invoice lines and the Job Code for the master job on the invoice header. (Previously, all
lines were set to the Job Code of the job that the invoice was generated from).

**Note:** The existing **Allow invoicing of sub jobs from master jobs** profile setting
must be ticked to enable the **Invoice Job with Sub Jobs** option.

A new **Check for Alerts** option is also available under the **Invoice Job** dropdown.
Selecting this option checks all lines for errors that would prevent invoicing.

A new **Allow Invoice via Master Job** option is available on the Details tabs of sub jobs.
When this option is ticked, the job can be invoiced from the master job.

This option can also be set for all sub jobs on the Sub Jobs tab of a master job:

If this option is unticked for a sub job, it will not be possible to select the job for
invoicing on the **Invoicing of Sub Jobs from Master Job** window.

**Job Costing Extra Field Events**

Event logic has been added to Extra Fields in EXO Job Costing. This functionality, which
was previously available for Sales Orders and Opportunities, allows Extra Fields on job
headers and lines to be populated automatically.

Extra Fields on the job header can be configured to update their values when the
company account number on the job is first specified or when it is changed; similarly,
Extra Fields on job quote lines or job transaction lines (timesheets, costs) can be configured to update whenever the stock code on the line is specified/changed. Setting up events on job Extra Fields means that it is possible for the Extra Fields set up on a company/stock item to flow through to the job.

When setting up Extra Fields in EXO Business Config, if JOB_TRANSACTIONS, JOBCOST_HDR or JOBCOST_LINES is selected for the Table name, an Events tab becomes available:

The Event Field Name field displays the field on the Job Details window that will trigger the Extra Field update. For Extra Fields on the job header, this is ACCNO; for Extra Fields on job quote and transaction lines, it is STOCKCODE.

The Event SQL field contains the SQL statement that will be used to populate the Extra Field when the relevant Opportunity field is set or changed. The following parameters can be used to pass in details:

<table>
<thead>
<tr>
<th>Job Header</th>
<th>Job Quote Line</th>
<th>Job Transaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>:Accno</td>
<td>:Stockcode</td>
<td>:Stockcode</td>
</tr>
<tr>
<td>:Current_User</td>
<td>:Current_User</td>
<td>:Jobno</td>
</tr>
<tr>
<td></td>
<td></td>
<td>:MasterJobno</td>
</tr>
<tr>
<td></td>
<td></td>
<td>:Accno</td>
</tr>
<tr>
<td></td>
<td></td>
<td>:Current_User</td>
</tr>
</tbody>
</table>

Note: Extra Field events override default values—if a default value is specified for an Extra Field that is populated by events, it will be ignored.

Extra Fields on the Details Tab

Extra Fields in positions 1 – 5 are now displayed on the Details tab of the Job Details window:
Extra Fields in position 6 – 24 are displayed on the Extra Fields tab as in previous versions. When adding a new job, the Extra Fields on the Extra Fields tab can now be edited before saving the job.
Extra Fields on Direct Time/Material Entry

Any Extra Field defined for the JOB_TRANSACTIONS table will now appear on the Direct Time Entry and Direct Material Entry windows:

If event logic has been set up for Extra Fields on the JOB_TRANSACTIONS table (see page 24), these Extra Fields will auto-populate based on the event logic when displayed on the Direct Time Entry and Direct Material Entry windows.

Foreign Currency Debtors

Debtor accounts that use a foreign currency can now be used in EXO Job Costing if the Allow foreign currency debtors in Job Costing Company-level profile setting is enabled.

Note: This profile setting existed in previous versions as a hidden setting; it is now available as an “Occasionally Used” setting.
Changes to the Job Search Tab
The following improvements have been made to the Search tab on the Job Management screen:

1. The screen now remembers the statuses of the filter panels, so that when they are turned on or off using the View menu, they will remain on or off when the screen is closed and re-opened. If all filters are turned off, the filter area now disappears, giving more screen space for the search results.

2. The search grid now includes columns for master job codes and ID numbers, so that related sub jobs can be grouped together and jobs can be searched for by their master job.

3. The search grid now includes a **Branch** column, so that search results can be sorted by branch.

Link between Job Transactions and Stock Transactions
A new `STOCK_TRANS_SEQ_IN` field has been added to the `JOB_TRANSACTIONS` table. If the job transaction is related to a stock transaction, e.g. a Purchase Order, this field contains the ID number of the stock transaction. This field can be used in reports to provide a link between job and stock transactions.

Hiding the Resource Planning Tab
The Resource Planning tab (which displays all resource allocations in the system in the form of a Gantt chart) can now be removed from the Job Management and Setup Job Resource Allocation windows by enabling the new **Hide Resource Planning Gantt Form** User-level profile setting.
Job Costing Dashboard Tabs

The Analysis tab on the Job Details window in MYOB EXO Job Costing is now a Dashboard interface, containing the following widgets:

- Job Invoice Summary
- Job Summary
- Job Including Sub-Jobs
- Job Snapshot
- Current Job Alerts

These widgets are based on Clarity reports, and can be customised to suit your needs. A second Dashboard tab has been added to the Job Details window. This Dashboard is blank by default, and can be customised with whatever widgets you require.

Both new Dashboards accept the following input parameters:

- Current Job No
- Current Master Job No

The Hide tabs in Job management screen profile setting has been updated to allow the new Dashboard tabs to be hidden if necessary—the Dashboard tab is hidden by default.
Custom Filters

New custom filtering options are available on the Quote/Budget, Timesheets, Costs and Invoice tabs of the Job Details window. To create and apply filters, click the new Filter dropdown button:

Any filters that have already been defined are available in the dropdown. You can also select None to turn off filtering, or Maintain Filters to create and edit filters on the Maintain Filters window:

To edit an existing filter, select it from the Filter dropdown. To create a new filter, click New. Filters are edited using the same interface that is currently available when creating Contact Lists and searching for Debtors in Advanced Search mode. Users can create one or more filtering conditions based on the fields for the relevant table (JOBCOST_HDR, JOBCOST_LINES or JOBCOST_TRANSACTIONS).

Note: Computed fields are not supported in custom filters.

As users add filtering conditions, the resulting query is displayed at the bottom of the window. Users can tick the Manual filter option to edit this query manually; doing so disables the filter building controls.
Click **Save** after editing a filter to save the changes and apply the filter immediately. The icon on the **Filter** dropdown changes from red to green to indicate that a filter is currently applied. You can also apply an existing filter by selecting it from the dropdown and clicking **Select and Close**. Filters are saved separately for each tab, e.g. filters set up on the Costs tab will not be available on any other tabs.

## Grid Column Extra Fields

In previous versions, “Grid Column” was an option in the **Dialog type** dropdown, which would make Extra Fields appear as standard edit columns in the Sales Order, Job and Opportunity grids. This release adds the ability to have other types of Extra Field, e.g. check boxes or dropdown lists as a grid column.

When configuring Extra Fields in the MYOB EXO Configurator, a new **Grid Column** option has been added separately from the **Dialog type** dropdown, so that multiple dialog types can be used as a grid column Extra Field:

For header tables, the **Grid Column** option is always unticked and for line tables it is always ticked. The only exception is the **SALESORD_LINES** table, where the option can be changed—if it is ticked, Extra Fields will appear in the grid; if it is not, they will appear in the line periscope.
When the **Grid Column** option is ticked, the following options are available in the **Dialog type** dropdown:

- Standard Edit
- Check Box
- Drop-Down Edit
- Drop-Down Selection
- Drop-Down SQL Selection
- Date Picker

Grid column Extra Fields support the **Read Only** option. This means it is possible, for example, to create an Extra Field that cannot be edited when displayed in grids and is only populated by an Extra Field event.

**Extra Fields on the Sales Order Supply Grid**

Any Extra Fields added to the SALESORD_LINES table will now appear on both the Order Details grid and the Supply Details grid, provided the new **Grid Column** option is ticked.

**GL Codes on Debtor Invoices**

This release adds the ability to enter GL codes on Debtor Invoices in the core EXO Business module (but not EXO POS). When the new **Enable GL code entry into the stock code field on a debtors invoice** User-level profile setting is enabled, GL codes can be entered into the **Stock Code** column of the Invoice Entry window.

**Note:** This feature is enabled by default—if you want to restrict its use for some users, disable the setting for those users’ profiles.

To enter a GL code, enter “@” followed by the code. You can also enter “@” by itself or “@” and a partial GL code, then press **ENTER** to search for a GL code. Once entered, lines containing GL codes are highlighted in green:

This feature is compatible with the existing **Enable display and override of GL code from stock item** profile setting, which displays a **GL Code** column on the Debtor
Invoice window. In this case, the GL code entered in the **Stock Code** column is also displayed in the **GL Code** column.

**Note:** To ensure backward compatibility with existing custom reports and add-ons, the “@” stock code must exist as a placeholder for a valid stock code. The DBUpdate process creates an “@” stock code when updating the EXO Business database to 8.7 if one does not already exist (it always exists by default, but may have been removed). No other stock codes should contain an @ symbol—this can be enforced by configuring the **Prohibited characters in stock codes** Company-level profile setting.

The **Invoice.clf**, **EmailInvoice.clf** and **ViewInvoice.clf** forms have been updated with new line-formatting logic to display GL code lines differently from Stock or Lookup lines.

**Note:** To take full advantage of this feature, it may be useful to modify customized invoice formats to format General Ledger code lines differently from stock lines based on the new database field DR_INVLINES.CODETYPE (GL Code lines have a CODETYPE of “G”).

**Improvements to GL Posting**

When right-clicking on the batch details displayed on the Post to GL Ledgers window, the **View Pre Posted Transactions** right-click option is now a sub-menu with two options: **Selected Account** or **All Accounts**:

The **Selected Account** option behaves the same as the **View Pre Posted Transactions** option in previous versions, showing the pre-journals that will be posted for the account that was right-clicked on. The **All Accounts** option displays a consolidated view of all accounts in the grid:
In both cases, the Pre-Posted GL Transactions window now displays additional columns, showing more information about the batch.

**Business Alerts**

This release adds the ability to set up custom business rules and alerts that are triggered when one of the following transactions is saved:

- Sales Order
- Purchase Order
- Creditor Invoice
- Debtor Invoice
- Opportunity Quote
- Job Quote
- Job Transaction
- Direct Material Entry
- Direct Time Entry

**Note:** Alerts on Debtor and Creditor Invoices are only triggered from Invoice Entry screens, e.g. the Creditor Invoice Entry screen or the Invoice Entry screen in EXO Job Costing. They are not triggered when creating the invoice from another screen, e.g. when creating a Debtor Invoice from a Sales Order. Similarly, creating an Opportunity by copying an existing one will not trigger alerts on Opportunities.

Rules using custom conditions can be attached to each of these system events; when a rule’s conditions are met, a message can be displayed to the user and a notification email can optionally be sent to one or more addresses.

Business Alerts are set up in the EXO Business Configurator at **System > Event Log > Business Alerts**:
The Rules tab displays all rules defined in the system for the selected event; alternatively you can tick the Show all box to display all rules for all events. A selection of example alerts is installed with the system.

Rules are listed in order of priority, i.e. in the order that they will be applied. To change priorities, move rules up or down using the up and down arrow buttons.

Double-click on a rule to edit it or click New to create a new rule for the selected event (the New button is disabled when the Show All box is ticked). When adding or editing a rule, the Details tab appears. The Options sub-tab displays the conditions that must be met for the rule to be activated.
The **Run Against** option determines whether the rule should be applied to all lines related to the record, or to the record header.

The **Rule Type** option determines how the rule’s conditions (see page 38) will be applied. Choose from:

- Record Condition – applies conditions against the record.
- SQL Query – applies a SQL query to each line individually.

Once the rule is saved, this property cannot be changed.
The **Behaviour** section specifies what should happen in the EXO Business interface when the rule is triggered:

- **Silent** – no message is displayed to the user, although the fact that the rule was triggered is still logged (see “Business Alert Auditing” on page 42).
- **Warning** – a warning message is displayed to the user with **Yes** and **No** options. The user can click **Yes** to proceed with the action or **No** to cancel.
- **Blocking** – a message is displayed to the user indicating that the action cannot proceed.

For “Warning” or “Blocking” rules, enter the message to display to the user in the section below. This message can contain the same parameters that are used to build rule conditions—see below.

### Rule Conditions

The bottom section of the Details tab is where you enter the conditions that must be met to trigger the rule.

Rules with the type “Record Condition” are entered in the form of a filter that can include the parameters detailed below.

Rules with the type “SQL Query” are entered in the form of a SQL statement to run against the EXO Business database. The parameters below can also be used in SQL statements.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General (available for all rules)</strong></td>
<td></td>
</tr>
<tr>
<td>@CURRENT_USER</td>
<td>The ID number of the logged on user.</td>
</tr>
<tr>
<td>@STAFFNAME</td>
<td>The name of the logged on user.</td>
</tr>
<tr>
<td>@NOW</td>
<td>The current date and time.</td>
</tr>
<tr>
<td>@TODAY</td>
<td>The current date.</td>
</tr>
<tr>
<td>@EXOLINK</td>
<td>A formatted exo:// protocol hyperlink to the transaction, e.g. exo://saleorder(10001). Can be used in notification emails.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Sales Orders</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>@ACCNO</td>
<td>The ID number of the Debtor account on the Sales Order.</td>
</tr>
<tr>
<td>@ACCOUNTNAME</td>
<td>The name of the Debtor account on the Sales Order.</td>
</tr>
<tr>
<td>@ORDERNO</td>
<td>The ID number of the Sales Order.</td>
</tr>
<tr>
<td>@SALESNO</td>
<td>The ID number of the salesperson on the Sales Order.</td>
</tr>
<tr>
<td>@SUBTOTAL</td>
<td>The Sub Total amount on the Sales Order.</td>
</tr>
<tr>
<td>@TAXTOTAL</td>
<td>The GST Total amount on the Sales Order.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Meaning</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>@TOTALDISC</td>
<td>The total discount on the Sales Order.</td>
</tr>
<tr>
<td>@UNDISCOUNTED</td>
<td>The undiscounted total of the Sales Order.</td>
</tr>
<tr>
<td>@H</td>
<td>A specified field from the SALESORD_HDR table, e.g. @H.DUEDATE.</td>
</tr>
<tr>
<td>@L</td>
<td>A specified field from the SALESORD_LINES table, e.g. @L.STOCKCODE.</td>
</tr>
</tbody>
</table>

**Purchase Orders**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>@PURCHORDNO</td>
<td>The ID number of the Purchase Order.</td>
</tr>
<tr>
<td>@ACCNO</td>
<td>The ID number of the Creditor account on the Sales Order.</td>
</tr>
<tr>
<td>@ACCOUNTNAME</td>
<td>The name of the Creditor account on the Sales Order.</td>
</tr>
<tr>
<td>@SALESPERSON</td>
<td>The ID number of the staff member in the Purchase Order’s <strong>Ordered by</strong> field.</td>
</tr>
<tr>
<td>@H</td>
<td>A specified field from the PURCHORD_HDR table, e.g. @H.ORDERDATE.</td>
</tr>
<tr>
<td>@L</td>
<td>A specified field from the PURCHORD_LINES table, e.g. @L.UNITPRICE.</td>
</tr>
</tbody>
</table>

**Creditor Invoices**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SEQNO</td>
<td>The ID number of the invoice.</td>
</tr>
<tr>
<td>@ACCNO</td>
<td>The ID number of the Creditor account on the invoice.</td>
</tr>
<tr>
<td>@ACCOUNTNAME</td>
<td>The name of the Creditor account on the invoice.</td>
</tr>
<tr>
<td>@H</td>
<td>A specified field from the CR_TRANS table, e.g. @H.TRANSDATE.</td>
</tr>
<tr>
<td>@L</td>
<td>A specified field from the CR_INVLINES table, e.g. @L.TAXRATE.</td>
</tr>
</tbody>
</table>

**Debtor Invoices**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>@SEQNO</td>
<td>The ID number of the invoice.</td>
</tr>
<tr>
<td>@ACCNO</td>
<td>The ID number of the Debtor account on the invoice.</td>
</tr>
<tr>
<td>@ACCOUNTNAME</td>
<td>The name of the Debtor account on the invoice.</td>
</tr>
<tr>
<td>@H</td>
<td>A specified field from the DR_TRANS table, e.g. @H.SUBTOTAL.</td>
</tr>
<tr>
<td>@L</td>
<td>A specified field from the DR_INVLINES table, e.g. @L.DISCOUNT.</td>
</tr>
</tbody>
</table>

**Jobs**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ACCNO</td>
<td>The ID number of the Debtor account on the job.</td>
</tr>
<tr>
<td>@ACCOUNTNAME</td>
<td>The name of the Debtor account on the job.</td>
</tr>
<tr>
<td>@JOBNO</td>
<td>The job number.</td>
</tr>
</tbody>
</table>
Parameter | Meaning
--- | ---
@H | A specified field from the JOBCOST_HDR table, e.g. @H.STATUS.
@F | A specified field from the JOBCOST_FLAGS table, e.g. @F.ISACTIVE.
@Q | A specified field from the JOBCOST_LINES table, e.g. @Q.STOCKCODE.
@T | A specified field from the JOB_TRANSACTIONS table, e.g. @T.QUANTITY.

Opportunities

@ACCNO | The ID number of the company account on the opportunity.
@ACCOUNTNAME | The name of the company account on the opportunity.
@OPPORTUNITYID | The ID number of the opportunity, or “New” if it has not been saved yet.
@CONTACTID | The ID number of the contact associated with the opportunity.
@CONTACTNAME | The name of the contact associated with the opportunity.
@H | A specified field from the OPPORTUNITY table, e.g. @H.PROBABILITY.
@L | A specified field from the OPPORTUNITY_QUOTE table, e.g. @L.QUANTITY.

The alias parameters that give access to the fields of a table (@H, @L, etc.) can be used to access Extra Fields; however, computed fields are not supported in Business Alerts.

**Note:** While these parameters are not case-sensitive, the values of table fields are, e.g. @F.ISACTIVE would need to look for the value “Y”, not “y”.

**Rule Actions**

The Actions sub-tab defines a list of actions to perform when the rule is triggered. At present, the only available action is to send an email to specified recipients using the new EXO Email Service (see page 43).
All actions set up for the rule are displayed in the order that they will be applied. Actions can be re-ordered using the arrow buttons on the right. Click **New** to create a new action.

On the Details sub-tab, enter a descriptive name for the action, then specify who to send the email to. One or more EXO Business staff members can be selected as recipients from the **Internal Recipients** dropdown, and other email addresses can be entered manually into the **Other Recipients** field.

Enter a subject line and the message text to send/display. The message body can include any of the parameters that are available for the rule (see page 38). In particular, the @EXOLINK parameter can be used to insert a formatted exo:// protocol hyperlink to the relevant record into the email.

Once all information has been entered, click **Save Action** to add the action to the rule.

**Note:** Clicking **Save Action** adds the action to the rule, but does not save the rule itself—click the **Save** button on the main toolbar to save the rule and all of its actions to the EXO Business database. Rules that have been added but not yet saved are listed on the Actions sub-tab with the ID “New”. 
Applying Rules to Users

The Apply to Staff sub-tab lets you specify which EXO Business staff members the rule applies to:

![Image](image.png)

Tick the boxes for the users that this rule applies to, or tick Apply To All Users.

Business Alert Auditing

Every time a Business Alert is triggered, an entry is recorded in the REASON_EVENTS table. New Reason Classes are created automatically for each type of event that alerts can be created for.

For alerts that send a message, an entry is also stored in the new EVENTS_SCHEDULE table. Entries include the values of all parameters relating to the rule.

The Audit Report (ReasonReportbyClass.CLR) has been updated to include information on Business Alerts.
EXO API

This version includes new configuration options to support the EXO API. The local components needed to access the EXO API from an EXO Business server can be installed and set up using the MYOB EXO Business Services Setup Wizard and the MYOB EXO Business Service Configuration utility (see “Installing EXO Business Services” on page 12).

A new “EXO API” module can be added in the Company section of EXO Business Config; when this module is added and licensed, a new API Access tab appears when editing staff members:

![Image of EXO API module]

Ticking the Allow API Access box generates an API token for the staff member. You can right-click on the token to copy it to the clipboard.

See the MYOB EXO API Release Notes document for more information on the EXO API.

EXO Email Service

This release adds an email service utility, ExoEmailService.exe, which can be used to automate the sending of emails from the EXO Business system. This service is used by the new Business Alerts (see page 35), but it can potentially be used to send emails for any reason.

Installing the Service

You can install and set up the EXO Email Service using the MYOB EXO Business Services Setup Wizard and the MYOB EXO Business Service Configuration utility (see “Installing EXO Business Services” on page 12).

Run the MYOB EXO Business Services Setup Wizard, and when asked which features you want to install, make sure that the Messaging Service option is enabled.

Once the wizard has completed, you are given the option of running the service configuration utility to set up the service. You can run the utility, MYOB.ED.EXO.Cloud.ServiceConfig.exe, at any time after installation.

Note: The service configuration utility must be run on the server that the EXO Email Service is installed on, using an account with administrator privileges.
The email service can also be set up manually:

1. Copy the **ExoEmailService.exe** file to the main EXO Business install directory.
2. Open a command prompt with administrative rights at this location.
3. Enter `ExoEmailService.exe /install [connection]`, where `[connection]` is the connection name for the instance of EXO Business that you are installing the service for.

You can install the service for multiple instances of EXO Business by specifying multiple connection names, separated by spaces, e.g.

```
ExoEmailService.exe /install Connection1 Connection2
```

Once the service is installed, you can update the list of instances that it is installed for by entering:

```
ExoEmailService.exe /config [list of connections]
```

This removes all current connections and adds only those connections you specify, i.e. if you want to add a connection, you must list the new connection and all existing ones.

**Note:** The EXO email service runs using the Local System account. This means that the EXO Business database connection must have been created while logged in as an administrator account; otherwise, the service will not be able to find the connection details. If you receive the error “Failed to start service”, you may need to open the EXO Business Connection Editor window while logged in as an administrator, then delete and re-create the connection.
Configuring the Service

Once the service has been installed, you can configure it in the EXO Business Configurator at System > Email Service. Two configuration screens are available. The first, Email Service Configuration, lets you configure the details of the email server, including address, authentication and default user information:
The second configuration screen, **Email Time Configuration**, lets you specify when the email service should and shouldn’t send emails, and the how often it should check for new emails to send:

![Email Time Configuration Screen](image)

Both configuration screens have controls that let you stop and start the email service. Once the EXO Email Service is running, it scans the EVENT_EMAILS table for unsent email messages, and attempts to send all messages that it finds. If an email fails to send, the service will attempt to send it again the next time it checks for emails.

**Note:** More detailed information on installing, configuring and using the EXO Email Service are available in the *EXO Email Service* white paper, available on the new EXO Business Education Centre (see page 47).