

Accord Manager

User Guide

Document: [Accord Manager V4.12.1.0 User Guide](#)

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1 Introduction

Accord Manager provides utilities for Operations Managers to make automatic sequences for programs, change recipes and generate reports on the operation of the Accord controlled Plant.

The Interface is composed of the following tabs.

- Process Audit
- Security Audit
- Plan
- Recipe
- Custom Report

Each tab operates independently, providing setup and search functionality.

Please also see Accord Installation guide.

2 Process Audit

Accord Process Audit is a configurable query builder which returns historical information on processes or equipment values, from logs created in plant monitoring, in a tabular format. Process Audit is also available in Accord HMI for Alarm History and general queries.

Process Audit provides reports configurable reports for programs, alarms, equipment states or other values that have been logged by Accord Server. The reports are generated by selection of time frame, devices to be included, and properties of devices to be displayed in the report. Generated Audits may be stored and recalled. An Audit report may also be automatically triggered on an event in Accord Server.

Process Audit requires that there is plant information data logged by Accord Server. Logging of individual devices is setup in Accord Designer Historian settings. Program Events, and Alarms and any interaction from HMI, such as Operator Commands or Setpoint changes are automatically logged.

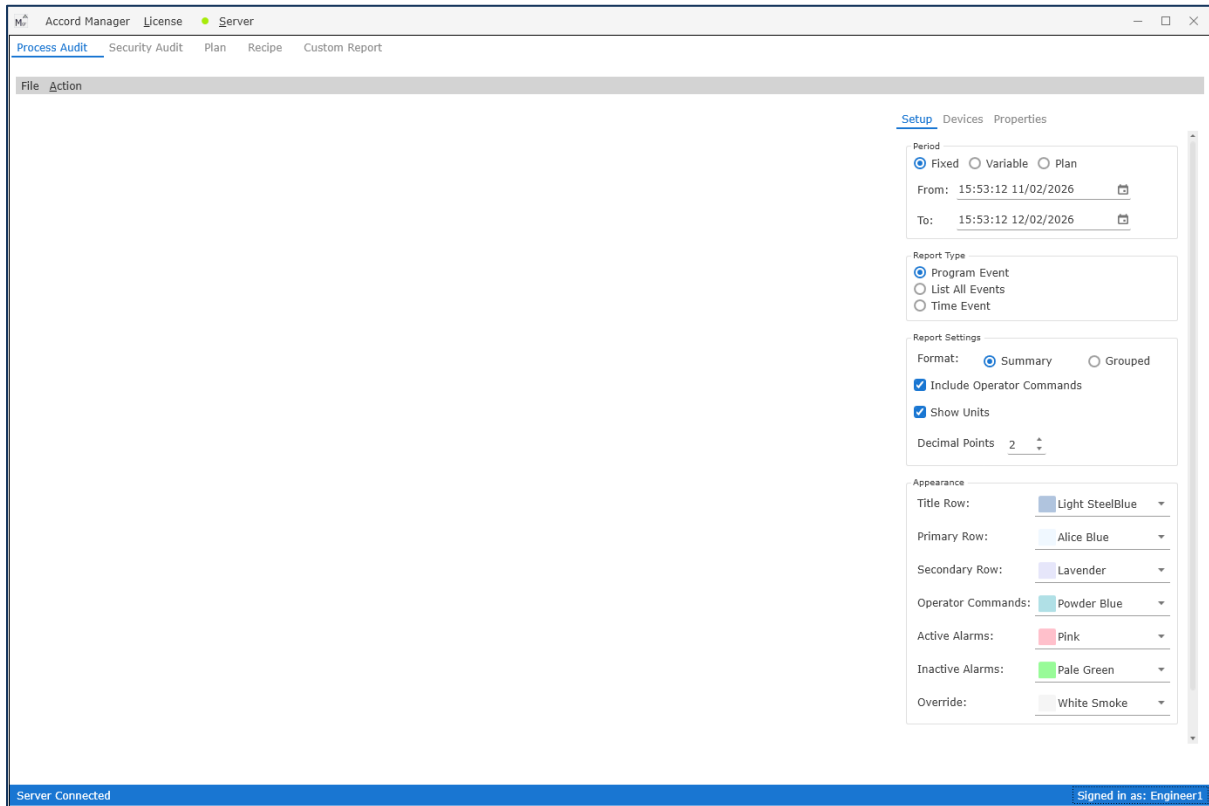
Accord Process Audit may be used for data stored during Emulation to assist with validation of Emulation or Testing.

Data may be exported to different file formats.

2.1 Initial Screen

An initial screen is presented on opening Process Audit. The status of connection to Accord Server and Logged in User are shown at bottom of screen. Clicking on the Connection brings up the server search panel and clicking on the Username section brings up a log-in panel.

The Right-Hand Side is a configuration panel, and the Left Hand shows the generated report.



2.2 Selection of Report Time Span

There are 3 Period Types selectable in the top panel: Fixed Time, Variable, and Plan.

Fixed Selection in Audit Period Type

1. Fixed Time Span Report Type

This is for a Report from a Start Date / Time, until an End Date / Time, per picture above. A calendar is provided for date selection if required.

Select the required Start and End Times by clicking on calendar or entering values.

2. Variable Time Span Report Type

This is for a Report for a Period, which may be defined for Days, Hours and Minutes.

Variable Selection in Audit Period Type

The required Period is entered here.

3. Plan Type

This is for a Process Audit which is associated with a Plan sequence where the configured report is automatically generated at the end of a Plan.

2.3 Selection of Report Type

The Report may be configured for records for Program Events or Time Events

Program Event Type

This selection is used when the Report is to reflect Program events. There will be a new row for each Event for each Program included in the configuration.

Records for Program Start, End, Hold, Restart, TimeHold, Timing, Alarm, Change of Step, may be included.

The subtypes for presentation are:

Summary: this selection is used to show Program Status and Device Values for included devices in a single row for each record.

Grouped: this selection is used if more information is required; all selected Status and Value information for all items are grouped together into a cell for each record.

Time Event

This selection is used when the Report is to show values at selected intervals, the interval can be in hours, minutes or seconds. The Report will contain values and status in a new row for each interval.

All Events

This selection is used when a new record is required for every Program or Device change.

2.4 Selection of Appearance

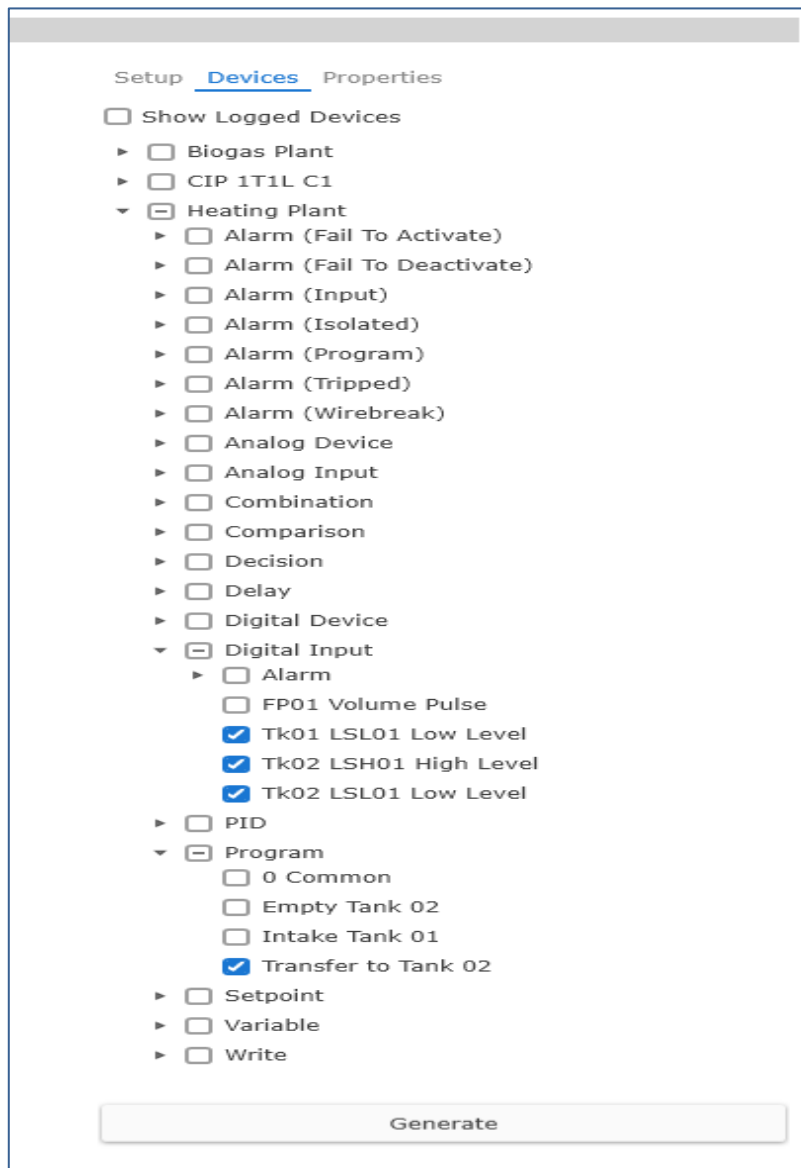
These preferences are for the appearance of the Report.

This allows specification of different colours to aid interpretation. Colours may be assigned for Title Row, Primary and Secondary Rows, Operator Commands, Alarms, and Overrides.

2.5 Selection of Devices to be included.

Any item in the Model - Equipment and Program items - can be included here. An explorer is provided for selection of items.

Devices are selected by Model (Project), by Type and then by name. Items from multiple Projects may be included in an Audit.



Selection of items for the Audit

In case above Digital Input switches and Program have been selected. There must be historical logged data for the device and period for the configured period.

2.6 Selection of Properties of Devices.

Process Audit allows for different properties to be included in a Report. In general Values and Activations are selected, but it is possible to include any aspect of a Device. The properties are selected for inclusion by Device Type, so all included Devices of the Type will be represented in the same manner in the Report.

Setup Devices Properties

Group: Analog Input

	Parameter
<input checked="" type="checkbox"/>	Value
<input checked="" type="checkbox"/>	Status
<input checked="" type="checkbox"/>	Override
<input checked="" type="checkbox"/>	Maintenance
<input checked="" type="checkbox"/>	Wire Break
<input type="checkbox"/>	Affected By Maintenance
<input type="checkbox"/>	Alarm H
<input type="checkbox"/>	Alarm HH
<input type="checkbox"/>	Alarm L
<input type="checkbox"/>	Alarm LL
<input type="checkbox"/>	Alarm Value H
<input type="checkbox"/>	Alarm Value HH
<input type="checkbox"/>	Alarm Value L
<input type="checkbox"/>	Alarm Value LL
<input type="checkbox"/>	Current Over
<input type="checkbox"/>	Current Under
<input type="checkbox"/>	Enable Wire Break
<input type="checkbox"/>	Hysterisis Setpoint
<input type="checkbox"/>	Maximum Limit
<input type="checkbox"/>	Maximum Range
<input type="checkbox"/>	Minimum Limit
<input type="checkbox"/>	Minimum Range
<input type="checkbox"/>	Override Value
<input type="checkbox"/>	Place Unit in Alarm
<input type="checkbox"/>	Raw Value
<input type="checkbox"/>	Scaling Factor
<input type="checkbox"/>	Signal Value

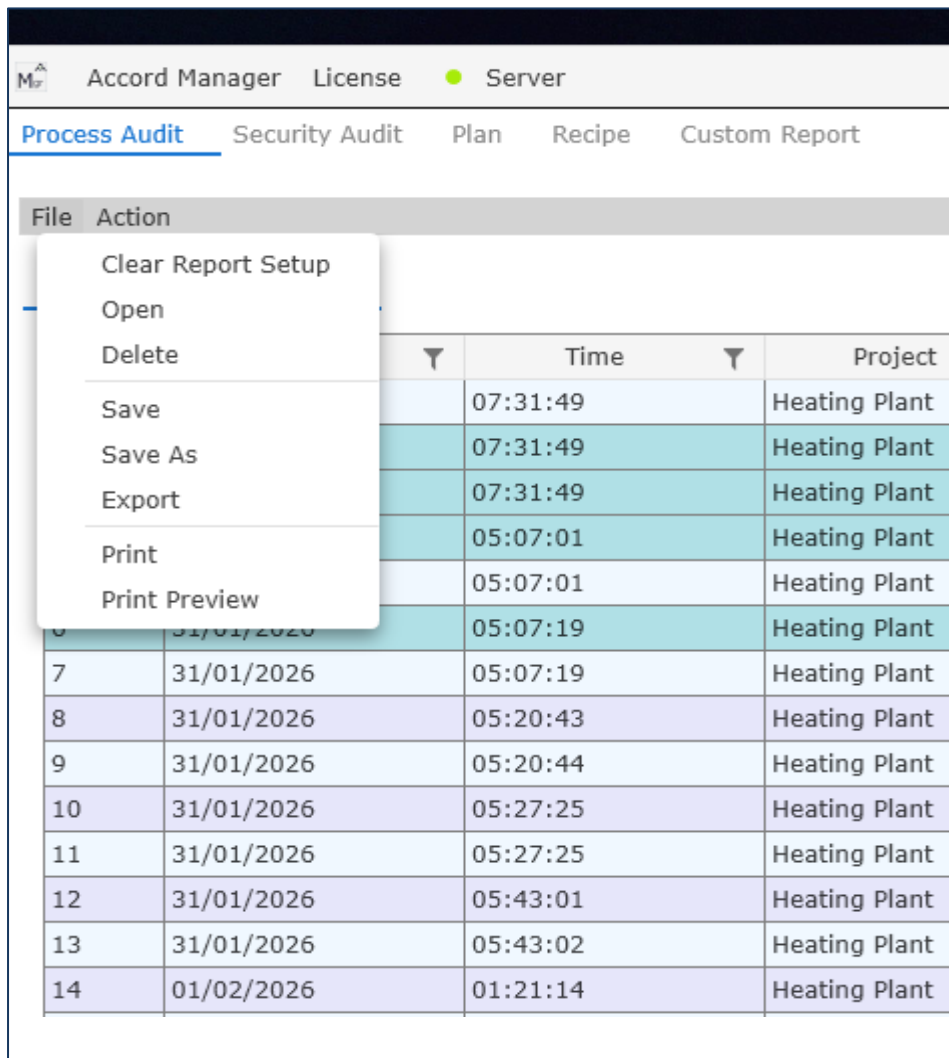
Generate

In the selection the Analog Input parameters selected are Value, Status, Override, Maintenance and WireBreak Status. Properties are selected by Ticking the box beside the property.

2.7 Activating the Report

The 'Generate Report' at the bottom of the Setup section will cause the Audit to be Generated. A status will be shown until the Report is Generated.

2.8 File menu

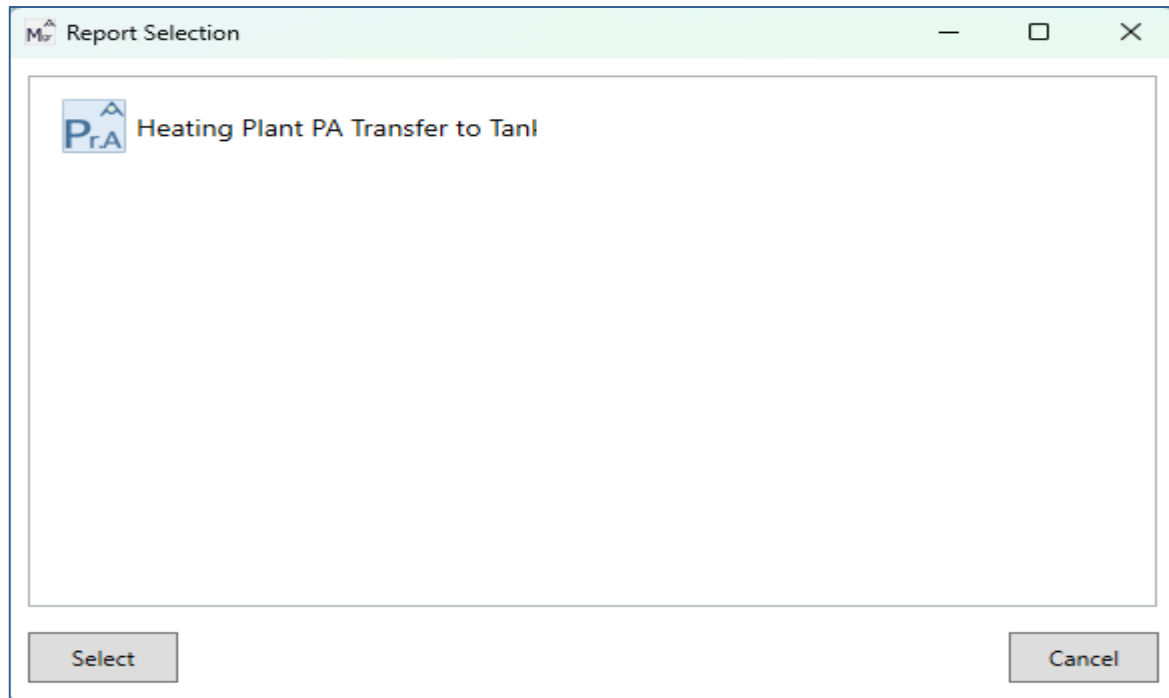


Process Audit File Menu

The Accord Process Audit File Menu allows the following common File functions;

Clear Report Setup - Generate a new Audit configuration. An initial screen is presented, without any selections or preferences.

Open - A previously saved Audit configuration may be re-opened. The selection panel will display saved Audits.



Selection panel for Saved Process Audits

Delete - Delete an Audit configuration from the system.

A similar popup panel allows for selection of the Audit configuration to be deleted.

Save - Save a generated Audit configuration.

The Audit configuration is given a suitable name.

Export - Export report data to Excel xlsx file.

Print - This allows the Report to be printed to the default printer on the computer.

Print Preview - This shows a preview of Report that will be sent to the Printer.

2.9 Action Menu

This menu consists of the following 4 options;

Float Report – Currently displayed report is detached from main screen.

Configure Report – the Configuration panel to the right is toggled.

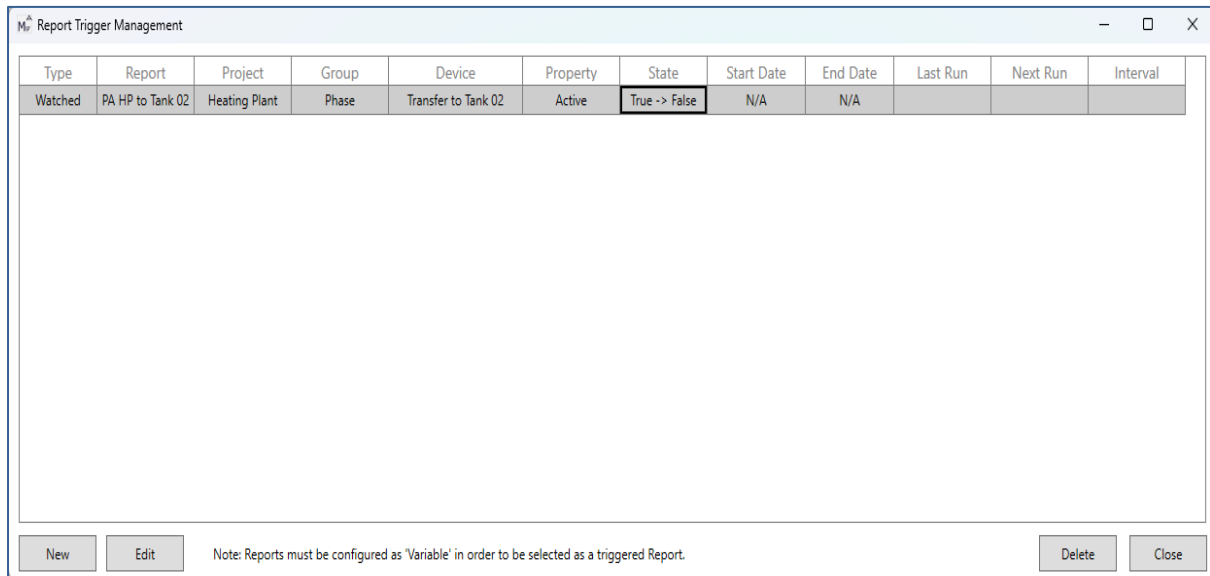
Close All Reports – all currently open reports are closed.

Report Trigger Management

2.9.1 Report Trigger Management

This provides management for automatic report triggers, which are configured events that cause automatic generation of previously configured Process Audits. Reports may be configured to be exported in Excel, CSV, PDF, HTML and XML. The reports may be set up to be automatically emailed if an SMTP server has been configured.

Note: This is only available for Process Audit configured as Variable type.



The Report Trigger Management Tool

The Report Trigger Management includes the following configuration selections:

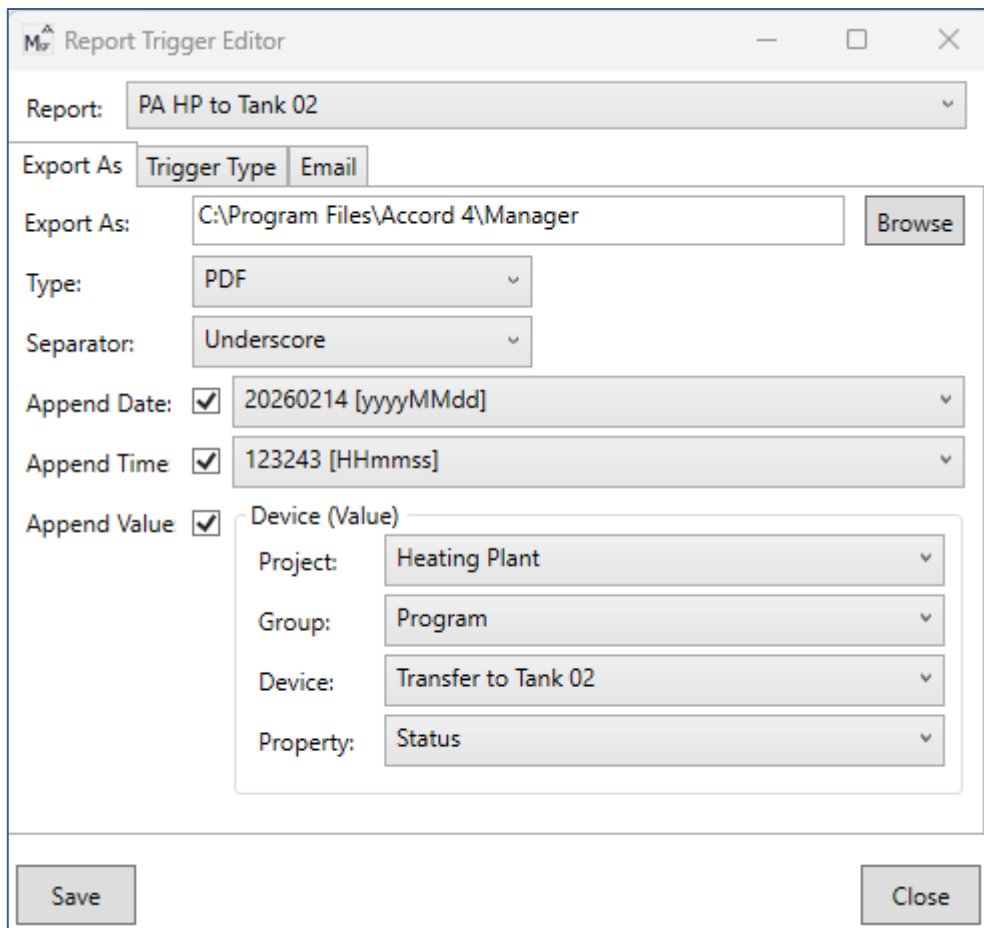
Item	Description
Type	<p>Displays the type of the report trigger. There are two trigger types:</p> <ul style="list-style-type: none"> ➤ Scheduled The report is automatically generated based on a timed event. This is selected using selection box. If this is not selected then the Trigger is on a Watched Event, for which the Device must be selected. ➤ Watched The report is automatically generated based on a PLC event.
Report	The name of the report that the trigger will automatically generate.
Watched Trigger:	
Project	The name of the project the watched device belongs too.
Group	The name of the group the watched device belongs too.
Device	The name of the watched device.
Property	The name of the property of the device being watched.
State	The state change that the trigger is watching. This can be a state change from true -> false or false -> true.
Scheduled Trigger:	
Start Date	The date when the report will first be generated.
End Date	The date when the schedule will end
Last Run	The date when scheduled task last generated a report.
Next Run	The date when scheduled task will generate its next report.
Interval	The time interval in hours, minutes and seconds in which the report will generate the next report.

2.9.2 Defining/Editing a Report Trigger

A new trigger is created using 'New'. The Report Trigger Editor contains a variety of different settings users can configure to meet their needs. The editor contains three separate tabs:

Item	Description
Export As	Selection of the format and filename attributes.
Trigger Type	Selection of the conditions for report generation. There are two types of triggers, Watched and Scheduled.
Email	Selection of email recipients (if any) for the generated report.

2.9.3 Report Storage - Export As



Report Trigger – Export As

The Export As section, used to report generation, contains following selections :

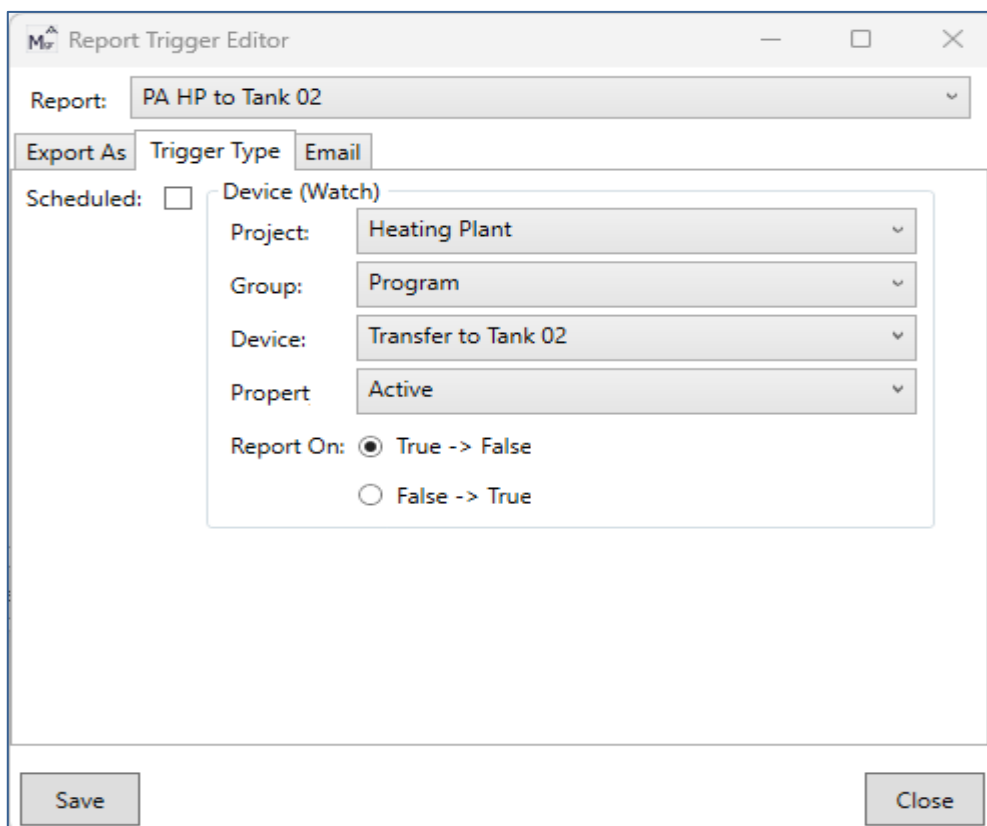
Item	Description
Export To	The location in which the report will be exported.
Type	The file format for the report. These can be as follows: <ul style="list-style-type: none"> ➤ Excel ➤ Comma Separated Values (CSV) ➤ PDF ➤ HTML ➤ XML
Separator	The separating character that should be used to separate the Date, Time and Value (if selected). These can be as follows: <ul style="list-style-type: none"> • None • Blank Space • Minus Sign • Underscore
Append Date	The date of generation will be included in filename, in selected format.

Append Time	The time of generation will be included in filename, in selected format.	
Append Value	A current PLC value will be included in filename.	
	Item	Description
	Project	The project that contains the device whose value will be used as part of the file name.
	Group	The group type of the device whose value will be used as part of the file name.
	Device	The device whose value will be used as part of the file name.
Property	The property of the device that will be used as part of the file name. Only numeric based properties will be displayed.	

2.9.4 Trigger Type

Definition of event on which the report is generated. There are two types of triggers, Watched and Scheduled.

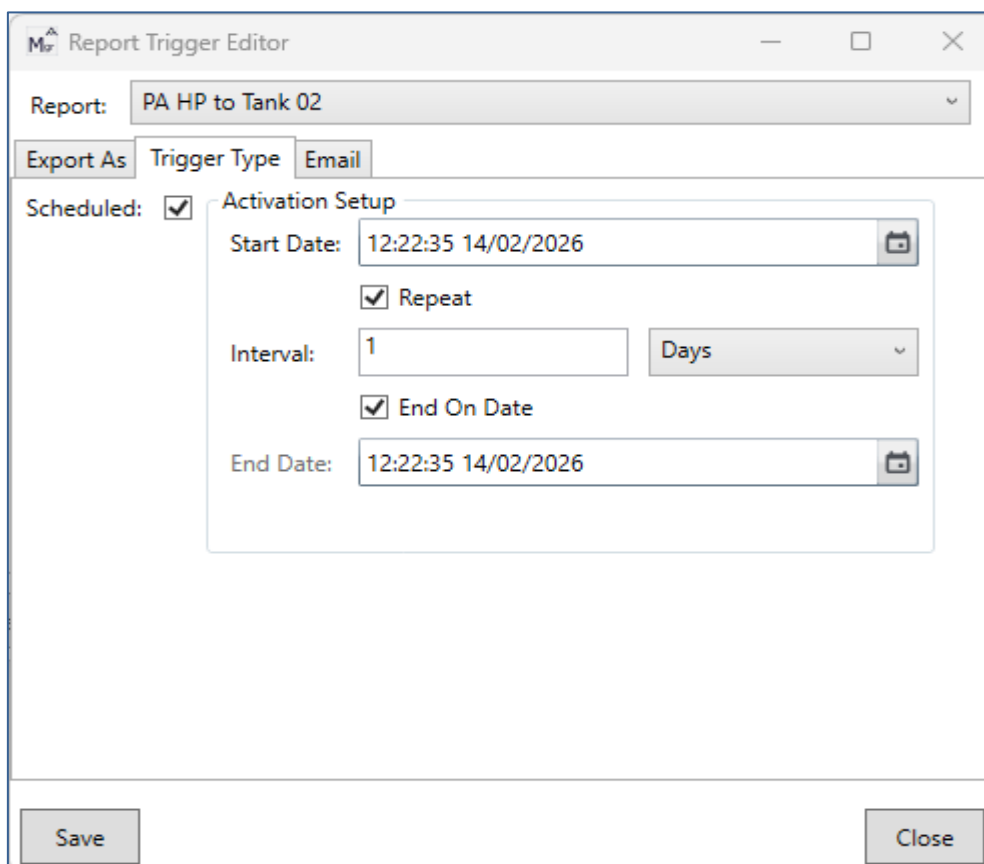
- Watched Triggers



Watched type Report Trigger

The following configurable options exist for a watched trigger:

Item	Description
Scheduled	When ticked the report will be generated based on a schedule, when un-ticked the report will generate based on a PLC event.
Project	The project that contains the device whose state will be used to trigger the report.
Group	The group type of the device whose state will be used to trigger the report.
Device	The device whose state will be used to trigger the report.
Property	The property of the device that will be used to trigger the report. Only Boolean based properties will be displayed.
Report On	<p>The action that triggers the report. This can be either of the following:</p> <ul style="list-style-type: none"> • True -> False • False -> True <p>For example, when set to 'True -> False' and the property changes from false to true the Data Reporting module records this as the Start Date of the report. When the property changes from true to false the Data Reporting module records this as the End Date and generates the report using both dates as the time window for report data.</p>

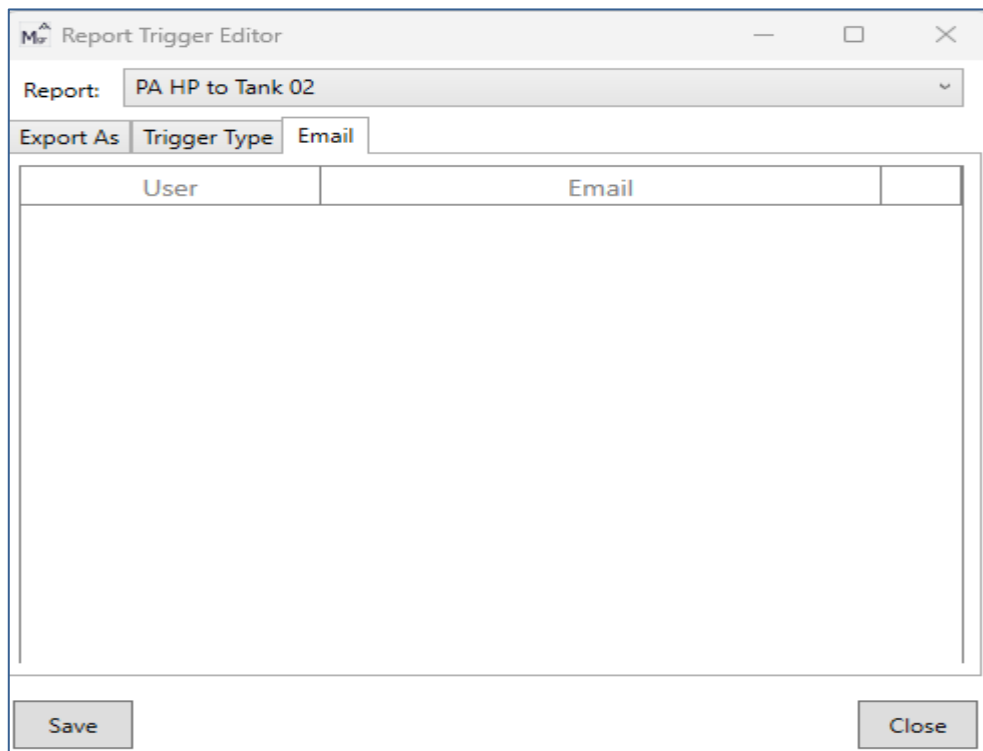


Scheduled type Report Trigger

The following configurable options exist for a scheduled trigger:

Item	Description
Scheduled	When ticked the report will generated based on a schedule, when un-ticked the report will generate based on a PLC event.
Start Date	The date when the trigger will first generate the report.
Repeat	When ticked the trigger will repeat the task after a user defined period of time has elapsed.
Interval	The time interval in hours, minutes and seconds in which the report will generate the next report.
End On Date	When ticked the trigger will only repeat the task until a user defined point in time.
End Date	The date when the trigger will stop processing.

2.9.5 Automatic Email



Report Trigger – Email setup

Users to receive the Report can be selected from users configured with email address in Designer Users section. Email requires an SMTP server to function.

2.9.6 Note on configuring Trigger

The type of trigger for a report is based on requirements. A watched trigger allows a report to be generated based on PLC event, meaning the time-frame for the report data will be based on that event. This is useful when reporting on events such as the lifetime of an alarm or the activity of a phase during a process cycle.

A scheduled report is generated based on a predefined time event that is essentially fixed. As a result, a scheduled report will not change the Process Audit time-frame, making it only useful when dealing with a report using variable timing. An example of the usefulness of such a report is reporting on all activity in the last 24 hours every 24 hours. Since the report will always execute at the same time every day, the report will consistently report upon the last 24 hours each time it is triggered.

2.9.7 Deleting a Report Trigger

An existing trigger is deleted by selecting the required Trigger and selecting 'Delete'.

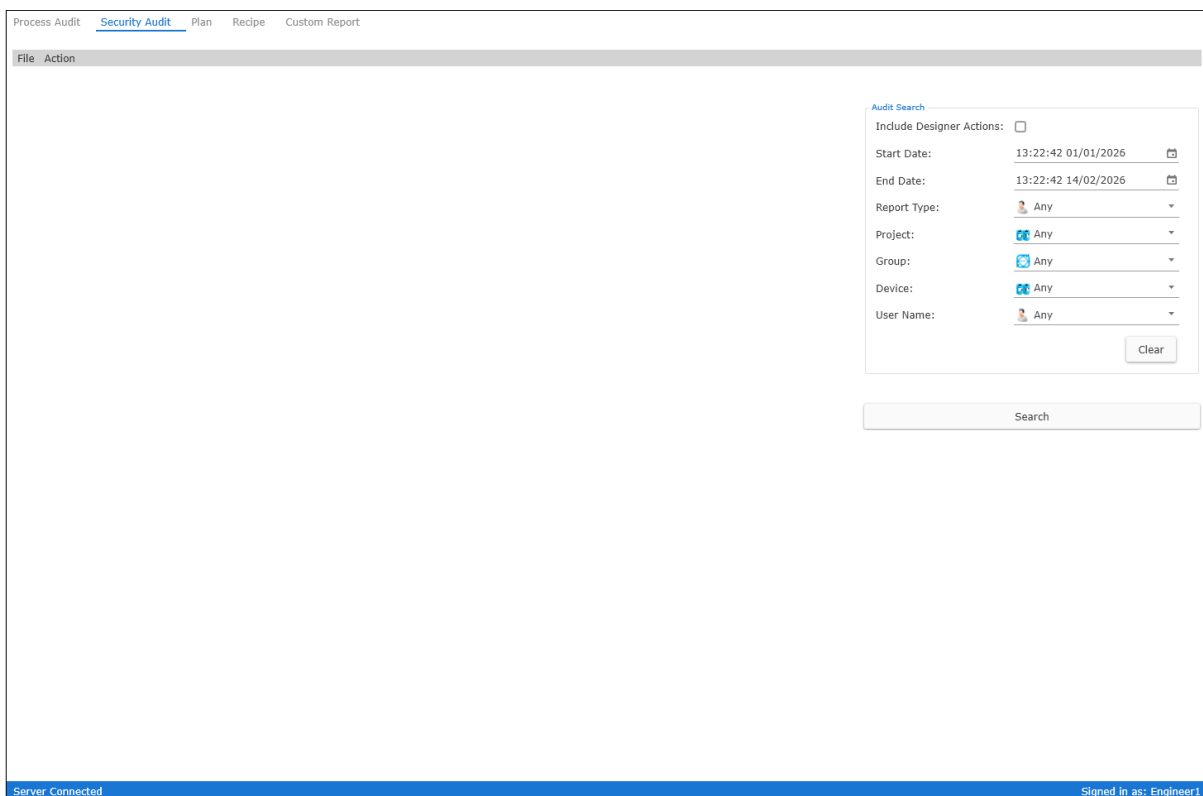
3 Security Audit

Accord Security Audit is a configurable query builder which returns historical information on HMI and Modules interaction with Controllers. It is used for system and root cause analysis. It obtains data from logs created by Accord Server as part of plant interaction monitoring.

The security data is captured when commands are sent from HMI or other modules to Controller, even if the items are not logged in Historian. The module provides the ability to export the current data being displayed to a variety of file formats.

3.1 Initial Screen

An initial screen is presented on opening Accord Security Audit.



Security Audit Initial screen

The Manager application must be connected to Server with user Logged-in.

The Right Hand Side is a configuration panel and the Left Hand shows the Report data.

The Configuration Panel is used to configure Report Type over a Time Span, with filters for selection of Devices, and Users.

3.2 Report Configuration and Generation

3.3 Selection of Report Time Span

The following options are available for the report.

Item	Description
Designer Actions	Include logs of modifications to Model in Designer.
Start Date	The start date and time of the query.
End Date	The end date and time of the query.
Report / Event Type	Selection of type events, such as OPC Writes and Plan changes.
Project	Selection of a specific controller / project.
Group	Selection of specific Model device group.
Device	Selection of specific device. A Project and a Group must be selected.
User Name	Selection of events carried out by a specific user. A Project must be selected.

The following information is displayed for each log event:

Item	Description
Date	The date & time when the event occurred.
Type	The type of the event. For example, Manual Start.
Project	The project (if any) that was modified.
Device	The device (if any) that was modified.
Group	The group of the device (if any) that was modified.
User	The Accord Server user (if any) that performed the action.
Entity	The target entity (if any) that was modified. E.g. The name of the target Recipe or OPC Profile.

Login	The username of the Windows account that performed the action.
Location	The identity (typically IP address) of the original computer.
Action	Additional information relating to the requested action (if any). e.g. the OPC property to modify.
Request	Additional information relating to the requested change (if any). e.g. The value assigned to an OPC property.
Result	The end result of the request as reported by Accord Server.
Reason	Additional information relating to the end result as reported by Accord Server (if any). Typically this contains an explanation for a failed result.
Original Value	The value prior to the change. This is useful for analysing analog value changes.
Signature	The electronic signature of the user.

3.4 Exporting Security Audit

The audit report can be exported to Excel .xls, .csv, .pdf, .html, or .xml. The export is useful, when storing information that may be needed for future reference.

The export is performed by Right-Click on the Data, selecting 'Export As', then selecting the Export location, and the export file type and name

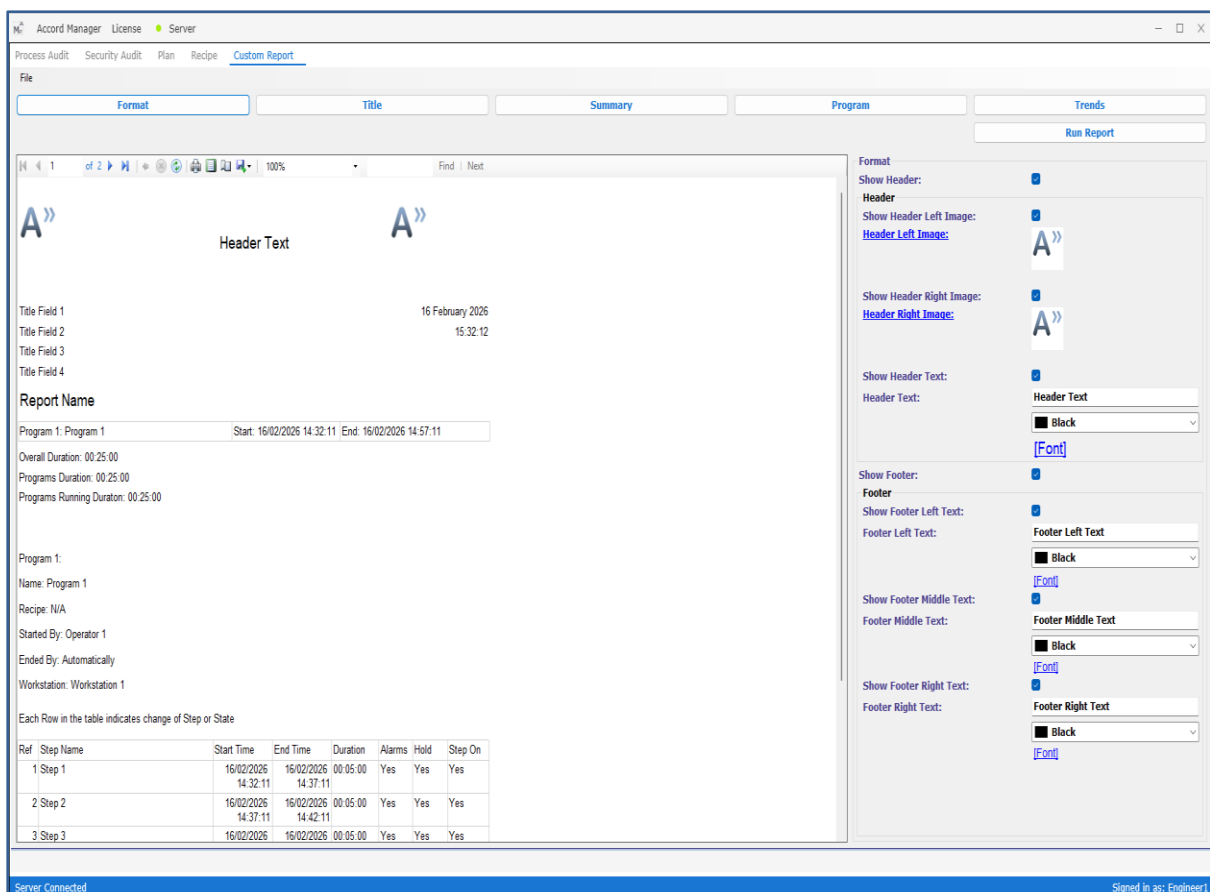
4 Custom Reports

This feature allows for the configuration of specific customised reports containing data in tables and trends.

4.1 Initial Screen

An initial screen is presented on opening Custom Report. The status of connection to Accord Server and Logged in User are shown at bottom of screen. Clicking on the Connection brings up the server search panel and clicking on the Username section brings up a log-in panel.

The Right Hand Side contains configuration options and the report being designed will update in the main panel.



Custom Report Initial screen

The Reports are customised using sections: Format, Title, Summary, Program, and Trends along the top of the window.

4.2 Formatting of the Pages

This is accessed by the Format button at top. There are tick-box selections for making the Header (left and right) and Footer (left, middle and right) sections visible, and then for changing Images, Text and Fonts in those sections. There are also tick-boxes for Show Header and Footer which can be used to hide the Header or Footer display completely.

Format

Show Header:

Header

Show Header Left Image:
[Header Left Image:](#)

Show Header Right Image:
[Header Right Image:](#)

Show Header Text:
Header Text:
█ Black ▼
[\[Font\]](#)

Show Footer:

Footer

Show Footer Left Text:
Footer Left Text:
█ Black ▼
[\[Font\]](#)

Show Footer Middle Text:
Footer Middle Text:
█ Black ▼
[\[Font\]](#)

Show Footer Right Text:
Footer Right Text:
█ Black ▼
[\[Font\]](#)

Formatting options

4.3 Title Section

This is accessed by the Title button at top. There are tick-box and selections for showing and entering the Title Fields and the Report Name.

Title

Show Title Field 1:

Title Field 1:

v

[\[Font\]](#)

Show Title Field 2:

Title Field 2:

v

[\[Font\]](#)

Show Title Field 3:

Title Field 3:

v

[\[Font\]](#)

Show Title Field 4:

Title Field 4:

v

[\[Font\]](#)

Show Date:

Show Time:

v

[\[Font\]](#)

Show Report Name:

Report Name:

v

[\[Font\]](#)

Title Section Options

4.4 Summary Section

This section allows display of values of Overall Duration, Program Duration, and Running Duration for programs.

The screenshot shows a dialog box titled "Summary" with three sections of options:

- Show Overall Duration:** A checked checkbox, a color dropdown menu set to "Black", and a "[Font]" link.
- Show Program Duration:** A checked checkbox, a color dropdown menu set to "Black", and a "[Font]" link.
- Show Running Duration:** A checked checkbox, a color dropdown menu set to "Black", and a "[Font]" link.

Summary Section Options

4.5 Program Section

This section allows selection of the individual programs to be included. For each Program, the Project and Program name are first chosen, then the Span ‘Between (Start)’ and ‘And (End Span)’ dates are selected, then the instance of the program between those dates is selected.

Add Program is used to add a new program after a selection is setup.

Programs

Text Colour:

Include Operator Name:

Include Workstation:

Program

Project:

Name:

Between:

And:

Start Dates:

Delete Program

Text Colour:

Include Operator Name:

Include Workstation:

Program

Project:

Name:

Between:

And:

Start Dates:

Delete Program

Add Program

Program Section Options

4.6 Trends Section

This section allows addition of trends and selection of the pens to be added to trends. For each Trend, the Name and Names for X Axis and Y Axis units are added.

Pens can be added to each Trend, and removed. Additional Trends can also be added.

Trends

Trend

Show Trend Name:

Trend Name:

[\[Font\]](#)

Show X Axis:

X Axis Name:

[\[Font\]](#)

Show Y Axis:

Y Axis Name:

[\[Font\]](#)

Show Summary:

[\[Font\]](#)

Pen

Show Pen Name:

Pen Name:

[\[Font\]](#)

Include in Summary:

Binding

Project:

Group:

Name:

Between:

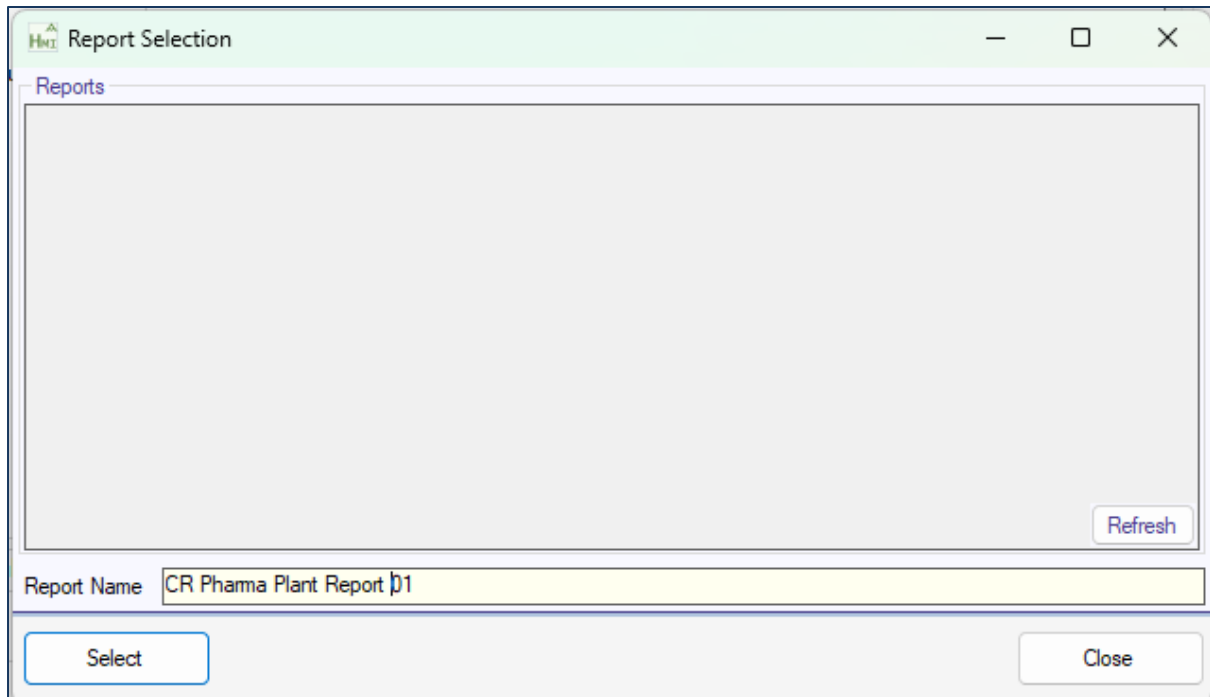
And:

Trend Section Options

4.7 File Menu

Save Report

The Report configuration is saved by using Save and filling in a name.

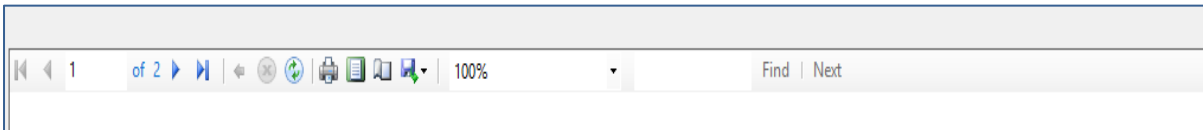


Save Report Panel

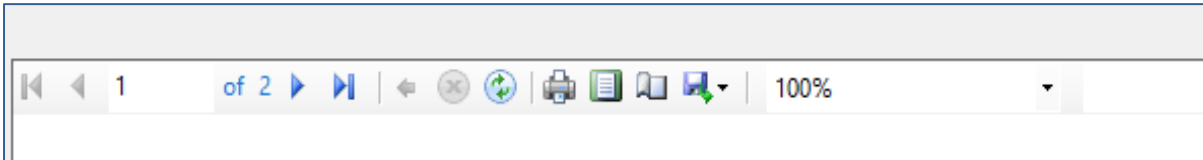
When Saved, a Custom Report may be loaded using **Load**, when saved.

The **New** option, to allow a new report to be configured, will clear the current selections.

4.8 Ribbon Menu



Full Ribbon Menu including the Search fields.



Ribbon Menu with Search cropped.

The Ribbon Menu allows switching between pages using forward and reverse arrows, a close function and a refresh function, and Print, Print Layout and Page Setup functions, and an Export function with options for export to Excel, PDF or Word.

The Search field allows search of text in the report.