in the same way as products that have never been transferred or re-issued.

## 18.9    Management of Duplicate Products

A duplicate Unit Product Item is defined as a Unit that has the same Unit Number, Product Type and Collected Date as an existing unit.

On receipt of a duplicate Unit Product via the **BloodNet** interface **Evolution vLab®** will send an acknowledgement that the 'imported' item was receipted in **Evolution vLab®**.

**Evolution vLab®** updates the data stored in Supplier generated fields only. These fields include:

i)     Supplier Expiry Date/Time

ii)    Supplier Collected Date/Time

iii)   Issue Note ID

iv)   BloodNet Comments

v)    Supplier Phenotypes

**Evolution vLab®** will NOT update the following data fields:

i)     Blood Group

---

ii)   Expiry

iii)  **Evolution vLab®** CMV-, Filtered, Irradiated and Washed status fields

iv)  Laboratory Phenotypes

v)   Quarantined status

vi)  Autologous, Directed and Reserved UR Numbers

vii) Product Source

viii) Product Location

ix)  Unit Status

x)   BloodNet Unit Fate


An audit trail entry is added for the receipt of the product.


## 18.10   Management of Autologous/Directed/Reserved Products

Where a product has been ordered / received for a specific patient and patient data has been transferred via **BloodNet**, **Evolution vLab®** records the patient data against the product and displays the products in the *"Reserved Product Log"*.


**Evolution vLab®** displays the following patient details in the Reserved Log:

i)   URNO

ii)   Surname

iii)  Given Name

iv)  Sex

v)   Patient Blood group.


## 18.11   BloodNet Fate Data

**Evolution vLab®** will assign or update and record the appropriate **BloodNet** Fate status to a Unit product or quantity of a Batch product following a processing event in **Evolution vLab®**.


The following table describes the fate sent by **Evolution vLab®** and the corresponding Fate displayed in **BloodNet**:


| Evolution vLab® Action | Evolution vLab® Fate in BloodNet Interface | BloodNet Fate Status |
|---|---|---|
| **Allocation** | Crossmatched | Allocation |

## 18. Blood Bank : BloodNet Fate Data

| Evolution vLab® Action | Evolution vLab® Fate in BloodNet Interface | BloodNet Fate Status |
|---|---|---|
| **Despatch** | Despatch and Assumed Transfused | Dispense and Assumed Transfused |
| **Confirm transfusion** | Transfused | Transfused |
| **Transfer of an unallocated product internally** | In transit and Transferred | Transfer Out (originating laboratory) and Transfer In (receiving laboratory) |
| **Transfer of an allocated product internally** | In transit and Transferred | Transfer Out (originating laboratory) and Transfer In (receiving laboratory) |
| **Transfer of an unallocated product externally** | Transferred | Transfer Out (originating laboratory) |
| **Transfer of an allocated product externally** | Transferred | Transfer Out (originating laboratory) |
| **Return to Stock** | Returned to Stock | Return to Stock |
| **Dispose** | Disposed | Discard |
| **Modify FFP to ELP** | Converted | Conversion |

Products in **Evolution vLab®** that have not been receipted via the **BloodNet** interface, and appear in the **BloodNet** Inventory, will be fated in **BloodNet** when processed in **Evolution vLab®**.

These fates will only appear in **Evolution vLab®** when the following three items are matched between **Evolution vLab®** and **BloodNet**:

- Donation/Lot number
- Expiry Date
- Product Type.

**Evolution vLab®** will send the fate data to **BloodNet** on a regular basis (every 15 minutes).

## 18.12   Confirm Group

Only products awaiting confirmation of their blood group will be displayed in this table. **Evolution vLab®** can be configured to facilitate the entry of grouping reactions depending upon the requirements of the laboratory.

The requirement to enter grouping reaction for Unit products can be defined by the System Administrator.

Grouping reactions may be downloaded from automated grouping analysers or may be entered manually into **Evolution vLab®** via keyboard entry or barcoding.

Confirmation of grouping reactions is automatically performed by **Evolution vLab®** when a direct match is achieved between entered reactions and the Unit group register via product reception.

**Function Buttons**

| Function | Description |
|---|---|
| **Add Reactions [F6]** | Used to enter the grouping reactions for a blood units. <br> 1. Select the **Add Reactions** button or press **[F6];** <br> 2. Enter the Unit number; <br> 3. Enter the group reactions in the dialogue box; <br> 4. Select **Save/Next icon** or press **[F5]** to move through the list**.** <br> **Notes:** <br> If there is a direct match made with the blood group registered in product reception, the unit status will change to *'Available for Crossmatch'* <br> If there is a group mismatch, a warning message will display.  If you accept the warning, the status will change to *Group Mismatch*. |
| **Confirm [F6]** | Used to confirm the blood group for a product. <br> 1. Highlight an entry in the list; <br> 2. Select the **Confirm** button or select **[F6]**; <br> 3. The grouping for the selected entry is confirmed. |
| **Print All Labels [F7]** | Prints blood group labels for the entire list. <br> Labels can only be printed after blood groups have been confirmed, and before exiting the screen. <br> **Note:**  See below for details on printing labels for a specific user. |
| **Hold [F8]** | Used to hold a unit from having its blood group confirmed.  Status will be *Unconfirmed*. |

**18. Blood Bank : Confirm Group**

| Function | Description |
|---|---|
|  | To remove a held status, select this button again. |
| **Confirm Page [SF6]** | Confirms the groupings for all products on the list. |
| **Reinstate [SF5]** | Used to remove a rejected status and returns the unit to its previous status. This must be done before exiting the screen following a rejection. |
| **External Transfer [CF5]** | This function is used to transfer Batch products to an external location. **Lookup [F1]** available for external locations. |
| **Print Single Label [CF7]** | Prints a label for a highlighted unit. |

## Printing labels for a specific user:

1. Select the **Print All Labels** button or press **[F7];**

2. Enter the user ID at the prompt, can leave the field blank, press **[Enter]**;

3. When a valid user ID is entered, labels will be printed in received date/time order for the specified user ID only.  For example: if 'demo' was entered as user ID, then all units associated with 'demo' would have labels printed;

4. When a user ID is not entered, **Evolution vLab®** will print all labels in the Confirm Group list in received date/time order.

5. If an invalid user ID is entered, and error message will display

6. To cancel label printing, press [Esc].

## To confirm the blood group:

1. To locate a single unit, scan the barcode number of the unit or enter the unit number via the keyboard and press the **[Enter]** key;

   **Note:** The 'Locate' field will display a typed entry when performing a search.

2. The grouping reaction details screen is displayed;

3. Enter a value in the 'Anti A' field and press **[Enter]**;

4. Enter a value in the 'Anti B' field and press **[Enter]**;

5. Enter a value in the 'Anti D' field and press **[Enter]**;

6. The blood group details will be populated in the 'Blood Group' field. If a direct match is made with the blood group registered in product reception, **Evolution vLab®** will automatically confirm the unit blood group and update the unit status to 'Available for Crossmatch';

7.  If a group mismatch is detected the message Warning: group mismatch (Direct') is displayed. Press any key to accept the warning or **[Esc]** to reject the warning. If you accept the blood group, the unit status on the confirm blood group screen will be changed to 'Group Mismatch';

8.  Select the **Save icon** from the top of the screen or press **[F4]** to save the data.

> **Note:**
>
> *   The **Previous** and **Next** icons or **Previous [SF3]** and **Next [F3]** function keys can be used to scroll though units from the Confirm Blood Group table.
>
> *   The Save/Next button or b is used to save group reactions and proceed to the next unit in the Confirm Blood Group table.

## 18.13   Confirm Transfusion

> **Note:**  The system administrator determines if a laboratory requires transfusion details to be confirmed and can configure this to occur automatically at the time of despatch.

Only those products awaiting confirmation will be displayed in the confirm transfusion table.

**Function Buttons**

| Function | Description |
|---|---|
| **Return To Stock [F5]** | Allows return of unit to stock. <br> 1. Scan the barcode of the unit or highlight the required unit number in the table; <br> 2. Select the **Return To Stock** button or press **[F5];** <br> 3. The status field will be updated to 'Returned to Stock'; <br> 4. The unit will be removed from the confirm transfusion table when the screen is refreshed. An audit entry will be inserted into the audit trail. |
| **Confirm [F6]** | Use this to confirm that the unit has been used.  The status of the unit will be changed to Transfused. Units must be despatched before transfusion can be confirmed. |
| **Add Patient UR No [F8]** | Use this button to add a patient UR number if one has not already been added. <br><br> Useful when urgent blood has been issued without knowing the patient UR number when despatching units. |

> <u>Notes:</u>
>
> - Units with transfusion confirmed are removed from this list and removed from product inventory.
>
> - Units despatched from sign out will be added to this list waiting for confirmation.
>
> - Units returned to fridge from sign in can also be returned to stock from the confirm transfusion list.

## 18.14  Transfer of Allocated Products

The *"Allocated Product Transfer"* function will allow entry and transfer of all allocated products including unit and batch products into the product table.

**Function Button**

| Function | Description |
|----------|-------------|
| **Transfer [F8]** | Allows the transfer of a cellular product. |

### To Transfer all Allocated Products

- After entry of the Patient UR Number, the user will be able to enter the details of any products allocated to the nominated patient that are to be transferred.

- The Product table will display the Product Identification as the first column and an additional column has been added to display the Quantity for Batch Products.

- Details of each product entered will be displayed in the table.

- **Evolution vLab®** will validate the product allocation status at the time of entry of each product.

- Data entry will be supported by both keyboard and barcode entry.

- If the product does not exist (product ID is invalid, product ID and product type is invalid), **Evolution vLab®** will display a system warning but allow the user to continue to enter further product details without affecting other entered products in the table.

- If the product is not allocated to the patient, **Evolution vLab®** will display a system warning but allow the user to continue without affecting other entered products in the table.

- On entry of a valid Batch product (allocated to the patient), **Evolution vLab®** will display a prompt for a quantity of product to be transferred.

- Allocated qty x will be transferred. Continue? y/n

- Where x is the total quantity – allocated to the patient (including all allocations on different lab numbers)

- If y is selected, the user continues with the transfer process.

- If n is selected, the batch product is removed from the list and the user has the option to continue the transfer with the other products or **[ESC]** out of the Transfer Products function.

- The Product Table is scrollable.

- Function keys are available to select either an internal or an external transfer for the list of products.

- On selection of the transfer (Internal/External), **Evolution vLab®** will prompt the user for a location.

- The selection of a valid location will be mandatory. **Evolution vLab®** will display a warning message to indicate that an entry is required.

- Both keyboard data entry and selection via a lookup table are supported.

- Lookup table will only display valid entries dependent on the selection of a transfer to either an internal or an external location.

- On selection of a valid Internal Location / External Location, **Evolution vLab®** will record the Transfer Reason as 'Patient Transfer'.

- **Evolution vLab®** will allow the user to exit / cancel the transfer (via **[Esc]**) at any stage prior to the final data entry, that is: during the entry individual products, selection of type of transfer, or before the location of the transfer.

  i    On **[Esc]**, the user will be returned to the list of allocated products.

  ii   On further **[Esc]**, any previously selected products will be removed from the table and the user returned to the patient's UR details.

  iii  On further **[Esc]**, the user will be returned to the previous menu.

  iv   No action will be taken or recorded for any selected products listed.


On actioning the transfer, **Evolution vLab®** will:

i)    Change the status of the internally transferred allocated products to 'In transit'

ii)   Change the status of externally transferred allocated products to 'Allocated Transferred'

iii)  Continue to display allocated transferred unit products in the Unit Inventory

iv)   Continue to display allocated transferred unit products in the appropriate allocated inventory (allocated products transferred to an external site will remain in the original inventory until fate of products is known.

v)    Continue to display transferred allocated Batch products in the Allocated Batch Inventory


If the transfer is an internal transfer:

i)    **Evolution vLab®** will record the transfer and transfer reason in the Product Audit trail of all transferred products listed including the UR Number.

ii)   Each product transferred will be recorded as a separate line item in the Inventory Log including the UR Number.

iii) **Evolution vLab®** will enter each individual transferred product as a separate line in the Products in Transit list with the patient's UR Number and for Batch products, the quantity transferred.

If the transfer is an external transfer:

- **Evolution vLab®** will record the transfer and transfer reason in the Product Audit trail of all transferred products listed including the UR Number record each product transferred as a separate line item in the Inventory Log including the UR Number.

- Products with 'allocated transferred' status in the allocated inventories:

- **[F5]** return to stock will result in a 'transferred' final status

- **[F6]** despatch & confirmed as transfused will be 'Transfused' final status

- The product is then removed from the inventory as the final fate will be either or 'transfused' or 'transferred'.

- **Evolution vLab®** will provide the ability to configure and print a single report for the list of products transferred including product ID, product type, product group (unit products), quantity transferred (batch products), expiry time/date, originating site, receiving site, patient details.

- If a product is updated to status transfused, the 'assumed transfused' status will be applied.

## 18.15   Units in Transit

Displays all units currently in transit, that is: units that have not been accepted after being transferred to a new location.

**Function Buttons**

| Function | Description |
|---|---|
| **Accept Transfer [F6]** | Accepts the transfer of a cellular product. |
| **Accept Transfer Number [CF6]** | Allows a group of products to be accepted at one time. |

### To accept the transfer:

1. Highlight a unit number in the list and select the **Accept Transfer** button or press **[F6];**

2. Enter a comment at the prompt and press **[Enter]**;

3. The transfer will be accepted, and the record will be removed from the 'Units in Transit' table.

> **Note:**  You must be the designated laboratory to be able to accept the transfer. For example: if unit is transferred to Central, you must be in the Central laboratory. An error message will display if there is a different destination accepting the transfer.

## To accept the transfer of a group of products:

1. Select the **Accept Transfer Number** button or press **[CF6]**;

2. Enter the transfer number provided at the transfer step and press **[Enter]**;

3. Select all the products to be accepted in the transfer and press **[OK]**;

4. The transfer will be accepted, and the records will be removed from the 'Units in Transit' table.

   a. The sort order for the Products in Transit List is:

      i.   1st sort order - allocated products before unallocated products

      ii.  2nd sort order - UR number if allocated

      iii. 3rd sort order - transferred time/date with oldest entry at top

   b. On accessing the Products in Transit Table, the list will be filtered to display transfers that are relevant only to the site in which the user is logged, that is: only the transfers in which the user's laboratory is either the originating or receiving site.

   c. A toggle function key is available to toggle between the 'user's site' list and the list of all transfers across all sites.

   d. The full list of transfers will have the title "PRODUCTS IN TRANSIT (ALL LABS).

   e. On display of the Products in Transit List, a user will have the ability to manually enter or 'wand in' a product's id (product number or batch number) to find the product on the list.

   f. A user can enter on a line item for an unallocated product in the Products in Transit list and access Product Reception for that product.

   g. A user can enter on a line item for an allocated product in the Products in Transit list and access the allocated inventory details screen for that particular product. All functionality on the allocated inventory details screen will be available to the user including the drill down to access Product Reception.

## Transfer Function

- Modifications will be provided to the Accept Transfer function in Products in Transit list to allow users to:

   i    transfer products into their inventory

   ii   despatch allocated products

   iii  return allocated products to stock

- A user will be able to execute an Accept Transfer on any product displayed on the Products in Transit list to transfer the products into their inventory.

- If the user is not at the originating or receiving site, the system will display a warning message

- *Lab not involved in transfer. Do you wish to continue y/n?*

- If 'y' is selected the product will be accepted into the user's inventory

- On actioning an Accept Transfer from the Products in Transit list, **Evolution vLab®** will prompt the user for a comment.

- Entry of a comment will be non-mandatory and allow up to 40 characters.

- Actioning of an Accept Transfer on a Batch Product will automatically transfer the entire transferred quantity.

- A user can action the Accept Transfer on a single product or a filtered or selected list of products displayed on the Products in Transit list as a single action.

- On accepting a transfer, the product's status and availability will be returned to the status and availability prior to the transfer (subject to product expiry and allocation expiry rules).

- On accepting a transfer, the product's location in the Product Reception screen will be to the user's location.

- On accepting a transfer, a unit product will be entered and display in the Unit Inventory. Unallocated units will be counted (if available and not expired) in the Product Summary, Alternate Summary Display and All Laboratories Unit Inventory of the site in which the user is logged into as per current **Evolution vLab®** functionality.

- On accepting a transfer, the quantity of transferred unallocated Batch product will be added to the Batch Inventory of the site in which the user is logged into (even if the Batch product did not display in the Batch Inventory before the transfer).

- On accepting a transfer, the quantity of transferred unallocated Batch product will be counted (if available and not expired) in the Product Summary, Alternate Summary Display and All Laboratories Batch Inventory of the site in which the user is logged into.

- On accepting a transfer of an allocated product, the product will display in the allocated inventory of the site in which the user is logged into.

- On accepting a transfer, **Evolution vLab®** will record the event and comment in the Product Audit trail of the product.

- If the user accepted the transfer from a filtered or selected list from the Products in Transit list, **Evolution vLab®** will record the audit for each product on the list.

- On accepting a transfer, **Evolution vLab®** will record the event in the Inventory Log.

- If the user accepted the transfer from a filtered or selected list from the Products in Transit list, **Evolution vLab®** will record a separate audit line for each product on the list in the Inventory Log.

- On accepting a transfer, **Evolution vLab®** will record the event in the TM Despatch Log.

- If the user accepted the transfer from a filtered or selected list from the Products in Transit list, a separate audit line for each product on the list will be recorded in the TM Despatch Log.

- On accepting a transfer, **Evolution vLab®** will NOT record the event in the TM Supervisor Log.

- On accepting a transfer, the transfer line item for the transferred product will no longer be displayed listed in the Products in Transit list on refresh.

- If the user accepted the transfer from a filtered or selected list from the Products in Transit list, **Evolution vLab®** will remove the line item for each transferred product from the Products in Transit list on refresh.

## Despatch and Return to Stock Function

- A user can select an allocated product from the Products in Transit list, access the Allocation Inventory details screen for that product and despatch or return to stock as per current functionality.

- If the allocated product has been transferred to an internal site with no laboratory, then the product will still be listed in the inventory (and allocated inventory) of the originating site. Thus, the user is not required to [F6] Accept Transfer the product.

- Updating the status of allocated products via allocated inventories (return to stock or confirm transfusion) will remove the entry from the 'Products in transit' list.

- If the allocated product has been transferred to another laboratory, the receiving laboratory will be required to accept the transfer, that is: [F6] Accept Transfer to transfer the allocated product into their inventory (and their allocated inventory).

- Following Accept Transfer, products that have been transferred will remain on the Products in Transit list and display with a 'T' until the user exits the list.

- If a user attempts to access an allocated product on the Products in Transit list that is not in their inventory, **Evolution vLab®** will display a warning message.

- Entering on an allocated product in the Products in Transit list, to display the Allocation Inventory details screen for the product. Entering on a product in the Allocated Inventory details screen will access the Product Reception (as per current functionality).

- On accessing the Allocation Inventory details screen for the product, any listed product can be despatched or returned to stock (not just the item that was highlighted in the Products in Transit list).

- Batch product entries will remain on the Allocated Batch Inventory until the entire quantity is either despatched or returned to stock (current functionality).

- **Evolution vLab®** will record all audits on the products processed as per current functionality.

- If an internally transferred product is returned to stock, **Evolution vLab®** will assign and report the fate of the product as NotFinal and include the current location for the product.

# 19    Inventories

The Inventories menu lists all products that have been received into **Evolution vLab®** and are available for use. Products can then be despatched, transferred, marked for return to the Red Cross Blood Transfusion Service or for disposal and will be removed from the displayed 'Inventory'.

**Submenus**

| Submenu tab | Description |
|---|---|
| **Unit** | Lists all units that have been received and are available for use. |
| **Batch** | Lists all batch products that have been received and are available for use. |
| **Crossmatch** | Lists all blood units that have been received and are crossmatched for a particular patient.  These units have not yet been despatched. |
| **Reserved Units** | Lists all directed, autologous or reserved units that have been linked to a particular patient's UR number. |
| **Allocated Products** | Lists non-cellular products that have been allocated to a particular patient laboratory number. |
| **Allocated Batch** | Lists batch products that have been allocated to a particular patient laboratory number. |
| **Unit Search** | Allows a user to search by unit number through the entire state-wide inventory for current and historical unit product types. |
| **Product Summary** | A summary of all products available for transfusion which have been registered in **Evolution vLab®**. |
| **All Labs Unit Inventory** | The overall read only view of each laboratory's 'Unit Inventory'. |
| **All Labs Batch Inventory** | The overall read only view of each laboratory's 'Batch Inventory'. |
| **Inventory Log** | The overall read only view of the active laboratory's 'Inventory Log'. |
| **Reserved Inventory Log** | The overall unit product transactions received and identified for a specific patient. |

## 19.1    Unit

- Lists all units available for use;

- To locate a single unit, scan the barcode number of the unit or enter the unit number via the keyboard and press Enter;

- The 'Locate' field will display a typed entry when performing a search.  The <space bar> can be used to clear the search and enter a new search;

- The product Modifiers will display in a comma-delimited list based on the Sort Order defined in the Modifiers configuration table.

- Use the **Filter** button or press **[F8]** to activate the filter fields to do a refined search.

**Function Buttons:**

| Function | Description |
|---|---|
| **External Transfer [F5]** | This function for unit products is available via the following screens/mechanisms:<br><br>• Unit Inventory – Selection of an individual unit product<br><br>• Unit Inventory – Generation of a list of unit products via the **Filter Function [F8]**<br><br>• Product Transfer screen – Generation of a list of products |
| **Despatch [F6]** | Use this to despatch a product from the list. |
| **Internal Transfer [F7]** | The 'Internal' Transfer function from the Unit Inventory is only available for unit products with a status of *"Unallocated"*. |
| **Filter [F8]** | This activates the search fields at the top of the table to search the entire inventory for a particular product.<br>**Lookup [F1]** is available in the fields:<br>1. Unit Number<br>2. Product<br>3. Group<br>4. Phenotype<br>5. Expiry<br>6. Status<br>7. Modifiers |

| Function | Description |
|---|---|
|  | Enter selection criteria in each appropriate field and select the **Select** icon or press **[F12]**. Some users can just use **[Enter]** to activate the filters.<br><br>To access the filtered products press **[Esc]** to leave the filter table.<br><br>Use of the function keys on the screen may be applied to all of the items contained within a filtered list at any time. |
| **Dispose [SF5]** | Used to dispose a unit from the inventory. |
| **Print Labels [SF7]** | Prints the labels for each unit in the list for which labels have not been printed before. |
| **Clear Filter [SF8]** | Clears the filter search and displays all items in the inventory |
| **Remove Product [SF6]** | This function button is available from the Product Reception screen. |
| **Modify Product [SF7]** | To modify a product |

## To view Product details

1.  Highlight an entry within the inventory list and press **[Enter]** or double click with the mouse.  Product reception details will display.

## Using External Transfer [F5] from Unit Inventory

The **External Transfer [F5]** function for unit products is available via the following screens/mechanisms:

i)     **Unit Inventory** – Selection of an individual unit product

ii)    **Unit Inventory** – Generation of a list of unit products via the

iii)   **Product Transfer screen** – Generation of a list of products

## Unallocated Unit Products

- The External Transfer function from the Unit Inventory will only be available for unit products with a status of *"Unallocated"*.

- The **External Transfer [F5]** key will operate from selection of an individual item in the inventory or from a list of items generated via the **Evolution vLab® [F8] Filter** function.

- The user will be able to cancel / exit the transfer (via **[Esc]**) at any stage prior to the final data entry. On **[Esc]**, the user will be returned to the Inventory screen and no action is taken or recorded for the product previously selected.

- All error/message handling will be processed as per current **Evolution vLab®** functionality.

- On selection of the **External Transfer [F5]** key, the system will prompt for entry of the location.

    *Prompt = "Enter External Transfer Location"*

- Entry of the Location will be mandatory and supported via direct data entry or selection from the **Lookup [F1]** function.

- The **Lookup [F1]** Table will only display Locations configured as "External Locations.

- Only Locations configured as "External Locations" will be accepted as a valid entry.

- Entry of an invalid External Location will result in a system warning message.

    *Warning Message = "Invalid External Location Code"*

- On entry of a valid External Location the system will prompt for entry of the Transfer Reason.

    *Prompt: "Enter Transfer Reason"*

- Entry of the Transfer Reason will be mandatory and supported via direct data entry or selection from the **Lookup [F1]** function.

- Only Transfer Reasons configured in the *"Transfer Reason"* configuration table will be accepted as a valid entry.

- Entry of an invalid Transfer Reason code will result in a system warning message being generated.

    *Warning Message: "Invalid Transfer Reason Code"*


Checks of the status of each unit for transfer will be performed prior to executing the External Transfer function. Only units with the following statuses will be transferred:

i)   *"Available for Despatch"* (non red cell products)

ii)  *"Available for Crossmatch"* (red cell products)

- For units with a reserved status, that is: Quarantined, Autologous, Directed or Reserved a warning message will be generated.

- Warning Message: *Product is "quarantined/autologous/directed/reserved"*. Continue y/n.

- If **Y** is selected the system will display a further prompt for the mandatory entry of a reason.

    o  *Prompt: "Enter Reason".*

- Up to 40 characters is available for free text entry of a reason.

- The Warning Override is audited in the **Evolution vLab®** Inventory Log.

- The Warning Override is audited in the **Evolution vLab®** TM Supervisor Log.

- On execution of the *"External Transfer"* the Unit Product Status/es will be updated to *"Transferred"* and the user will be returned to the Inventory.

- The transferred unit/s Location will be updated to the selected Location.

- The Transferred Unit/s will be removed from the Unit Inventory of the Current Laboratory.

- The Transferred Unit/s will NOT be added to the Inventory of the *"Controlling Lab"* designated on the selected Location.

- A Product Transfer Report will be printed for the products transferred. The report will include product ID, product type, quantity transferred, expiry time/date, originating laboratory, receiving laboratory.

- The Product Transfer Report is configurable in a format similar to the current report available for patient transfers.

- The **Reprint [SF7]** key will be available once the product has been transferred allow for reprinting of the Product Transfer report prior to exiting the Unit Inventory.

- The Transfer event for each unit will be logged individually in the Product Audit Trail.

- The Transfer event for each unit will be logged in the Inventory Log.

## Using Despatch **[F6]** from Unit Inventory

- The system administrator must configure compatibility rules so that only those units with appropriate blood groups can be despatched for patients.

- Only cellular units of group O negative and O positive may be despatched to a patient without a MRN/UR group record.

- Only plasma units of group AB negative and AB positive may be despatched to a patient without a UR group record.

- Only cellular units of group O negative and O positive may be despatched to a ward without appropriate patient details.

- All units configured by the system administrator as requiring patient details will be logged in the audit as being despatched but will continue to be displayed in the unit inventory until confirmed as being transfused.

- Units not requiring patient details will be logged in the unit audit as despatched and will be removed from the displayed inventory on exiting the current inventory table.

- The despatch function is only available for units with a status of *"Allocated"*.

- The UR Number field is mandatory.

- The Location field has been removed from the Patient Demographics box.

## Using Internal Transfer [F7] from Unit Inventory

- The 'Internal' Transfer function from the Unit Inventory is only available for unit products with a status of *"Unallocated"*.

- The **Internal Transfer [F7]** function key will operate from selection of an individual item in the inventory or from a list of items generated via the **Evolution vLab®** [F8] Filter function.

- The user will be able to cancel / exit the transfer (via **[Esc]**) at any stage prior to the final data entry. On **[Esc]**, the user will be returned to the Inventory screen and no action is taken or recorded for the product previously selected.

- All error/message handling will be processed as per current **Evolution vLab®** functionality.

- On selection of the **Internal Transfer [F7]** function key the system will prompt for entry of the location.

   *Prompt = "Enter transfer location:"*

- Entry of the Location will be mandatory and supported via direct data entry or selection from the **Lookup [F1]** function.

- The **Lookup [F1]** Table will only display Locations configured as *"Internal Locations"*.

- Only Locations configured as *"Internal Locations"* will be accepted as a valid entry.

- Entry of an invalid Internal Location will result in a system warning message.

   *Warning Message = "Invalid Internal Transfer Location Code"*

- On entry of a valid Internal Location the system will prompt for entry of the Transfer Reason.

   *Prompt: "Enter Transfer Reason"*

- Entry of the Transfer Reason is mandatory and supported via direct data entry or selection from the **Lookup [F1]** function.

- Only Transfer Reasons configured in the *"Transfer Reason"* configuration table will be accepted as a valid entry.

- Entry of an invalid Transfer Reason code will result in a system warning message being generated.

   *Warning Message: "Invalid Transfer Reason Code"*


Checks of the status of each unit for transfer will be performed prior to executing the Internal Transfer function. Only units with the following statuses will be transferred:

- *"Available for Despatch"* (non red cell products)

- *"Available for Crossmatch"* (red cell products)

- For units with a reserved status, that is: Quarantined, Autologous, Directed or Reserved a warning message will be generated:

   *Warning Message: Product is "quarantined/autologous/directed/reserved". Continue y/n.*

   If **Y** is selected the system will display a further prompt for the mandatory entry of a reason.

   *Prompt: "Enter Reason"*

- Up to 40 characters is available for free text entry of a reason.

- The Warning Override will be audited in the **Evolution vLab®** Inventory Log.

- The Warning Override will be audited in the **Evolution vLab®** TM Supervisor Log.

- On execution of the *"Internal Transfer"* the Unit Product Status/es will be updated to *"in transit"* and the user will be returned to the Inventory.

- The transferred unit/s Location will be updated to the selected Location.

- The Transferred Unit/s will display in the Unit Inventory of the Current Laboratory with a status of 'in transit', display on the 'Products in transit' list as per current functionality and an entry will be made on the inventory log.

- The Transferred Unit/s will NOT be added to the Inventory of the *"Controlling Lab"* designated on the selected Location until accepted from the 'In transit' list.

- A Product Transfer Report will be printed for the products transferred. The report will include product ID, product type, quantity transferred, expiry time/date, originating laboratory, receiving laboratory.

- The Product Transfer Report is configurable in a format similar to the current report available for patient transfers.

- The **Reprint Report [SF7]** key will allow for reprinting of the Product Transfer report prior to exiting the Product Transfer function.

- The Transfer event for each unit will be logged individually in the Product Audit Trail.

- The Transfer event for each unit will be logged in the Inventory Log.

## Using Remove Product [SF6] from Unit Inventory

The **Remove Product [SF6]** function key will not be available/displayed for products with a status of:

i) "Allocated"

ii) "Crossmatched"

iii) "Despatched"

iv) "Transfused"

v) "In transit"

vi) "Transferred"

On selection of the **Remove Product [SF6]** function key on a Unit Product **Evolution vLab®** will display the prompt: *"Remove product from the inventory (y/n)?"*

i)   If **N** or **[Esc]** is selected the action will be cancelled.

ii)  If **Y** is selected a Reason prompt will be displayed and the user will be asked to enter a reason.

   *For Example: "Provide a reason for removal of the product"*

On entry of a reason followed by **[Enter]**the action will be completed, and the unit will be removed from the inventory.

If **[Esc]** is selected prior to entering a reason the action will be cancelled.

iii) If any other key is selected the unit will NOT be removed from the inventory and the user returned to the Product Reception Screen. No reason for the action will be recorded.

iv) On successful removal of the product from the inventory **Evolution vLab®** will perform the following actions:

- change the status of the product to 'Error'

- record an audit for the correction in Product Reception audit trail

- record an audit for the correction in the TM Supervisor Log

- record an audit for the correction in the Inventory Log

## Using Dispose [SF5] from Unit Inventory

Selection of the **Dispose [SF5]** function in the Unit Inventory will NOT allow the disposal of products with a status of:

i) 'Allocated',

ii) 'Crossmatched' or

iii) 'In transit'

- Pressing **Dispose [SF5]** function in the Unit Inventory to allow the disposal of products with a status of 'Available for Despatch' (non-red cell products) or 'Available for Xmatch' (red cell products) or *'Expired'* even if those products are Quarantined, Autologous, Directed or Reserved.

- On selection of a product able to be disposed in the Unit Inventory and pressing **Dispose [SF5]**, **Evolution vLab®** will prompt the user for a Discard Location.

- The selection of a Discard Location is mandatory, that is: **Evolution vLab®** will display a warning message to indicate that an entry is required.

- To enter a valid location, the user can either:

  o Select **[F1]** to display the discard location lookup table, or

  o Select the mnemonic of the discard location if known, or

  o Enter one or more letters before pressing **[F1]**, to filter the discard location lookup table

- Following the entry of a valid location, **Evolution vLab®** will prompt for the entry of a Discard Reason.

- The selection of a Discard Reason is mandatory, that is: **Evolution vLab®** will display a warning message to indicate that an entry is required.

- To enter a valid reason, the user can either:

  o press **[F1]** to display the Discard Reason lookup table, or

  o enter the mnemonic of the Discard Reason if known

- **Evolution vLab®** will allow the user to exit / cancel the transfer (via **[Esc]**) at any stage prior to the final data entry, that is: during the entry of a location or before entry of a

valid discard reason. On **[Esc]**, the user is returned to the Unit Inventory screen and no action is taken or recorded for the product previously selected.

- On actioning **Dispose [SF5]**, **Evolution vLab®** will change the status of the selected product to 'Disposed' and continue to display the product in the Unit Inventory until the user exits the Unit Inventory.

- Where the user has entered a list of unit products to be disposed, **Evolution vLab®** will make the changes to all selected products including:

  o   modify the status of all products to Disposed.

  o   recording an audit for the event including the Discard location and Discard Reason in the Product Audit trail for each product .

  o   record a separate audit line in the Inventory Log for each product.

- On actioning the **Dispose [SF5]**, **Evolution vLab®** will record the audit in the Product Audit trail and Inventory Log.


## Using Modify Product [SF7] from Unit Inventory

The Product Reception screen for Unit products allow a user to change an existing product, using **Modify Product [SF7]** key, to a thawed/processed product with a different expiry date, search for, and utilise the processed product without losing its traceability to the original product as received via the electronic delivery note.

- The **Modify Product [SF7]** function key is available to modify the product to a product configured on the original product's configuration screen.

- A product can be 'modified' multiple times.

- Actioning the **Modify Product [SF7]** key **Evolution vLab®** will display the following prompt:

- Change product type (y/n)?

- If 'y' is entered, **Evolution vLab®** will prompt the user to enter the product type (**Lookup [F1]** available):

- Please enter product type

- If a modified product has not been configured **Evolution vLab®** will prompt the user:

- No processed product types defined

- On entry of a product, **Evolution vLab®** will prompt the user to enter the modified time and date:

- Enter modified time and date

- On entry of the time and date, **Evolution vLab®** will prompt the user to enter the number of sets of labels:

- Enter number of sets of labels

- On entry of the label sets, **Evolution vLab®** will prompt the user to enter the label format (**Lookup [F1]** available):

- Please enter label format

- On entry of a processed time and date, **Evolution vLab®** will use the entry in the Shelf Life field on the Product configuration table to calculate and display the new expiry time and date in the Product Expiry field on the Product Reception Screen.

On entry of a processed time and date, **Evolution vLab®** will:

i)    identify the original product on the Product Reception screen

ii)   record the change of expiry time/date in the Product Audit trail

iii)  prompt for the printing of labels

- Reprinting of labels is also supported.

- **Evolution vLab®** will display the following prompt:

*Change product type (y/n)?*

- If 'y' is entered, **Evolution vLab®** will prompt the user to enter the time and date the product/s was/were processed (thawed):

*Enter processed time and date*

**Evolution vLab®** will make the following changes to all the products in the selection, irrespective of their product type, if there is a 'processed product' in product configuration. The Product Reception screen for all selected products will:

i)    display the first processed product type listed in product configuration for that product

ii)   calculate new expiry time/date by adding the shelf life (days/hours) of the first processed product listed in product configuration

iii)  print the required number of sets of expiry and product code labels for each product altered to a processed product

iv)   record an audit for each event for each 'processed' product.

- **Evolution vLab®** will display both the original Product Type and 'Processed "Product Type on the Product Reception screen. All displays, reports, labels will show the most recent processed product type.

**Evolution vLab®** will make the following changes to all the products in the selection, irrespective of their product type, if there is a second 'processed product' in product configuration. The Product Reception screen for all selected products **Evolution vLab®** will make the following changes to the Product Reception screen for all selected products including:

i)    Changing the entire selection of products to the second processed product type associated with that product

ii)   display the second processed product type listed in product configuration for that product

iii)  calculate new expiry date by adding the shelf life (days/hours) of the second processed product listed in product configuration, to the time entered

iv)  print the required number of sets of product code/expiry labels for each product altered to a processed product

v)  record an audit for each event for each 'processed' product.

- The processed product will not affect the display of the product in the Product Summary screen or the All Laboratories Unit Inventory.

- When reporting the fate of a processed product with a new expiry time/date, **Evolution vLab®** will identify the product to **BloodNet** with the original product type and original expiry time and date.

- Modified products can be processed (allocated, despatched, returned to stock, re-allocated, discarded, transferred, etc.) the same way as other products with the same original product type.

- A second audit entry will be recorded if the product is 'processed' again.

- If 'n' is entered at the Change product type (y/n)? **Evolution vLab®** will stop the process.

## 19.2    Batch

- Lists the stock within the system by batch number and its available quantity.

- The 'Locate' field will display a typed entry when performing a search.  The [space bar] can be used to clear the search and enter a new search

- Use the **Filter** button or press **[F8]** to activate the filter fields to do a refined search.

- By default, the table is sorted by product and displayed in reverse chronological order based on expiry date

- To locate a single batch, click on the Batch Number header and scan the barcode number of the batch or enter the batch number via the keyboard and press **[Enter]**.

**Function Buttons**

| Function | Description |
|---|---|
| **External Transfer [F5]** | This function will be available for batch products with any status except *"Expired"* |
| **Despatch [F6]** | Use this to despatch a product from the list. |

| Function | Description |
|---|---|
| **Filter [F8]** | This activates the search fields at the top of the table to search the entire inventory for a particular product.<br><br>**Lookup [F1]** is available in the fields<br><br>1. Batch Number<br>2. Product<br>3. Expiry<br>4. Status<br><br>Enter selection criteria in each appropriate field and select the **Select** icon or press **[F12]**. Some users can just use **[Enter]** to activate the filters.<br><br>To access the filtered products press **[Esc]** to leave the filter table.<br><br>Use of the function keys on the screen may be applied to all of the items contained within a filtered list at any time. |
| **Dispose [SF5]** | Used to dispose a quantity of batch products from the inventory. |
| **Clear Filter [SF8]** | Clears the filter search and displays all items in the inventory |
| **Remove Product [SF6]** | This function button is available from the Product Reception screen. |

## To display the Product Reception screen

1. Highlight an entry within the list and press **[Enter]** or double click with the mouse.

## Using External Transfer [F5] from Batch Inventory

- The External Transfer function will be available for batch products with any status except *"Expired"*.

- All error/message handling will be processed as per current **Evolution vLab®** functionality.

- The user will be able to cancel / exit the transfer (via **[Esc]**) at any stage prior to the final data entry. On **[Esc]**, the user will be returned to the Inventory screen and no action is taken or recorded for the product previously selected.

- On selection of the **External Transfer [F5]** key the system will prompt for entry of the quantity to be transferred.

  o *Prompt = "Enter Quantity"*

- On entry of a Quantity greater than the Quantity in Stock the system will display a warning as per current functionality.

- On entry of a valid Quantity to be transferred the system will prompt for entry of the location.

    o  *Prompt = "Enter External Transfer Location"*

- The selection of a valid External Location will operate as described for the functionality for transfer of units from the Batch Inventory.

- The selection of a valid Transfer Reason will operate as described for the functionality for transfer of units from the Batch Inventory.

- On execution of the *"External Transfer"* the quantity of transferred batch products will be subtracted from the *"Qty in Stock"* and added to the *"Qty Transferred"* field in the product reception screen.

- A Product Transfer Report will be printed for the products transferred. The report will include product ID, product type, quantity transferred, expiry time/date, originating laboratory, receiving laboratory.

- The **Reprint Report [SF7]** key will allow for reprinting of the Product Transfer report prior to exiting the Product Transfer function.

- The selection of the **Reprint Report [SF7]** key prior to exiting the Product Transfer function will allow the Product Transfer report to be reprinted.

- The Transfer event for the batch will be logged in the Product Audit Trail.

- The Transfer event for the batch will be logged in the Inventory Log.

- Following an external transfer of a batch product, any remaining stock (quantity) can be allocated / despatched / disposed / returned to stock as per current functionality.


## Using Reverse Disposal from Batch Inventory

The Reverse Disposal function is only available to unit products with a status of 'Disposed'.

- The Reverse Disposal event will change the final fate of a product from 'Disposed' and is reportable to **BloodNet**.

- On actioning a Reverse Disposal on a batch product, **Evolution vLab®** will prompt for a quantity.

    i    On entry of a quantity, prompt to display

    ii   Are you sure you want to reverse disposal of quantity 'x' y/n?

    iii  If y is selected, **Evolution vLab®** will add the entered quantity to the Batch Inventory and return the user to the Batch Inventory screen.

    iv   If n or **[Esc]** is selected, action is cancelled.


## Audits for Reverse Disposal

On actioning Reverse Disposal for a batch product, **Evolution vLab®** will record the event in the Product Audit trail and Inventory Log.

- Retain the ability to audit a Reverse Disposal event in the TM Supervisor Log but the format now will include the product details.

## Using Internal Transfer [F7] from Batch Inventory

- An 'Internal' Transfer function is available for batch products with any status except *"Expired"*.

- All error/message handling will be processed as per current **Evolution vLab®** functionality.

- The user will be able to cancel / exit the transfer (via **[Esc]**) at any stage prior to the final data entry. On **[Esc]**, the user will be returned to the Inventory screen and no action is taken or recorded for the product previously selected.

- On selection of the **Internal Transfer [F7]** key the system will prompt for entry of the quantity to be transferred.

  o *Prompt = "Enter Quantity"*

- On entry of a Quantity greater than the Quantity in Stock the system will display a warning as per current functionality.

- On entry of a valid Quantity to be transferred the system will prompt for entry of the location.

  o *Prompt = "Enter Internal Transfer Location"*

- The selection of a valid Internal Location will operate as described for the functionality for transfer of products from the Batch Inventory.

- The selection of a valid Transfer Reason will operate as described for the functionality for transfer of units from the Batch Inventory.

- On execution of the "Internal Transfer" the quantity of transferred batch products will be subtracted from the "Qty in Stock" and added to the "Qty Transferred" field in the product reception screen. An entry will be made on the 'Products in transit' list displaying the qty of products transferred.

- A Product Transfer Report can be printed for the products transferred. The report will include product ID, product type, quantity transferred, expiry time/date, originating laboratory, receiving laboratory.

- The **Reprint [SF7]** key will allow for reprinting of the Product Transfer report prior to exiting the Product Transfer function.

- The selection of the **Reprint [SF7]** key prior to exiting the Product Transfer function will allow the Product Transfer report to be reprinted.

- The Transfer event for the batch will be logged in the Product Audit Trail.

- The Transfer event for the batch will be logged in the Inventory Log.

- Following an internal transfer of a batch product, any remaining stock (quantity) can be allocated / despatched / disposed / returned to stock as per current functionality.

## Using Dispose [SF5] from Batch Inventory

Ability for a user to dispose a quantity of a selected product from the Batch Inventory, select, and record the reason for, and location of disposal.

- On selection of a product to be disposed in the Batch Inventory and pressing SF5 Dispose, **Evolution vLab®** will prompt the user for the quantity.

- On entry of a quantity, **Evolution vLab®** will validate that the quantity entered is currently in stock.

- On entry of a valid quantity, **Evolution vLab®** will prompt the user for a Discard Location.

- Following the entry of a Discard Location, **Evolution vLab®** will prompt for the entry of a Discard Reason.

- **Evolution vLab®** will allow the user to exit / cancel the transfer (via **[Esc]**) at any stage prior to the final data entry, that is: during the entry of a quantity or before entry of a valid Discard Reason. On **[ESC]**, the user is returned to the Batch Inventory screen and no action is taken or recorded for the product previously selected.

- On actioning **Dispose [SF5]**, **Evolution vLab®** will subtract the disposed quantity from the quantity displayed and return the user to the Batch Inventory screen.

- On actioning **Dispose [SF5]**, if the total quantity of a Batch Product is disposed, the product will be removed from the Batch Inventory on exiting.

## Audits of Disposed Products

On actioning **Dispose [SF5]**, **Evolution vLab®** will record the disposal, Discard Location and Discard Reason in the Product Audit trail and Inventory Log.

## Using Remove Product [SF6] from Batch Inventory

The **Remove Product [SF6]** function key will only be available/displayed for Batch products where there is stock currently available.

On selection of the **Remove Product [SF6]** function key on a Batch Product **Evolution vLab®** will display the prompt: *"Remove product from the inventory (y/n)?"*

i)  If **N** or **[Esc]** is selected the action will be cancelled.

ii) If **Y** is selected **Evolution vLab®** will prompt for the quantity to be removed:

- *For Example: "Quantity to be removed:"*

- On entry of a Quantity followed by **[Enter] Evolution vLab®** will validate that the quantity entered is less than or equal to the quantity in the inventory.

- If there is insufficient product in stock **Evolution vLab®** will display a warning message:

- *For Example: "Quantity entered exceeds inventory level"*

**Evolution vLab®** will cancel the action and return the user to the Product Reception screen.

On entry of a valid quantity **Evolution vLab®** will display the prompt:

*For Example: "Remove quantity from the inventory y/n"*

If **Y** is selected **Evolution vLab®** will prompt for a reason:

*For Example: "Provide a reason for removal of the product"*

On entry of a reason followed by **[Enter]**the action will be completed and the unit will be removed from the inventory.

If **[Esc]** is selected prior to entering a reason the action will be cancelled.

iii) If any other key is selected the unit will NOT be removed from the inventory and the user returned to the Product Reception Screen. No reason for the action will be recorded.

iv) On successful removal of the product from the inventory **Evolution vLab®** will perform the following actions:

- subtract the quantity entered from the Quantity field in Product Reception

- subtract the quantity entered from the Qty in stock field in Product Reception

- subtract the quantity entered from the total displayed in the Product Summary and All Laboratories Summary for that product

- record an audit for the correction in Product Reception audit trail

- record an audit for the correction in the Inventory Log

- record an audit for the correction in the TM Supervisor Log

v) If on subtraction, the Qty in stock is 0, the product to display with a status of Removed.

vi) Up to 40 characters are available for entry of a reason.

## 19.3   Products with Status "Error"

Unit products with an "Error" status are not available for:

i) Display in any unit inventories.

ii) Allocation, crossmatch, despatch, transfusion, transfer, disposal, external transfer.

iii) Editing or deletion of any data elements.

iv) Counting in Inventory counts or Transfusion Statistics.


The Product Reception screen for Unit products with an *"Error"* status are accessible via the following search functions:

i) Product Reception

ii) Unit Inventory Search

iii) Inventory Log or TM Supervisor Log

Batch products with a status of *"Removed"* are not available for:

i)    Display in any batch inventories

ii)   Allocation, despatch, transfusion, transfer, disposal

iii)  Editing or deletion of any data elements

iv)  Counting in Inventory counts or Transfusion Statistics


Batch products with a status of *"Removed"* can be returned to the Batch Inventory using:

i)    Add to batch (for new products received)

ii)   Reinstate (for existing products returned to stock)

iii)  Sign In (for existing products despatched to a patient)

iv)  Transferred products (on accepting a transfer)

v)   Return to stock (for existing products allocated to a patient)


The Product Reception screen for Batch products with a status of *"Removed"* are accessible via the following search functions:

i)    Product Reception

ii)   Inventory Log or TM Supervisor Log


## 19.4    Crossmatch

- This screen lists all units that have been crossmatched.

- Units can be selected and then despatched to a patient.

- Units that have previously been crossmatched and unused can be returned to stock.

- The 'Locate' field will display a typed entry when performing a search.  The <space bar> can be used to clear the search and enter a new search.

- Use the **Filter [F8]** option to active the search fields refine your search of the list


**Function Buttons:**

| Function | Description |
| --- | --- |
| **Return to Fridge [F6]** | This function enables the user to return any unused despatched Units to the laboratory. <ul><li>Select the **Return to Fridge** button or press **[F6];**</li><li>At the prompt, enter the Unit number, press **[Enter]**;</li><li>The Unit status will be updated to 'avail' upon refreshing the screen.</li></ul> |

| Function | Description |
|---|---|
| | <u>**Note:**</u>  If a Unit has not been despatched and the function is used, the error message 'Unit not despatched' will display |
| **Filter [F8]** | Used to activate the search fields at the top of the table to complete a refined search of the inventory.<br><br>**Lookup [F1]** available for fields<br><br> 1.  Status<br><br>Enter selection criteria in each appropriate field and select the **Select** icon or press **[F12]**. Some users can just use **[Enter]** to activate the filters.<br><br><u>**Note:**</u>  The File Number refers to the patient UR number. |
| **Clear Filter [SF8]** | Clears the filter search and displays all crossmatches in the inventory |

## To view details of a crossmatched unit:

1.  Highlight the required crossmatch within the list.

2.  Double click with the mouse or press **[Enter]** or use the **Select** icon or press **[F12].**

3.  The crossmatch details are displayed by Unit No, Product, Group, Expiry, Location and Status.

**Function Buttons Available From the Crossmatch Inventory Details Screen:**

| Function | Description |
|---|---|
| **Return to Stock [F5]** | Allows the user to de-allocate crossmatched units from patient and return to stock.<br><br>The status field will be updated to 'Returned to Stock'.<br><br>The unit will be removed from the 'Crossmatch Inventory' upon exiting the screen.<br><br>Units returned to stock will have audit entries recorded. |
| **Despatch [F6]** | Despatches the highlighted unit.<br><br>• Select the **Despatch** button or press **[F6];**<br><br>• At the prompt, enter the ward where the unit will go to (**Lookup [F1]** available);<br><br>• At the prompt, enter the despatched date/time or press the **[Enter]** key to populate with the current date/time. |

| Function | Description |
|---|---|
| | **Notes:** |
| | 1.  To cancel the despatch , select *'N'* or press [Esc] |
| | 2.  A future time/date is not permitted. |
| | 3.  Products can be despatched after the crossmatch has expired.  A warning message will display. |
| | 4.  If the unit and crossmatch have expired, a warning message is displayed. |
| | 5.  When attempting to despatch a product following Sample Expiry, the user receives the prompt 'Sample is expired. Override y/n?' and the user must select Yes to proceed with the despatch. |
| **Confirm [F8]** | Confirms the status of the highlighted unit as 'Transfused'. Units must be despatched before the transfusion can be confirmed. |
| **Return All [SF5]** | Allows the user to de-allocate all crossmatched units from patient and return to stock.<br><br>The status field will be updated to 'Returned to Stock' for all units.<br><br>The units will be removed from the 'Crossmatch Inventory' upon exiting the screen.<br><br>Units returned to stock will have audit entries recorded. |
| **Despatch All [SF6]** | Despatches all units to the desired ward. |
| **Confirm Page [SF8]** | Confirms all units in the list (page) as being *'Transfused'*.<br><br>Units must be despatched before the transfusion status can be confirmed. |

**Notes:**

- Units can remain on this list until their transfusion status has been confirmed.

- **Evolution vLab®** can be configured to confirm transfusion automatically for units that are despatched.

- Once all units for a crossmatch have been despatched or confirmed as transfused the patient crossmatch entry will be removed from the Crossmatch Table.

- Once a unit is despatched and/or transfusion confirmed, it must be returned to the fridge before it may be returned to stock.

**The following error messages are associated with this functionality:**

| Error Message | Description |
|---|---|
| **Unit not registered at this Laboratory** | This error occurs if you have entered details that do not match any of the product details in the table. |
| **Unit not despatched** | This message displays if you try to return a product to the fridge that has not been despatched. |

## 19.5    Reserved Units

- Displays all units that are reserved for a particular patient UR.

- The table lists the units along with the patient UR number and the patient name.

- To locate a single unit, scan the barcode number of the unit or enter the unit number via the keyboard and press **[Enter]**.

- The 'Locate' field will display a typed entry when performing a search.  The <space bar> can be used to clear the search and enter a new search or

- Use the Filter [F8] option to active the search fields refine your search of the list

To display the 'Product Reception' screen for a given unit, highlight a unit and press **[Enter]** or double click with the mouse.

Details of all units can be recalled via entry of the unit number in the product reception screen.

**Function Buttons**

| Function | Description |
|---|---|
| **Despatch [F6]** | Use this to despatch a product from the list. |
| **Filter [F8]** | This activates the search fields at the top of the table to search the entire inventory for a particular product. **Lookup [F1]** is available in the fields<br><br>i)   Unit Number<br><br>ii)   Product<br><br>iii)  Group<br><br>iv)  Phenotype<br><br>v)   Expiry<br><br>vi)  Status |

| | Enter selection criteria in each appropriate field and select the **Select** icon or press **[F12]**. Some users can just use **[Enter]** to activate the filters. |
| --- | --- |
| | To access the filtered products press **[Esc]** to leave the filter table. |
| | Use of the function keys on the screen may be applied to all of the items contained within a filtered list at any time. |
| **Dispose [SF5]** | Used to dispose a unit from the inventory. |
| | Enter your reason for disposal at the prompt. |
| | The status of the product is changed to 'Disposed' and the product will be removed from the 'Unit Inventory' upon exiting of the screen. |
| | A disposed unit cannot be reactivated from the unit inventory. The Reversal disposal function will need to be used from the Product Reception screen. |
| | If the status of the unit is 'Crossmatched' the unit will need to be returned to stock from the 'Crossmatch Inventory' table prior to being disposed of. |
| | If the status of the unit is 'Despatched', the unit will need to be returned to stock from the 'Confirm Transfusion' table, prior to being disposed of. |
| **Print Labels [SF7]** | Prints the labels for each unit in the list for which labels have not been printed before. |
| **Clear Filter [SF8]** | Clears the filter search and displays all items in the inventory |

## 19.6   Allocated Products

- Displays all non-cellular products that have been allocated to a patient.

- The 'Locate' field will display a typed entry when performing a search.  The <space bar> can be used to clear the search and enter a new search or

- Use the **Filter [F8]** option to active the search fields refine your search of the list

- By default, the table is sorted by Type.

- A user, following an External Transfer of an allocated product, will be able to access the Allocation Inventory details screen for that product and despatch, return to stock or complete the external transfer.

**Function Buttons**

| Function | Description |
|---|---|
| **Filter [F8]** | Used to activate the search fields at the top of the table to complete a refined search of the inventory.<br><br>**Lookup [F1]** available for fields<br><br>2.   Status<br><br>Enter selection criteria in each appropriate field and select the **Select** icon or press **[F12]**. Some users can just use **[Enter]** to activate the filters. |
| **Clear Filter [SF8]** | Clears the filter search and displays all crossmatches in the inventory |

## To view details of an allocated unit:

- Highlight the required allocation within the list.

- Double click with the mouse or press **[Enter]** or use the **Select** icon or press **[F12]**.

- The allocated details are displayed by Unit No, Product, Group, Expiry, Location and Status.


These function buttons are available from the **Allocated Product Inventory Details** ccreen

**Function Buttons**

| Function | Description |
|---|---|
| **Return to Stock [F5]** | Allows the user to de-allocate units from patient and return to stock.<br><br>The status field will be updated to 'Returned to Stock'.<br><br>The unit will be removed from the 'Allocated Products' upon exiting the screen.<br><br>Units returned to stock will have audit entries recorded.<br><br>On accessing the Allocation Inventory details screen, for any listed unit product displaying as 'Allocated Transferred to xxx', the following functionality to apply:<br><br><br>**Return [F5]** to Stock or **Return All [SF5]**.<br><br><br>**Evolution vLab®** to prompt: Internal (i) or External (e)? |

| Function | Description |
|---|---|
| | If **i** is selected<br><br>    the product will be returned to stock as per current functionality<br><br>    location field in Product Reception will display as the current user's location<br><br>If **e** is selected<br><br>    the product will be 'de-allocated' from the patient<br><br>    product's status will be changed to 'Transferred'<br><br>    product's location field in Product Reception will display the External Location to where it was transferred<br><br>    product will be removed from the allocated inventory on refresh<br><br>    product will be removed from the Unit Inventory |
| **Despatch [F6]** | Despatches the highlighted unit.<br><br>1. Select the **Despatch** button or press **[F6];**<br><br>**Evolution vLab®** to prompt: Internal (i) or External (e)?<br><br>If **i** is selected<br><br>1. product will be despatched as per current functionality (that is: enter ward, enter time/date)<br><br>If **e** is selected<br><br>• **Evolution vLab®** will prompt for a Despatched Time/Date<br><br>• **Evolution vLab®** will record the External Location as the site at which the transfusion occurred<br><br>• product's location field in Product Reception will display the External Location to where it was transferred<br><br>• product's status will be changed to 'Transfusion Confirmed'<br><br>• product will be removed from the allocated inventory on refresh<br><br>• product will be removed from the Unit Inventory |

| Function | Description |
|---|---|
|  | • The Transfusion event will be recorded in the Transfusion and Crossmatch History for the patient (as per current functionality)<br><br>• Transfusion event will be recorded in the TM Despatch Log (as per current functionality)<br><br>**Notes:**<br>6. To cancel the despatch, press [Esc]<br>7. A future time/date is not permitted.<br>8. Products can be despatched after the crossmatch has expired.  A warning message will display.<br>9. If the unit and crossmatch have expired, a warning message is displayed.<br>10. When attempting to despatch a product following Sample Expiry, the user receives the prompt 'Sample is expired. Override y/n?' and the user must select Yes to proceed with the despatch. |
| **Confirm [F8]** | Confirms the status of the highlighted unit as 'Transfused'. Units must be despatched before the transfusion can be confirmed. |
| **Return All [SF5]** | Allows the user to de-allocate all allocated units from patient and return to stock.<br><br>The status field will be updated to 'Returned to Stock' for all units.<br><br>The units will be removed from the 'Allocated Products' upon exiting the screen.<br><br>Units returned to stock will have audit entries recorded. |
| **Despatch All [SF6]** | Despatches all units to the desired ward.<br><br>**Evolution vLab®** prompts: *Are you sure (y/n)?*<br><br>If 'yes' is selected:<br><br>**Evolution vLab®** to prompt: Internal (i) or External (e)?<br><br>If **i** is selected<br>2. product will be despatched as per current functionality (that is: enter ward, enter time/date) .<br><br>If **e** is selected |

| Function | Description |
|---|---|
| | <ul><li>**Evolution vLab®** will prompt for a Despatched Time/ Date.</li><li>**Evolution vLab®** will record the External Location as the site at which the transfusion occurred.</li><li>Product's location field in Product Reception will display the External Location to where it was transferred.</li><li>Product's status will be changed to 'Transfusion Confirmed'.</li><li>Product will be removed from the allocated inventory on refresh.</li><li>Product will be removed from the Unit Inventory.</li><li>The Transfusion event will be recorded in the Transfusion and Crossmatch History for the patient (as per current functionality).</li><li>Transfusion event will be recorded in the TM Despatch Log (as per current functionality).</li><li></li></ul> |
| **Confirm Page [SF8]** | Confirms all units in the list (page) as being *'Transfused'*.<br><br>Units must be despatched before the transfusion status can be confirmed. |

## 19.7    Allocated Batch

- Displays all batch products that have been allocated to a patient.
- The 'Locate' field will display a typed entry when performing a search.  The <space bar> can be used to clear the search and enter a new search.
- Use the **Filter [F8]** option to active the search fields refine your search of the list.
- By default, the table is sorted by Product.
- On accessing the Allocation Batch Inventory details screen, for any listed batch products may display as '*Allocated transferred to **xxx**'*.

**Function Buttons**

| Function | Description |
|---|---|
| **Filter [F8]** | Used to activate the search fields at the top of the table to complete a refined search of the inventory. |

| | Lookup **[F1]** available for fields<br><br>3.   Status<br><br>Enter selection criteria in each appropriate field and select the **Select** icon or press **[F12]**. Some users can just use **[Enter]** to activate the filters. |
|---|---|
| **Clear Filter [SF8]** | Clears the filter search and displays all crossmatches in the inventory |

## To view details of an allocated product:

• Highlight the required crossmatch within the list.

• Double click with the mouse or press **[Enter]** or use the **Select** icon or press **[F12]**.

• The allocated batch inventory screen will open

**Function Buttons Available From the Allocated Product Inventory Details Screen:**

| Function | Description |
|---|---|
| **Return to Stock [F5]** | Allows the user to de-allocated batch products from a patient and return to stock.<br><br>The status field will be updated to 'Returned to Stock'.<br><br>The batch will be removed from the 'Allocated Batch' upon exiting the screen.<br><br>Batches returned to stock will have audit entries recorded.<br><br>**Evolution vLab®** will prompt for a Qty, then *Internal (i) or External (e)?*<br><br>If **i** is selected<br><br>    • product will be returned to stock as per current functionality<br><br>If **e** is selected<br><br>    • quantity transferred externally will be subtracted from quantity displayed |
| **Despatch [F6]** | Despatches the highlighted unit.<br><br>1.   Select the **Despatch** button or press **[F6];** |

|  |  |
|---|---|
|  | 2. **Evolution vLab®** will prompt for a Qty, then: *Internal (i) or External (e)?*<br><br>If **i** is selected<br><br>• product will be despatched as per current functionality (that is: enter ward, enter time/date)<br><br>If **e** is selected<br><br>• **Evolution vLab®** will prompt for a Despatched Time/ Date<br><br>• **Evolution vLab®** will record the External Location as the site at which the transfusion occurred<br><br>• quantity despatched externally will be subtracted from quantity displayed<br><br>**<u>Notes:</u>**<br><br>1. To cancel the despatch, press [Esc]<br><br>2. A future time/date is not permitted.<br><br>3. Products can be despatched after the crossmatch has expired.  A warning message will display.<br><br>4. When attempting to despatch a product following Sample Expiry, the user receives the prompt 'Sample is expired. Override y/n?' and the user must select Yes to proceed with the despatch. |
| **Return All [SF5]** | Allows the user to de-allocate all allocated batch products from patient and return to stock.<br><br>The status field will be updated to 'Returned to Stock' for all batches.<br><br>The batches will be removed from the 'Allocated Batch' upon exiting the screen. |
| **Despatch All [SF6]** | Despatches all batch products to the desired ward.<br><br>**Evolution vLab®** will prompt: *Are you sure (y/n)?*<br><br>• Remainder will be as per **Despatch [F6]** above.<br><br>• **Evolution vLab®** will record all audits on the products processed.<br><br>• Internal Return to Stock will be recorded as per current functionality.<br><br>• **Transferred** event (including quantity for batch products) will be recorded |

## 19.8   Unit Search

Selection of the 'Unit Inventory Search' option from the Unit Search menu allows a user to search through the entire state-wide inventory for current and historical Unit product types.

Enter or scan the Unit number.

The system displays a result table titled *"Unit History All Laboratories"* and displays ALL products belonging to the Unit number entered into the 'Transfusion Product Reception' screen across ALL laboratory sites. The results returned include both current and historical Units, and active and inactive product types.

The following columns are present:

| Column | Description |
| --- | --- |
| **Unit Number** | Displays details of the entered Unit number. |
| **Product** | Displays the product mnemonic, for example: FFP, RCSGM |
| **Group** | Displays the Blood Group in the format XX Rh(D) XXX, for example: AB Rh(D) POSITIVE. |
| **Collected** | Displays the collected date in the format DD-MMM-YY, for example: 12-Feb-17 |
| **Expiry** | Displays the expiry time/date in the format HH:MM DD-MMM-YY, for example: 12:00 11-Feb-17. |
| **Lab** | Displays the mnemonic of the laboratory that the Unit pertains to, for example: RB = Royal Brisbane. |
| **Status** | Displays the most recent status of the Unit, for example: Disposed. |

### To search for a Unit

1.  Enter the unit number in the field, press **[Enter]**;

2.  The unit history will display, including current, historical, active and inactive product types;

3.  The most recent collected date is displayed at the top of the table;

4.  The secondary sort order is 'Product', enabling grouping of similar product types;

5.  Data can be exported selecting the **Export** icon at the top of the screen or by pressing **[CF11].**

## 19.9    Product Summary

The **Evolution vLab®** Product Summary screen now displays both allocated and non-allocated products in the Product Summary consistent with the product inventory levels

**Evolution vLab®** Inventory display will distinguish between unit product types, their associated modifiers and their associated allocation status counts.

- Where there are no crossmatched products (XM) across all blood groups for a particular cellular product type the XM line for that item will no longer display.

- Separate platelet and plasma unit counts are displayed for unallocated and allocated products similar to cellular products.

- Where there are no allocated products across all blood groups for a particular product type, the Alloc line for that item does not display.

- Batch product counts for unallocated and allocated products are grouped on product type and size An Alloc item line for batch products is no longer displayed if there are no allocated products for that particular product type.

## 19.10    Product Summary <Alternate View>

**Evolution vLab®** displays the title of the tables as the **Alternate Summary** and the **[F8]** button as Product Summary view.

On toggling between the two (2) views, **Evolution vLab®** displays the correct title of the table that is being displayed **(Product Summary or Alternate Summary)** and the **[F8]** function key (Alternate Summary view or Product Summary View respectively).

- The Product Summary 'alternate view' will display counts of both unallocated and allocated non-expired products grouped by their primary product.

**Evolution vLab®** displays a clear distinction between unit product types, their associated modifiers and their associated allocation status counts.

For cellular products, display as Packed Cells, then group by modifier.

- Packed Cells - Line to display counts of cellular products with no modifiers + CMV-modifier.

- Irr- Line to display counts of cellular products with IRRAD modifier.

- CMV-, Irr - Line to display counts of cellular products with both IRRAD and CMV- modifiers.

For platelet products, display as Platelets, then group by modifier.

- Platelets - Line to display counts of platelet products with no modifiers + CMV- modifier.

- Irr - Line to display counts of cellular products with IRRAD modifier.

- CMV-, Irr - Line to display counts of cellular products with both IRRAD and CMV- modifiers.

For plasma products, display as the primary product (modifiers do not apply).

For batch products, display as the primary product only.

Where there are no crossmatched or allocated products across all blood groups for a particular primary product, do not display the _XM_ or _Alloc_ for that line item.

## 19.11   All (Labs) Unit Inventory

Selecting option 1 shows the network wide READ ONLY view of each laboratory's 'Unit Inventory'. The table is updated in real time and historical data is NOT available.

It does NOT matter which laboratory you are logged into at the time as the screen shows a network wide view. The user privilege level does NOT dictate access to this functionality. As long as a user is logged into the 'Transfusion' department they may view the 'All (Labs) Unit Inventory'.

> **Note:** Use of the **<F5 Shift Left>** AND **<F6 Shift Right>** function keys will display all the columns not visible on screen. Use of the **<Page Up>** and **<Page Down>** keys allows a user to view all the available data on screen.

The primary sort for this screen is 'Primary Product', meaning all primary product types will be grouped together. The secondary sort is by 'Laboratory/Laboratory Group', meaning once the primary product types are grouped, they are displayed in laboratory/laboratory group order.

| Column | Purpose |
|---|---|
| **Primary Product** | Displays the primary product description, for example: packed cells, whole blood, FFP. |
| **Status** | Displays the product status. These include *"Allocated"*, *"Available for Despatch"*, *"Available for Crossmatch"*, *"Crossmatched"* and *"Group Unconfirmed"*. |
| **Lab** | Displays the laboratory mnemonic. |
| **<BLOOD GROUPS>** | Displays the quantity of the Units with the blood group for the primary product displayed. |
| **Total** | Displays the total number of ALL Units for the filtered selection by primary product, status and laboratory. |

Use of the search box and filtered options at the base of the screen will manipulate the displayed data.

To access the selection box, press the **Selection [F8]** key. By default, the 'All (Labs) Unit Inventory' screen will display data for *"Packed Cells"* (Primary Product) across ALL laboratories and laboratory groups with the *"Available for Xmatch"* status.

To alter the data, populate each filter with the applicable search criteria and press **[Enter]**. The filtered search will execute, and the screen will refresh to display the relevant data. The entered filter data will continue to display in the search box fields. To access the main table data, press the **[Esc]** key. To delete data in a field, press the **[Delete]** key or overtype with new data.

**Note:** The Primary Product and Blood group fields accept manual entry and barcode scanning. As many or as few of the fields may be populated.

**Function Buttons**

| Function | Description |
|---|---|
| **Filter [F8]** | Activates the search fields at the top of the table to complete a refined search of the inventory. Enter selection criteria in each appropriate field and press **[Enter]** to perform the search. **Lookup [F1]** available for fields: <br>• Primary Product <br>• Blood Group <br>• Laboratory/Laboratory Group <br>• Status |
| **Clear Filter [SF8]** | Clears the selection criteria and displays all units in the inventory |

## Create a List of Products in the 'All Laboratories Unit Inventory' screen

1. Press the **Selection [F8]** function key. This gives the user access to the Selection box at the base of the screen which acts as a filter for the Inventory.

2. Enter selection criteria in each appropriate field and press **[Enter]**. You can enter selection criteria in the following fields:

   a. **Primary Product:** Enter the primary product. **Lookup [F1]** displays 'Product Lookup Table'. Only one primary product can be filtered at a time.

   b. **Blood Group:** Enter the Blood Group. **Lookup [F1]** displays 'Bloodgroup Lookup Table'. Only one blood group can be filtered at a time.

    c. **Laboratory /Lab Group:** Enter the laboratory. **Lookup [F1]** displays 'Laboratory Groups Lookup Table'. Only one laboratory can be filtered at a time.

    d. **Status: Lookup [F1]** displays 'Product Status Lookup Table' which lists the following valid status entries:

| Status | Description |
|--------|-------------|
| AL | Allocated. |
| AD | Available for despatch |
| AXM | Available for Xmatch |
| XM | Crossmatched |
| GU | Group Unconfirmed |

**Note:** Immediately after entering the selection criteria, the system automatically executes the search based on the entered data and returns all appropriate search criteria in the inventory screen.

When populating more than one search criteria field, the data is further refined based on ALL populated fields. There is no limit as to how many fields may be populated. Only entries that match all filters entered are displayed when the Selection is invoked.

To remove data in a search field, press the **[Delete]** key or overtype with new data.

Immediately after pressing the **[Delete]** key, the system refreshes to display new search data in the Inventory table, that is: the previously refined search criteria is no longer applied.

If overtyping with new data, a new filter will apply. The user may add and remove as many search filters as desired. The system will automatically update the search data as soon as a change is made.

3. **[Esc]** to exit the Selection box.

The table data may be extracted and uploaded to an excel file using the <CF11> key.

The data may also be printed using the <F11 Print> or the <SF11 Select Print> function keys.

Users may highlight an applicable line in the data table and press **[Enter]**. This will show a READ ONLY view of the 'Product Summary' table for the applicable data.

## 19.12   All (Labs) Batch Inventory

Selecting option **2** of the **All Laboratories Inventories menu** shows the network wide READ ONLY view of each laboratory's 'Batch Inventory'. The table is updated in real time and historical data is NOT available.

It does NOT matter which laboratory you are logged into at the time as the screen shows a network wide view. The user privilege level does NOT dictate access to this functionality. As long as a user is logged into the 'Transfusion' department then they may view the 'All (Labs) Batch Inventory'.

> **Note:** Product 1, 2, and 3, and Batch No. fields accept manual entry and barcode scanning. As many or as few of the fields may be populated.

**Function Buttons**

| Function | Description |
|---|---|
| **Filter [F8]** | Activates the search fields at the top of the table to complete a refined search of the inventory. <br><br> Enter selection criteria in each appropriate field and press **[Enter]** to perform the search. <br><br> **Lookup [F1]** available for fields: <br><br> • Product 1 <br> • Product 2 <br> • Product 3 <br> • Batch No. <br> • Laboratory/Laboratory Group |
| **Clear Filter [SF8]** | Clears the selection criteria and displays all units in the inventory. |

## Create a List of Products in the 'All Laboratories Batch Inventory' screen

1. Press the **Selection [F8]** function key. This gives the user access to the Selection box at the base of the screen which acts as a filter for the Inventory.

2. Enter selection criteria in each appropriate field and press **[Enter]**. You can enter selection criteria in the following fields:

   a. **Product 1:** Enter the product. **Lookup [F1]** displays 'Product Lookup Table'. Only one primary product can be filtered at a time.

   b. **Product 2:** Enter the product. **Lookup [F1]** displays 'Product Lookup Table'. Only one primary product can be filtered at a time.

   c. **Product 3:** Enter the product. **Lookup [F1]** displays 'Product Lookup Table'. Only one primary product can be filtered at a time.

   d. **Batch No.:** Enter a Batch number.

   e. **Laboratory /Lab Group:** Enter the laboratory. **Lookup [F1]** displays 'Laboratory Groups Lookup Table'. Only one laboratory can be filtered at a time.

> **Note:** Immediately after entering the selection criteria, the system automatically executes the search based on the entered data and returns all appropriate search criteria in the inventory screen.
>
> When populating more than one search criteria field, the data is further refined based on ALL populated fields. There is no limit as to how many fields may be populated. Only entries that match all filters entered are displayed when the Selection is invoked.
>
> To remove data in a search field press the **[Delete]** key or overtype with new data. Immediately after pressing the **[Delete]** key, the system refreshes to display new search data in the Inventory table, that is: the previously refined search criteria is no longer applied.
>
> If overtyping with new data, a new filter will apply. The user may add and remove as many search filters as desired. The system will automatically update the search data as soon as a change is made.

3.  **[Esc]** to exit the Selection box.

The primary sort for this screen is 'Product' based on the product sort order, meaning all product types will be grouped together based on their sort order.

The secondary sort is by 'Laboratory/Laboratory Group', meaning once the primary product types are grouped, they are displayed in alphabetical laboratory/laboratory group order. When there is more than one product type specified, the first few lines (depending on how many product types are specified) will display a summary total for each product type.

The <Page Up> and <Page Down> keys may be used to view all data on screen.

The table data may be extracted and uploaded to an excel file using the <CF11> function key.

The data may also be printed using the <F11 Print> or the <SF11 Select Print> function keys.

Users may highlight an applicable line in the data table and press **[Enter]**. This will show a READ ONLY view of the applicable laboratory's 'Batch Inventory'.

## 19.13   Inventory Log

By default, the Inventory log displays the transactions for the current day in reverse chronological order with one unit/batch number transaction per line.

The following product transactions are included in the Inventory Log:

i)   Transactions for any manual product reception

ii)  Transactions for any duplicate products receipted by **Evolution vLab®** received via the **BloodNet** interface

iii) Transactions for any corrections made to product details

iv)  Transactions for any product transfers

The Inventory Log table's default display will be for transactions that have been made in the "Current Laboratory".

Users will be able to change laboratory using the Toggle Selection function key to view transactions from other laboratories.

Selection of a transaction will access the Product Reception screen for the product selected as per current **Evolution vLab®** functionality.

**Data Fields**

| Column | Description |
|---|---|
| **Time/Date** | Time/date of transaction |
| **User** | User ID of user who performed the transaction |
| **Lab** | Laboratory where transaction was performed |
| **Event** | Transaction event |

**Function Buttons**

| Function | Description |
|---|---|
| **Enter Date [F8]** | Displays transactions from the entered date |
| **BloodNet Details [F7]** | Displays the entire message for the transactions |
| **Toggle Selection [SF7]** | Displays the inventory log for all laboratories |

## 19.14   Reserved Inventory Log

Selection from the Reserved Inventory Log tab displays the Reserved Inventory Log table. Unit product transactions received via **the Electronic Delivery Note** and identified for a specific patient will be included in the Reserved Inventory Log.

The Log will include transactions for unit products identified as:

i)   "Autologous"

ii)   "Directed"

iii)   "Reserved"

iv)   Or where the issue note has patient details provided.

**19. Inventories : Reserved Inventory Log**

Batch product transactions received and identified as *"Reserved"* (that is: ordered) for a specific patient will be included in the Reserved Inventory Log.

Batch product transactions will include the reserved quantity.

Selection from a product unit entry on the Reserved Inventory Log will display the Product Reception screen for the selected record and allow manual updating of the relevant product reservation data field with the patient UR Number.

Data entry into and operation of the Autologous, Directed and Reserved data fields will be as per current **Evolution vLab®** functionality.

**Data Fields**

| Column | Description |
|---|---|
| **Date** | The date of the order |
| **URNO** | The patients File Number |
| **Lab** | The laboratory the product was receipted |
| **Name** | The patients full name |
| **DOB** | The patient date of birth |
| **Sex** | The sex of the patient |
| **Group** | The blood group type of the product |
| **Product** | The product type |

**Function Buttons**

| Function | Description |
|---|---|
| **BloodNet Details [F7]** | To view the highlighted unit numbers **BloodNet** notes |
| **Enter Date [F8]** | To search the Reserved Inventory Log via date |
| **Toggle Selection [SF7]** | To toggle between the currently logged in laboratory and all labs |

# 20    Results Enquiry

Results Enquiry allows user to search for request episodes within the system.

- After entering details into the search pane on the left, the results screen opens.

- Each test request will have its own tab listed left to right below the blue patient banner.

- Function buttons available are listed between the test result tabs and the blue patient banner.

- Patient alerts and special notes are listed as icons just below the blue patient banner on the right-hand side.

- The report status for the test results currently on display will be listed in green on the left for example Validated or Interim.

- Multiple pages of patient results can be scrolled through by using the [Page Down] or [Page Up] keys.  The number of pages of results available is displayed in the Status line (just above the blue banner)

> **Note:** Rounding of decimal values is determined by the Operating System, NOT **Evolution vLab®**, and <u>may</u> perform differently to expected behaviour. This is NOT a defect, but if you would like a more detailed explanation, please contact Magentus.

## To access test results:

1. Select the corresponding results tab.

Function buttons available are dependent upon the results tab selected, for example: **Transfusion History** button will only show if you are currently viewing transfusion results.

### Function Buttons

| Function | Description |
|---|---|
| **Graphics** | This function is available only when an analyser has transmitted graphic information.  When selected the analyser graphics will be displayed.<br>**Note:**  Not all Analyser interfaces are able to transmit graphics. |
| **Transfusion History [F7]** | Only available when viewing transfusion results.<br>Displays the transfusion history of the patient for where the Crossmatch/Allocation history and the units Production reception screen can be accessed. |
| **Cumulative Results [F9]** | Used to view a summary of previous results for the patient. |

| Function | Description |
|---|---|
| | Select the required test result tab and then press Cumulative Results. |
| | If there are no cumulative results to display, only the current laboratory number will be listed. |
| | The display of this table will vary depending on the configuration of the cumulative format. |
| | Use the additional function buttons to graph results, change cumulative type or print the results. |
| **Suppress Antibiotics [SF5]** | Only available when a Sensitivity Panel is requested on the laboratory number. |
| | This function opens the 'Organism Antibiotic Suppression' dialog box, which contains a list of all resulted organisms. |
| | By default, each organism is automatically selected (ticked). The user may deselect an organism (un-tick) or toggle all organisms via the 'Organism' check box. |
| | Select **OK [F4]** to execute the suppression rules for the selected organisms or **Cancel [Esc]** to cancel and return to the sensitivity screen. |
| | When an antibiotic for a given organism is suppressed all Tests linked to that antibiotic via the 'Sensitivity Links' are now suppressed. |
| **Results History* [SF7]** | *Available for batch functionality only |
| | Used to access results uploaded from batch analysers.  This function will only display if results have been uploaded from an analyser (if results are manually entered from an analyser print-out, this button will not display). |
| **Patient Enquiry [SF9]** | Used to view the Enquiry Results screen listing other laboratory numbers for the same patient. |
| **Select Print [SF11]** | Select the printer you wish to print the report from. |
| **Reference Document [CF1]** | Displays a reference document applicable to the screen you're currently in.  For example: collection manual, test procedure, results interpretation. |
| **Relationships [CF8]** | Displays any family relationships this particular patient may be linked to. |
| | Use the additional functions within the relationships screen. |

## 20. Results Enquiry : Reserved Inventory Log

| Function | Description |
|---|---|
| **Suppress Result [CF3]** | Allows the selected result to be suppressed.  Once suppressed the result will become blue in colour.  By selecting this function again, the result will change back to black. |
| **Crossmatch Table [CF5]** | Allows access to the crossmatch table on the displayed panel. |
| **Ab Register [CF6]** | Only available when a transfusion test/panel is requested on the laboratory number. The antibody register for the Patient. To access to the antibody register audit, select the Ab Register and then select the Audit sub-tab or **[CF8]**. |
| **Detailed Histo Table [CF5]** | Only available for Histopathology, Cytology and Autopsy requests with the workflow of samples using location numbers. Provides information on samples, blocks and slides. This information is available for the patient even after processing of the sample is complete from worksheets. |
| **Counter [CF7]** | Only available if counters have been assigned to a test/panel. Used to conduct a cell count using the computer keyboard and entering results straight into **Evolution vLab®**. |
| **Relationships [CF8]** | Displays the familial relationships for the patient. |
| **Toggle Abnormal** | Allows the test result to be tagged as abnormal. |

The following Submenu tabs are available from the top of the results screen.

### Submenu Tabs

| Submenu Tab | Description |
|---|---|
| **Report [Shift Insert]** | Used to preview the report before printing. |
| **Results [F5]** | The submenu containing all of the result tabs. |
| **Reception [SF10]** | Used to access the patient's registration details or make any required changes or add further test requests. |
| **Request Forms [Insert]** | Used to view the request form associated with the Laboratory number. |
| **Notes [F8]** | Use this to view or add notes – (Sample, UR, Clinical, or Ordering) |

| Submenu Tab | Description |
|---|---|
| **Audit [SF8]** | Displays the audit trail for the patient episode. |
| **Imaging [Ctrl Insert]** | Used to view images scanned and attached to the patient laboratory number or UR record for example external reports, consent forms etc. |
| **Tabulated Report [CF12]** | Used to display a panel of tests in table format. |

# 20.1    Transfusion History [F7]

## Transfusion History [CF7] and Crossmatch / Allocation History [F7]

Transfusion history lists all products that have been transfused to the patient.

Where applicable via the Transfusion History screen, the 'Status' field of a despatched product includes the Ward mnemonic.

Crossmatch / Allocation history lists all products that have been crossmatched / allocated to the patient.

**Function Buttons**

| Function | Description |
|---|---|
| **Manual Entry [F5]** | Used to manually add an entry to the history.<br>1. Select the **Manual Entry** button or press **[F5];**<br>2. Enter the text to be added to the Transfusion History table;<br>3. Select **[OK]** or press **[Enter]**.<br>**Note:** Entries cannot be edited, only added. |
| **Reprint [SF5]** | Used to print an entry within the list.<br>1. Highlight an entry within the list;<br>2. Select the **Reprint** button or press **[Shift F5];**<br>3. A yellow message will display in the top right corner of the printing status;<br>4. To print all entries in the list, select the **Print** icon from the top of the screen or press **[SF11].** |
| **Ab Register [CF3]** | Used to view the antibody register for the patient. |

| Function | Description |
|---|---|
| **Patient Results [CF8]** | Use this to view the results for the highlighted laboratory number in the list.<br><br>1. Highlight an entry within the list;<br><br>2. Select the **Patient Results** button or press **[CF8];**<br><br>3. The results screen for the highlighted entry will open. |

## To access Product Reception:

1. Highlight an entry within the table and double click with the mouse or press **[Enter]**;

2. The product reception screen for the selected product will open.  You can view details and the audit trail for the product.

## 20.2     Cumulative Results [F9]

- Displays all results for the patient episode for the particular test selected.

- Use the back icon from the top of the screen to return to the previous screen.

**Note:**  Function buttons available will depend upon your search criteria, that is: whether you searched by UR or Laboratory No.

**Function Buttons**

| Function | Description |
|---|---|
| **Graph [F7]** | Used to view the results in a graph.<br><br>Java software needs to be installed on the PC for this function to operate.<br><br>When selected, a separate window will open.  Use the filters to refine the graph display and to display required information.<br><br>**Add** button is used to add tests to the graph.<br><br>**Remove** button is used to remove tests from the graph.<br><br>**Reset Graphs** button is used to reset the graph to its original display.<br><br>**Close** button used to close the function.<br><br>**Zoom in on a graph** |

| Function | Description |
|---|---|
|  | 1. Highlight a section of the graph and click and drag the mouse over the area you'd like to zoom in on; <br><br> 2. The selected area will then be formatted to fit the graph area; <br><br> 3. Use the scroll bars to across the bottom and down the side to view the graph; <br><br> 4. Use the reset graph button to return to its original display. |
| **Cumulative Type [F8]** | Used to select the type of cumulative report to view. <br><br> 1. Select the **Cumulative Type** button or press **[F8];** <br><br> 2. At the prompt, enter the type, use **Lookup [F1]** to make your selection; <br><br> 1. Select **[OK]** or press **[Enter]**; <br><br> 2. The cumulative results will display. |
| **Full Print [SF7]** | Use this to print all results listed in the screen for the selected test. <br><br> **1.** Select the **Full Print** button or press [**SF7];** <br><br> 2. The print status will be listed in the top right corner in yellow; <br><br> 3. Prints to the default printer. |

To access the results:

1. Highlight an entry within the table and double click with the mouse or press **[Enter]**;

2. The results screen for the selected laboratory number will open.

## 20.3   Results History [SF7]

- Displays all results for the patient episode for the particular test run on a batch analyser.

- Use the **Back** icon from the top of the screen to return to the previous screen.

**Function Buttons**

| Function | Description |
|---|---|
| **Select Preferred [F7]** | Used to nominate the preferred result. <br><br> 1. Highlight the preferred result in the table; |

| Function | Description |
|---|---|
| | 2.  Select the **Select Preferred** button or press **[F7]**;<br><br>3.  The '*' symbol will move to the preferred result column. |
| **View Full Results [F8]** | Used to view the full result.<br><br>1.  Highlight the result in the table;<br><br>2.  Select the **View Full Results** button or press **[F8]**;<br><br>3.  The width of the column will increase to allow all results to be viewed. |
| **Notes [SF5]** | Opens the Notes submenu. |
| **Save Preferred Profile [SF6]** | Used to add the preferred result to the patient result page. |
| **Addon Test [SF8]** | Used to add on a further test.<br><br>1.  Select the **Addon Test** button or press **[SF8]**;<br><br>2.  At the prompt enter the reason for the addon and select **[OK]** or press **[Enter]**;<br><br>3.  At the prompt enter the test to be added (**Lookup [F1]** available).  Select **[OK]** or press **[Enter]**;<br><br>4.  Select **[Yes]** to proceed with the addon.<br><br>5.  The width of the column will increase to allow all results to be viewed. |

## 20.4    Patient Enquiry [SF9]

Will display a list of all request episode for the patient file that the user is currently on.

Listed in reverse chronological order

## 20.5    Summary [CF5]

The search results list all lab numbers associated with this patient episode, including any linked episodes.

Entries are listed with the most recent at the top.

Click on the column headings to sort the search results. Use the locate field to search the inventory by typing in a number and pressing **[Enter]**.  Use the space bar to clear the search.

**20. Results Enquiry : Summary [CF5]**

**Submenu Tabs**

| Function | Description |
|----------|-------------|
| **Summary [CF5]** | Summary of all episodes for the nominated UR number and the associated requests. |
| **Specimen [CF6]** | Provides specimen details for the specimens registered under the nominated UR number. |
| **Billing Details [CF7]** | Displays the billing details for the patient episode. |
| **Print Reports [SF7]** | The table lists reports that are complete and available to be printed. |
| **Ab Register [CF3]** | Displays the Antibody Register. |
| **Specimen Search [SF5]** | Provides the storage location for each of the laboratory numbers. |

**Function Buttons**

| Function | Description |
|----------|-------------|
| **Nominate Dept [F5]** | Used to limit the search to tests conducted in a nominated department (for example: all tests from serology).<br><br>• Select the **Nominate Dept** button or press **[F5];**<br>• At the prompt, enter a department, use **Lookup [F1]** to make your selection;<br>• Select **[OK]** or press **[Enter]**;<br>• All results for the selected department will display;<br>• Use the same function, but select 'ALL' to clear the search. |
| **Cumulative Results [F9]** | Used to view a summary of previous results for the patient. |
| **Find Test [SF8]** | Used to find a particular test associated with a UR number.<br><br>• Select the **Find Test** button or press **[SF8];**<br>• At the prompt, enter a test/panel, use **Lookup [F1]** to make your selection;<br>• Select **[OK]** or press **[Enter]**;<br>• The results will display. |
| **Similar Record Search [CF2]** | Used to produce a list of patients that are an exact match for the highlighted patient's search criteria, that is: surname, DOB and sex. |

| Function | Description |
|---|---|
| **Relationships [CF8]** | Used to display the familial relationships recorded. |
| **Addon Availability [CF12]** | Used to determine if any of the collected samples can be used for a given test. <br><br> 1. Select the **Addon Availability** button or press **[CF12]**; <br><br> 2. Enter the test (**Lookup [F1]** available); <br><br> 3. Select **[OK]** or press **[Enter]**; <br><br> 4. If any samples are suitable for the addon test a dialogue box will open with a list of the samples; <br><br> 5. Select the sample to be used by highlighting the sample and selecting **[OK]** or double clicking on the sample with the mouse; <br><br> 6. Select **[OK]** at the prompt to show the addon test has been added to the nominated sample. |

To access a patient episode:

1. Highlight an entry within the list;

2. Press **[Enter]** or double click with the mouse

3. The laboratory number's results screen will open.

## 20.6    Specimen [CF6]

The search results list all samples associated with this UR number.

Entries are listed with the most recent at the top.

Click on the column headings to sort the search results. Use the locate field to search the inventory by typing in a number and pressing **[Enter]**.  Use the space bar to clear the search.

**Function Buttons**

| Function | Description |
|---|---|
| **Nominate Dept [F5]** | Used to limit the search to tests conducted in a nominated department (for example: all tests from serology). <br><br> 1.  Select the **Nominate Dept** button or press **[F5]**; <br><br> 2. At the prompt, enter a department, use **Lookup [F1]** to make your selection; |

| Function | Description |
|---|---|
|  | 3. Select **[OK]** or press **[Enter]**;<br><br>4. All results for the selected department will display;<br><br>5. Use the same function but select 'ALL' to clear the search. |
| **Cumulative Results [F9]** | Used to view a summary of previous results for the patient. |
| **Find Test [SF8]** | Used to find a particular test associated with a UR number.<br><br>1. Select the **Find Test** button or press **[SF8];**<br><br>2. At the prompt, enter a test/panel, use **Lookup [F1]** to make your selection;<br><br>3. Select **[OK]** or press **[Enter]**;<br><br>4. The results will display. |
| **Similar Record Search [CF2]** | Used to produce a list of patients that are an exact match for the highlighted patient's search criteria, that is: surname, DOB and sex. |
| **Relationships [CF8]** | Used to display the familial relationships recorded. |
| **Addon Availability [CF12]** | Used to determine if any of the collected samples can be used for a given test.<br><br>1. Select the **Addon Availability** button or press **[CF12]**;<br><br>2. Enter the test (**Lookup [F1]** available);<br><br>3. Select **[OK]** or press **[Enter]**;<br><br>4. If any samples are suitable for the addon test a dialogue box will open with a list of the samples;<br><br>5. Select the sample to be used by highlighting the sample and selecting **[OK]** or double clicking on the sample with the mouse;<br><br>6. Select **[OK]** at the prompt to show the addon test has been added to the nominated sample. |

## To access a patient episode:

- Highlight an entry within the list;

- Press **[Enter]** or double click with the mouse

- The laboratory number's results screen will open.

## 20.7    Billing Details [CF7]

The search result displays the billing details for the patient episode.

Entries are listed with the most recent at the top.

Click on the column headings to sort the search results. Use the locate field to search the inventory by typing in a number and pressing **[Enter]**.  Use the space bar to clear the search.

**Function Buttons**

| Function | Description |
|---|---|
| **Nominate Dept [F5]** | Used to limit the search to tests conducted in a nominated department (for example: all tests from serology). <br><br> 1.  Select the **Nominate Dept** button or press **[F5]**; <br> 2.  At the prompt, enter a department, use **Lookup [F1]** to make your selection; <br> 3.  Select **[OK]** or press **[Enter]**; <br> 4.  All results for the selected department will display; <br> 5.  Use the same function but select 'ALL' to clear the search. |
| **Cumulative Results [F9]** | Used to view a summary of previous results for the patient. |
| **Find Test [SF8]** | Used to find a particular test associated with a UR number. <br><br> 1.  Select the **Find Test** button or press **[SF8]**; <br> 2.  At the prompt, enter a test/panel, use **Lookup [F1]** to make your selection; <br> 3.  Select **[OK]** or press **[Enter]**; <br> 4.  The results will display. |
| **Similar Record Search [CF2]** | Used to produce a list of patients that are an exact match for the highlighted patient's search criteria, that is: surname, DOB and sex. |
| **Relationships [CF8]** | Used to display the familial relationships recorded. |
| **Addon Availability [CF12]** | Used to determine if any of the collected samples can be used for a given test. <br><br> 1.  Select the **Addon Availability** button or press **[CF12]**; <br> 2.  Enter the test (**Lookup [F1]** available); <br> 3.  Select **[OK]** or press **[Enter]**; <br> 4.  If any samples are suitable for the addon test a dialogue box will open with a list of the samples; |

| Function | Description |
|---|---|
|  | 5.   Select the sample to be used by highlighting the sample and selecting **[OK]** or double clicking on the sample with the mouse; |
|  | 6.   Select **[OK]** at the prompt to show the addon test has been added to the nominated sample. |

## 20.8   Print Reports [SF7]

The table lists reports that are complete and available to be printed.

**Function Buttons**

| Function | Description |
|---|---|
| **Print All Reports [F5]** | Use this to print all reports listed in the table. |
|  | 1.   Select the **Print All Reports** button or press **[F5];** |
|  | 2.   At the prompt, Enter 'A' for All report, 'P' for page range report or 'D' for date range report and then select **[OK]**; |
|  | 3.   If 'P' is entered, enter a 'Start Page Number' and press **[Enter]** and then the 'End Page Number' and press **[OK]**; |
|  | 4.   If 'D' is entered, enter a *'Start Date'* (DDMMYY) and press **[Enter]** and then the 'Finish date' (DDMMYY) and press **[OK]**; |
|  | 5.   Select **[Yes]** or press **[Enter]** to print; |
|  | 6.   In the dialogue box select the printer device and press **[OK]**. |
| **Print Selected Report [F6]** | Allows the printing of selected report type for a patient. |
|  | 1.   Highlight an entry within the list; |
|  | 2.   At the prompt, Enter 'A' for All report, 'P' for page range report or 'D' for date range report and then select **[OK]**; |
|  | 3.   If 'P' is entered, enter a 'Start Page Number' and press **[Enter]** and then the 'End Page Number' and press **[OK]**; |
|  | 4.   If 'D' is entered, enter a *'Start Date'* (DDMMYY) and press **[Enter]** and then the 'Finish date' (DDMMYY) and press **[OK]**; |
|  | 5.   Select **[Yes]** or press **[Enter]** to print; |
|  | 6.   In the dialogue box select the printer device and press **[OK]**. |

## 20.9    Specimen Search [SF5]

- Use this to search for samples associated with this patient that may be in storage.

- If there are no other samples, **Evolution vLab®** will display a message that it is unable to find any.

- If there are other samples, the table will list the location area, the row number and column number of where the sample is currently stored.

- Functions available from a successful sample search are listed below.

**Function Buttons**

| Function | Description |
|---|---|
| **Remove Sample [F6]** | Removes a sample from its storage position.<br><br>1. Highlight the sample of interest and select the **Remove Sample** button or press **[F6];**<br>2. At the prompt select **[Yes]** to confirm the removal of the sample;<br>3. Enter a comment if required – optional<br>4. Select **[OK]** or **[Enter]** to save;<br>5. The sample is immediately removed from the list;<br>6. An audit event is recorded in both the Sample and Storage Audits.<br><br>**Note:**  A sample can only be removed from storage area if the status is *Occupied*. |
| **Borrow Sample [F7]** | Borrows a sample and reserves its position for when it is returned.<br><br>1. Highlight the sample of interest and select the **Borrow Sample** button or press **[F7];**<br>2. Enter a comment if required – optional;<br>3. Select **[OK]** or **[Enter]** to save;<br>4. The sample status is immediately marked as *Borrowed*;<br>5. An audit event is recorded in both the Sample and Storage Audits.<br><br>**Note:**  A borrowed sample can be added to another storage location without being returned to the original storage location. |
| **Return Sample [F8]** | Returns the sample (that has been previously borrowed) to storage in its reserved position. |

| Function | Description |
|---|---|
|  | 1. Highlight the sample to be returned and select the **Return Sample** button or **[F8];** |
|  | 2. Enter a comment if required – optional; |
|  | 3. Select **[OK]** or **[Enter]** to save; |
|  | 4. The status of the stored sample changes from *Borrowed* to *Occupied*; |
|  | 5. An audit event is recorded in both the Sample and Storage Audits. |
|  | **Note:**  A sample can only be returned to storage if the status is *Borrowed*. |
| **Transfer Sample [SF7]** | Used to transfer samples from one storage area to another within the division. |
|  | 1. Highlight the sample of interest and select the **Transfer Sample** button or press **[SF7];** |
|  | 2. At the prompt *Bulk transfer?* enter **[Yes]** to transfer more than one sample or **[No]** to transfer a single sample.  If *Yes* is selected the user will be prompted to enter the laboratory numbers or location numbers involved in the transfer.  If *No* is selected the highlighted sample will be transferred; |
|  | 3. At the prompt *Enter transfer destination:*, enter the transfer storage location. **Lookup [F1]** available; |
|  | 4. Select **[OK]** or press **[Enter]** to transfer the sample; |
|  | 5. At the prompt, select **[Yes]** or press **[Enter]** to confirm the transfer; |
|  | 6. Enter a comment if required – optional; |
|  | 7. Select **[OK]** or press**[Enter]** to save; |
|  | 8. The sample is removed from the storage area displayed and is added to the transfer storage destination; |
|  | 9. An audit event is recorded in both the Sample and Storage Audits. |

## To view patients results

1. Highlight the sample of interest and double click with the mouse or press **[Enter]**.

## 20.10   Select Print [SF11]

- Used to print reports on an ad-hoc basis.

- You can use this function to nominate where the reports will be sent to.

- Whilst on the nominated result page select the **Select Print** button or press **[SF11];**

- A dialogue box will open and will detail;

  - o   Who/where the report will be sent to

  - o   The device (printer/email/fax/etc.) the report will be sent to

  - o   The fax number/email address

  - o   The report trigger.  This is used if the report is to be automatically sent.  Triggers include results on validation, validated with abnormal/critical results, urgent requests or placed in a queue.  These triggers can be configured, see your system administrator.

  - o   The style of the report, A4, A5, HL7, PIT, PDF, etc.

  - o   The style ID is the specified format that the requestor (Doctor) has asked for.

### To send an ad-hoc report:

1.   Highlight an entry within the table;

2.   Select the **Send** button or press **[F5];**

3.   A yellow message will display the status in the top right-hand corner indicating the report has been sent.

**Function Buttons**

| Function | Description |
|----------|-------------|
| **Send [F5]** | Sends the report to the entry that is highlighted in the dialogue box. |
| | A yellow message will display the status in the top right corner. |
| **Send All Reports [F6]** | Sends the report to all entries in the dialogue box. |
| | A yellow message will display the status in the top right corner. |
| **Direct To [F7]** | Sends the report to a nominated device (for example: fax, email) that isn't on the list. |
| | 1.   Select the **Direct To** button or press **[F7];** |
| | 2.   At the prompt, enter the device to send the report to; |
| | 3.   Use **Lookup [F1]** to make your selection; |

| Function | Description |
|---|---|
| | 4. Select **[OK]**; |
| | 5. If a fax or email has been entered, another prompt will open to enter the fax/email details; |
| | 6. At the prompt: '*Print single page (S) All pages (A):',* enter 'S' to print only the displayed results or 'A' to print all reports on the current laboratory record; |
| | 7. Select **[OK]** or press **[Enter]**; |
| | 8. A yellow message will display the status in the top right corner indicating the report has been sent. |
| Copy To [SF6] | Sends the report to a nominated Doctor/requestor who isn't on the list. |
| | 1. Select the **Copy To** button or press **[SF6];** |
| | 2. At the prompt, enter the doctor/requestor mnemonic. **Lookup [F1]** available for a list of valid Doctors; |
| | 3. Select **[OK]** or press **[Enter]**; |
| | 4. At the next prompt, enter the device to send the report to. **Lookup [F1]** available to make your selection; |
| | 5. Further prompts will appear to enter the email address/fax numbers if the device selected in an Email or Fax device; |
| | 6. At the style prompt enter which form to send the report in, **Lookup [F1]** available; |
| | 7. Select **[OK]** or press **[Enter]** |
| | 8. The Copy to Doctor will be displayed in the device table; |
| | 9. The printing of report can now be initiated using either of the Send, Send All or Direct To functions. |
| | **Note:**  The Copy To Doctor will be removed from device table once report is sent. |

**Notes:**

- If a Doctor is to be sent a copy of all patient's reports, it should be added In Reception – Extra Copies.

- If results have been set up to be released when validated, the report will have automatically been sent when the results were validated.

- Individual report re-prints can be completed by selecting the **Print** icon at the top of the page or pressing **[F11].**

> - Where a summary report style has been used the single laboratory record only will be printed. The total summary report will not be printed.
> - The output of email PDF includes an addressed subject line and file naming to enable quick and easy report identification prior to encryption and sending.

## 20.11   Antibody Register [CF6]

The Antibody Registger displays details about antibodies that have been recorded.

## 20.12   Audit Tab [CF8]

The Audit Tab lists all activity made within the antibody register.

Includes a time/date stamp and the login details at the time of the activity, in read only format.

## 20.13   AB Register [F9]

The Antibody register displays the following

- Patient Special Requirements
- Blood Group
- TM Alerts
- EI Eligibility Status

**Function Buttons**

| Function | Description |
|---|---|
| **Add / Edit Ab Alert [F6]** | Use this function to add or edit an antibody alert.  Alerts are displayed at the bottom of the blue patient banner, and in the description column of the Ab register.<br><br>1.       Select the **Add/Edit Ab Alert** button or press **[F6];**<br><br>2.       At the prompt, enter the alert or edit the existing alert in the dialog box;<br><br>3.       Select **[Save]**.<br><br>**Note:**  If editing an existing alert, the new alert will overwrite/replace the pre-existing alert. |
| **Add Phenotype [F7]** | Use this function to add a phenotype for the antibody.<br><br>1.   Select the **Add Phenotype** button or press **[F7];** |

| Function | Description |
|---|---|
|  | 2. At the prompt, enter the phenotype, **Lookup [F1]** available; |
|  | 3. Multiple phenotypes can be added separated by a comma (,); |
|  | 4. Select **[Save]**; |
|  | 5. To delete phenotypes, highlight the Phenotype line in the table and select the **Edit** icon or press **[F2];** |
|  | 6. Enter a reason and select **[OK]** or press **[Enter]**; |
|  | 7. Enter 'y' to remove all and select **[OK]** or press **[Enter]**. |
| **Similar Record Search [CF2]** | Used to produce a list of patients that are an exact match for the highlighted patient's search criteria, that is: surname, DOB and sex. |
| **Group Rules [CF3]** | Displays the blood group compatibility rules for the patient. <br><br> 1. Select the **Group Rules** button or press **[CF3]**; <br><br> 2. You can change the rules by placing the cursor into a field and typing 'C' for compatible or 'I' for incompatible; <br><br> 3. Select OK when done. <br><br> Changes to the Compatibility Rules are recorded in the Antibody Register Audit. This includes the affected Blood Group, Product, what the value was changed from and to, Time/Date and User responsible for the change. <br><br> **Note:** This table is applicable only once a manual entry is made. Otherwise, the settings in Administration > Transfusion > Blood Groups > Compatibility Rules will be applied. |
| **Add Antibody [CF5]** | Use this function to add an antibody. <br><br> 1. Select the **Add Antibody** button or press **[CF5];** <br><br> 2. At the prompt, enter the antibody, **Lookup [F1]** available and select **[Save]**; <br><br> 3. At the prompt, enter the detection method and select **[Save]**; <br><br> 4. At the prompt, enter the temperature and select **[Save]**; <br><br> 5. At the prompt, enter the titre and select **[Save]**; <br><br> 6. Multiple antibodies can be added; <br><br> 7. To delete an antibody, select the **Delete** icon and press **[Delete]**. |

| Function | Description |
|---|---|
| **Add Comment [CF6]** | Used to add any comments that are of interest for this particular patient.<br><br>1.  Select the **Add Comment** button or press **[CF6];**<br>2.  At the prompt, enter the comment;<br>3.  Select **[Save]**.<br><br>**Note:**  Comments cannot be edited or deleted, only added. |
| **Add/Edit EI Alert [CF7]** | Used to change EI alert from Suitable to Excluded<br><br>1.  Select the Add/Edit EI Alert button or press [CF7]<br>2.  A prompt will appear;<br>3.  An expiry can be added or edited or<br>4.  Or override EI Suitable<br>5.  Select [Save] or Cancel to discontinue.<br><br>When EI Suitable is overridden the EI will display as excluded even if all other rules pass. |

## To print information from the antibody register:

- Use the **Print** icon at the top of the screen or press **[F11]** to print to a default printer, or;

- Select the **(V)** icon at the top of the screen or press **[Sift + F11]** to select the printer.

- Data can be exported using the **Export** icon at the top of the screen or pressing **[CF11].**

## 20.14   Detailed Histo Table [CF5]

The **Detailed Histo Table** displays, add procedures/gross procedures, print block/slides/labels and modify details on samples received or produced from a Histopathology, Cytology or Autopsy case. Specimens are received from the patient whilst blocks, slide & other related samples are produced from these specimens. Key information captured in the worksheets for each sample can be displayed and edited here. The **Detailed Histo Table** submenu is only available for cases with relevant Histopathology, Cytology, and Autopsy tests ordered.

The main information displayed for each sample is:

- Location Number.

- Site Taken From.

- Gross Procedure, for example: 1B1L- 1 Block, 1 Level.

- Detail Procedure, for example: EMB HE- Embed and Cut 1 H&E.

- Level to cut the sample (or has been cut) for the procedure.

- Number of fragments of tissue included for the block (Default is 1 but this can be edited)

- Block type, for example: 'P' for paraffin, 'F' for frozen.

- If the sample is a recut.

- Any comments, for example: to assist with the workflow; instruction for users at the next stage.

## To save changes to the Detailed Histo Table:

1.   Upon making a change, if a user presses the **Esc** key, the prompt 'Data not saved, proceed? (y/n)' is displayed;

2.   If a user selects **Yes**, the associated entry and/or entries will not be saved and **Evolution vLab®** will return to the previous screen;

3.   If a user selects **No**, **Evolution vLab®** remains in the **Detailed Histo Table** screen allowing the user to select the **Save** icon, or press the **Save [F4]** key, to save."

**Function Buttons**

| Function | Description |
|---|---|
| Add Procedure [F7] | Used to add a detailed procedure to a sample. <br> 1. Select desired entry in the **Detailed Histo Table**; <br> 2. Select the **Add Procedure** button or press the **[F7]** key; <br> 3. Enter the procedure to be added, use the **Lookup [F1]** key to make your selection; <br> 4. Enter the level ('L' or 'S' followed by a number); <br> 5. Enter the stain, use the **Lookup [F1]** key to make your selection; <br> 6. Enter **Y** or **N** if it is a recut (if **Y**, detailed procedure added to the recut worksheet); <br> 7. Select the **Save** button, select the **Save** icon from the top of the screen or press the **Save [F4]** key for this added detailed procedure. <br> 8. To complete adding procedures, press **Cancel** button. <br> 9. Save changes to the **Detailed Histo Table**. |

## 20. Results Enquiry : Detailed Histo Table [CF5]

| Function | Description |
|---|---|
| **Add Gross Procedure [CF5]** | Used to add a gross procedure to a sample.<br><br>1. Highlight desired entry in the **Detailed Histo Table**;<br><br>2. Select the **Add Gross Procedure** button or press the **[CF5]** key;<br><br>3. Enter the **Gross Procedure** to be added, use the **Lookup [F1]** key to make your selection;<br><br>4. Enter **Y** or **N** if it is a recut (if **Y**, gross procedure added to the recut worksheet);<br><br>5. Select **[OK]** or press the **Save** icon from the top of the screen or press the **Save [F4]** key for the **Added Gross Procedure**;<br><br>6. Save changes to the **Detailed Histo Table**. |
| **Write Slides [F6]** | Used to write a slide to the interfaced slide writer/printer.<br><br>1. Select the **Write Slides** button or press the **[F6]** key;<br><br>2. At the prompt 'Print all (Y/N)', enter **Y** to write all slides, or enter **N** to write a slide for the selected entry;<br><br>3. At the prompt 'Enter printer name', enter the mnemonic of the slide writer/printer and select the **[OK]** button or press the **[Enter]** key;<br><br>4. The **Lookup [F1]** key is available to assist with field entry. |
| **Write Block [CF8]** | Used to write a block to an interfaced block writer/printer..<br><br>1. Select the **Write Block** button or press **[CF8]**;<br><br>2. At the prompt 'Print all (Y/N)', enter **Y** to write all blocks, enter **N** to write a block for the selected entry;<br><br>3. At the prompt 'Enter printer name', enter the mnemonic of the block writer/printer and select the **[OK]** button or press **[Enter]**;<br><br>4. The **Lookup [F1]** key is available to assist with field entry. |
| **Print Labels [SF7]** | Used to print labels to an interfaced label printer. Useful if a slide writer/printer is unavailable.<br><br>**Note:** some steps below may only be available once per login session.<br><br>1. Select the **Print Label** button or press the **[SF7]** key; |

| Function | Description |
|---|---|
| | 2. At the prompt 'Enter printer name', enter the mnemonic of the label printer and press **[OK]** button or press the **[Enter]** key; |
| | 3. The **Lookup [F1]** key is available to assist with field entry; |
| | 4. At the prompt 'Print all (Y/N)', enter **Y** to write all labels, orenter **N** to write a label for the selected entry; |
| | 5. At the prompt 'Please enter label format', enter the mnemonic of the label format and select the **[OK]** button or press the **[Enter]** key; |
| | 6. The **Lookup [F1]** key is available to assist with field entry. |

## 20.15   Counter [CF7]

- Use this to conduct a cell count and have the results recorded in real time.

- Values are automatically calculated.

- You can set-up a cell counter with your own personally selected keyboard keys.

- **Lookup [F1]** is available to view the mapped keys for cell types, then press **[Esc]** to return to the counter.

- There is an audible alarm that will sound every 100 total counts.

- Cell counters are assigned to specific tests/panels (for example: FBC, Urine microscopy).

- Counter cells enclosed by '[ ]' are excluded from the total count (for example: nucleated red blood cells).

- Each cell counter will have different cells to count, as illustrated in each field.

**Function Buttons**

| Function | Description |
|---|---|
| **Calculate [F5]** | Use this if the total count is not 100 and to calculate the result as a percentage.<br>**Note:**  This may be used for 50/200 cell counts. |
| **Change Counter [F6]** | Use this to change the current counter to another.<br>At the prompt, enter the new counter name and press **[Enter]** key or **[OK]**.<br> **Lookup [F1]** available to a valid list of cell counters entries. |

| Function | Description |
|----------|-------------|
| **Clear Counter [F7]** | Resets the counter to zero to start a new cell count (if required). |

Once the cell count is completed, select OK to save results.

> **Notes:**
>
> Results can only be saved when a total count of 100 (+/- 2) cells are counted.
>
> For Full Blood Count (FBE/FBC/CBC) results, absolute values are calculated from percentages and displayed back in the results screen.

## 20.16   Relationships [CF8]

This details the familial relationships associated with this patient.

The top half of the screen will list the details of the current patient record in read only format.

The lower part of the screen lists the relationships to this patient.

This patient record will be listed in the table as 'self'.  All other relationships will be listed below, for example: mother, brother, etc.

**Function Buttons**

| Function | Description |
|----------|-------------|
| **Add Relationship [F5]** | Adds relationships to the patient listed in the top half of the screen, for example: mother or brother, etc.<br><br>Added relationships are added in the lower part of the screen.<br><br>1. Select the **Add Relationships** button or press **[F5];**<br>2. Enter the UR number of the family member and the nature of the relationship to the patient;<br>3. Mandatory fields are marked with a red asterisk (**\***);<br>4. The top of the dialogue box is the details of the relationship you're adding;<br>5. The lower part of the dialogue box is the person you're relating to. Details in this part will be automatically added. You need to define the type of relationship;<br>6. Use **Lookup [F1]** for help;<br>7. Select **[OK]** when done. |
| **Edit Relationship [F6]** | Use this to edit a relationship. |

| Function | Description |
|---|---|
| | 1. Highlight an entry within the lower part of the screen;<br><br>2. Select the **Edit Relationship** button or press **[F6];**<br><br>3. The dialogue box will open;<br><br>4. Edit details and select **[OK]** when done.<br><br>**Note:** You cannot edit the person marked as 'self'. |
| **Remove Relationship [F7]** | Removes a relationship.<br><br>1. Highlight an entry within the table;<br><br>2. Select the **Remove Relationship** button or press **[F7];**<br><br>3. Select Yes at the prompt. |
| **Sort by Birth Order [F8]** | Use this to sort the relationships table by time or birth (birth order).<br><br>Useful if there are multiple births registered, in the case of twins/triplets/etc. |

## To view the report of a relationship member:

1. Highlight an entry and press **[Enter]** or double click with the mouse;

2. The enquiry summary results screen opens;

# 21    Editing Results

Test requests for a patient are displayed as multiple sub-tabs just below the blue patient banner.

To access the results, select the corresponding sub-tab.

The number of results pages available is shown in the purple banner, just above the blue patient banner.

If tests have privacy settings configured, you may/may not be able to view these.  Privacy settings depend on the setting of your login.

Results can be in the form of numbers, text, free text comments, coded comments or a combination.  They can also be in Microsoft Word format.

Results can be automatically uploaded from an analyser.

## To edit results:

1.  Select the required results page;

2.  Select the **Edit** icon from the top of the screen, or press **[F2];**

3.  A yellow message 'Edit mode' is displayed in the top right corner to indicate the page is in edit mode;

4.  Place the cursor into the required fields within the page to add/edit results;

5.  **Lookup [F1]** is available in some fields to select results from;

6.  Select the **Save icon** from the top of the screen, or press **[F4]**.

## Text results:

- Edit the field as free text or select the appropriate Coded Comments.  Combinations of both may be used.

- To enter a Coded Comment, press the **Lookup [F1]** function key to display a list of valid coded comments, select the Coded Comment to be used and press the **[Enter]** key.

**Note:**  If the comment code is known, enter the coded comment mnemonic followed by a backslash, for example: abc\.  This will then expand the mnemonic into the full coded comment.

Results are colour coded for easy interpretation and flag-based reference ranges, critical limits and delta checking values are configured for each test result.

- **Black**    Results within the reference range

- **Orange** Results outside the reference range

- **Red**     Results are critical

- **Pink**    Results failed a delta check

- **Blue**    Results are for laboratory use only, will not appear on reports

**Notes:**

- There are a number of function buttons available from the results page, and what is available depends upon the test that is selected.

- The reference range may only display on the results screen if the patients date of birth and sex are entered at registration.

## Validating Results:

- When all results have been added to a request, they are then ready for validation.

- The ability to validate results is a privilege setting, meaning not all users of **Evolution vLab®** are able to validate results.

- Some results may need to have additional information added to the results pages prior to validation, for example: an electronic signature, a completed status, or secondary review.

- Select the **Validate** icon at the top of the screen or press **[F6]** to validate the results.  All test fields that have results will be validated.

- If all the mandatory fields on the test/panel have been validated, the 'Validated' status will be displayed in the status bar.  However, if all mandatory tests do not contain a result, 'Interim' will be displayed in the status bar.

- To determine the outstanding mandatory test/s, press the Tabulated Report tab from results screen or **[CF12]**.

**Note:**  Only fields displayed on screen can be validated.

## 21.1    Tabulated Report [CF12]

All tests within the panel will be listed in the Tabulated Report tab.

- The progress will be listed in the status column.

| Letter | Description |
|--------|-------------|
| V | Validated |
| A | Accepted |
| O | Overdue |
| M | Result has been manually entered |

**21. Editing Results : Tabulated Report [CF12]**

| Letter | Description |
|--------|-------------|
| R | Result exists |
| C | Calculated (derived) result |
| E | Essential (mandatory) test |
| L | Laboratory use only |
| H | Test is on hold, awaiting electronic acceptance in receiving laboratory. |

## Microsoft Word Reports

**Note:**  MS Word 2016 and above is supported.

- If a report has already been created, you will be able to see the information.

## To create or edit an MS Word document:

1.  From the results page, press **[F2];**

2.  A blank document will open in a new window;

3.  Users can create the document using all MS Word functions, located in the top menu bars;

4.  Templates can be created, you need to consult the Microsoft Word User Manual for instructions;

5.  When finished, transfer the information back to **Evolution vLab®** using the short cut **[Alt]**, **[X]** then **[T]**.  Alternatively use the 'Transfer to' option in the 'Add-Ins' menu;

6.  The document will close and returns to the results page in **Evolution vLab®**;

7.  If this was a 1st version of the document, this will be automatically saved as version 1;

8.  Each time you press the launch word button and save the document, a new version will be automatically created;

9.  To view versions, select the **View Versions** button or press **[CF2]** and at the prompt, enter the version you want to view;

10. The number of versions of the document will appear in this prompt, for example: 1-4 means there are 4 versions.

11. When the report is finalised, all results must be validated in **Evolution vLab®** by pressing the <Validate> function key.

**Note:**

Upon validation, reports are sent to the print queue, or automatically printed on validation, depending on the configuration settings of the particular laboratory.

Where there is an issue detected uploading DOC, RTF or PDF (when enabled) files, the message *'Transfer failed 'FILENAME.DOC' on attempt <n>. Try again?'* is displayed enabling the user to retry the transfer.

If additional file transfer errors are detected, one of the following messages is displayed:

*'There was a problem saving the Word Document'* – This error message indicates that one or more of the DOC, RTF or PDF (when enabled) files failed to upload.

*'Failed to transfer the Word Document to the PC'* – This error message indicates that there was a communication problem between **Evolution vLab®** and Microsoft Word, or that Microsoft Word had an issue with saving the file to the PC.

If the two above-mentioned additional error messages are displayed, initiate a re-save of the affected Word document.

## Report Preview

- Report previews are displayed in PDF when you select the Report tab or press **[Shift-Insert].**

- If there are multiple versions of the report, you can view versions by selecting the **View Versions** button or pressing **[CF11].**

- At the prompt, enter the version you would like to view.  The number of versions available appear in the prompt, for example: 1-4, means there are 4 versions.

## Report, Removal and Reinstatement

The Word Document Reports made by **Evolution vLab®**, can be removed and reinstated.

### Removal

To have the report removed, it will require a Service Request to be submitted to Magentus, referencing the lab number and the version of the report to be removed.

This removes the contents of the report from the users view but does not delete it from the database. When a user attempts to view or edit that report, a blank document will be displayed. This means there is no loss of content, and no changes to the version numbers of the remaining documents, allowing it to be reinstated if needed later.

### Reinstatement

To have the report 'Reinstated', this will require a Service Request to be submitted to Magentus to reinstate it.

## 21.2   PDF Results Table

The PDF Results Table can be used to import and view PDF results.

The test result format must be configured as (P)DF.

The PDF Results Table appears as a dialog box when **Edit [F2]** is invoked.

The Results tab displays the message 'Use EDIT key to view PDF report. x PDF available', where x is the number of PDF reports available.

**Columns in the PDF Results Table:**

| Column | Description |
|---|---|
| Time/Date | Time/Date PDF was imported |
| Version | Version number of PDF |
| User Name | Mnemonic of user who imported the PDF |
| Status | Status of PDF. If a report has been removed, the status *"Removed"* is displayed. |

**Functions available**

| Function | Description |
|---|---|
| **Remove Entry [F5]** | Revokes a PDF report (status changes from blank to *"Removed"*). The affected version will not be accessible in **Evolution vLab®** and cannot be transmitted to external systems. <br><br> These events are audited via the Specimen Audit History as ManMod Removed version X', where 'X' is the version number of the PDF Result. <br><br> **Note:** The user needs to be configured to have access to this function. |
| **Reinstate Entry [F7]** | Reinstate a previously removed PDF report (status changes from *"Removed"* to blank). The affected version may be accessed by users in **Evolution vLab®**. <br><br> If the reinstated report is the latest version, is validated and configured to do so, the report may be transmitted to external systems. <br><br> These events are audited via the Specimen Audit History as 'ManMod Restored version X', where 'X' is the version number of the PDF Result. |

| Function | Description |
|---|---|
| | **Note:** The user needs to be configured to have access to this function. |
| **View [F8]** | View PDF result |
| **Import Results [SF6]** | Import a PDF result<br><br>• A file name and path including the file extension is required to be entered at the prompt.<br><br>• For example: *'Enter file name'* C:\temp\Test Report.pdf |

## 21.3    Imaging [CTRLINSERT]

• All uploaded images are displayed on the Image List screen.

• Images can be imported from an external device such as a camera, scanner, USB or computer drive.

• Images can be assigned to a laboratory or UR number.

**Note:**  **AusMedia** is required to copy the image from the device to **Evolution vLab®**. **AusMedia** needs to be configured to determine where the images will be uploaded from.

**Function Buttons**

| Function | Description |
|---|---|
| **UR Image Input [F6]** | Use this to upload an image and assign it to the patient's UR number.<br><br>1.  Select the **UR Image Input** button or press **[F6];**<br><br>2.  A dialogue box opens;<br><br>3.  Enter the image device into the Device field.  **Lookup [F1]** available;<br><br>4.  Enter the image type into the Image Type field.  **Lookup [F1]** available;<br><br>5.  Enter the scanner into the Image Attributes field, if required.  **Lookup [F1]** available (this is only applicable for scanners which determines colour properties);<br><br>6.  Select OK to load images from external device;<br><br>7.  A yellow message displaying the status is shown in the top right corner; |

**21. Editing Results : Imaging [CTRLINSERT]**

| Function | Description |
|---|---|
| | 8. A list of images from the device will open, select the image to load and press **[OK]**; |
| | 9. The Image Selection screen displays with patient demographic header at top of screen; |
| | 10. Enter an Image ID for the image to be uploaded (Valid entries can be alphanumeric); |
| | 11. Select **Save icon** from the top of the screen or press **[F4];** |
| | 12. Enter a Description for the image to be uploaded (Valid entries can be alphanumeric); |
| | 13. The dialogue box will reappear to add more images if required, select **[Cancel]** when done; |
| | 14. The uploaded image thumbnail is displayed on Image List screen for patient. |
| **Annotate [SF5]** | Use this to add titles, headings, arrows, etc. to images. |
| **Image Print [SF6]** | 1. Highlight the image and select the **Image Print** function button or press **[SF6]**; <br><br>2. The Select Printer Device box will display for the user to select the printer device; <br><br>3. Select the **[OK]** button to print the image. <br><br>**Note**: If the annotated image is to be printed, select the (A)nnotated export status via the **Enable Export Status** function button, prior to printing the image. |
| **Launch App [SF7]** | This is used to open images uploaded from an analyser in the analyser software. |
| **Lab Image Input [CF5]** | Use this to upload an image and assign it to the patient's laboratory number. <br><br>1. Select the **Lab Image Input** button or press **[CF5];** <br><br>2. Follow the same steps (from step 2) as per UR Image Input above. |
| **Enable Export Status [CF7]** | This toggles between the various export statuses. Options are: <br><br>**Y**- Image will export without annotations <br><br>**N**- Image will not export <br><br>**A**- Image will export with annotations |
| **Export [CF8]** | Use this to export an image to USB or computer. <br><br>Highlight the image and select this button. |

## To view an image

1. Highlight the image to be viewed, double click with the mouse or press **[Enter]**;

2. To zoom in on the image, left mouse click;

3. To zoom out, right mouse click;

4. Each mouse click increased magnification by 2;

5. The image cannot be reduced beyond its original size.

## Enable export status

1. Highlight the desired image and select the **Enable Export Status** button or press **[CF7];**

2. The key is used as a toggle between the various export statuses.  Options are:

 **Y**- Image will export without annotations

 **N**- Image will not export

 **A** - Image will export with annotations

**Note:**  If there are no annotations for an image a message will be displayed: Statuses N and Y will only be available.

## Export

1. Select the **Export** button or press **[CF8]**;

2. At the prompt select the **[Yes]** button to confirm or **[No]** to cancel;

3. Enter the pathname (Example: C:);

4. Select **[OK]** button or press **[Enter]** to export the image;

5. A message displays in yellow in the top right of the screen indicating the file has been exported.

**Note:**  The annotated status can be A (annotations) or I (Image only)

## 21.4   Annotate Images

**Note:**  Java software is required to be installed.

1. Highlight the image to be annotated;

2. Press the **Annotate** button or press **[SF5];**

3. The image will open on screen;

4.  Select the **Edit Annotations** button at the top left of the image;

5.  The annotations tool bar will display above the image.

## To add lines/arrows/shapes to an image

1.  Select the line/arrow/square or circle buttons that you'd like to add to the image;

2.  Place the mouse cursor onto the image where the shape will go;

3.  Click and drag to draw the shape, release the mouse when done;

4.  To change the line width, select from the line width drop-down box;

5.  To change the colour, select from the colour drop-down box;

## To add drawings to the image

1.  Select the pencil button from the annotations tool bar;

2.  Place the mouse cursor to where you'd like to draw;

3.  Click and drag where you'd like the free drawing to go, release the mouse when done;

4.  To change the line width, select from the line width drop-down box;

5.  To change the colour, select from the colour drop-down box;
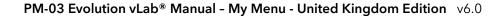
## To add text to the image

1.  In the Text box, type the text you want to appear on the image;

2.  Select the **T** button and then mouse click on the image where the text is to be placed;

3.  To change the text size, select from the text size drop-down box;

4.  To change the text colour, select from the colour drop-down box.

## To move a shape added to the image

1.  Select the hand button;

2.  Click on the shape to be moved and drag it to its new position.

## To delete a shape added to the image

1.  Select the hand button;

2.  Click on the shape to be moved;

3.  Click on the **X** in the menu bar.

## To save the annotations

1. Select the **Save** button located just above the edit menu bar.

## To exit

1. In the right corner of the annotation window, mouse click there;

2. Then press **[Esc]**.

**End of Manual**

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**End of Manual**