Basic User guide to Navigation, Filtering and Reporting

To make use of these notes you will require a basic licence for frontend4business.

Contents

Overview

This overview gives an introduction to f4b, explains the basics of its use and introduces some f4b concepts.

What is f4b?

f4b is a Rapid Application Development tool that gives you the ability to analyse, edit, sort, filter and report on any data held within your database. It allows you to extract detailed information in any combination that is meaningful and relevant to you.

f4b groups views of your database tables onto a tabbed form, each tab being a view. These groupings are called '*Activities*' within f4b. For example, jobs may have associated deliveries, sales and purchase invoice information that would be on their own tabs, the whole set of tabs would be saved as an activity.

Having used the filtering tools provided on an existing view the resultant view can be saved as a favourite view. This allows you to quickly reproduce your analysis as a report and/or input default values in your database.

Saved views and activities can be emailed directly or via the built in scheduler as management reports or key performance indicators for customers, these can be as .pdf documents or spreadsheets etc.

Querying the database

For a typical query, you might go through the following process.

1. Choose an activity, for example, purchase invoices.

2. Filter the data

3. Manipulate the display

4. Save your query as a view

5. Create a report

About the available data

The system administrator will have defined what data, that is which activities and views within your f4b application, are available to you. You will most likely have access to a subset of the whole database.

For speed f4b provides the option of caching data. This is usually significant where a view requires summing of detail data for presentation with header information (we term these Roll Up Views). How often such cached data is updated depends on whether your data entry is done via f4b or an external application. f4b applications will generally maintain the cache in real time while data entered via an external application will be updated at a period set within f4bs scheduler.

f4b terminology

Below is a glossary of terms and concepts used in f4b and within this guide.

View	A table of data shown on a tab
Activity	A set of related views of your database. There may be one or more activities available to you
Favourite View	A favourite view relates to the tab you are on, generally it is a filtered version of the initial table presented that you have saved to use again. You can save any number of favourite views for each tab. The list of favourites is presented at the bottom of the File menu and changes when you change tabs.
Cache	From an f4b perspective the Cache consists of a table or tables which hold the result of running a Roll Up Query/Views, an example would be all the Customer account totals for the last 10 years. Since previous year results are unlikely to change often f4b identifies only the records that have changed and keeps them updated.
Filter	A filter allows you to include or exclude specific data rows from your view.
View Style	View data can be viewed either in a tabular style, much like a spreadsheet or as a WYSIWYG report in a report viewer

Getting Started

Accessing f4b

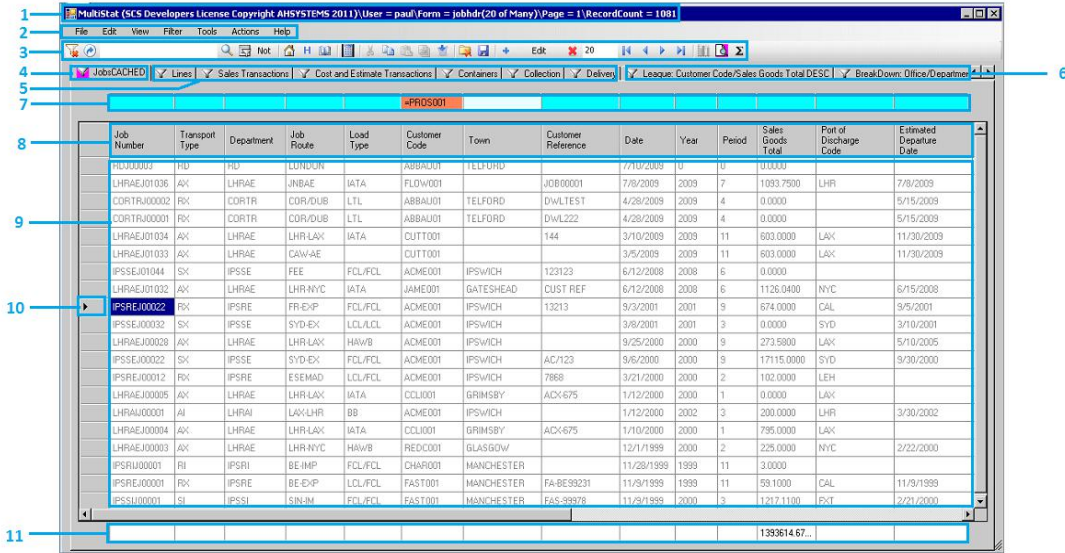Generally you will have a shortcut on your desktop, double click.

Enter a valid user name and password and you will be taken to your Default Activity as set up by the administrator.

It is possible to pass start-up parameters to f4b from a shortcut. This means that other apps can fire off f4b passing the User name and Password resulting in this screen being bypassed.

Your home screen/activity

Your home screen will look similar to the one shown below. The home screen displays your default activity with all its data. You can return to this at any time with the Home key 🏠.

No	Description	Functionality
1	Title Bar	Shows your user id and information related to the current query such as number of pages and total number of records (record count).
2	Command Menu	Provides access to f4b functions.
3	f4b Toolbar	Icons give access to the most common functions within f4b. All of the functions available here are also available through the Command menu. Refer to the section on *The f4b toolbar*.
4	Tab List	A set of tabs generally describes a workflow or dataset that f4b terms an Activity. Tabs may be formally linked in that filtering on one tab effects the data retrieved when moving to a linked tab.
5	Filter Status Icon	Tabs that have filters set display a filter icon on the tab label. 🔽 means a filter is set on this tab, the filtering is unaffected by filtering on other tabs. This is often denotes a primary/header tab. 🔽 means a filter is set on a primary tab that affects the data retrieved, this is a linked tab and may display some primary tab data. 🔽 means a filter is set on a primary tab that affects the data retrieved, additional filtering has been added while viewing this tab, this is a linked tab. By moving your mouse over the tab label f4b will display the filter as a tooltip without you needing to move to the tab.

| 6	Management Reporting Tabs	This group of tabs provide aggregate (sum,avg etc) summary analysis of data on primary tabs. These are linked tabs. Currently four types of analysis are available.
		League: allows you to group by one field and aggregate the numeric fields. Charting with Pies etc.
		BreakDown: allows you to group by any number of fields and aggregate the numeric fields. An additional type of report view with drilldown is available on these tabs.
		Period Comparisons: allows comparison and changes of numeric values over 2 selectable time periods for a selected grouping. Charting with bar charts etc.
		OverView: This is a basic cross-tabulation (simplest form of pivot table), two grouping fields are selected along with a single numeric field. Charting with Stacked bars etc.
7	Filter line	Entering info into this line results in the main data being filtered
8	Column Heading	Identifies the fields within the data record.
9	Main Data Grid	the area that displays the data returned by your view. The records may be long and there may be many of them. Use the scroll bars on the bottom and right hand side to move through the data.
10	Record Selector	can be used to select one (often for editing via a form) or a group of lines in the main grid, maybe for a simple copy and paste
11	Totals Line	This line totals/sums your numeric data. The values presented are the sum of all pages not just the one that is being displayed. If you have the privileges this can be switched on and off via the main toolbar.

# Navigation

Selecting an activity

To select and view an activity:

1. Go to **File>** to display the activities available to you. The activities available to you are arranged at the top of the file menu and are arranged in sub menu groups depending on what User Groups you are a member of, generally the main menu item will be the name of a database. The first item on the menu, 'Activities' may also have a sub menu, the sub menu will then provide a list of Activities that are restricted to your personal use.
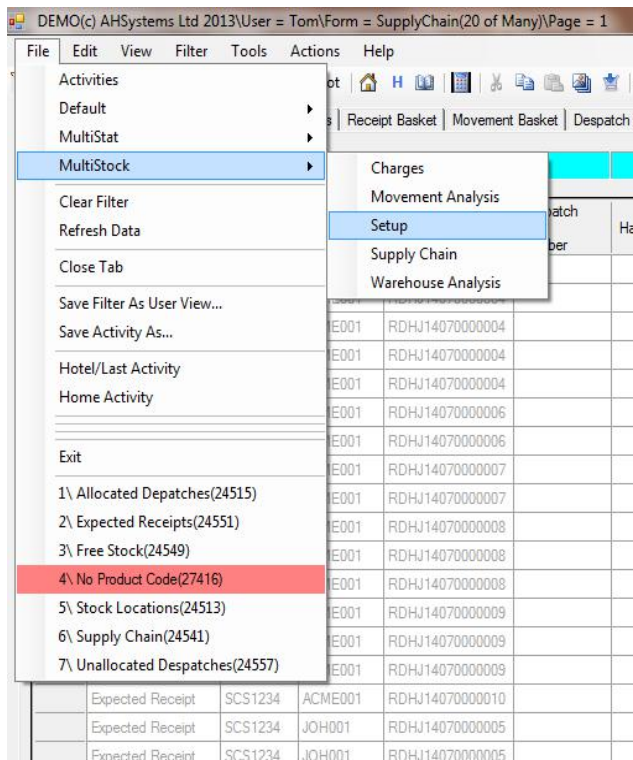
Using a favourite view

At the bottom of the file menu are your favourite views for the current tab/form (the form name is shown on the title bar). The colour coding will explain the conditional formatting being seen on the main grid.
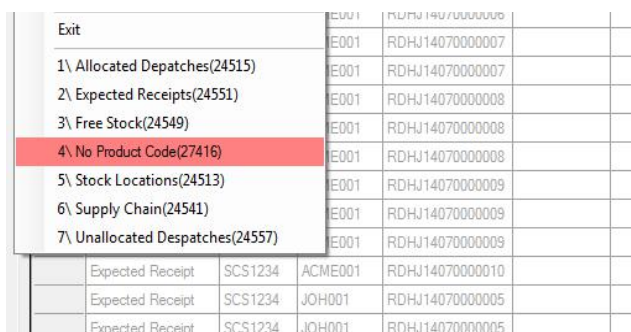
Generally selecting a favourite view loads the grid with a pre-filtered view of the main data for this form.

Creating a new view

You can create a new view by setting filters, selecting columns, setting column widths and a sort order on the data in the main grid.

Setting a filter

1. *Basic filtering*. Typing into a cell of the filter column results in f4b performing a search of the data in that field/column, the search is automatically run when you stop typing (the speed at which f4b decides you have stopped typing can be individually adjusted by your administrator).

Here we are looking for jobs where the Department begins with 'S' and Country begins with 'I' and Year = 2012.

Starting a filter cell with = < > or * changes the way that f4b filters. An intuitive way of finding data in character fields is to type the first few letters which returns records that begin with your typed letters, then double clicking on a cell in the main grid resets the filter to be = the cell value.

Clicking the toolbar button 'Clear Filter' on the Jobs tab, a primary tab, will also clear the filters on the other linked tabs.

To clear the filtering on all the tabs click either the toolbar buttons 'Home' or 'Hotel'

2. *Negating a filter*.

Here we are filtering for all the jobs where Country does not start with 'I'. To do this select the filter cell you want to negate and press the 'Not' button on the toolbar.

3. *Filtering for empty fields*. Double clicking a blank field in the main grid sets the filter for the current column to 'Empty', the records returned will be both NULLs and zero length strings.
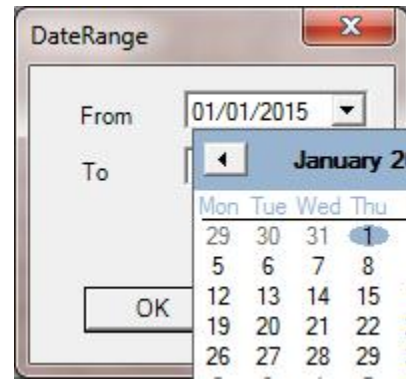
4. *Filtering for dates*. You can type a date directly into a filter cell, double click on a date field in the main data grid, choose from a range of common date filters or set a date range..
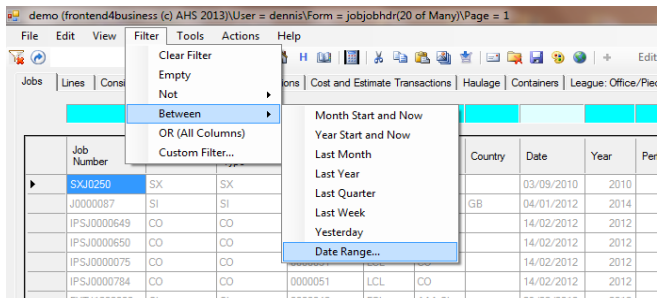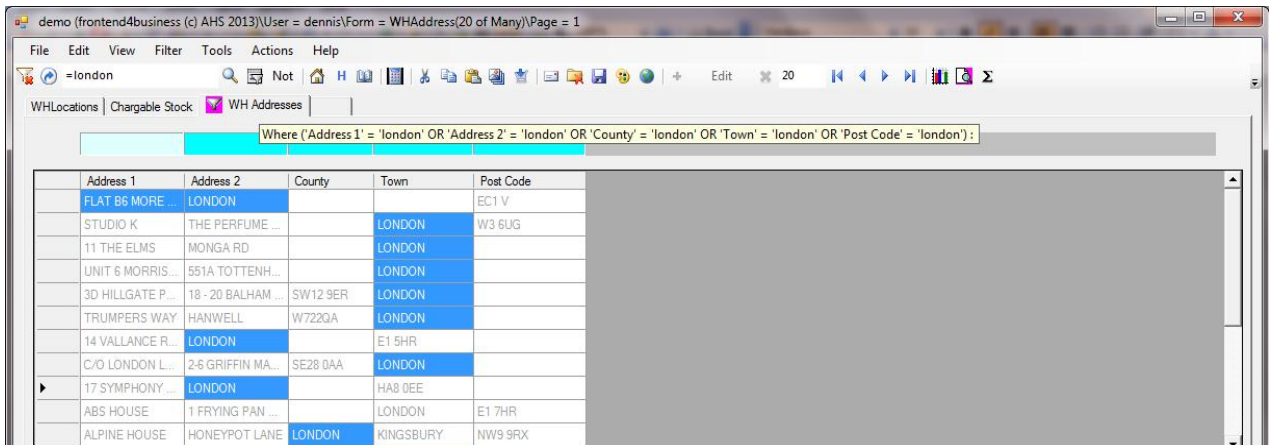

*The filter menu offers you a range of common date filters*

Selecting a Date Range

5. *Global filtering*. A classic problem when filtering address data is that city and ZIP code data has been entered into the wrong columns. f4b provides a quick method of finding the records required.
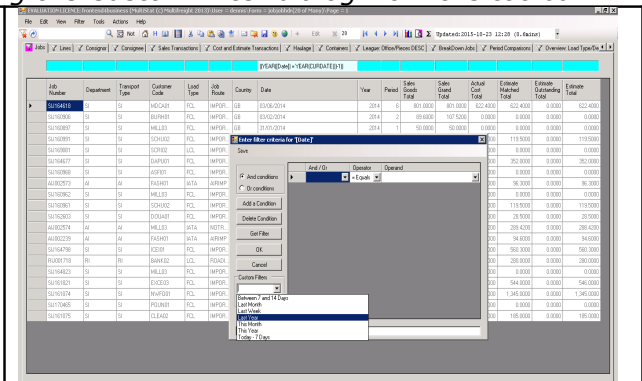

Simply enter your filter string into the global search box of the toolbar, press Enter or   .

6. *Advanced filtering*.
   You can build more sophisticated filters by using the Custom Filter dialog from the toolbar.
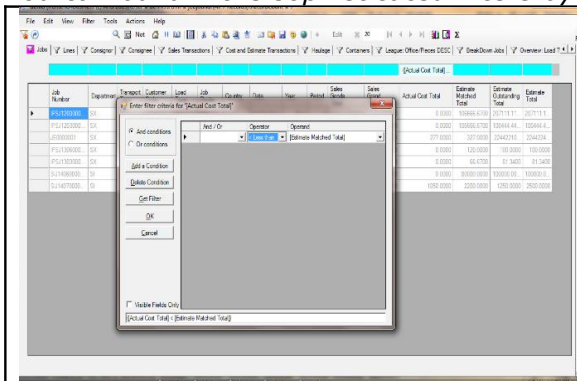
Here we have set up a filter that compares two fields Actual and Estimate costs.

Custom filters can be saved and retrieved using the dialog. Here we are using the supplied rolling date filters.

Manipulating the display

f4b allows you to change how data is displayed within the main grid so that you can more easily view the relevant information.

Filters reduce the number of records available to be returned from the database. Returning more data than can be read on the screen when looking for information is not recommended as it creates unnecessary network traffic for something you are not actually looking at. There are a number of tools that help you summarise what you have selected before you, for example, send out an Excel report.

Page Size
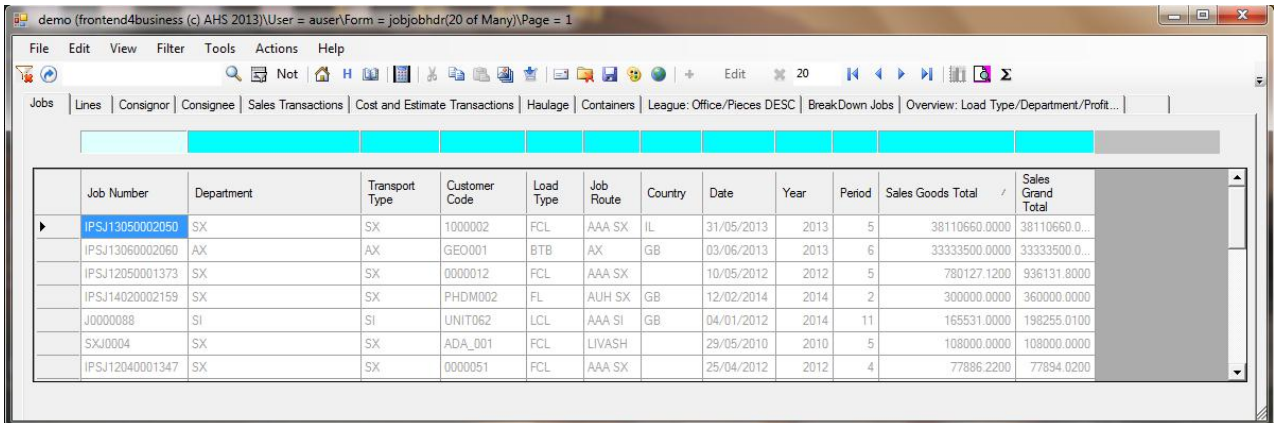
By default the f4b page size is 20 records (10 in mobile mode). In practice most PC screens can display about 30 records so settings greater than this will result in a scroll bar. It is generally quicker to use the paging buttons to the right of the page size.

Record Count ▶

Intuitively this button should move you to the last page, it does not do this but does put the record count onto the title bar (moving to the last page is technically simple but involves the database server in a great deal of work that slows other users). It is more efficient to sort your data to see the data required.

Sorting by one column

Clicking the column header sorts the data, a second click reverses the sort order. Here we are sorting by 'Sales Goods Totals' in descending order.

Selecting columns/fields and multiple column sorting 🖽
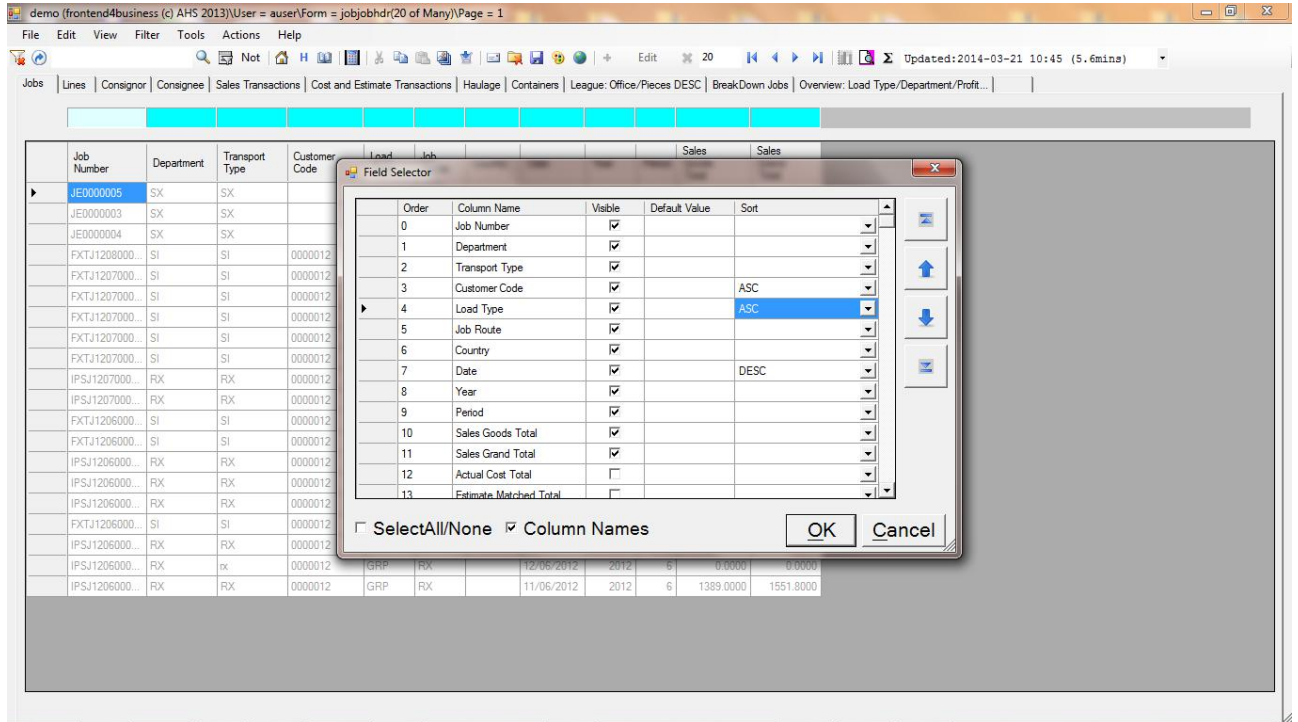
What fields to display in the main grid is controlled by the Field Selector. Here we are showing 12 of the 200 plus fields available in the Jobs View. The fewer columns you select the quicker f4b will populate the grid (The Field Selector presents differently when viewing summary information like League Tables, Breakdowns and Overviews, see Management Reporting section)

1. To change which columns are displayed, ensure each column that you want to be visible is checked and uncheck any that you do not wish to be displayed. *TIP - Where, as in this case, there are a lot of columns available it is often easier to find columns by sorting on Column Name by clicking the 'Column Name' header)*

2. To reposition a column(s), do the following.

   - Select the row(s) you want to move.

   - Use the controls on the right to move the column to the desired position.

   ⬆ *and* ⬇ *move the selected column(s) up and down one place within the list, respectively.*

   ⤒ *and* ⤓ *move the selected column(s) to the first/last position within the list, respectively.*

1. You can set up multicolumn sorting using the combos in the Sort column
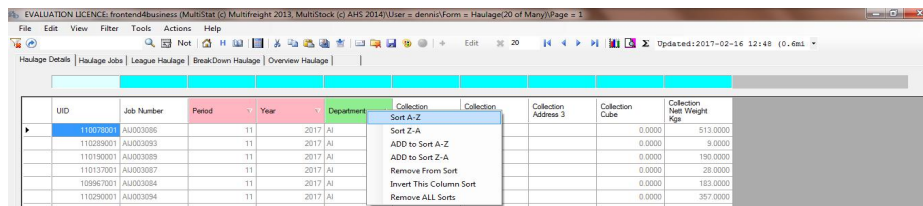
You can also set the sort order via right clicking the column headers

2. When you have made your changes, click **OK**.

   This closes the window and refreshes the main data displayed with only your selected columns visible and in the order shown in the Field Selector window.

Displaying totals Σ

Once you have the records and fields you are interested in, clicking this button will switch on and off the totals line. The Totals displayed in this line are the sum of all the records matching your filter rather than the sum of those displayed on the current page.

Changing the width of columns

To change the width of a column within the query table:

1. Position the cursor over the right column divider within the row of column headings.

The cursor becomes a double-ended arrow.

2. Click and hold down the left mouse button and drag and drop the column to the desired width. *TIP - If you double-click the column divider, the column will automatically resize to fit the widest data value in the column.*
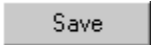
Saving your View as a favourite

Once you have set up your view, you can save it as a favourite view for later use.

The view relates to the current tab, so when you save a view as a favourite, it is associated with the tab you are viewing at the time. Each tab will have its own list of favourite views.

1. To save your query click Save on the f4b toolbar
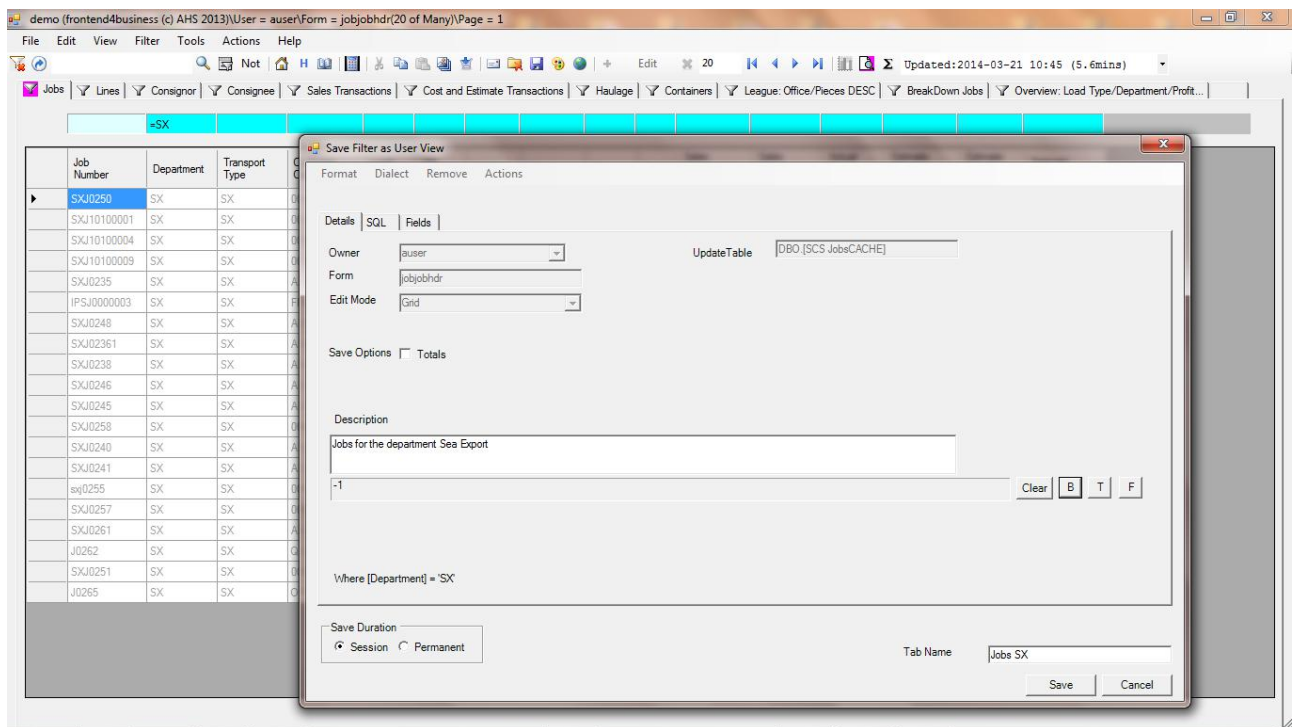
The Save Filter as User View dialog will be displayed. Basic users do not have access to the SQL and Fields tabs or the menu options.

2. Select whether you want the view to be available for this session only, or permanent.

3. Give your view a name by entering it in the Tab Name field. View names must be unique.

4. You can optionally set up conditional formatting from here using the Background, Text and Font buttons. If you do this your favourites list will reflect your choices and records matching your filter in the main grid will also match your choices irrespective of the favourite view you are displaying (conditional formatting can be turned on and off using the toolbar button).

5. Click and when prompted click **Yes** to save your view.

Removing a saved view

Views you own can be deleted via the File menu. Load the view into the main grid then File>Delete>User View. If you do not own the view or the view is displayed on opening an activity f4b will inform you.

Reports (Basic)

While you are working on your data, you can view it at any time on screen as a report rather than in the Classic (spreadsheet-like) style, as described below.

Pressing this toolbar button will toggle you between the classic data grid view and the report view. In report view mode, ALL the selected data is returned to the f4b application then formatted and paginated by the report viewer.

Use the report viewer toolbar to change the display as required.

This tool bar enables you to print or export to a .PDF file or EXCEL spreadsheet complete with the logo and other formatting. You can also email your report from here via the main toolbar button

Management Reporting

At this time there are four analysis tab types supported by f4b. These tabs are linked tabs that summarise (aggregate) data from primary/header tabs. As with other linked tabs you can carry out further filtering, sort, size fields and report from these tabs. The main difference in use is noticed when using the Field Selector

League tabs

This analysis can be used to display, for instance, market share type statistics. Determined by the TOP setting in the field selector (set to 5 here) the chart will rank the records based on the sort field, of the main grid. Records not in the TOP5 are summed together as a 'Rest' segment
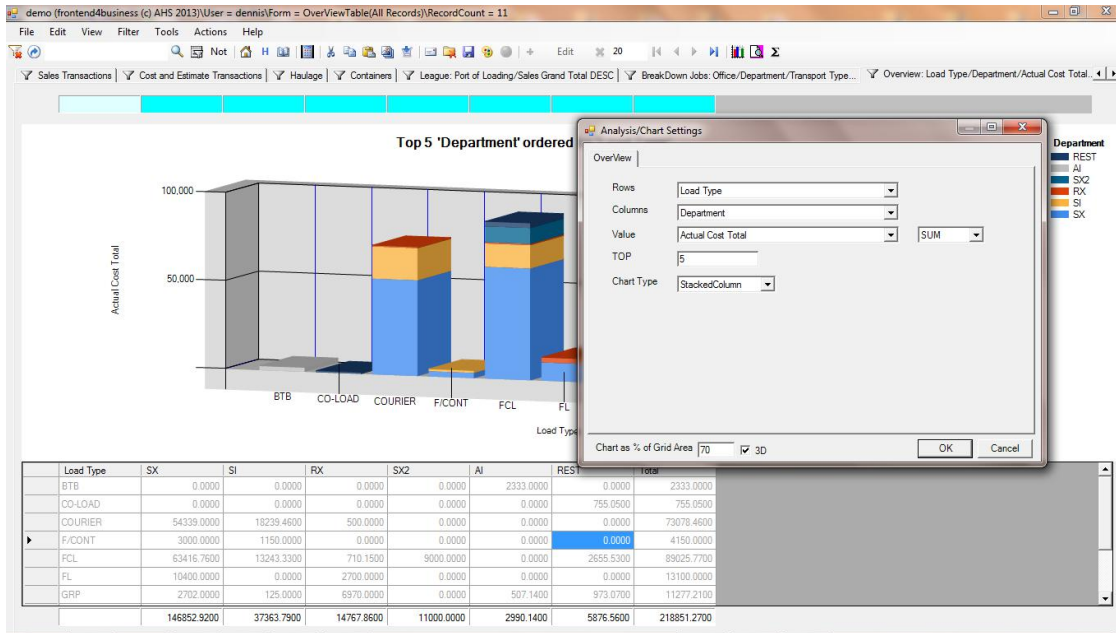
BreakDown tabs

This analysis by default presents the result as a drill down report. The results can also be presented in the other available styles by pressing the View Style toolbar button
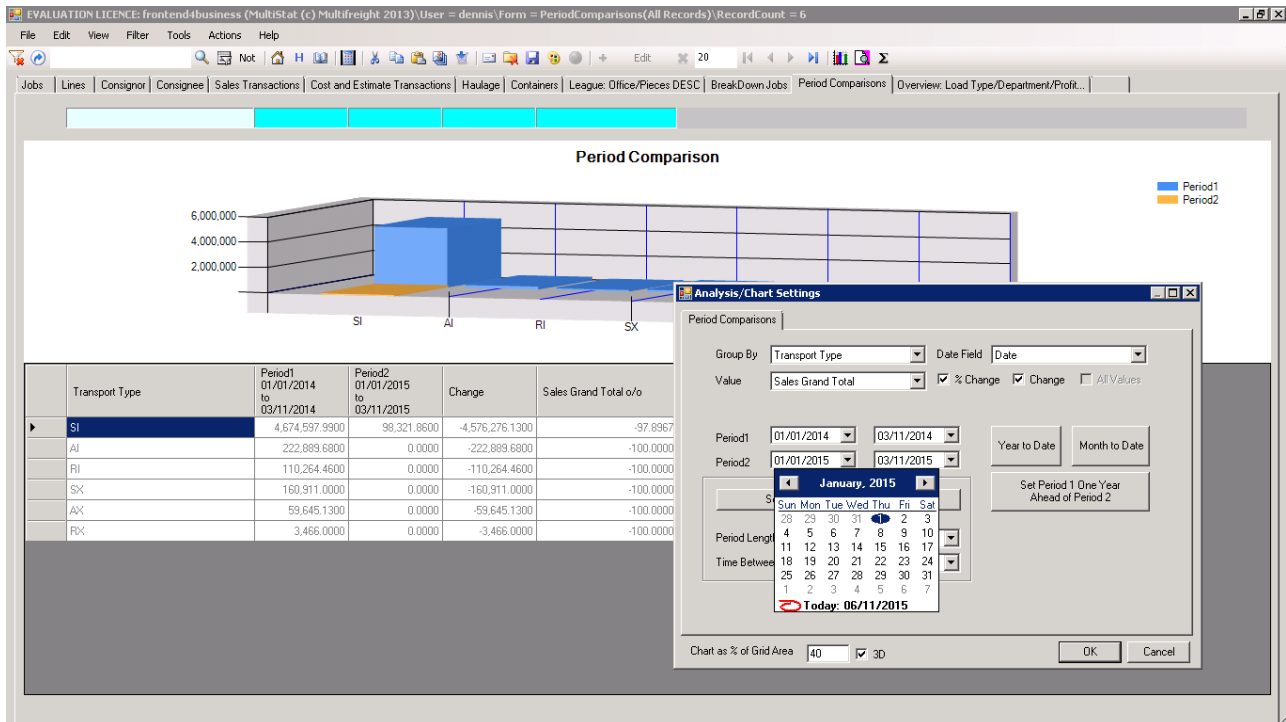
Overview tabs

This analysis gives a basic cross tabulation of 2 columns. This is the simplest form of a Pivot Table.

Period Comparison tabs

This analysis enables you to compare the performance of one period versa another of the selected Value.

Advanced Reporting

f4b presents reports in place of the main grid using a .NET add on control 'ReportViewer'. What the report viewer does is stream the data returned by your Filter/SQL query with an .rdlc template, this template is pretty much an XML report template. The .rdlc templates used above are all created on the fly and kept in memory by f4b. It is however possible to save these templates to external files where they can be edited using Microsoft report design tools

such as Visual Studio. In practice any externally edited/created .rdlc can be loaded and run by f4b.
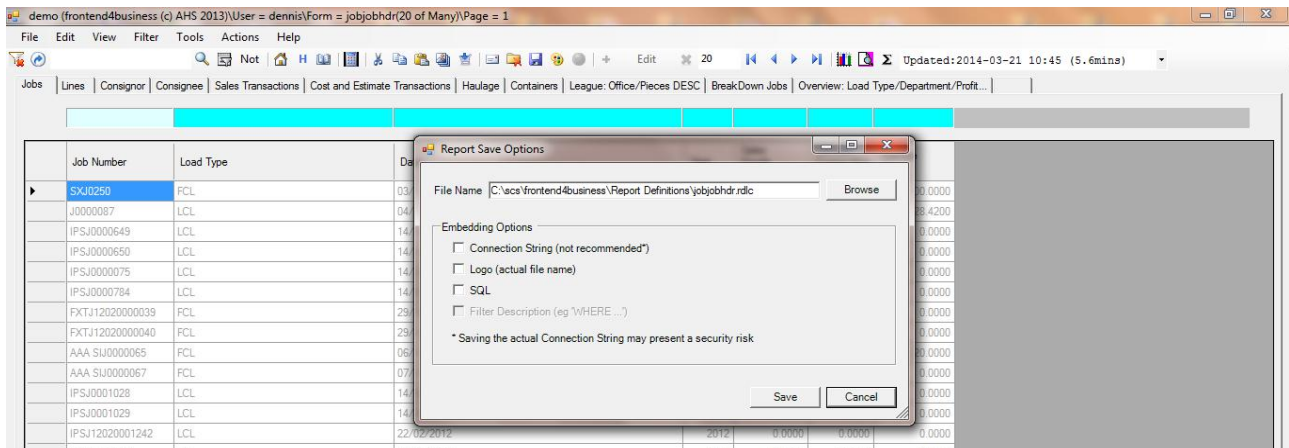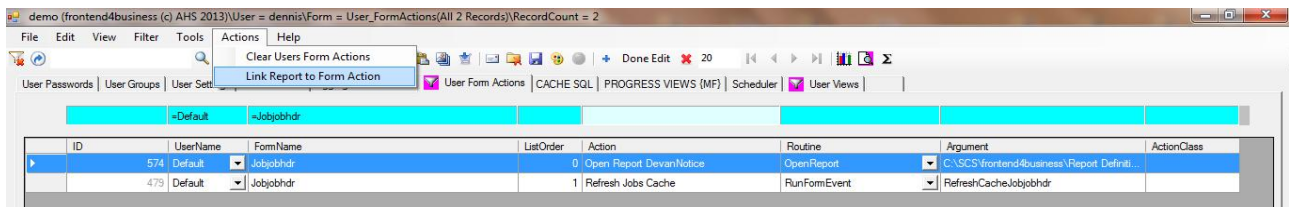

If you want to start your report design from the automatically generated template, selecting **File>Report>Save Report Definition As…** *brings up the dialog as shown. Save and edit externally.*


Reports can be loaded using **File>Reports>Open.** *To offer your report for running from a particular tab/form you will need access to the User Form Actions tab. Find your form then use* **Actions>Link Report to Form Action** *will guide you through populating the record.*
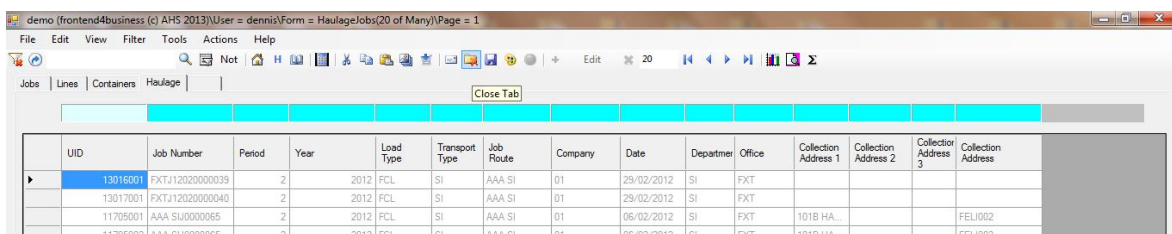
Activities

How much Basic users can do, with respect to activities, depends on privileges set by the Administrator. By default they can:-

Reorder tabs
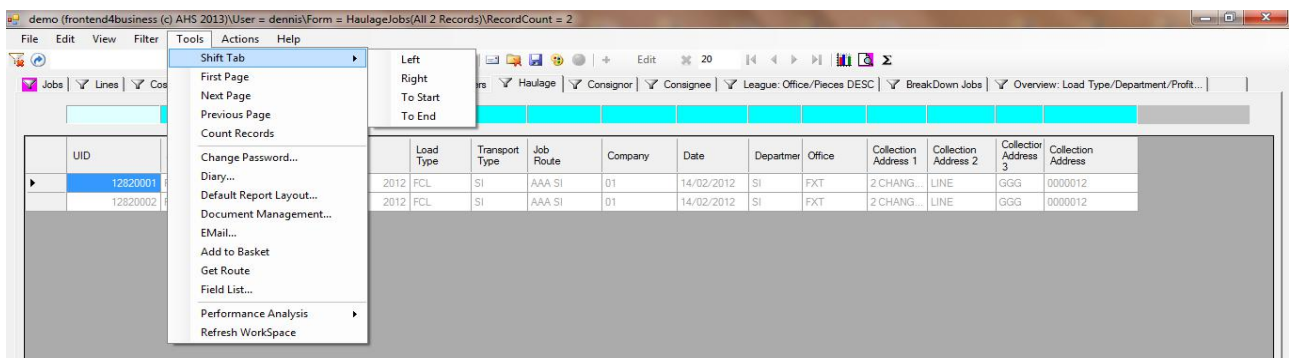
Tabs can be reordered by selecting the tab then using the **Tools>Shift Tab options** *or by dragging and dropping while pointing at a tab name.*
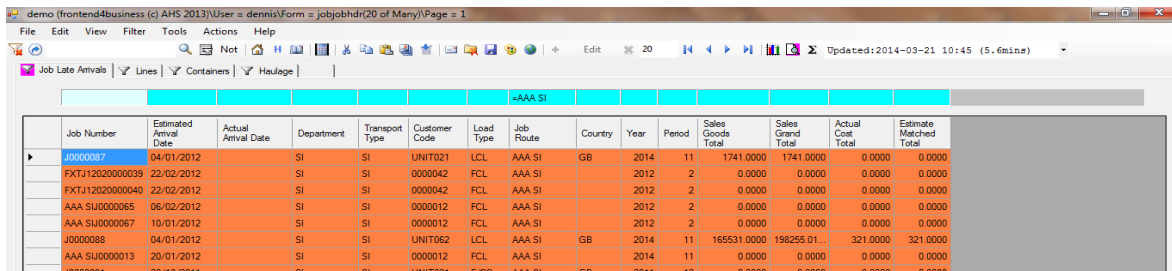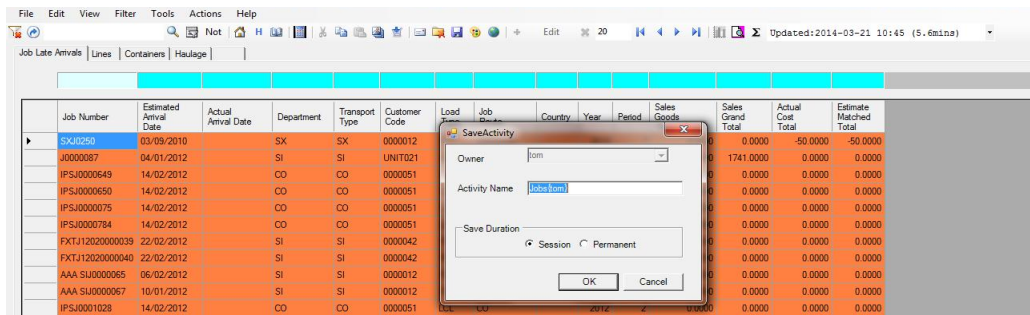
Close tabs

Tabs can be closed by selecting the tab then using the Close Tab toolbar button.

Select a favourite view as a primary view

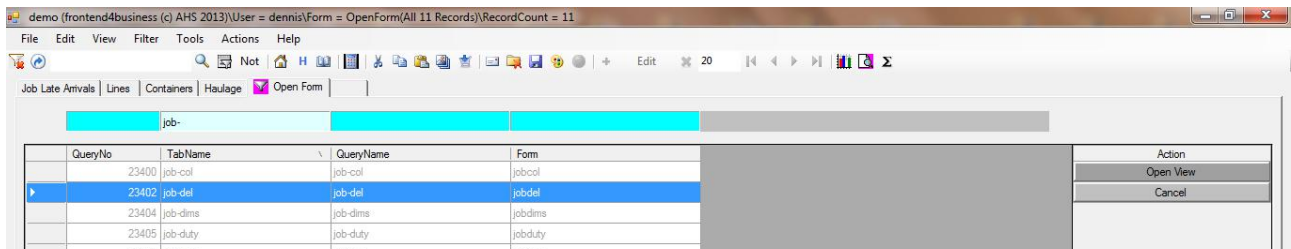The favourite view takes over the linked view filtering

Save an activity with a new name

Use **File>Save Activity** to save the activity.

If the Administrator enables it:-

Add Views to Activities

First select the blank tab at the end of the tab list then use **File>Forms** to open a forms tab.
The views available with your privileges will be displayed. Select the required view and press
the Open View button (If the button is not visible use the Actions Menu)
.

Create New Activities
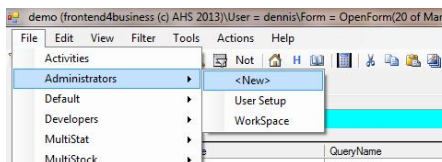
In practice the administrator giving you access to the menu **File>Forms** means you can
create a new Activity using the methods described above. There is a shortcut to doing this
however if the administrator provides you with access to the activity <New>. Selecting this
simply closes all tabs in the tab list and opens the Forms Tab.

The f4b toolbar

The table below describes the f4b functions available from the toolbar.

Icon	Description	Command	Functionality
	Clear Filter	**Filter>Clear**	Clears all filters on the current tab.
	Update Cache (or simply Refresh Data if there is no Cache)	**Actions>Refresh** *name* **Cache**	Obtains current data from the database and re-runs your query.
			Depending on the size of the system database and the complexity of your query, this can take a few minutes and unless you believe the data to be more than a few minutes old it may be preferable not to use this function.
	Find In Any Field		Searches the query table data for the string in the adjacent box and returns all records with at least one matching field.
			The search is not case sensitive (both lower and uppercase matches are returned). Wildcards are permitted, so a search for LH*E for example, would match any number of characters between the LH and the E. A search for L??E would match exactly two characters between L and E.
			To search for empty fields, enter a space as the search string.
	Custom Filter	**Filter>Custom…**	Allows you to define a custom filter.
	Not (negative filter)	**Filter>Not**	Allows you to exclude matching data records from the query.
	Home	**File>Home Activity**	Returns you to your default activity (the one displayed when you first launch f4b). It removes any filters you may have set, restores any closed tabs and places tabs in the default order.
	Hotel	**File>Hotel/Last Activity**	Reloads the current activity. Note that this is different from the Home key, which reloads your default activity. Hotel removes any filters you may have set, restores any closed tabs and places tabs in the default order.
	Diary	**Tools>Diary…**	Allows user to communicate with each other, keeps a record of emails and attachments sent out via f4b
	Field List	**Tools>Field List…**	Allows you to select which data fields should be included in the query table display and to change the position of data columns within the table.
	Document Management	**Tools>Document Management…**	By selecting a record in the main grid documents can be attached and viewed
	Add to Basket	**Tools>Add to Basket**	When set up allows the adding of data from selected records into a temporary table for editing and further use

Icon	Description	Command	Functionality
	Email	**Tools>Email**	Allows you to send or schedule emails from the current activity
	Close Tab	**File>Close Tab**	Closes the current tab. The data remains in your query, but is not displayed.
	Save Filter As User View	**File>Save Filter As User View...**	Saves the activity and filters on the current tab as a favourite query.
	Conditional Formatting	**View>Conditional formatting**	Toggles between displaying/hiding any conditional formatting
	Route Planning	**Tools>Get Route**	Enabled when there is routable information on the main grid. Fires off your web browser with the route from your set location. Can be used in conjunction with Add to Basket to get a route with vias
	Add Record	**Edit>New Record**	On editable data can be used in conjunction with the Edit button to add data to the main grid. Predefined default values are combined with values from the filter line and are automatically entered.
Edit	Edit Data	**Edit>Edit**	Enables/disable editing of data. Depending on the edit mode for the current view this button will either enable editing on the grid or prompt you to select a record, after selecting a record pressing Edit will open a form for you.
	Delete Selected Line	**Edit>Delete**	On editable data can be used in conjunction with the Edit button to delete data to the main grid.
20	Records/Page		Sets how many records are displayed on one screen page.
	First/Prev/Next	**Tools>First Page** **Tools>Next Page** **Tools>Previous Page**	Populates the main grid with data records determined by Records/Page
	Count Records	**Tools>Count Records**	Displays the total number of records in the current view after RecordCount = in the title bar.
	Graphical Analysis	**View>Graphical Analysis**	This button is only enabled for Administrator and Developer users. Clicking it while viewing a primary/header tab results in new management reporting tabs being set up and added to the current activity.
	View Style	**View>Style>Simple Report** **View>Style>Classic**	Toggles between displaying the Classic View and the Report View. On Breakdown analysis tabs a breakdown toggle is added
Σ	Totals Line	**View>Totals Line**	Toggles between displaying/hiding the totals line. When displayed, the totals line shows the totals of numeric data fields (columns) within the query table.