Opera 3 Dashboard Manager

Accreditation
Training Courseware
(Inc. Install Notes)

Pegasus Software Ltd
Accreditation Training Courseware

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Pegasus Software Limited
Orion House
Orion Way
Kettering
Northamptonshire
NN15 6PE

www.pegasus.co.uk

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Introduction

About Opera 3

Opera 3 is the most versatile and user-friendly accounting, supply chain management, payroll & HR, manufacturing and reporting solution from Pegasus Software. A modular solution, Opera 3 enables you to select the components that match your current business model, whilst making it possible to add further functionality as requirements change. This means that the capability or capacity of a system can be seamlessly expanded whilst safeguarding the investment.

For more information about Opera 3, select the Solutions link on the Pegasus web site.

About this Guide

This Accreditation Training Courseware offers an accompanying guide to the accreditation training course.

If you are new to Opera 3, read the Getting Started section of the Opera 3 Help that covers the application in more detail. You can access this from the Windows Start menu, or by using the F1 Key or Help menu when you have logged in to the product.

Opera 3 is available for both Visual FoxPro and SQL Server database platforms. This Accreditation Training Courseware applies to both database platforms, however, there are certain elements that are only included in one or the other database, and as such, the relevant sections or paragraphs are clearly identified with the following labels:

> **[SQL]** – only relevant if you are running the application on an SQL Server database.
>
> **[VFP]** – only relevant if you are running the application on a Visual FoxPro database.

Sections that are not identified with these labels are relevant to both database types.

For more information, see the section Functional Differences between Opera 3 Enterprise & Opera 3 Enterprise SQL section in the release guide.

Introducing the module

Pegasus Executive Dashboard Manager (PEDM) has been created to allow partners and end users to create User Defined Executive Dashboards. The technology is based upon the existing reporter report functionality and has been designed for ease of use.

The standard Active Dashboards application is web based and can be accessed and used via a standard supported web browser (for example IE or Firefox). This allows the standard application to run as a standalone web site or it can be embedded into an existing web site. The standard installation will install Dashboards as an Internal Website allowing you to run this on the server by specifying the relevant URL such as http://localhost/ or http://servername/ if using a client. Your System Administrator should be able to provide you with further details of ways in which your organisation can manipulate the “standard install and set-up” to access the Active Dashboards application.

'The standard Pegasus Dashboards application is installed as an internal site which you can run using a unique resource locator address (URL) such as http://localhost/ (local computers) or http://servername/ (for using client computers on local intranets).'

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Please note that product support is not offered through the above email address.

Key

Icon	Meaning
Example – Examples	Useful Hint, Tip or Note. General Comments / Notes
	Useful Report obtained from clicking on the print icon while sitting on the form
	FAQ – During the literature, some FAQs or Troubleshooting points are discussed. May include a few did you knows…
	Website link
	Exercises / Example solution

Training Literature Releases

Release	Added Information
R1.0	Originating Manual
R1.1	Newly Added Appendix and further troubleshooting points
R1.2	Updated Exercises
R1.3	Updated Appendix and further troubleshooting points
R1.4	Updated Appendix(s), further troubleshooting points, IIS information.
R1.5	Updated Appendix and format of documents
R1.6	Updated some material and troubleshooting points General tidy up
R2.0	Uplift to Dashboards 2.60 including; • Edit SQL • Filters • Summarisation • Dashboards • Drilldowns • Misc enhancements
R2.1	Updated Appendix and further troubleshooting points
R3.0	Uplift to O3, enhancements and further troubleshooting points
R3.1	Minor changes & more clarification on some points
R3.2	Updated Examples as per F1 and updated chapter formats

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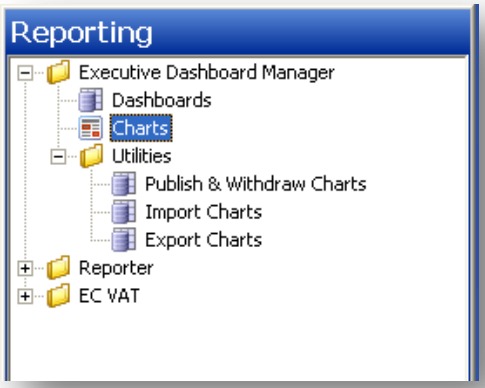
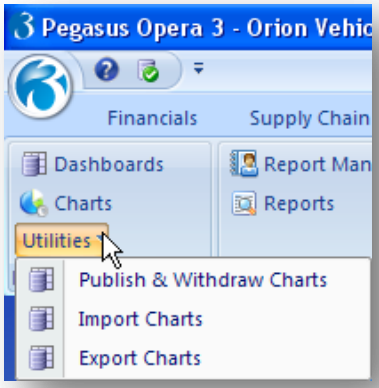
Module Menu Structure

The following sections will cover the functionality of the options in this module as outlined in the image below which shows each menu option contained in this module.





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Glossary (of Menu Structure)

➢ Navigator Folder	➢ Command	➢ Purpose
EDM	Dashboards	Option to create User Definable Dashboards and respective settings.
	Charts	Process the User created (custom) Dashboard Items. Create, Edit and Delete Dashboard items as required.
Utilities	Publish	Allows the user to (batch) publish or withdraw custom and standard Dashboard Items.
	Import	Allows the user to Import externally built custom Dashboard Items
	Export	Allows the user to Export custom designed Dashboard Items for importing to a different system.

Notes

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The Module

Pegasus Executive Dashboard Manager (PEDM) has been created to allow partners and end users to create User Defined Executive Dashboards. The technology is based upon the existing reporter report functionality and has been designed for ease of use.

The current release of Pegasus Executive Dashboards (PED) enhances the functionality of Opera 3 into the realm of graphical information presentation in the style of an Executive Dashboard. PED allows users to create an Executive Dashboard from fifty predefined items. These items are then viewed through a standard browser such as Microsoft's Internet Explorer and is powered by Microsoft Internet Information Services (IIS).

Part of the Opera II 6.50.00+ Suite is the PEDM (VFP Only – O3 Latter versions will support SQL PEDM subject to testing and development) and Opera 3 v1.00.00. This allows partners and customers with the ability to define/build dashboard items from the Opera 3 database including bespoke tables/fields. It will also allow users to create new dashboard items based on one of the predefined options.

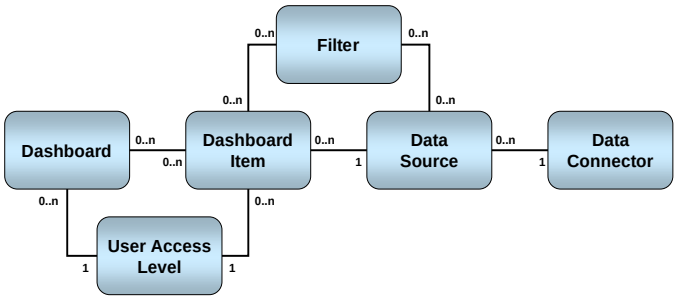
The application design is based on the Opera 3 Reporter Module and will incorporate all the relevant functions to build a dashboard item including the ability to Export, Import, Preview and Publish. The chart styles in this release of PEDM will include: Grids, Single Value, Single Series and Multi Series.

PED provides a flexible way of displaying business information from Opera 3 Enterprise and Opera 3 Enterprise SQL in a graphical format in Microsoft Internet Explorer. PEDM is available if Opera 3 has been activated for PED [VFP].

The application is web based and uses a technology called ASP.NET, which is part of Microsoft's .NET platform, to build dynamic web sites, web applications and XML web services. Microsoft Internet Information Services (IIS) is used to deploy the dashboards.

Some prerequisite software must be installed before Pegasus Executive Dashboards Server can be installed and before you can view dashboards in Microsoft Internet Explorer. Shortcuts also need to be set up on each client computer or you can use the Windows Run command.

Full details on how to install Executive Dashboards Server and set up shortcuts on client computers are included in the Installation Guide.



Relationship between elements of the Active Dashboard application

Notes

About this Guide

This guide provides an overview of Executive Dashboards, Executive Dashboard Manager, administration information, and troubleshooting suggestions.

Opera 3 Readme File

The Opera 3 Readme file contains Late Breaking News and any other release specific important information, including information about Pegasus Executive Dashboards. You are advised to check this file. It is installed in the Opera 3 Client installation's main folder and can be accessed from the Start menu or Desktop folder after installation.

Notes

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1 Getting Started

1.1 System Requirements

Executive Dashboard must be available and activated for the Manager to be used.

From v2.5x.xx of Dashboards onwards, multiple systems are supported. This version is in conjunction with the 6.70.00 release of Opera II.

Version 2.7x.xx was released with Opera II 6.83 and Opera 3 v1.00.00

PEDM does not have a separate activation and is part of the O3 and PED installation.

Opera 3 SQL version 1.20.10 was enhanced to work with Dashboard Manager (this does not work with Opera II SQL).

1.2 Web Server

- Microsoft Internet Information Service (IIS) Web Server 5.0 or above
- Microsoft .NET Runtime

1.3 Client Pre-requisites

- Web Browser (Microsoft Internet Explorer 6.0 or above, Firefox 2.0 or above)
- Adobe Flash Player 8 or above browser plug-in

The following items are required if the Active Dashboards Administration Tool is installed on the client machine.

- The operating system should be Microsoft Windows XP or above
- Microsoft .NET Runtime Framework
- Read/write access to the App_Data directory on the Web Server

This document presumes you have a basic understanding of IIS, Reporter Reports and Executive Dashboards.

Getting Started

Notes

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2 Chart Styles

The chart styles in PEDM include: Grids, Single Value, Single Series and Multi Series.

Listed below are original available chart types (version 1).

Grid	Chart Single Value	Chart Single Series	Chart Multi Series
Grid	Angular gauge	Area	Area
	Bulb gauge	Bar	Bar
	Cylinder gauge	Column	Column
	Horizontal LED	Column 3D	Column 3D
	Linear	Doughnut	Line
	Vertical LED	Doughnut 3D	Radar
	-	Funnel	Scrollable Area
	-	Line	Scrollable Line
	-	List	Stacked Area
	-	Pie	Stacked Bar
	-	Pie 3D	Stacked Column
	-	Pyramid	Stacked Column 3D
			Logarithmic Line
			Logarithmic Column

Version 2 also provides some new charts for single value and multi series chart types which are;

Single Value	Circular Gauge
	Cylinder & Text Gauge
	Thermometer & Text Gauge
	Traffic Light & Text Gauge
Multi Series	Bar 3D
	Stacked Bar 3D
	Scrollable Stacked Column

Chart Styles

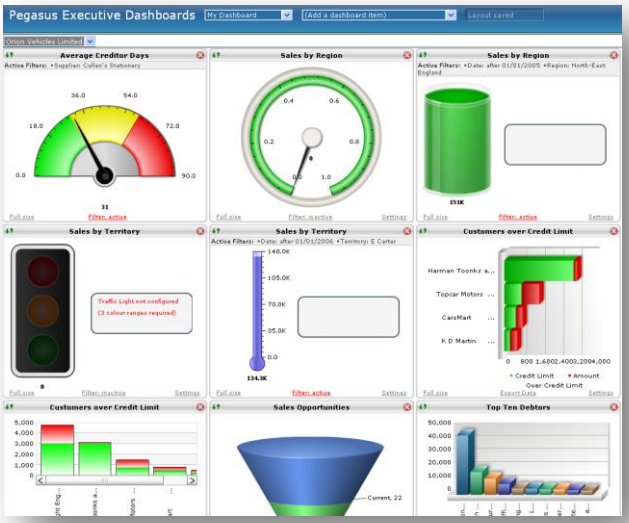
Notes

In addition, a new glass and rounded edge graphical effect has been added to all bar and column charts for the 6.5x.xx release.

The following dashboard items will be affected by new charts from PEDM:

Single Value	Multi Series	Glass and Rounded Edge
Sales by Region	Customers over Credit Limit	Bank Balances
Sales by Territory	-	Company Creditor Days Last 12 Periods
-	-	Company Debtor Days Last 12 Periods
-	-	Employees by Department
-	-	Nominal by Class Year to Date
-	-	Nominal by Type Year to Date
-	-	Sales Opportunities
-	-	Sales Opportunities by Industry
-	-	Sales Opportunities by Referral Method
-	-	Sales Opportunities by Sales Stage
-	-	Sales Opportunities Lost
-	-	Sales Opportunities Won
-	-	Top 10 Customers (Turnover)
-	-	Top 10 Debtors
-	-	Top 10 Sales Order Balances

Illustrated below is a dashboard incorporating the new chart styles;



Further details can be found in Appendix G.

Notes

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3 Executive Dashboard Manager

IIS Troubleshooting guide – error numbers.

http://support.microsoft.com/kb/943891

The current release of Pegasus Executive Dashboards (PDM) enhances the functionality of Opera 3 into the realm of graphical information presentation in the style of an Executive Dashboard. PED allows users to create an Executive Dashboard from fifty predefined items or from a brand new base. These items are then viewed through a standard browser such as Microsoft's Internet Explorer and is powered by Microsoft Internet Information Services (IIS).

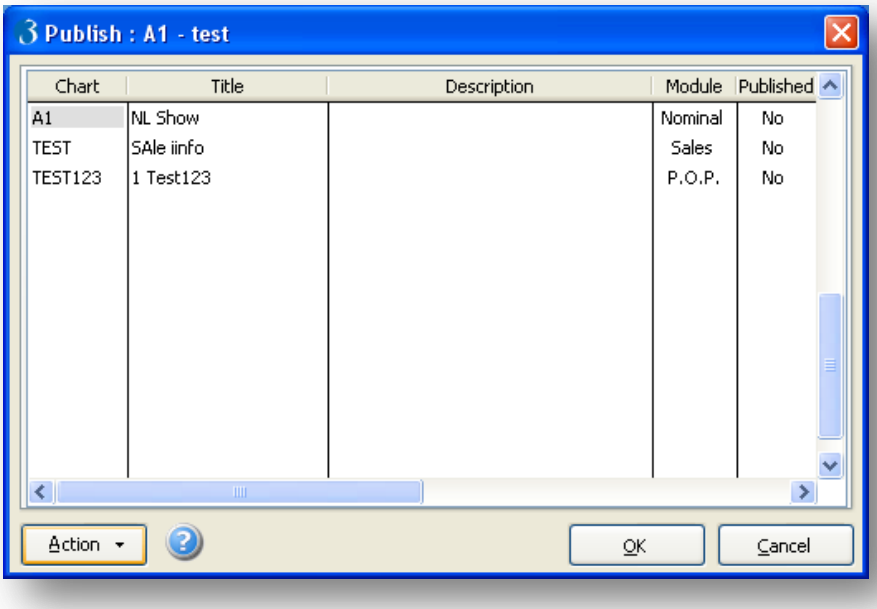
The company that is use during an EDM session provides the data when an item is being defined. All published custom items are available for view by appropriately privileged users in any company – this works in line with the User Profiles and the activation key. The number of Items the system is activated for will determine the number of Items that may be published at any one time.

3.1 Utilities

The Maintenance Sub-section maintains records in regards to the Executive Dashboards including options to Publish, Import, Export and Update.

3.1.1 Publish & Withdraw

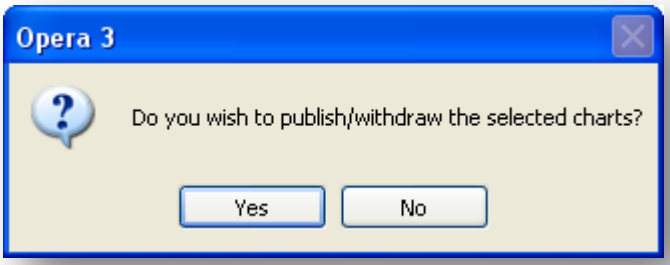
This function allows the user to Batch Publish or Withdraw Dashboard Items for use.



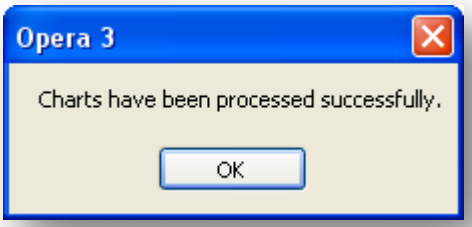
Select the required items to be published or withdrawn and select the OK button.

Executive Dashboard Manager

Notes

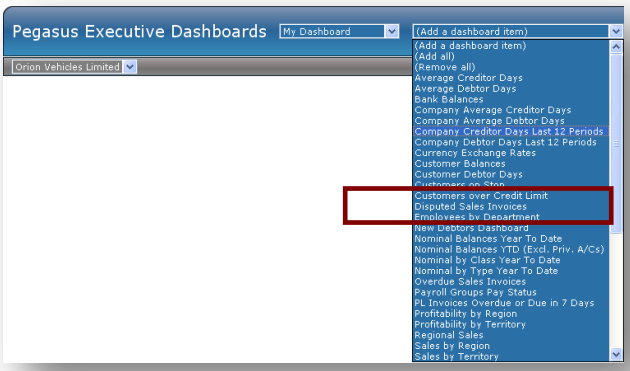


A message will be displayed to confirm the process has been completed successfully.



The user is also able to affect "Standard" items through this routine (previous versions only- With Dashboards functionality the user may select which charts are visible). Standard Dashboard items are out-of-the-box Dashboard item included with Pegasus Executive Dashboards. If you do not want to use these items, you can withdraw them from Executive Dashboards using the Publish and Withdraw command. You can then re-publish them later on if you want to view them.

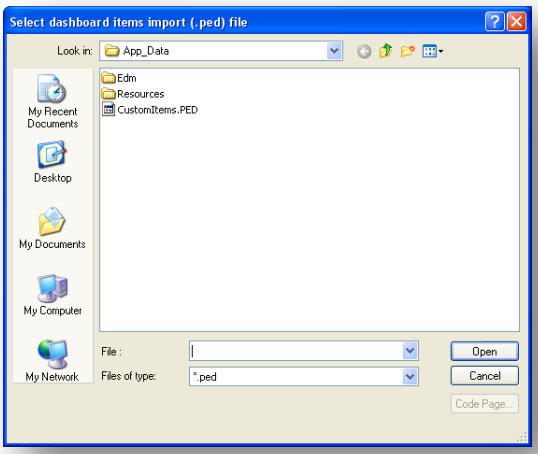
Once an item has been published it will be available for selection in Pegasus Executive Dashboards.



3.1.2 Import

Notes

Executive Dashboard items may be developed and exported and imported from a different system. This functionality allows a Dashboard item to be designed off-site, exported and then imported and applied to a different system and data set.



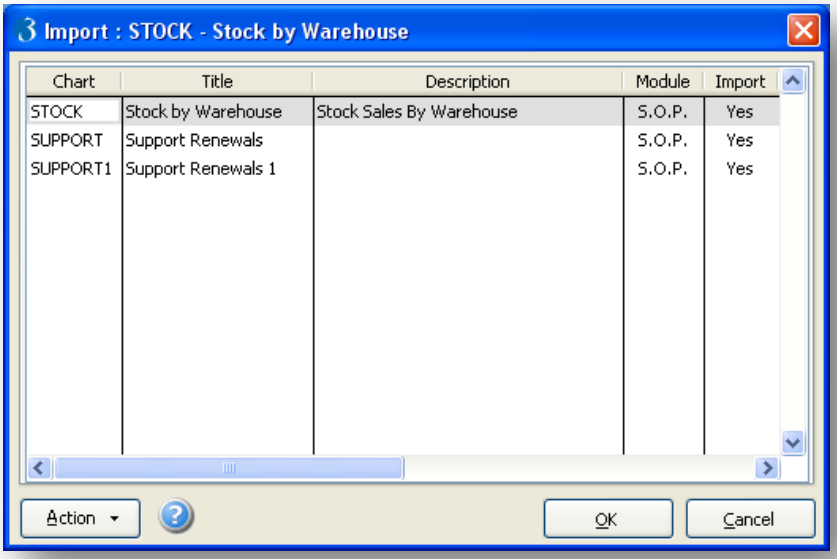
The import routine allows the user to import a Dashboard item. If custom Dashboard items are designed on another computer, they can be imported into Executive Dashboards Manager using the Import Items command. They can then be published to Executive Dashboards using the Publish and Withdraw command.

Custom Dashboard items that you can import are created on another computer by the Export Items command. They are held in an XML (Extensible Markup Language) file with a .ped extension. The default file name is CustomItems.ped. Imported Dashboard items are just like items you may have created on your own computer; they can be modified and published in the same ways.

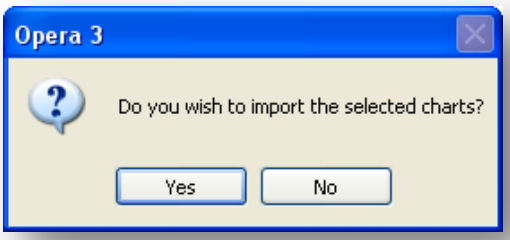
Warning: Use the Import Items command with care. You are not warned if an item in the import file already exists on the computer you are importing to but any existing custom Dashboard items that have the same Item ID are overwritten.

Notes

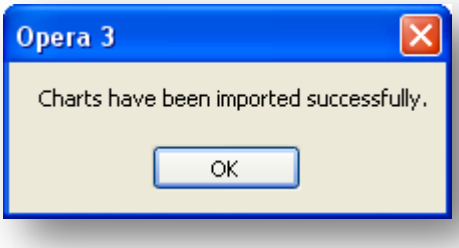
Highlight the appropriate PED file and select Open.



Select the Dashboard Items required for import. Click OK to continue.



Confirm the import to complete the process. A confirmation message will come up.

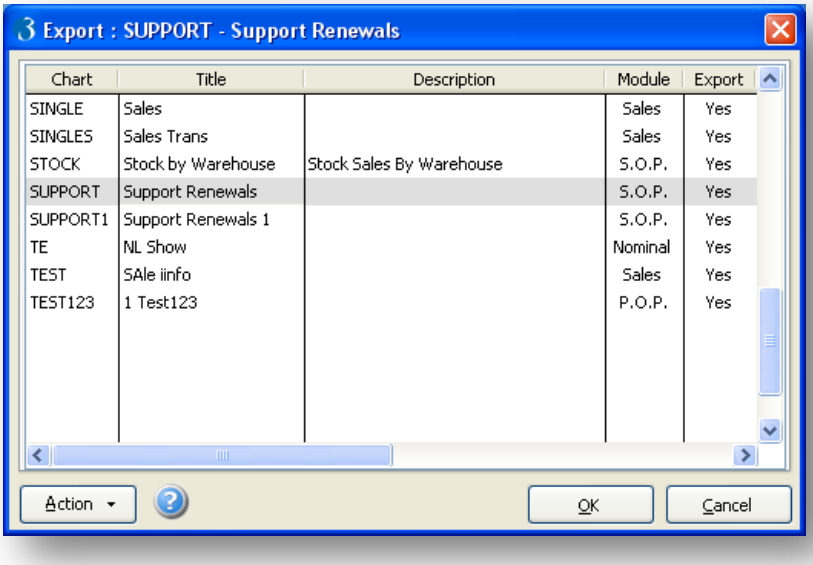


3.1.3 Export

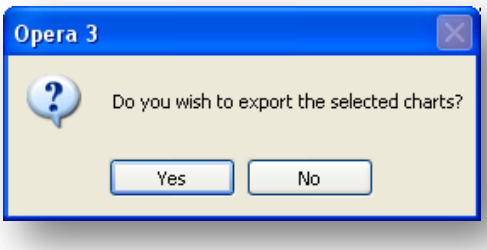
Executive Dashboard items may be developed and exported and imported from a different system. This functionality allows a Dashboard item to be designed off-site, exported and then imported and applied to a different system and data set.

Notes

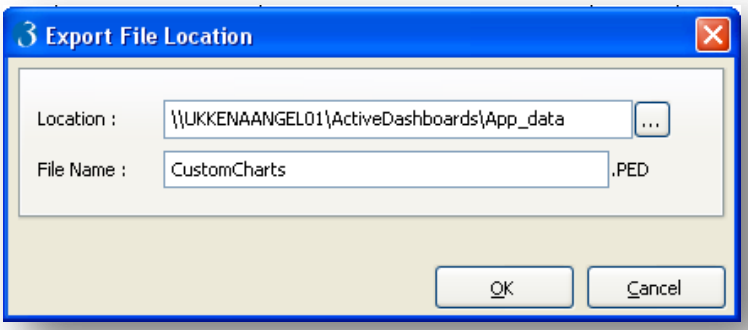
Dashboard items are stored as .ped files.



The export routine allows the user to export a Dashboard item.

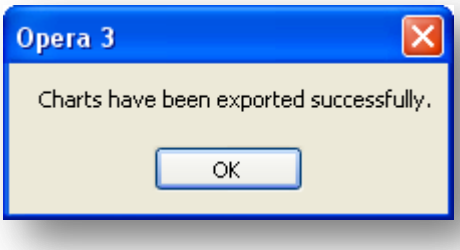


Select the records required for export and click OK



Select the location and filename. Clicking OK will export the Dashboard item.

Confirm the Export and the system should prompt a successful export.

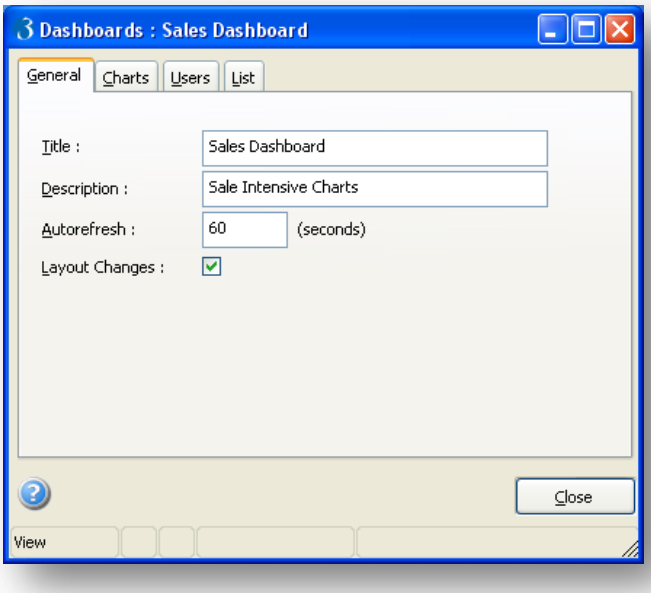


3.2 Dashboards

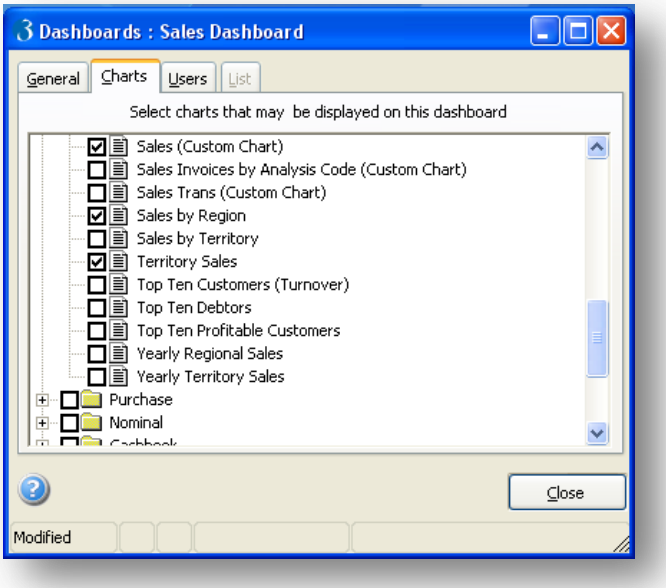
Notes

Use the Dashboards menu in Executive Dashboards Manager to create user-defined custom dashboards. You can choose which charts to display on each dashboard and the users that will have access to the them. Custom dashboards can display both standard charts and custom charts in Internet Explorer in the same way as the default dashboard.

The Dashboards form is a typical multi-tab form that is accessed from the Executive Dashboards Manager - Dashboards menu. Each dashboard has a title and an optional description as well as settings to control how often it will refresh on the screen in Executive Dashboards and whether the maximum number of dashboards that are displayed can be changed. The available dashboards are displayed on the List tab.

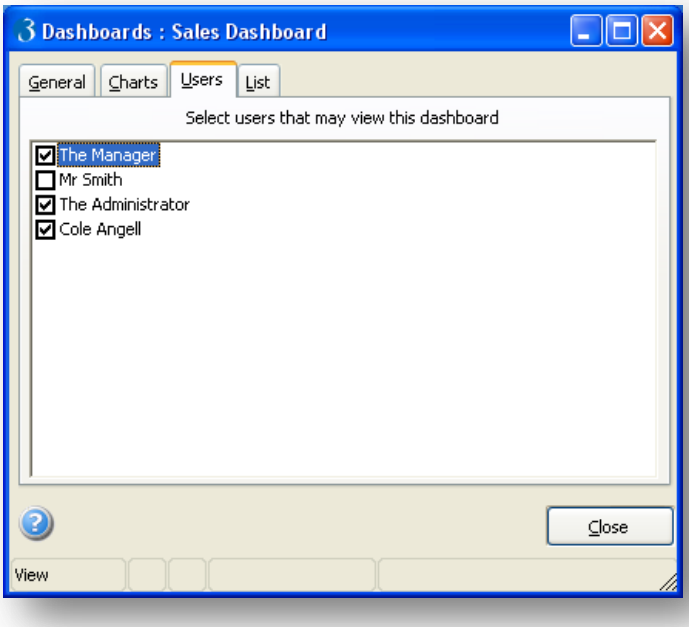


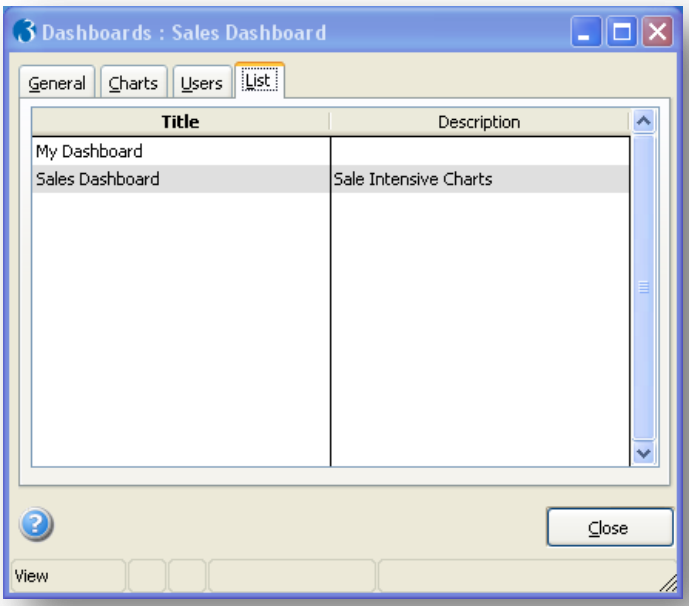
The **Charts** tab displays the list of available charts grouped by module. Only modules that are included in the Opera 3 activation are displayed for selection. The **All** button selects all available charts.



Notes

Each dashboard can be accessed by one or more users. The **Users** tab displays a list of Opera 3 users. The **All** button selects all users.



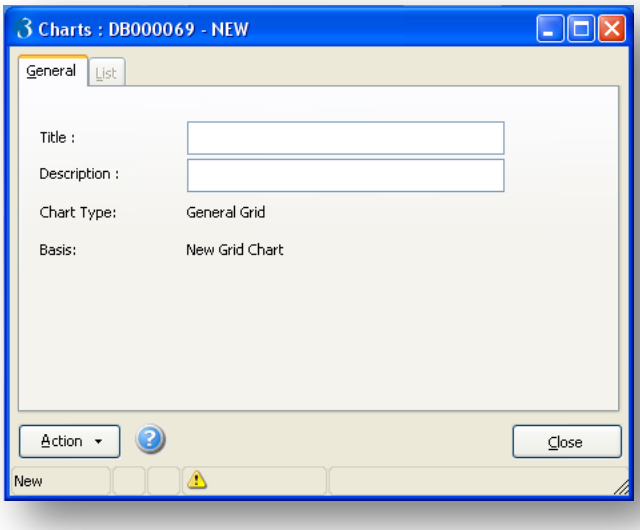


3.3 EDM Charts

Notes

The Processing function takes you to the available Dashboard items, showing you the title and description on the main form. The user has access to the List tab which will offer a directory of all available records.

It is possible to use EDM even if the number of publishable items are zero, however they will not have the functionality to be published.



Title

Mandatory title of the Dashboard Item, up to 40 characters.

Description

Optional Description of the Dashboard item, up to 30 characters.

Chart Type

The respective chart type for the Dashboard item.

Basis

The base the Dashboard item is using. This can help determine whether the item has been created from a Standard/Derived or Base type.

Published

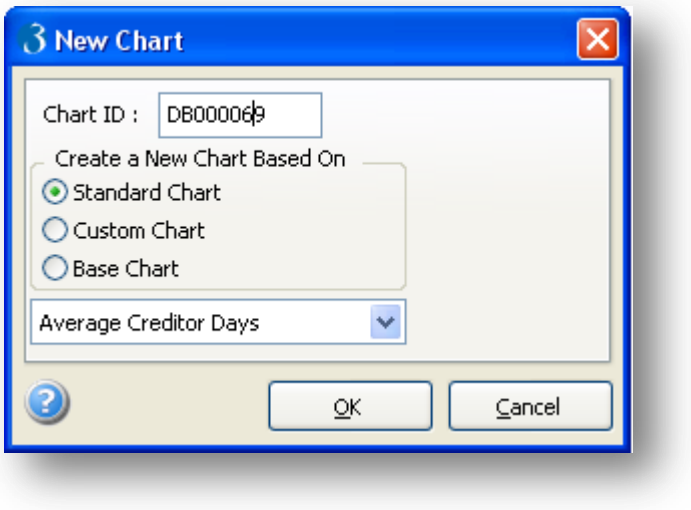
An option to publish the Dashboard Item, making it available for selection in the Executive Dashboards. The user is able to batch publish multiple Dashboard Items using the *Maintenance-Publish* function.

3.3.1 Creating a new Dashboard Item

To create a new record press CTRL + N or click the New button.

Notes

Creating a new record will take the user into the New Item Form.



Item ID

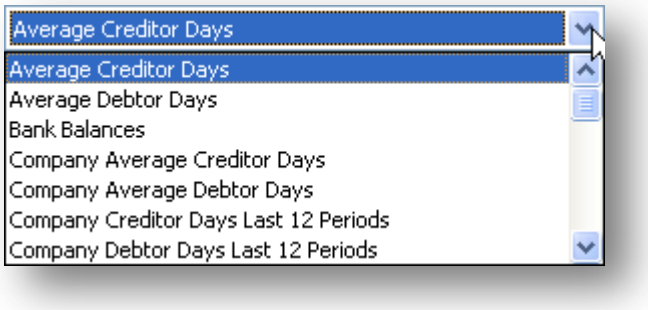
The unique Dashboard Item's alphanumeric ID, up to 8 characters long and must start with an alphabetical character.

…Based On

Select whether this new item is based on a standard item or create an item without a basis.

Standard Item

If a new item is created based on a standard item, this selection list of standard templates will become available.



Custom Item

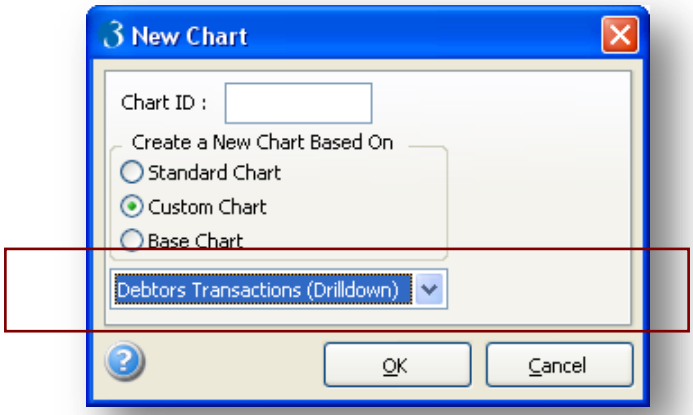
A new Custom Dashboard Item is always created from one of 3 bases;

- Existing Standard Item
- Existing Custom Item
- Pre-defined Item Chart Base

The first two options are termed "derived" items (using a pre-defined base), while the 3rd option is known as a Base item (using a Base item with a user-defined Base – see Base Item section).

Notes

If a new item is created without a base, this selection list of customer templates will become available.



At least one existing Dashboard Item must have been created before the user has the option of creating a custom item.

NB Derived (custom) and standard Items

- Derived items may have their characteristics other than the Id and Data Details changed at any time.
- A published derived item may not be deleted.
- The purpose of derived items is to allow a customer to determine or alter the display characteristics of a standard item.
- Standard items may be withdrawn from use; i.e. made unviewable.
- Standard items may not be deleted.

Base Item

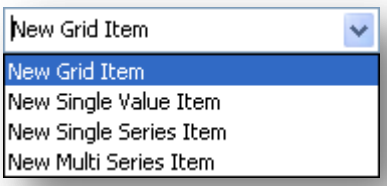
Base items are created and defined in the following order;

1. Creation of Basis
2. Definition of Data details (as covered in section 3.2.2)
3. Definition of Chart details (as covered in section 3.2.2)

(1) Base Items may be created from one of four types;

General Grid	Grid display of one or more columns of data
Single Value	Display of an individual value
Single Series	Display of values against categories e.g. Bar Chart
Multi-Series	Display of several values against categories

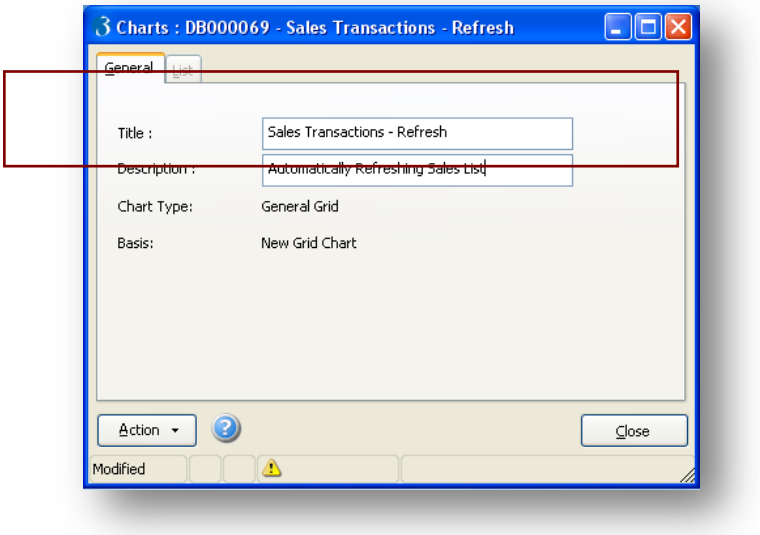
If a new item is created as a Base Item, the selection list of Base Item types will become available.



Notes

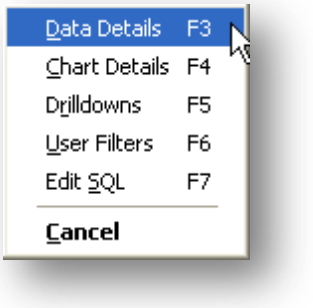
Completing the Dashboard Item creation…

Enter the appropriate Item details and click OK. This will return the user to the Processing screen where a Title and Description may be entered (as detailed in section 3.2).



The Dashboard Record is now saved and knows it is a “New Item”.

3.3.2 Action button options



There are several options available from the Action button;

- Data Details
- Chart Details
- Drilldowns
- User Filters
- Edit SQL

Further details can be found in the later following sections.

Notes

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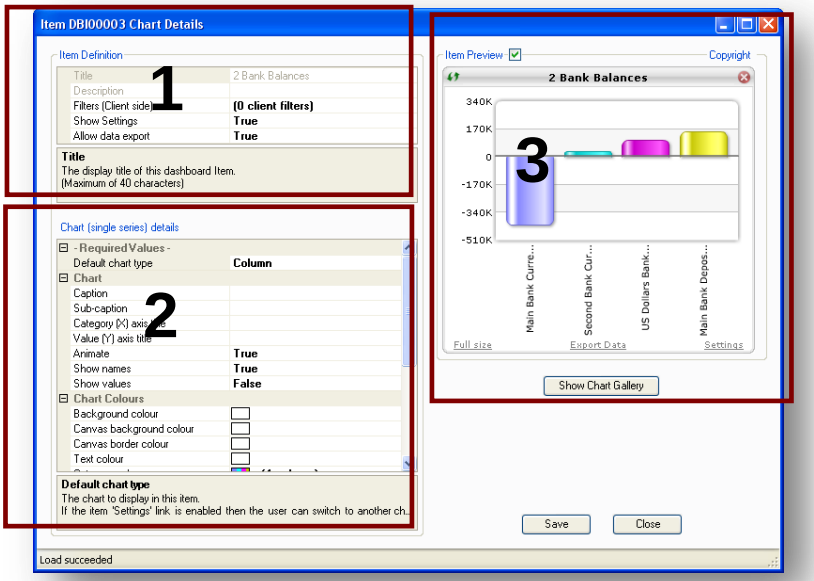
4 Chart Detail Design

The user has the ability to design the chart associated with this record.



The Chart Design screen is split into 3 main sections.

- Item Definition
- Chart/Grid Details
- Item Preview

4.1 Item Definition (1)

Title

The Title of the Dashboard item taken from the processing screen.

Description

The Description of the Dashboard item taken from the processing screen.

Filters (Client side)

Accesses the Filter criteria window for this Dashboard item.

Show Settings

This setting controls whether the Settings Link is shown on the Dashboard item. An example usage is for changing chart type on the fly.

Allow Data Export

Allows the user to control whether the data from the respective Dashboard item can be exported or not.

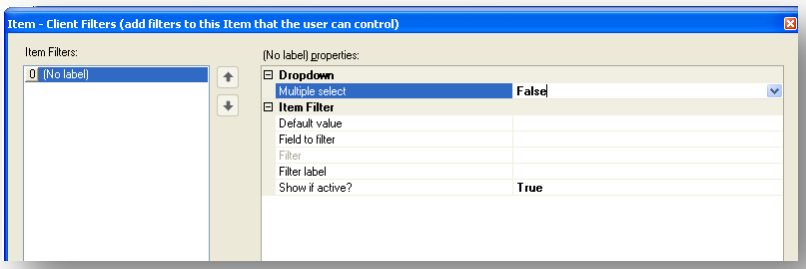
Notes

Item Information

User defined text for the user to read. Click the … icon to edit. A user just need to click the icon to see this information in the chart.

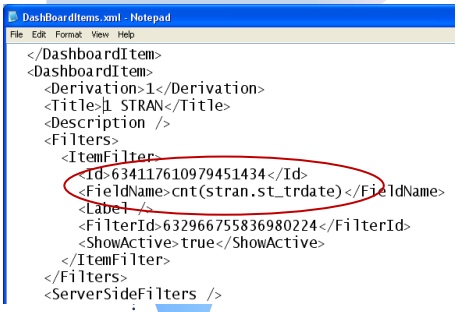
4.1.1 Filters

The user is able to add multiple Filters and can alter the order these are executed in.



NB: We do not support XML editing

If using Run Time Filters on a Chart that has derived data with grouping, please be aware that the Fields being selected with also pull through the type of Summarisation with it for the filter. This is held in the DashBoardItems.xml file.



Click the Add button to create a new filter. Enter an appropriate Filter Label.

Dropdown

Multiple Select

Allows the user to select more than one value from the dropdown list.

Item Filter

Default Value

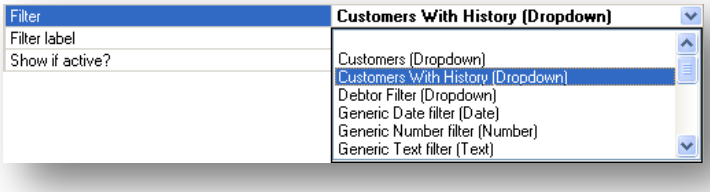
Enter the default value to filter the chart on here.

Field To Filter

The field to apply this filer to. Select a field from the dropdown list or type in the field name.

Filter

Select the filter to use. The user may select from one of the pre-defined available fields or base it on a "Generic" free type field. The user would then be required to free type in the filter (date/text/number etc). For example A* in a Generic Text Filter would return every record starting with A. For further wildcard information, please refer to Appendix E.



Easier Method (without editing XML)

Do not select the field as an output field in data details. Create the chart and then add a new filter. In the field to filter type in the field name i.e. stran.st_trdate. This will ensure a summarisation is not used. This will be shoe-horned into the SQL as a WHERE Clause. You can now use this field as a run time filter.

Try using transform(year(stran.st_trdate)) and using a Generic Text filter

Filter Label

The label shown for this filter when running the Dashboard item.

Show If Active?

An option to select whether or not to display this filter at the top of the item if being used.

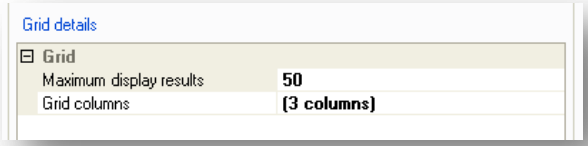
4.2 Chart/Grid (<Chart Type>) Details (2)

Notes

The type of Dashboard Item will determine the available settings in this section. For a complete breakdown of field descriptions please refer to Appendix I.

4.2.1 Grid Details

Dashboard items will store it's respective type (Grid, Single item etc) against it and will offer the appropriate options in the 'Details' section.



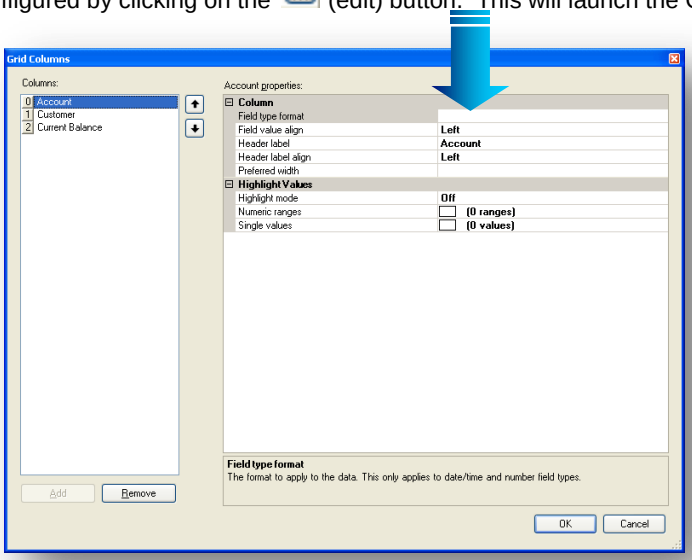
Grid Section

Maximum Display Results

The maximum number of rows to display in the Grid (Between 1-250). If there are more results than the max. 250 then the user is able to page though them.

Grid Columns

Shows the number of Grid Columns for this Dashboard Item. The Columns may be configured by clicking on the (edit) button. This will launch the Grid Columns form.



The user may edit the number of columns selected on an individual basis.

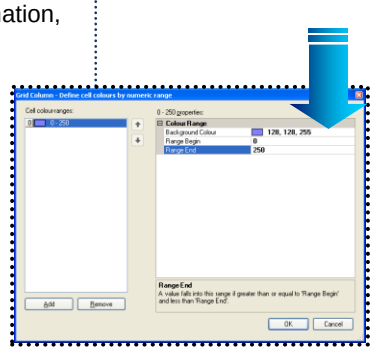
Column

Edit the Column format and labels in this section. For further field formatting information, please refer to Appendix H.

Highlight Values

The User is able to set up single values or ranges to be highlighted.

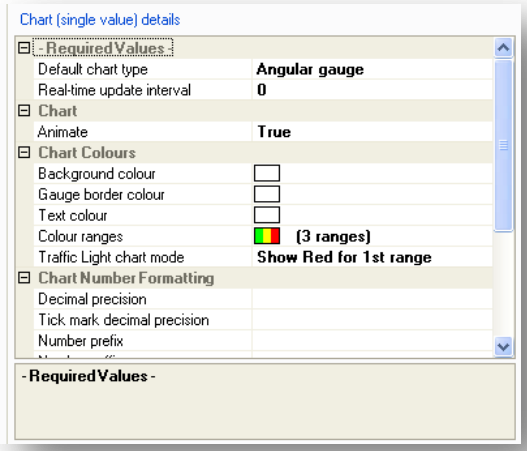
Click on the (edit) button next to set up single values or ranges respectively.



4.2.2 Chart (Single Item) Details

Notes

Dashboard items will store it's respective type (Grid, Single item etc) against it and will offer the appropriate options in the 'Details' section.



Required Values Section

Select the Chart type here. This selection will determine what options are available in the following sections.

Chart Section

The options available will be determined by the Chart Type. Once a Chart type has been selected, then titles, captions, animate and show data options become available if appropriate.

Chart Colours Section

The options available will be determined by the Chart Type. Once a Chart type has been selected, then it's respective colour settings will be available for manipulation.

Example; Colour ranges may be created, click on the (edit) button respectively.

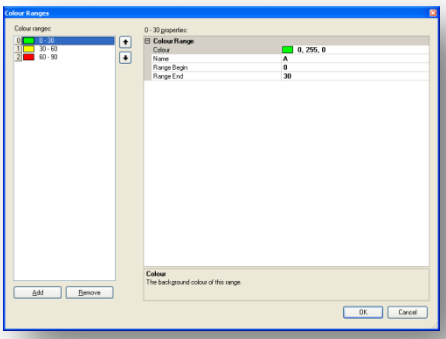


Chart Number Formatting Section

The options available will be determined by the Chart Type. Once a Chart type has been selected, then it's respective number formatting settings will be available for manipulation.

Notes

Chart Numerical Limits Section

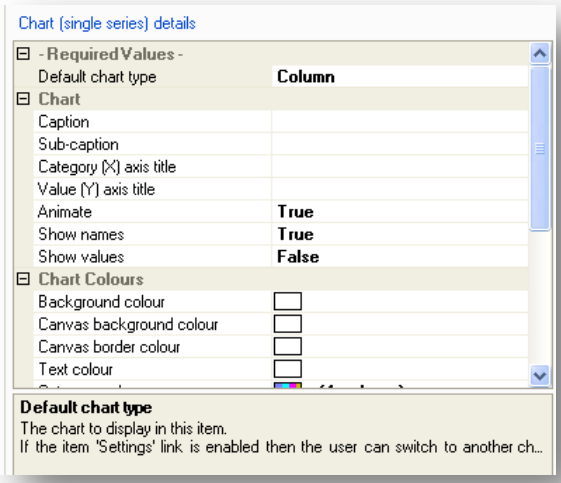
The options available will be determined by the Chart Type. Once a Chart type has been selected, then it's respective numerical limits will be available for change.

Chart Trend Lines

Show straight or diagonal lines on this chart to represent targets, trends etc.

4.2.3 Chart (Single Series) Details

Dashboard items will store it's respective type (Grid, Single item etc) against it and will offer the appropriate options in the 'Details' section.



Required Values Section

Select the Chart type here. This selection will determine what options are available in the following sections.

Chart Section

The options available will be determined by the Chart Type. Once a Chart type has been selected, then titles, captions, animate and show data options become available if appropriate.

Chart Colours Section

The options available will be determined by the Chart Type. Once a Chart type has been selected, then it's respective colour settings will be available for manipulation.

Notes

Example; Category Colour ranges may be created, click on the (edit) button respectively.

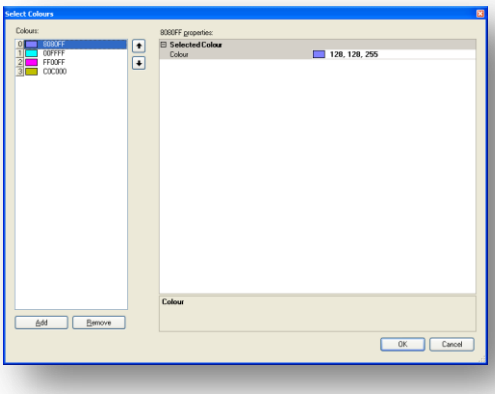


Chart Number Formatting Section

The options available will be determined by the Chart Type. Once a Chart type has been selected, then it's respective number formatting settings will be available for manipulation.

Chart Numerical Limits Section

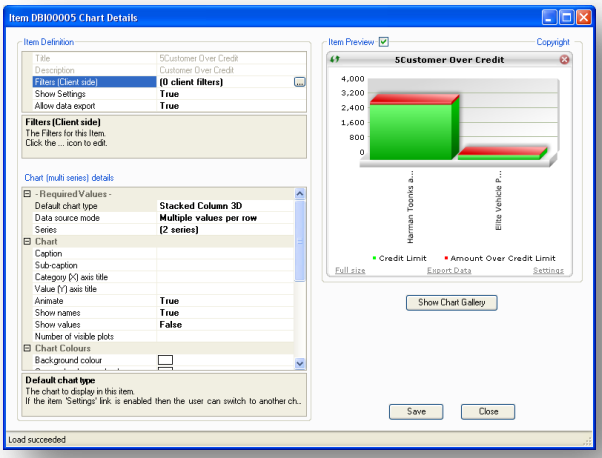
The options available will be determined by the Chart Type. Once a Chart type has been selected, then it's respective numerical limits will be available for change.

Chart Trend Lines

Show straight or diagonal lines on this chart to represent targets, trends etc.

4.2.4 Chart (Multi Series) Details

Dashboard items will store it's respective type (Grid, Single item etc) against it and will offer the appropriate options in the 'Details' section.



Required Values Section

Select the Chart type here. This selection will determine what options are available in the following sections.

Notes

The user is able to define the chart's data series from this section. Example; Multiple series may be created, click on the (edit) button respectively.

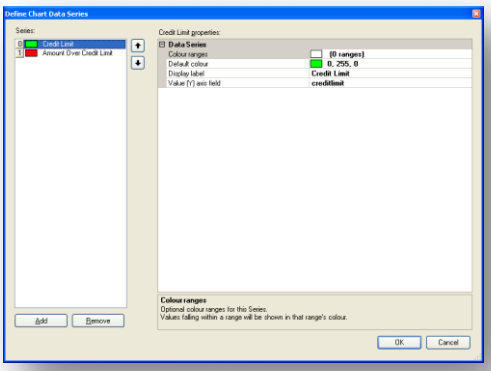


Chart Section

The options available will be determined by the Chart Type. Once a Chart type has been selected, then titles, captions, animate and show data options become available if appropriate.

Chart Colours Section

The options available will be determined by the Chart Type. Once a Chart type has been selected, then it's respective colour settings will be available for manipulation.

Chart Number Formatting Section

The options available will be determined by the Chart Type. Once a Chart type has been selected, then it's respective number formatting settings will be available for manipulation.

Chart Numerical Limits Section

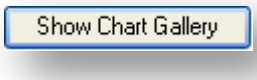
The options available will be determined by the Chart Type. Once a Chart type has been selected, then it's respective numerical limits will be available for change.

4.3 Item Preview (3)

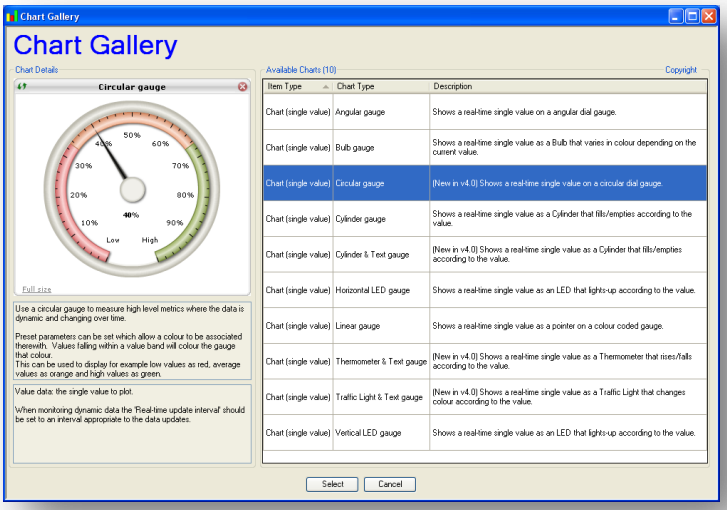
Shows a preview of the current Dashboard item and it's respective settings. The user is able to refresh the view, toggle the filters and change it to full size.

4.4 Show Chart Gallery

Clicking on the Show Chart Gallery button takes the user into the Chart Gallery window allowing them to preview and select a Chart type. Only the appropriate Charts will be available for selection e.g. if the Dashboard Item is a Single Value Type, then only the respective Single Value Chart types will be available.



Notes



When select a Chart type, an example will be illustrated with a small description and respective technical details. The guide is designed to help users select the most appropriate graph for the information to be displayed.

Notes

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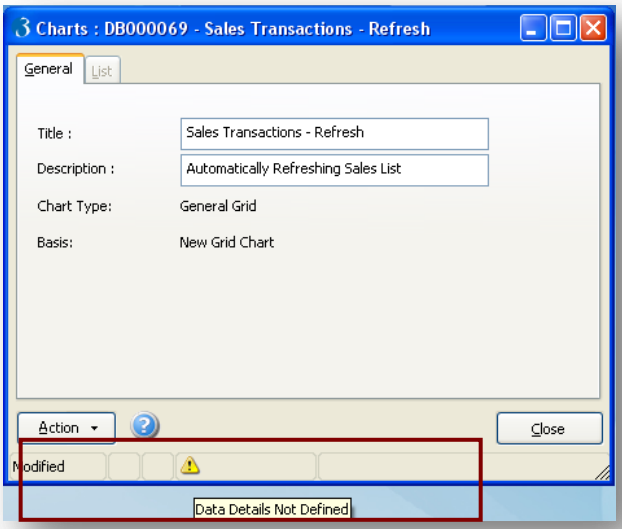
5 Data Details Design

The data details of a base item are gathered through a report manager interface where the base, fields, sequence and criteria for the Dashboard Item's Data Details are set up. It is possible to choose as many fields as desired in data details, but there are set rules the system uses to determine how they are used to set up an item's chart details.

5.1 Base Rules

Grid	The columns appear in the chosen field order. All fields are available for use with filters.
Single Value	The ***last*** field in the list is used for the single value. Any other fields are made available for filters.
Single Series	The **first** field provides the ('x axis') categories of the chart with the second field as the ('y axis') values. These fields and any others are available for use with filters.
Multi Series	The first field gives the ('x axis') categories of the chart with the second field as the ('y axis') values. All other fields form the various parameters for the values. All fields are available for use with filters (example used – Customer Over Credit Limit)

When a new Base Item is created, the data details need to be defined prior to Chart details being available for manipulation.



5.2 Setting up Data Details

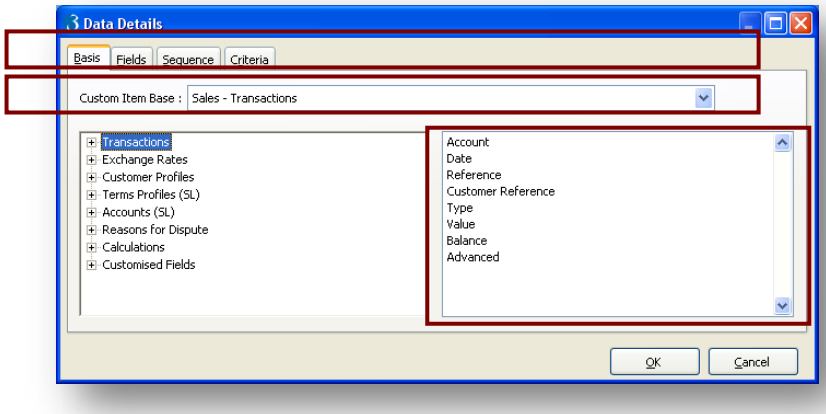
When a new item has been created, the user must set up the Data details. In order to do this, click on action-data details.

Data Details Design

Notes

Step 1 – Defining the 'Report Base'

The Basis tab is where you choose the source of data that makes up the columns in your report. You can pick data fields from a wide selection of modules and their tables. You can also include customised fields for calculated values. Select the Report Base from the available drop down menu. This form will also indicate the type of Base Dashboard Item being created.



Once the Report Base has been defined, select the field required for the Dashboard Item.

NB - Be aware of which fields are selected in regards to the Base Rules as detailed in section 5.1.

Report Base

The Report Base is an option that determines the module and files used as the basis for the selection of fields for inclusion in the Dashboard design. You can select from a list. The report base options available depend on the activation code and the user menu access controls assigned to your user profile.

Fields Available

A list of the fields, grouped under table headings, that are available for inclusion in the report design. The fields listed depend on the selection you make in the Report Base list. To add a field to the report design, double-click the field name. It then appears in the Fields Selected list.

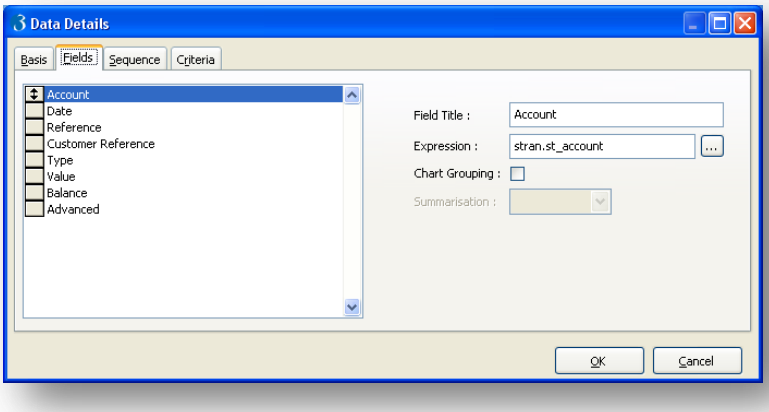
Fields Selected

A list of the fields you have selected for the report design. You can remove a field from the list by double-clicking the field name.

Notes

Step 2 – Defining Field details

The Fields tab is where you control the attributes of individual fields selected for the report. The user is now able to alter and define field details, including confirming the title and expression used.



There is also the ability to create and manipulate formula fields for use with the Dashboard Item.

Field Title

The title of the field according to the data dictionary. You can change this if you prefer, using up to 20 characters. The field title for a formula field defaults to 'Formula1', 'Formula2', and so on. Therefore, it is important that you give it a meaningful title.

Expression

The coding that determines the field content. This may be a direct reference to the content of data in the database or a more complex expression of a field based on a formula.

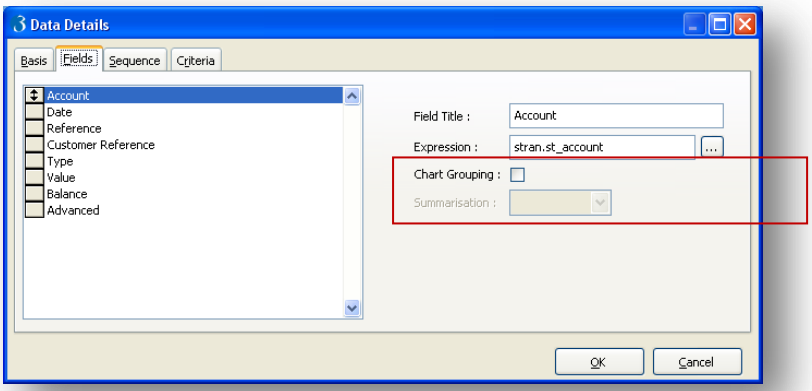
You can open the Expression Builder form by clicking the ellipses button to the right of this box.

Note: The message "Expression is too long" is displayed if the expression is longer that 255 characters. This is a limitation in Visual Foxpro, the software development language used to write the application.

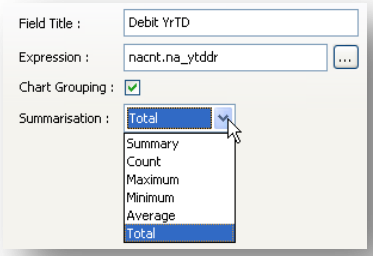
The Fields tab now offers a user-friendly method of "grouping". This can be achieved by editing the SQL, however this functionality has been offered to try and simplify chart designing.

Notes

The user has the ability to select Chart Grouping. This will allow the fields to be defined as a Summary field (a Group By – for text fields) or a Calculated Summary field (pre-defined functional settings such as Sum, Count etc – for numeric fields).



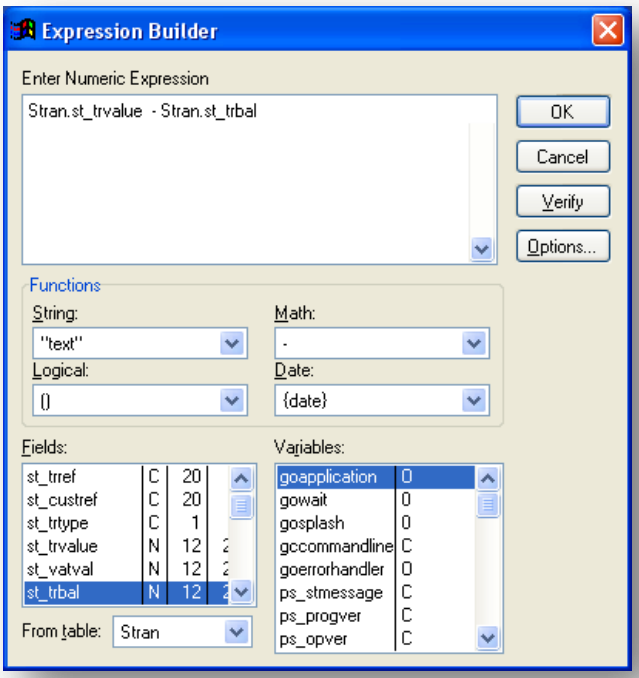
For numeric field you can select further Summarisation options for the sub-totalling on the charts.



These settings will be manipulated into the final SQL statement for the Chart.

Expression field in more detail

The coding that determines the field content. This may be a direct reference to the content of data in the database or a more complex expression of a field based on a formula. You can open the Expression Builder form by clicking the ellipses button to the right of this box.



Notes

Report expressions are provided for formulae and enables you to specify the nature of the calculation to be carried out. During the report creation, the system will calculate values based on the formula you define and produce the result.

The expression builder is part of the Visual FoxPro database, and, in its full functionality is outside the scope of this documentation. If you want to use the expression builder extensively to create your formulaes, please refer to Visual FoxPro documentation.

Warning: Take great care when using the expression builder's facilities as they can be used on any field in a report; not just for formulae and constructs.

You can build simple expressions for formula fields using the information provided below:

Functions: Using the Math list, you can express the relationship between successive elements of the formula. For example, you can use of the following simple arithmetic functions: + (to add two or more formula elements); - (to subtract one element from another); * (to multiply one element by another) or / (to divide one element by another).

Fields and Constants: Formulae can include fields and/or constants. A list of fields is provided from which you can select the one you want, and those available will depend on the selection you have made for the report base on the Basis tab. If you are not sure what fields contain what information, ask your Reseller for assistance. You can include numeric constants ('fixed' values) as part of the formula. These you enter directly in the appropriate part of your formula. If you want to prioritise calculations in a complex formula, you can use parenthesis ().

Picking Fields: You can enter a formula/construct expression of "?-?*?", where each "?" character results in a list of fields being displayed. Each "?" is replaced by the expression for the field that was chosen. Once all fields have been chosen from the list, a list of suggested expressions is displayed. The suggested expression list has rules of precedence that depend on the structure of the expression and the fields chosen.

Number	User Expression Type	Type and order of precedence for list
1	No fields chosen are formatted values.	1
2	All fields chosen are formatted values where the baseless expressions are all identical or are not formatted values AND the first field forms the first part of the expression (ie, no alphabetic characters appear before the first "?"). For example, in the expressions "?+?" and "((?+?)-?)", the first field forms the first part of the expression. In the expression "RGEXPQUAN(?, cfact.cf_factor, cfact.cf_dps)", the first field does not form the first part of the expression.	2, 3, 1, 4
3	All fields chosen are formatted values where the baseless expressions are all identical or are not formatted values AND the first field does not form the first part of the expression (see above definition).	1, 3, 2, 4
4	Fields chosen contain formatted values of mixed baseless expressions, where the first field forms the first part of the expression.	4, 3, 1, 2
5	Fields chosen contain formatted values of mixed baseless expressions, where the first field does not form the first part of the expression.	3, 4, 1, 2

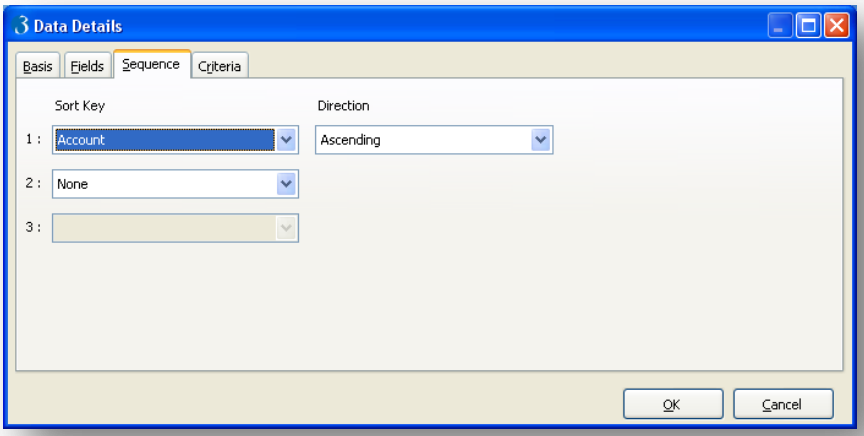
Notes

The suggested expression types can be summarised as follows:

Suggested expression type	Details
1 (Data Reference Only)	"?" characters are replaced by the base values, in the case of formatted values, or field expressions, in the case of non formatted values.
2 (Data Reference Formatted)	The base field within the first formatted value field expression is replaced by the user expression, where "?" characters are replaced by the base fields, in the case of formatted values, or the field expressions, in the case of non formatted values.
3 (Full Expression Only)	"?" characters are replaced by the NUMBERFUNC conversion of the full field expressions, in the case of formatted values, or the field expressions, in the case of non formatted values.
4 (Full Expression Formatted)	The conversion of the first formatted value field is used. The first formatted values is replaced by the base field. All other formatted values are replaced by the conversion of the expression using NUMBERFUNC. Non-formatted value fields are replaced by the field expression.

Step 3 – Defining Sequence

If you want data sorted in a particular order, you use the Sequence tab to determine which fields are used for sorting, whether the field is sorted in ascending, descending or no order and what action is taken when there is a change in the sort key value. You can specify up to three sort orders.



Sort Key

An option that determines which of the fields you have included in your report design are used as the basis for a sort sequence. You can select from a list.

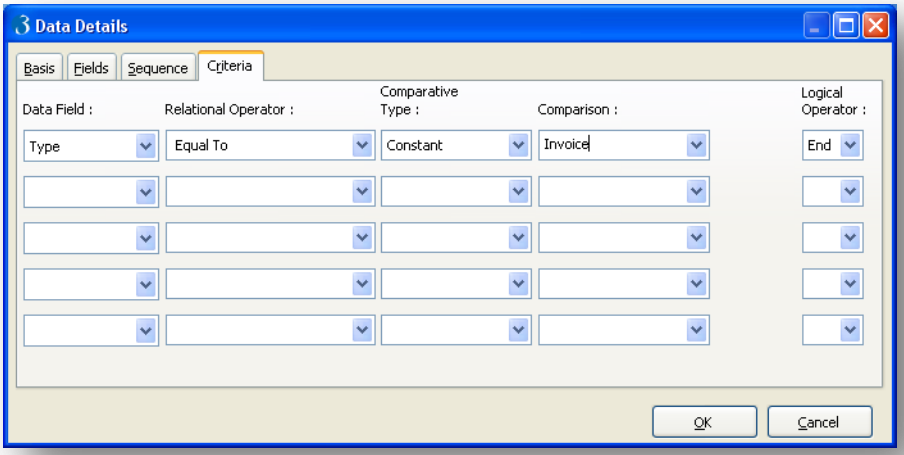
Direction

An option that determines the direction of the sort. You can select None, Ascending or Descending from a list. If you select 'None', the order of records in the report will be the order in which they were written to the database table.

Step 4 – Defining Criteria

Notes

Up to 5 criteria settings may be set for this Dashboard Item.



You may not want all records to be selected when you run a report, and you can control which are included by defining selection criteria. You use the Criteria tab to determine which fields are used for selection purposes and how that selection takes place. Records can be selected on the basis of matching or not matching various criteria. You can define up to five different criteria.

Report Field

An option that determines which of the fields you have included in the report design is to be used as the basis for selection.

Relational Operator

An option that determines what kind of selection criterion is applied to the selected field. You can select one of the following from a list:

- Equal To
- <>Not Equal To
- Greater Than
- >= Greater Than Equal To
- <=Less Than Equal To
- < Less Than
- Contains
- Not Contains
- Between
- Not Between

These work on both alphabetic and numeric characters. For example, to select all accounts whose account codes begin with ‘A’ or ‘B’ you would select the < Less Than option in the Relational Operator box, select Constant in the Comparative Type box and then and enter 'C' in the Comparison box. You could achieve the same result by selecting < Less Than Equal To option in the Relational Operator box, selecting Constant in the Comparative Type box and then and entering 'B' in the Comparison box.

Notes

Comparative Type

An option that determines the type of data used to compare against the selection criterion. You can select one of the following from a list:

- **Constant** (meaning that the comparison is done using a single, fixed value);
- **List** (meaning that the comparison is done against a list of constants);
- **Range** (meaning that the comparison is done against a range of constants);
- **Field** (meaning that the comparison is done against another field included in the report design);

Comparison

The value used for comparison purposes which depends on the selection you have made in the Comparative Type list.

- **Constant:** A reference, value or date against which the report field is compared for inclusion in, or exclusion from, the report.
- **List:** A list of reference, values or dates against which the report field is compared for inclusion in, or exclusion from, the report. You must separate each entry with a comma.
- **Range:** A range of references, values or dates against which the report field is compared for inclusion in, or exclusion from, the report. You must separate the 'From' and 'To' values with a colon.
- **Field:** A field selected from a list, against which the report field is compared for inclusion in, or exclusion from, the report. You can only select fields already selected for the report design on the Basis tab.

Suppress Suggestions

Not currently used by PEDM.

Logical Operator

An option that determines how the selection criteria are linked. This does not apply if only one criterion is defined. You can select one of the following from a list:

- **End** (used to signify the last criterion)
- **And** (used to signify that *both* the current *and* next criterion must be satisfied before a record is selected for inclusion in or exclusion from the report)
- **Or** (used to signify that *either* the current *or* next criterion must be satisfied before a record is selected for inclusion in or exclusion from the report).

Notes

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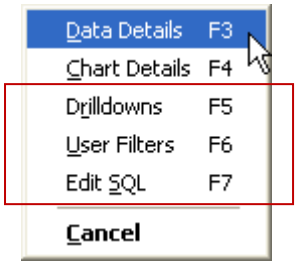
6 Further Functions

There are further functions and settings which may be applied and used for Charts.



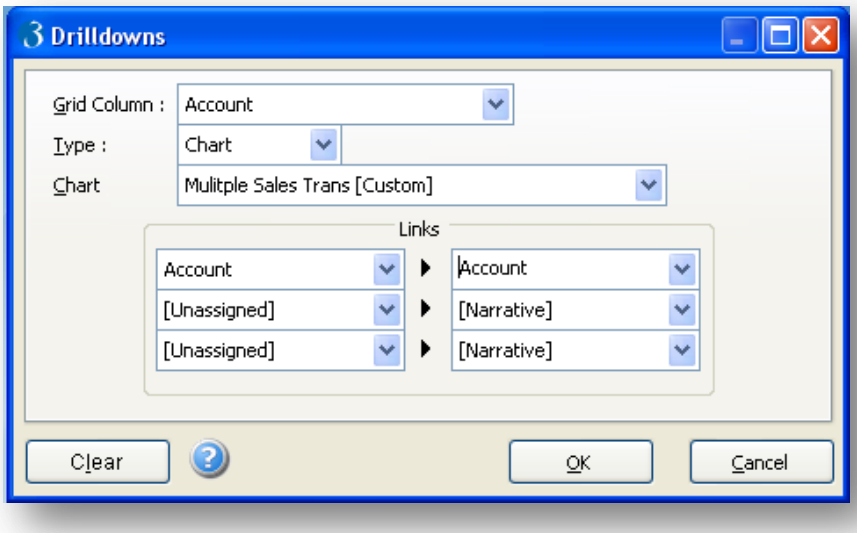
6.1 Data & Chart Details

These are covered in the previous full sections of the manual.

6.2 Drilldowns

Use the Drilldowns form to link a chart to another chart, to another dashboard, to a web page or to a file. If the chart you are linking from is a grid chart, you can select a different link for each column in the chart.

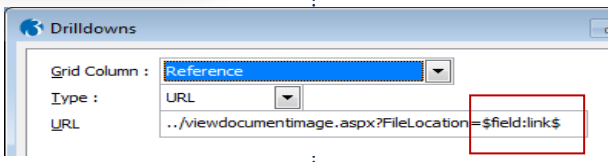
You can link to either a standard chart that is provided with Pegasus Executive Dashboards or to a custom-designed chart. To link to another chart you must also define the fields in each chart that link together to filter the data. This is important so that the drill down chart displays the relevant information for the link.



Further Functions

DrillDown to PDF –

Below is an example drill down to PDF that is used with other standard reports and nicely displays a PDF if there is one available. It also uses the standard template to state if there is no PDF available.



Ensure the Field name refers back to the field being extracted

Box	Description
Grid Column	The column that is used to drill down to the another dashboard, another chart or a URL. Each column can be set up to do this. This is only relevant for grid charts.
Type	The type of drilldown. You can choose to drill down to another chart, to another dashboard, or to a web page or to a file (URL).
Chart	The drilldown chart that the main chart will link to. Only charts that are not already selected as drilldown charts are displayed in the list. Standard charts that are designed as drill down charts are
Chart Link 1	The first field that matches a field in the main chart to an equivalent field in the drill down chart. For example, if you link a chart that displays header information of outstanding sales orders to a chart that displays the details of each sales order, you would select the field for the document code to link the charts together. You could also optionally choose the customer's account code if you wanted to display that on the drilldown chart too. The fields that you can select are different for each chart. **Note:** If a chart link on the right of the form displays *Narrative*,
Link 2	The second field that matches a field in the main chart to an equivalent field in the drilldown chart.
Link 3	The third field that matches a field in the main chart to an equivalent field in the drilldown chart.

Notes

Example URL Drilldowns :
http://www.streetmap.co.uk/postcode/$field:postcode$

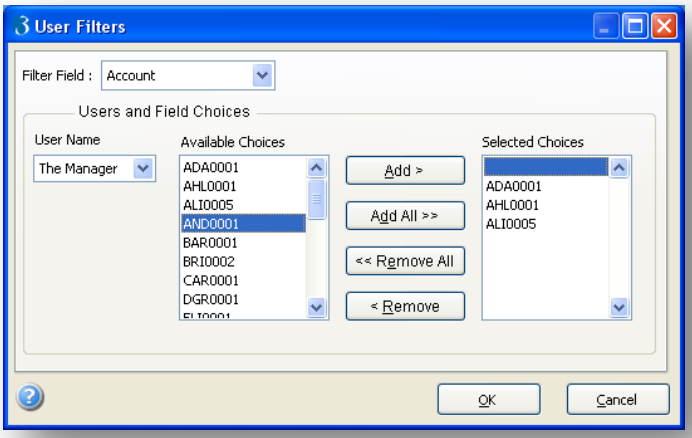
Could try Google

http://www.google.com/search?q=$field:Name$

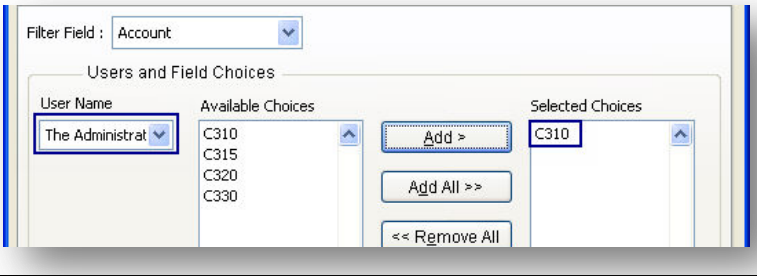
6.3 User Filters

Use the User Filters form to limit the data that users can see in a chart. You can link users to different codes in data fields so that only the details for those codes are included in a chart. If no user filters are set up, all users will see all the data in the chart.

Once a filter has been set up for one or more users, you must set up a filter for each user who needs to view data in the chart. Users who have not had a filter set up for them will not see any data in the chart. If you want a user to see all the data, click 'Add All' to select each of the codes. If you want a user to see only some of the data, select the relevant codes and click 'Add'.



For example, you can set a filter so that the user 'Manager' can view the balances for all bank accounts and set another filter so that the user 'Administrator' can view the balance for only one bank account.



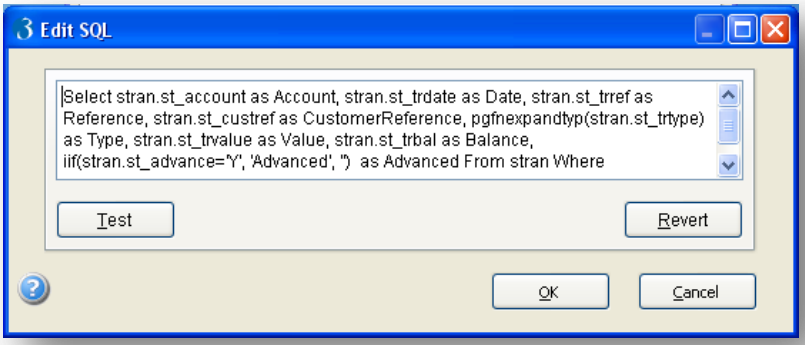
Notes

Box	Description
Filter Field	The data field on which you want to filter the data. The fields that you can choose are different for each chart. The 'Users and Field Choices' boxes are displayed after you choose the field.
User Name	The user that the filter is applied to. The list displays all the users that have been defined on the System - Maintenance - User Profiles form.
Available Choices	This list includes the available codes for the chosen field.
Selected Choices	This list includes the selected codes for the chosen user. Codes in this list are included in the chart for the user.

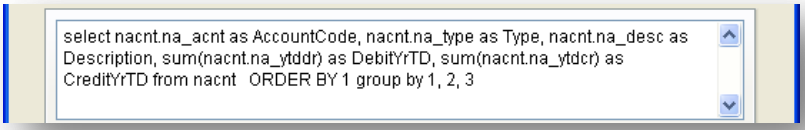
6.4 Edit SQL

Warning: You should only change the SQL query if you have experience of the SQL language.

When the Data Details form is used to define the data that is used for a custom chart, a Structured Query Language (SQL) query is saved and then used when the chart is displayed in Executive Dashboards. The SQL query for each chart selects the required table and fields and also defines the sequence for the data and the criteria that needs to be applied to the chart.



For example, if you create a new chart and use the Data Details form to select the 'Account', 'Date', 'Reference' and 'Value' fields from the Sales - Transactions table and then choose to order the results by 'Account', this SQL query is created:



Select stran.st_account as Account, stran.st_trdate as Date, stran.st_trref as Reference, stran.st_trvalue as Value from stran Order by 1

Notes

This query can be changed using the Data Details form or by editing the SQL statement on the Edit SQL form. To tweak the SQL query some users may prefer to change the SQL query 'by hand' rather than by using the Data Details form.

Note: The **Edit SQL** form is available only if the custom chart was created from a base chart.

A few more examples as a guide;

```
Select
year(stran.st_trdate),val(str(IIF((year(stran.st_trdate))=(YEAR(DATE())),
stran.st_trvalue,0),16,2)) as Current_Year,
val(str(IIF((year(stran.st_trdate))=((YEAR(DATE()))-1),
stran.st_trvalue,0),16,2)) as Last_Year,trim(padr(stran.st_account, 100))
as Account,(stran.st_trvalue) as Value From stran
```

Will produce a list of transactions withfunctions calculating out the year the transaction belongs to.

```
Select hsanal.sa_region,
sum(val(str(IIF((year(hsanal.sa_trdate))=(YEAR(DATE())),
hsanal.sa_trvalue,0),16,2))) as Current_Year,
sum(val(str(IIF((year(hsanal.sa_trdate))=((YEAR(DATE()))-1),
hsanal.sa_trvalue,0),16,2))) as Last_Year,
sum(val(str(IIF((year(hsanal.sa_trdate))=((YEAR(DATE()))-2),
hsanal.sa_trvalue,0),16,2))) as twoYears From hsanal group by
hsanal.sa_region
```

Produces a report similar to the “yearly Regional Sales”. As the previous select but includes grouping and summing by year.

Please notes these are guides only and would require testing for it’s accuracy.

Example Select :
Select sname.sn_account as Account, sname.sn_name as Name, strtran(sname.sn_pstcode, "", "") as Postcode , sname.sn_teleno as TelephoneNumber, sname.sn_contact as AcctContact, sname.sn_contac2 as OrdrContact From sname

Notes

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7 Back-up & Restore

Backing up and restoring the PEDM Data is a manual process. No data is maintained in the Data tables of the other modules.

The default location is C:\Program Files\Dashboards\Dashboards\ActiveDashboards\App_Data

All Standard and Custom Dashboard items are maintained in this location.

7.1 Back-Up

Exporting the Dashboards is a good method to back-up any items created.

Alternatively the user can manually back-up the data files - The user must back-up the whole App_Data folder to complete a full back-up of the PEDM data.

7.2 Restore

Restore from the Export if available would be the best restore method.

Alternatively the manual restore method - The user must restore the whole App_Data folder to complete a full restore of the PEDM data.

An Opera 3 Update Data Structures (UDS) is required to ensure any new changes are incorporated into the restored PEDM data.

Notes

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8 Examples

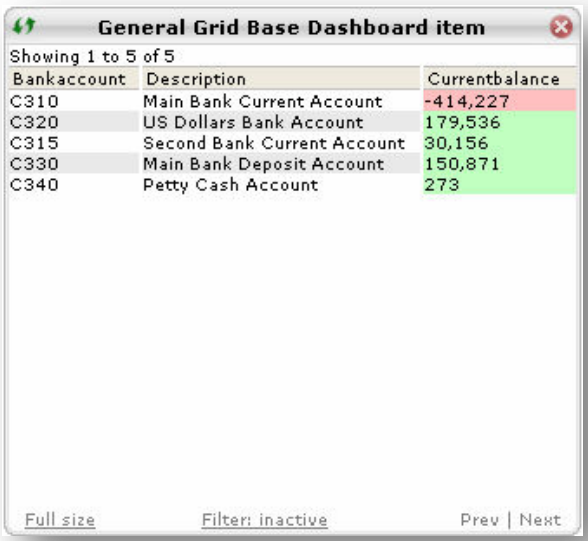
8.1 Custom Item Examples (Executive Dashboards Manager) – v2

A Base Dashboard item is a new item designed from scratch using the Data Details and the Chart Details forms. You can choose the type of chart from the Chart Gallery. This section details one example for each type of base Dashboard item you can create. They demonstrate how to create each chart type using the Nominal Ledger's bank account table. In each example, only some of the options have been used.

Tip: To build up your knowledge, first follow these instructions to create the same custom Dashboard item using the Opera 3 demonstration data. Then experiment using other options for each type of item.

8.1.1 Grid Items

Grid items display columns in the order of the fields chosen in the Fields tab on the Data Details form to display a grid. You can use any of the chosen fields to filter the information in the Dashboard item.



8.1.1.1 To Create this Base Grid Item

Open the Executive Dashboard Manager folder, and then click Processing.

On the Record menu, click New to create a new custom Dashboard item. The New Item form is displayed. Enter a unique ID for the item and select the type of item you are creating.

Update the boxes on the New Item form including the title - this item is called General Grid Base Dashboard item.

Examples

Notes

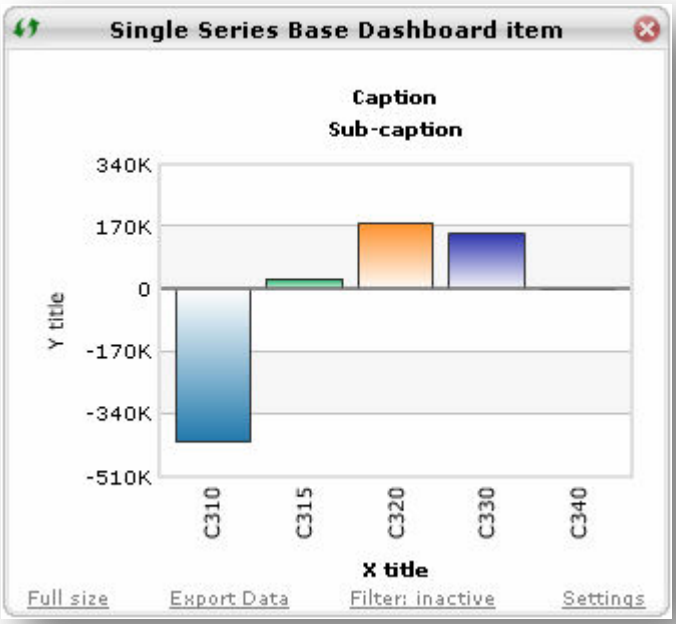
Select Data Details from the Action menu.

1. On the Basis tab, pick **Nominal - Banks.** Then expand the **Banks** node and select **Bank Account, Cost Centre, Description**, and **Current Balance**.
2. Click OK, then save the record on the Processing form.

1. Select Chart Details from the Action menu.
   - Click Data Export and select **False**
2. Under Item Definition, open the Filters (Client side) form.
3. Click Add then click OK after updating these fields:
   - Click Filter Label and enter **Bank Account**
   - **Generic text filter** and complete as required
4. Under Grid details:
   - Select the Grid Columns field and open the **Grid Columns** form
   - Select **Cost Centre,** then click Remove.
   - Select **Currentbalance**, then under Highlight Values:
     Click Highlight Mode and select **Numeric Ranges**
     Open the Numeric Ranges form and click **Add** to enter a range of '0-500000' with a green background colour. Then click **Add** again to enter a range of '-500000-0'.
     Click OK.
5. Click Save on the Chart Details form to refresh the chart.

8.1.2 Single Series items

Single Series items use the first field chosen in the Fields tab on the Data Details form for the 'x axis' (horizontal axis) of the chart, and the second field for the 'y axis' (vertical axis) of the chart. You can use any of the chosen fields to filter the information in the Dashboard item.



Notes

8.1.2.1 To Create this Single Series Base Item

Open the Executive Dashboard Manager folder, and then click Processing.

1. On the Record menu, click New to create a new custom Dashboard item. The New Item form is displayed. Enter a unique ID for the item and select the type of item you are creating.
2. Update the boxes on the New Item form including the title - this item is called Single Series Base Dashboard item.

Select Data Details from the Action menu.

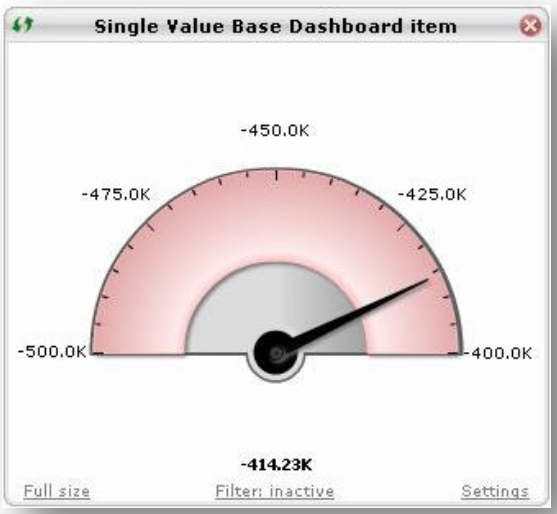
1. On the Basis tab, pick Nominal - Banks. Then expand the Banks node and select Bank Account and Current Balance.
2. On the Sequence tab, under Sort Key, select Bank Account and under Direction, select Ascending.
3. Click OK, then save the record on the Processing form.

Select Chart Details from the Action menu.

1. Under Item Definition, open the Filters (Client side) form. Click Add then click OK after updating these fields:
   - In Field to filter, select **Bankaccount**
   - In Filter, select Generic Text (dropdown)
   - In Filter Label, enter **Bank Account**
2. Under Chart (single series) details:
   - In Default Chart Type, select **Column**
   - In Caption, enter **Caption**
   - In Sub caption, enter **Sub Caption**
   - In Category (X) axis title, enter **X Title**
   - In Category (Y) Title, enter **Y Title**
   - In Show Names, select **True**
3. Click Save on the Chart Details form to refresh the chart.

8.1.3 Single Value items

Single Value item uses the <u>last</u> field chosen in the *Fields* tab on the Data Details form to display a single value Dashboard item. You can use any other chosen field to filter the information in the Dashboard item.



Notes

8.1.3.1 To Create this Single Value Base Item

1. Open the Executive Dashboard Manager folder, and then click Processing.
2. On the Record menu, click New to create a new custom Dashboard item. The New Item form is displayed. Enter a unique ID for the item and select the type of item you are creating.
3. Update the boxes on the New Item form including the title - this item is called Single Value Base Dashboard item.

Select Data Details from the Action menu.

1. On the Basis tab, pick Nominal - Banks. Then expand the Banks node and select Bank Account and Current Balance.
2. Click OK, then save the record on the Processing form.

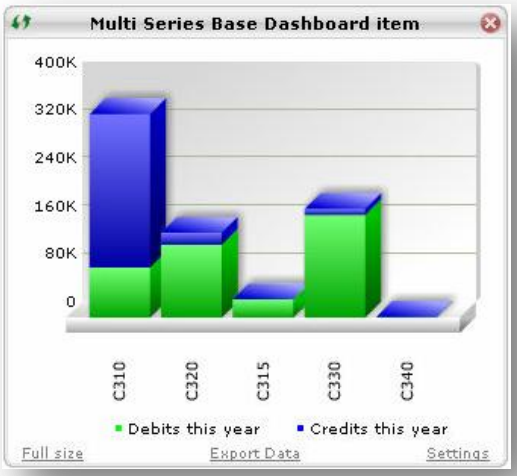
Select Chart Details from the Action menu.

1. Under Item Definition, open the Filters (Client side) form. Click Add then click OK after updating these fields:
   - In Item Filter, select **Bankaccount**
   - In Filter, select **Generic Text Filter (Text)**
   - In Filter Label, enter **Banks**
2. Under Chart (single value) details:
   - In Default Chart Type, select **Angular gauge**
   - **O**pen the Colour Ranges form:
     Click **Add** to enter a range of '-500000-0' with a red background colour. Then click **Add** again to enter a range of '0-500000' with a green colour.
     Click OK.

   Click Save on the Chart Details form to refresh the chart.

8.1.4 Multi Series items

Multi Series items use the first field chosen in the Fields tab on the Data Details form for the 'x axis' (horizontal axis) of the chart, and the second and third fields for the 'y axis' (vertical axis) of the chart. You can use any of the chosen fields to filter the information in the Dashboard item.



Notes

8.1.4.1 To Create this Multi Series Base Item

1. Open the Executive Dashboard Manager folder, and then click Processing.
2. On the Record menu, click New to create a new custom Dashboard item. The New Item form is displayed. Enter a unique ID for the item and select the type of item you are creating.
3. Update the boxes on the New Item form including the title - this item is called Multi-series Base Dashboard item.

Select Data Details from the Action menu.

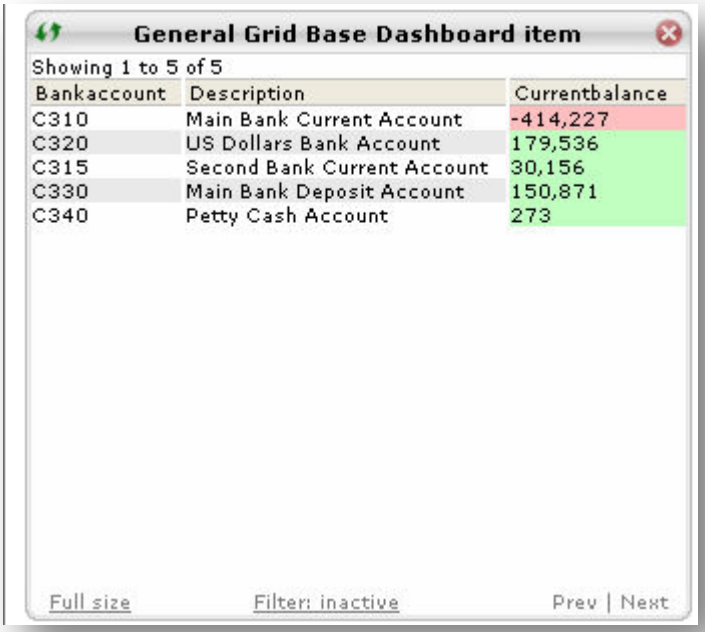
1. On the Basis tab, pick Nominal - Banks. Then expand the Accounts (NL) node and select Account Code, Description, Debit Yr TD and Credit Yr TD.
2. Click OK, then save the record on the Processing form.

3. Select Chart Details from the Action menu. Under Chart (multi series) details:
   - In Default Chart Type, select **Stacked Column**
1. Click Save on the Chart Details form to refresh the chart.

8.1.5 Examples v2.8x Onwards

Grid Custom Chart Example

Grid charts display columns in the order of the fields chosen in the Fields tab on the Data Details form to display a grid. You can use any of the chosen fields to filter the information in the charts.



Notes

To Create this Base Grid Chart

1. Open the Reporting folder and click Dashboards Manager - Charts or click the Reporting tab on the Ribbon Bar and then click Charts in the Dashboards Manager group.
2. To create a new record, click the icon on the toolbar or press **CTRL+N**.
3. The **New Chart** form is displayed. Enter a unique ID for the chart. Click the **Base Chart** button and select New Grid chart from the list. Then click **OK**.
4. Update the boxes on the New chart form including the title - this chart is called General Grid Base Dashboard chart.
5. To save the record, click the icon on the toolbar or press **CTRL+S**.

Select <u>Data Details</u> from the Action **menu.**

1. On the **Basis** tab, pick Nominal - Banks. Then expand the Banks node and select Bank Account, Cost Centre, Description, and Current Balance.
2. Click **OK**, then save the record on the **Processing** form.

Select <u>Chart Details</u> from the Action **menu.**

*Under **Chart Definition***

1. Open the Filters (Client side) form by clicking on the ellipses [...] button. Click **Add** and apply the filters as follows and then click **OK.**
2. Select Bank Account from the Field to filter field
3. Select Generic Text Filter (text) from the Filter field
4. Enter Bank Account in the Filter Label field. Then click **OK**.

*Under **Grid details***

1. Select the Grid columns field and open the Grid Columns form by clicking on the ellipses [...] button.
2. Select Cost Centre, then click **Remove**
3. Select Currentbalance
4. Under **Column**, click Field type format and enter #.# (hash comma hash)
5. Under **Highlight Values**, click Highlight Mode and choose Numeric Ranges
6. Select the Numeric Ranges field and click the ellipses [...] button.
    i. Click **Add** and select a green colour in the Background Colour field.
    ii. Enter 0 (zero) in the Range Begin
    iii. Enter 500000 in the Range End field.
    iv. Click **Add** again and select a red colour in the Background Colour field.
    v. Enter - (minus) 500,000 in the Range Begin field
    vi. Enter 0 (zero) in the Range End field.
7. Click **OK** to close the form.
8. Click **Save** on the **Chart Details** form to refresh the chart.

Notes

Single Value Custom Chart Example

Single Value charts use the last field chosen in the Fields tab on the Data Details form to display a single value chart. You can use any other chosen field to filter the information in the chart.

To Create this Single Value Base Chart

1. Open the Reporting folder and click Dashboards Manager - Charts or click the Reporting tab on the Ribbon Bar and then click Charts in the Dashboards Manager group.
2. To create a new record, click the icon on the toolbar or press CTRL+N.
3. The New Chart form is displayed. Enter a unique ID for the chart. Click the Base Chart button and select New Single Value chart from the list. Then click OK.
4. Update the boxes on the New Chart form including the title - this chart is called Single Value Base Dashboard chart.

To save the record, click the icon on the toolbar or press CTRL+S.

Select Data Details from the Action menu.

1. On the Basis tab, pick Nominal - Banks. Then expand the Banks node and select Bank Account and Current Balance.
2. Click OK, then save the record on the Processing form.

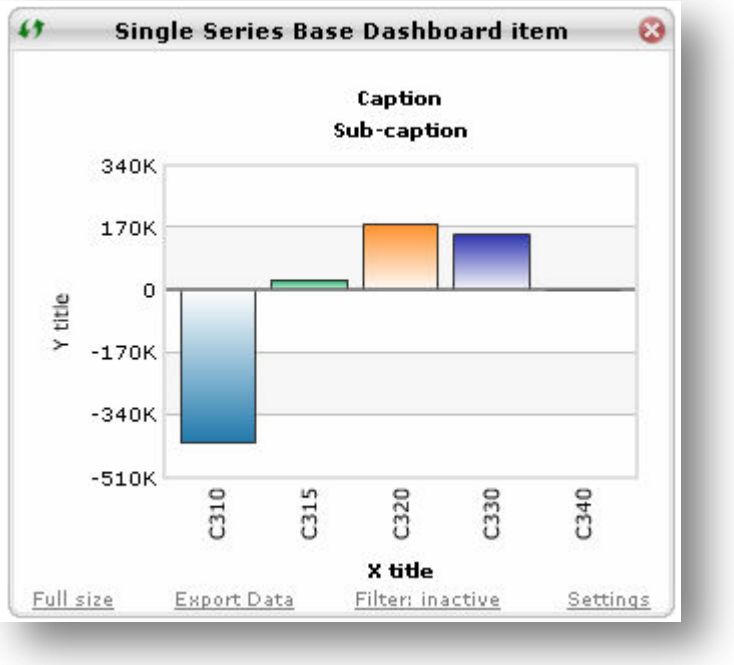
Select Chart Details from the Action menu.

1. Under Chart Definition, open the Filters (Client side) form. Click Add and apply the filters as follows and then click OK.
   - In chart Filter, select Bankaccount
   - In Filter, select Generic Text Filter (Text)
   - In Filter Label, enter Banks.
2. Under Chart (single value) details:
   - In Default Chart Type, select Angular gauge
   - Open the Colour Ranges form:
     - Click Add to enter a range of '-500000-0' with a red background colour. Then click Add again to enter a range of '0-400000' with a green colour.
     - Click OK.
3. Click Save on the Chart Details form to refresh the chart.

Single Series Custom Chart Example

Notes

Single Series charts use the **first** field chosen in the **Fields** tab on the Data Details form for the 'x axis' (horizontal axis) of the chart, and the **second** field for the 'y axis' (vertical axis) of the chart. You can use any of the chosen fields to filter the information in the chart.



To Create this Single Series Base Chart

1. Open the Reporting folder and click Dashboards Manager - Charts or click the Reporting tab on the Ribbon Bar and then click Charts in the Dashboards Manager group.
2. To create a new record, click the icon on the toolbar or press **CTRL+N**.
3. The **New Charts** form is displayed. Enter a unique ID for the chart. Click the **Base Chart** button and select New Single Series chart from the list. Then click **OK**.
4. Update the boxes on the **New Charts** form including the title - this chart is called Single Series Base Dashboard chart.

*To save the record, click the icon on the toolbar or press **CTRL+S**.*

Select Data Details from the** Action **menu.

1. On the **Basis** tab, pick Nominal - Banks. Then expand the Banks node and select Bank Account and Current Balance.
2. On the **Sequence** tab, under **Sort Key**, select Bank Account and under **Direction**, select Ascending.
3. Click **OK**, then save the record on the **Processing** form.

Select Chart Details from the** Action **menu.

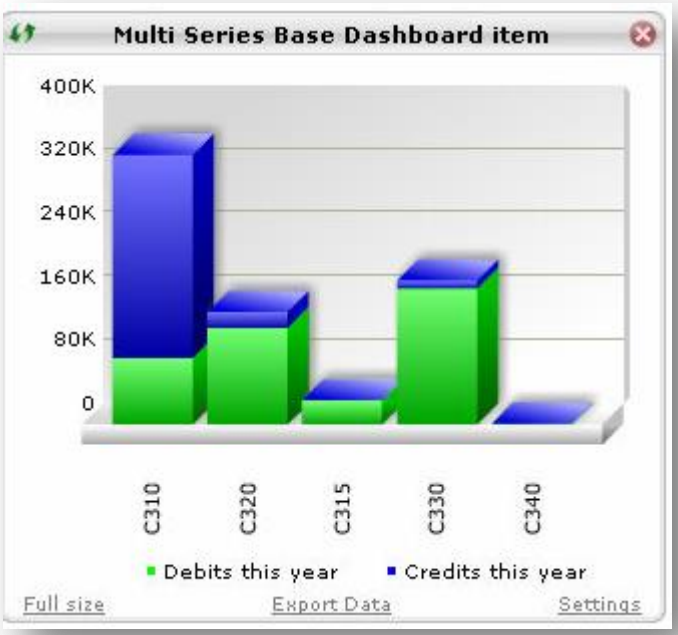
1. Under chart Definition, open the Filters (Client side) form. Click **Add** and apply the filters as follows and then click **OK.**
   - In Field to filter, select Bankaccount
   - In Filter, select Nominal Accounts (Dropdown)
   - In Filter Label, enter Bank Account.

Notes

2. Under Chart (single series) details:
   - In Default Chart Type, select Column
   - In Caption, enter Caption
   - In Sub caption, enter Sub Caption
   - In Category (X) axis title, enter X Title
   - In Category (Y) Title, enter Y Title
   - In Show Names, select True.
3. Click **Save** on the **Chart Details** form to refresh the chart.

Multi Series Custom Chart Example

Multi Series charts use the **first** field chosen in the **Fields** tab on the Data Details form for the 'x axis' (horizontal axis) of the chart, and the **second and third** fields for the ' y axis' (vertical axis) of the chart. You can use any of the chosen fields to filter the information in the chart.



To Create this Multi Series Base Chart

1. Open the Reporting folder and click Dashboards Manager - Charts or click the Reporting tab on the Ribbon Bar and then click Charts in the Dashboards Manager group.
2. To create a new record, click the icon on the toolbar or press **CTRL+N**.
3. The **New Chart** form is displayed. Enter a unique ID for the chart. Click the **Base Chart** button and select **Base chart**. Then select New Multi Series chart from the list and click **OK**.
4. On the **Processing** form, enter a **Title** and **Description** - this chart is called Multi Series Base Dashboard chart.

*To save the record, click the icon on the toolbar or press **CTRL+S**.*

Notes

Select Data Details from the** Action **menu.

1. On the **Basis** tab, pick Nominal - Banks from the **Custom Chart Base** box. Then expand the Accounts (NL) node and select Account Code, Debit Yr TD and Credit Yr TD.
2. Click **OK**, then select **Save** from the **Record** menu to save the settings.

Select Chart Details from the** Action **menu. Under** Chart (multi series) details **select Stacked Column 3D in the Default Chart Type field.

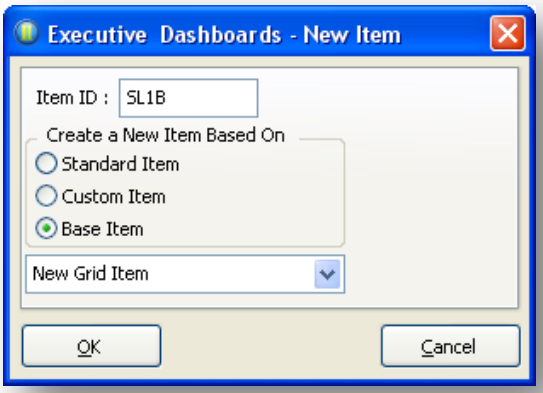
1. Click **Save** on the **Chart Details** form to refresh the chart.

Tip: If only one series is displayed on the chart, check the **Series** row under **Chart (multi series) details - Required Values**. [2 series] should be displayed. If only [1 series] is displayed, only one of the values will be displayed on the chart. To add the second series, click the elipses [...] button to open the **Define Chart Data Series** form. Then click the **Add** button and select the field from the **Value [Y] axis field** box and add a description in the **Display label** box.

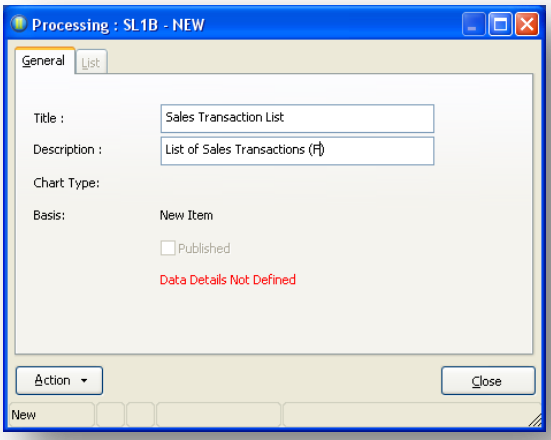
8.2 Further Examples - Sales Transaction list with filter (Opera II).

Notes

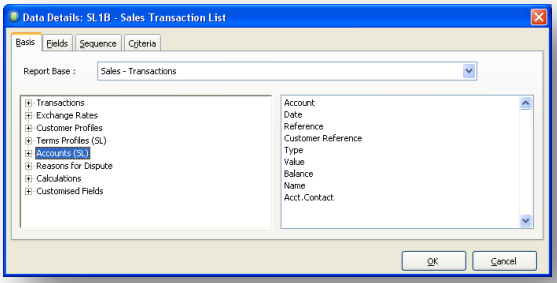
Create a new Dashboard Item and name is appropriately. Select Base Item and the Type as a New Grid Item.



Enter an appropriate Title and Description.

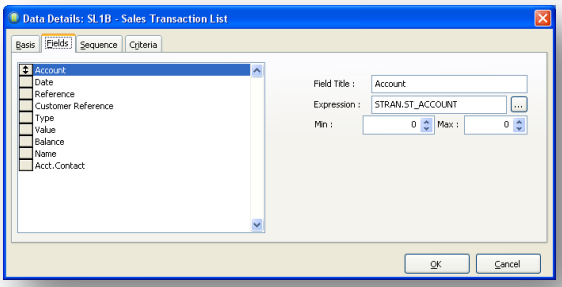


Save the record. Click on action and select Data Details. Select the Sales Transactions as a Base.



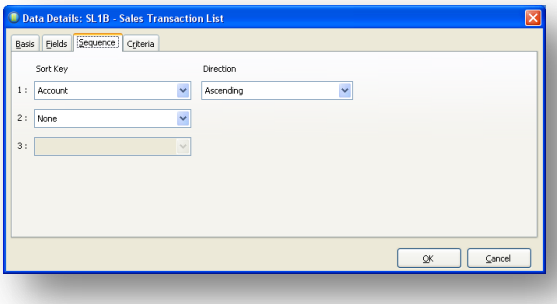
Select required Sales transaction fields for the Grid e.g. Account, Date, Reference etc.

Notes

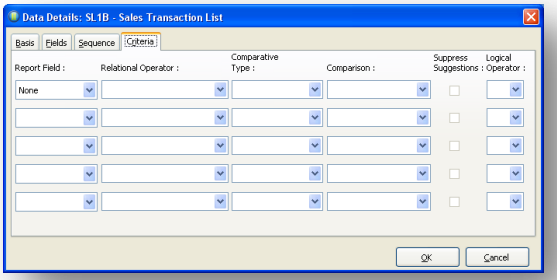


Set the sequence by Account in Ascending Order.

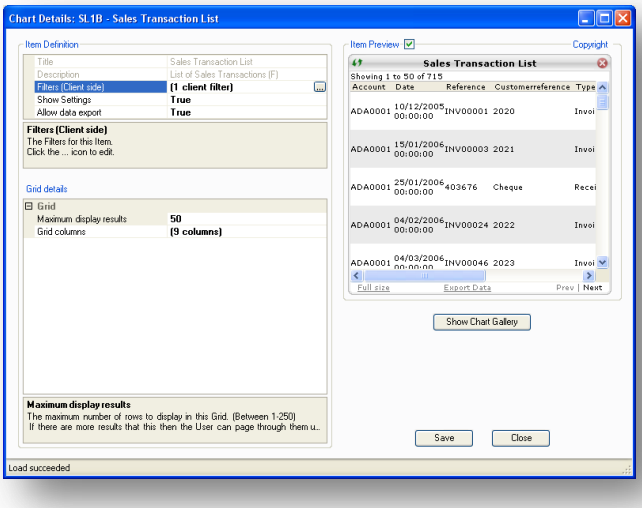
Notes



Leave the Criteria blank.

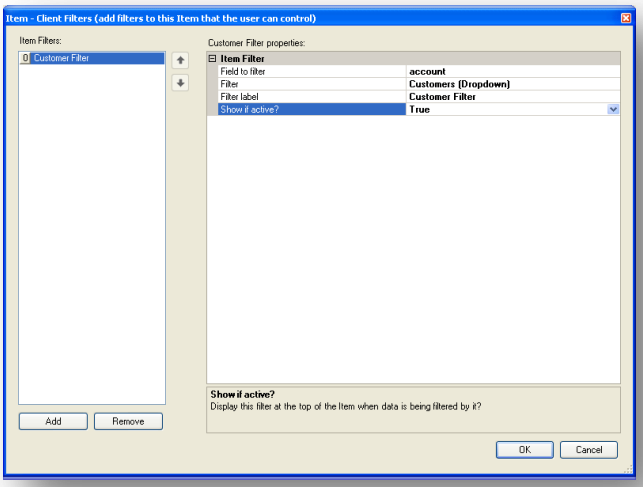


Click OK and Save the record. Then click on Action and select Chart Details.

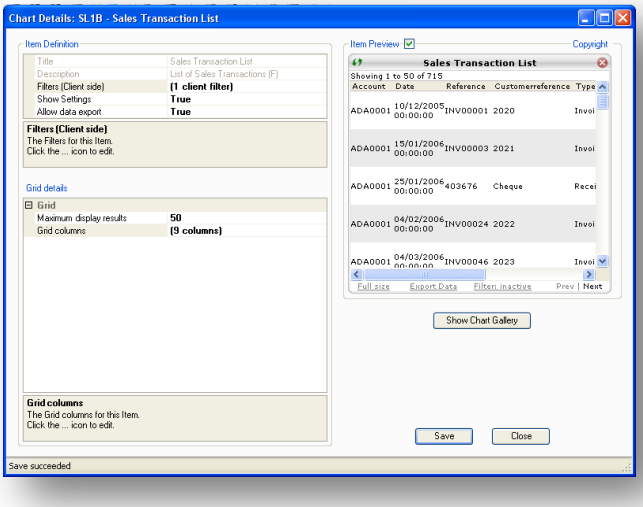


Click on the Filter section and add a new filter based on the account field. Base the Filter on the Customers (Dropdown). Use an appropriate label.

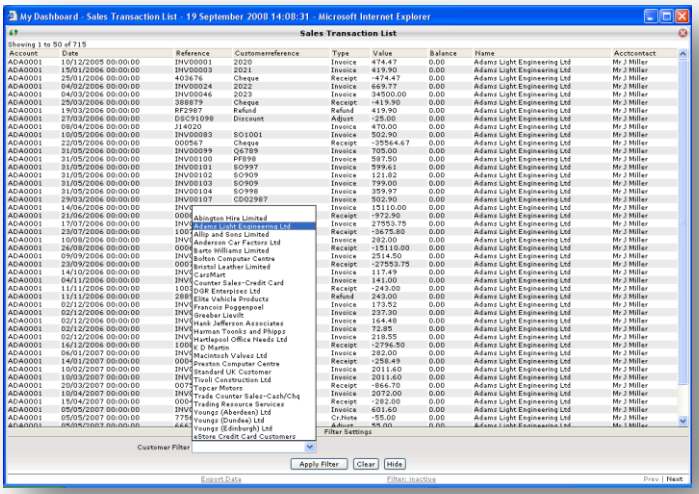
Notes



Click OK and save the record.



Publish the Dashboard Item and this should now be available in the Dashboards



Notes

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9 Executive Dashboard User Information

Information as taken from the Executive Dashboard Training Guide.

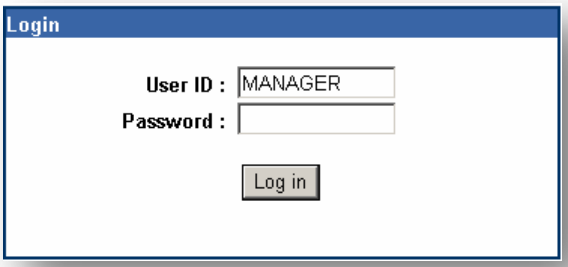
9.1 Logging into Pegasus Executive Dashboards

You log in to Pegasus Executive Dashboards using your Opera 3 User ID. This will give you access to see Dashboard items for companies you have access to in Opera 3. You will also only see the dashboards for the modules you have access to in Opera 3.

9.2 To Login to Pegasus Executive Dashboards

Double-click the Pegasus Executive Dashboard icon in the computer's desktop. The Login form is displayed.

In the User ID and Password fields enter your Opera 3 login ID and password. Then click the Log In button. The Dashboards items are then displayed.



Executive Dashboard User Information

Notes

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Troubleshooting

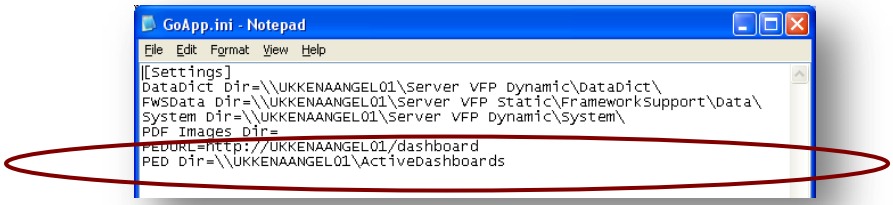
This section includes solutions to problems that you may encounter when using Executive Dashboards. Always ensure a back-up of the system is taken. If available, more detailed information on errors would facilitate a more in-depth assessment of the causal factors. Sources of additional information include:

- Looking for a related entry in the Windows Event Log
- Turning off friendly HTTP error messages in browser settings.

NO PED Server

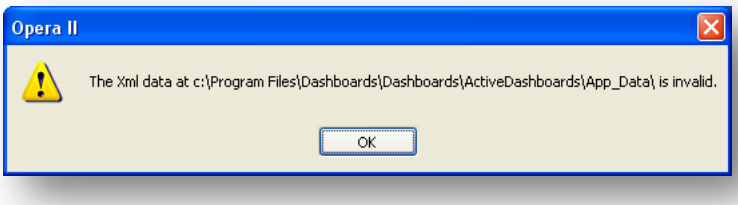
Cause: There is an issue in the GoApp ini file where the PED locations are not set correctly

Potential Resolution: Correct the GoApp.ini file (C:\Documents and Settings\All Users\Application Data\Pegasus\Server VFP)



Would also be worth checking the PathToGoApp.ini is also correct (C:\Program Files\Dashboards\Dashboards)

The XML Data



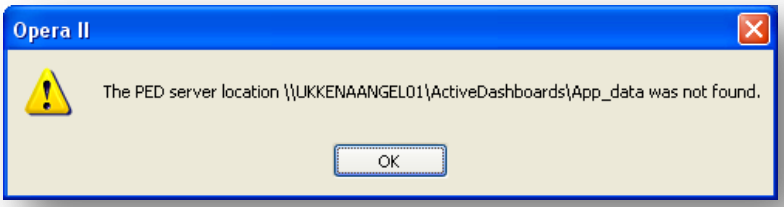
Cause: The PED has not been updated with the latest version.

Potential Resolution: Update the PED to the correct version.

Troubleshooting

Notes

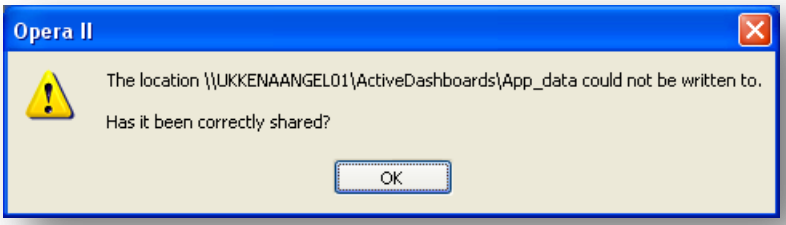
NO PED Server found



Cause: The appropriate files cannot be found. Check the PED locations are shared and available. Also it may be PED may not yet have been installed.

Potential Resolution: Install PED.Check the path 'PED Dir' in GoApp.ini. Share this path with appropriate permissions

PED Server cannot be written to

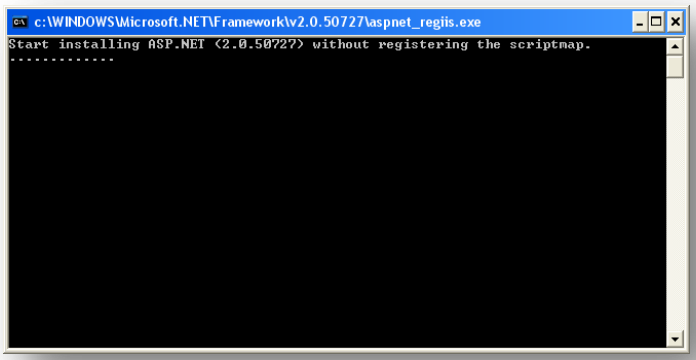


Cause: The appropriate files cannot be written to.

Potential Resolution: Amend permissions accordingly.

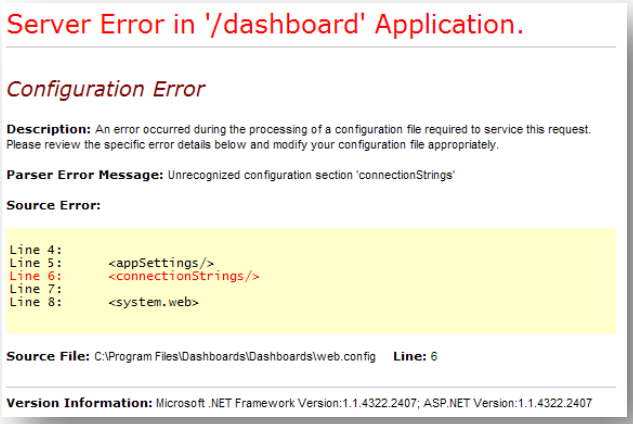
ASP.NET Errors

This may relate to the ASP.NET not installing correctly, ensure this was done at installation time. Also refer to Appendix A for further details in regards to the EDM installation.



Notes

Browser displays ‘Server Error in ‘/dashboard’ Application’ – Configuration Error

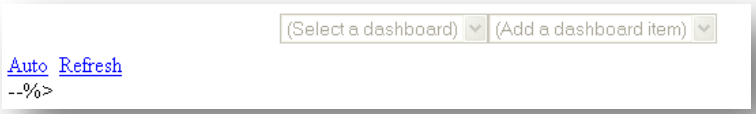


Cause: If this error is displayed after you log into Executive Dashboards, it is likely that the virtual directory used for Executive Dashboards is using the wrong version of .NET Framework.

Potential Solution: To Change the .NET Framework version for Executive Dashboards

1. Click the Windows Start menu and select Control Panel.
2. Double-click Administrative Tools, and then double-click Internet Information Services.
3. Under Internet Information Services, click the plus sign (+) next to the ‘local computer’ and then click the plus sign next to the ‘Web Sites’ folder.
4. Click the plus sign (+) next to ‘Default Web Site’ node and select the name of the virtual directory used by Executive Dashboards. The default name is ‘dashboard’.
5. Right-click the virtual dashboard name and select Properties.
6. Select the ASP.NET tab and change the ASP.Net version as required (i.e. Dashboard version 2.5 uses 2.0.50727, 2.6 will use 3.5 sp1 etc)
7. Click OK.

Browser displays ‘Auto Refresh’ and no Dashboard items



Cause: If this error is displayed, it is likely that the virtual directory for Executive Dashboards is not set to use .NET Framework, or .Net Framework 2.0 is not installed.

Potential Solution: To resolve this, first check that the virtual directory uses the correct version of.NET Framework. Use the instructions on the previous page to check this. If the version is set i.e. Dashboard version 2.5 uses 2.0.50727, 2.6 will use 3.5 sp1 etc), but the dashboard items are not displayed, you need to repair the installation of .NET Framework on the Executive Dashboards Server. Version 2 of .NET Framework is available on the Opera 3 CD.

Notes

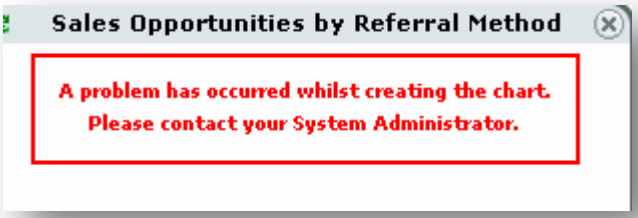
To Install or Repair .NET Framework 2.0

Insert the Opera 3 CD into the CD Drive.

Using Windows Explorer, browse to the Opera 3 CD.

Click the plus sign (+) next to the 'Pegasus Document Management' folder and then click the plus sign (+) next to 'Appendix' folder. Double-click the 'Microsoft .NET v2' folder and then run the dotnetfx.exe program. Follow the instructions on the screen.

Browser displays 'A problem has occurred whilst creating the chart '



Cause: FoxPro OLEDB driver not installed/registered *or* Web.Config not set for non-local Opera 3 data *or* Opera 3 not UDSed with function and view definitions.

Potential Solution: There are several possible solutions to this:

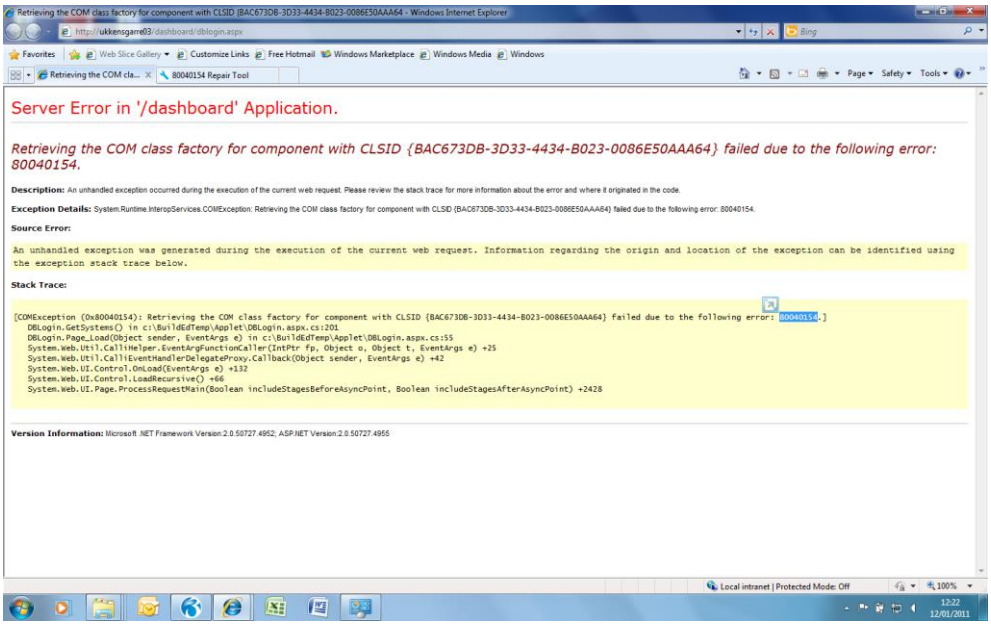
- Run Update Data Structures in Opera 3 selecting the companies that need to be displayed in Executive Dashboards.
- Follow the instructions in the 'After the Installation – Modifying the Web.Config file" section of the Executive Dashboards Installation Guide. The Web.Config file needs to be amended on the server to allow access to Opera 3 data across a network.
- Install and register the Visual FoxPro 9.0 SP1 OLE Database driver by either:
    - Reinstalling the Opera 3 client
    - Downloading and installing the driver from the microsoft.com/downloads.
- Installing/Repairing Adobe Flash 9 or higher
- Locate and re-register the vfpoledb.dll driver, usually found in c:\Program Files\Common Files\System\OLEDB

NB: Updating the Web.Config file (to allow Opera 3 data across network) only applies for Executive Dashboards version 1. The WebConfig file generally does not require editing for Dashboards v2 onwards.

This error could also occur if the SQL being used is too complex or incorrect and is able to produce a valid end result. Try to use the Edit SQL and troubleshoot the SQL being used.

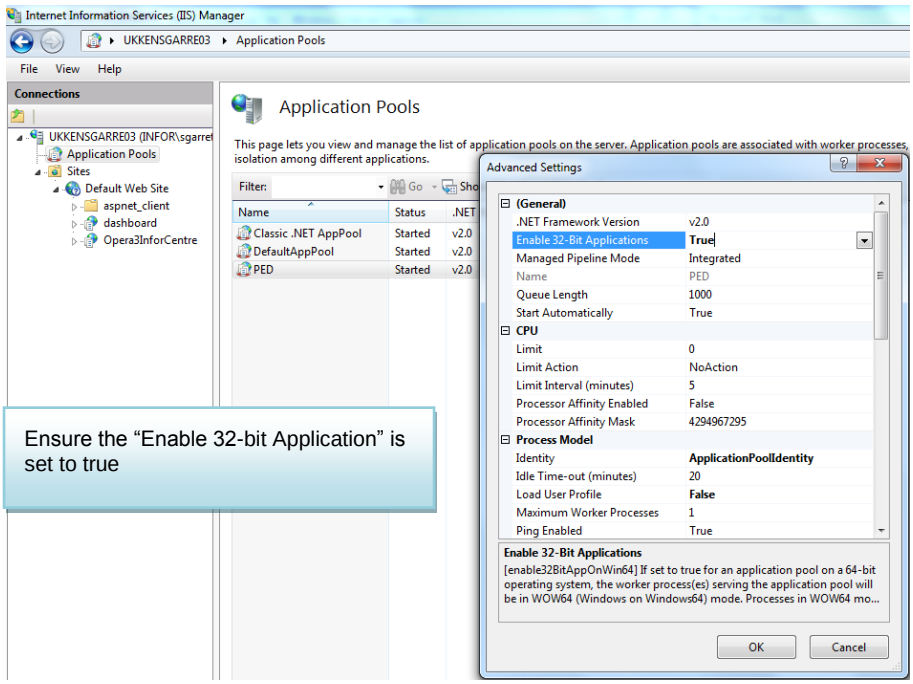
Browser displays 'Server Error in '/dashboard' Application' – Retrieving the COM Class…

Notes

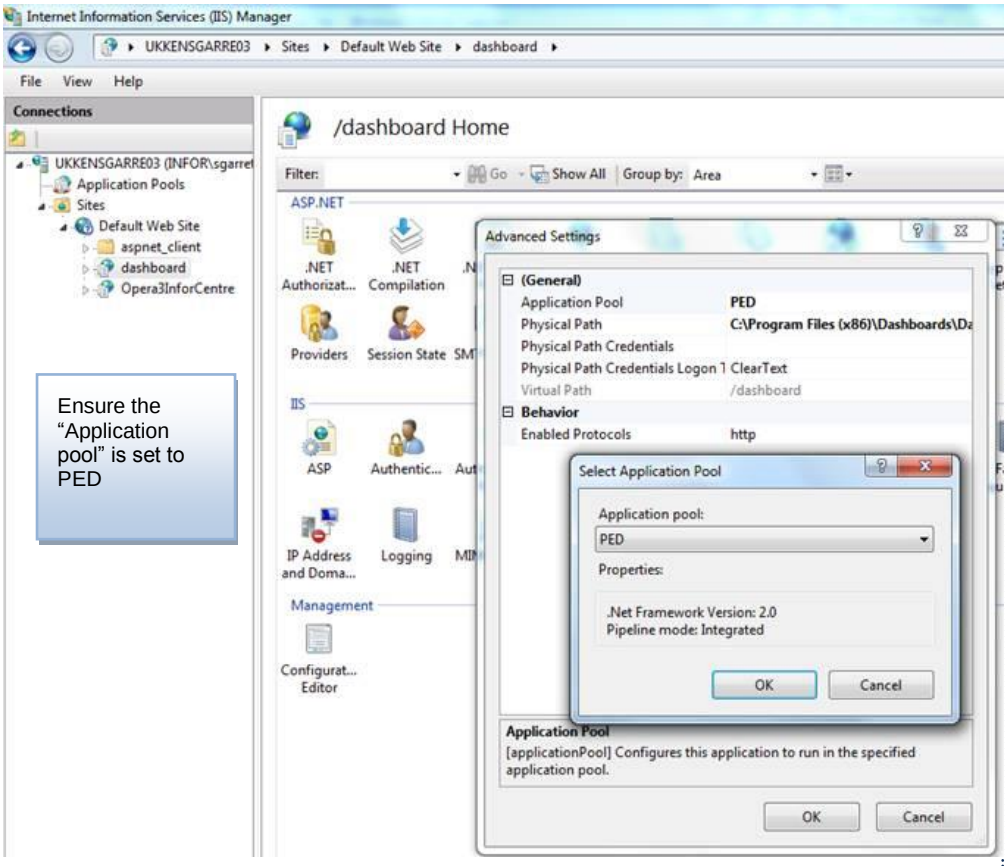


Cause: If this error is displayed when you log into Executive Dashboards, it is likely that the IIS settings have not been altered correctly or have reset to default settings

Potential Solution: As long as the correct steps are followed in the installation guide (usually for IIS 6 or higher – Windows 7, then this should work correctly. Retry the set-up steps for IIS and ensure the settings are set correctly. Two main areas have known to cause the above error;



Notes



Ensure the "Application pool" is set to PED

Notes

The content in the dashboard items is blank after logging in

This may be caused by the security settings in Internet Explorer. Check the settings in Tools > Internet Options > Security and click the Default Level button to apply the default security setting. If the button is disabled, the security settings are already set to the default settings.

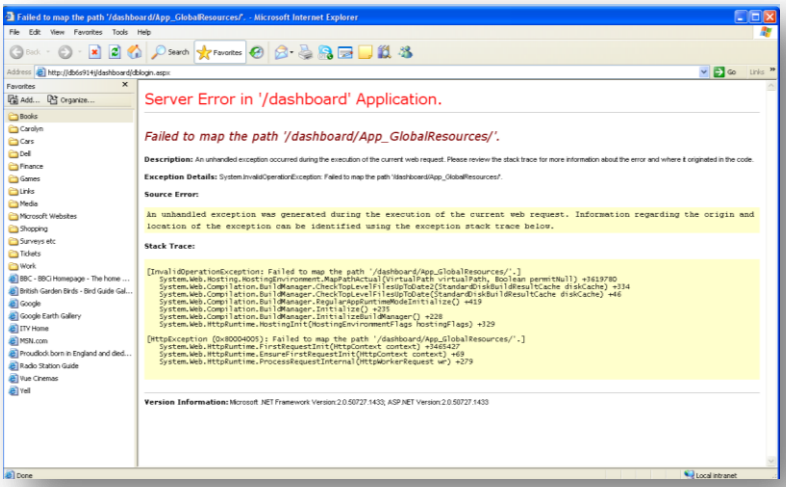
'Invalid user/password combination' when logging in

This issue may occur if multiple releases of Opera 3 are installed on the computer, or if Opera 3 is installed in a non-default location. To resolve the issue you need to amend a file called `PathToGoApp.ini` so Executive Dashboards points to the location of the desired Opera 3 installation's Dynamic Server folder.

To Modify the PathToGoApp.ini file

1. On the Executive Dashboards server, navigate to the location of the Executive Dashboards folder. By default, the location is `C:\Program Files\Dashboards\Dashboards`.
2. Open the `PathToGoApp.ini` file using a text editor like Notepad.
3. Under the [paths] heading, change the path of the PathToGoApp setting to the location of the Opera 3 installation's Dynamic Server folder you want to link to. By default, the location is: `C:\Documents and Settings\All Users\Application Data\Pegasus\O3 Server XXX\` (where XXX is either VFP or SQL).
4. Save and exit the file.

App_GlobalSources Error



Cause: Generally speaking this is down to Permissions to Folders or registry entries.

Potential Solution: There could be a number of security permissions that need to be altered to cure the problem. A Google search on the App_GlobalResources highlights a problem with permissions and is associated generally with the ASP.NET permissions (or installation).

Notes

Processes that should help resolve this issue;

Take a back-up of the system prior to continuing.

Go to registry regedt32.exe (Start-Run Type in Regedit and hit return), then assign the ASPNET account with full access to:HKEY_CLASSES_ROOT\Interface\{70B51430-B6CA-11D0-B9B9-00A0C922E750}

Try Dashboards if it still fails;

Open Windows Explorer and then assign the ASPNET account with full access to the following folders (if they exist);

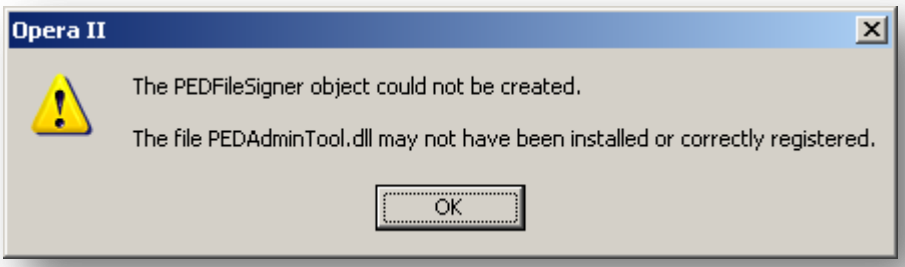
- C:\Documents and Settings\All Users\Application Data\Microsoft\Crypto\RSA\MachineKeys*
- C:\WINNT\Profiles\All Users\Application Data\Microsoft\Crypto\RSA\MachineKeys*
- C:\WINNT\Microsoft.NET\framework\v2.0.50727
- C:\WINNT\system32\Microsoft\Crypto\RSA

* Try the Users Profile Folder as well.

Try Dashboards if it still fails;

If Dashboards still fails it may be worth using FileMon or RegMon to see if there are any files or registry keys which are causing an issue when Dashboards is being used. Please refer to Appendix K for further information.

PEDFileSigner Error



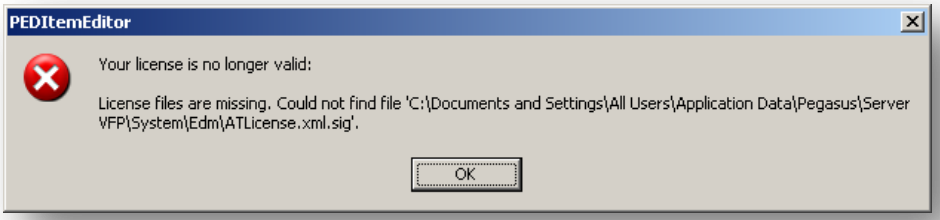
Cause : The file PEDAdminTool.dll is missing from or, more likely, unregistered on the client machine.

Potential Solutions:Run UDS or EDM Processing on a client with .Net installed. If .Net has been installed after Opera II installation Opera II should be reinstalled or the PEDAdminTool.dll file should be registered 'by hand'.

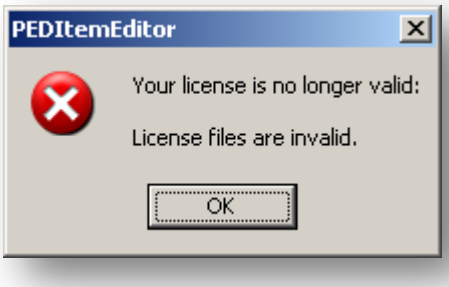
For this run: C:\Windows\Microsoft.NET\Framework\v2.0.50727\RegAsm.exe "C:\Program Files\Common Files\Pegasus Shared\Controls\PEDAdminTool.dll" /codebase

Notes

License error



Or

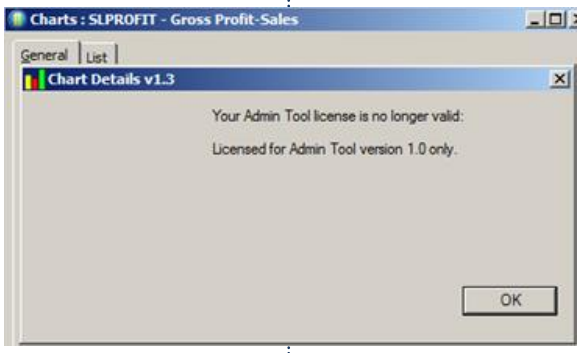


Cause: The licence file AtLicense.xml is missing, corrupt or incorrectly versioned.

Potential Resolution: Correct the licence files by installing the latest version of Opera 3 and run UDS.

These errors untreated may leave the dashboard data unusable in PED with the message:

Other License error



There are various message concerning licensing where the ATLicense files are valid, but it still states that you are licensed for something like 1.1 but trying to run 1.2 of the Dashboard Admin.

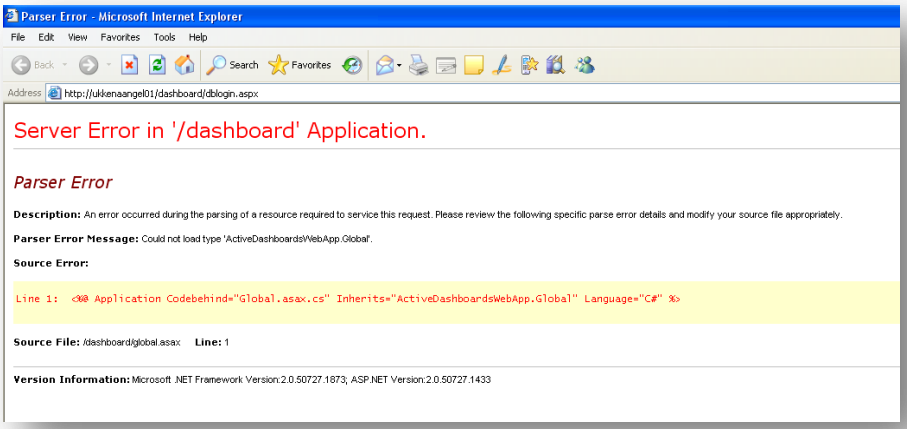
This is most likely down to the PEDAdminTool.dll which is located in C:\Program Files\Common Files\Pegasus Shared\Controls. Check the version as this may need replacing and re-registering.

'ERROR: DEFINITION FILE EDITED OUTSIDE OF EXECUTIVE DASHBOARD MANAGER (XML File Name)'.

NB. The License files are located in the default DIR C:\Documents and Settings\All Users\Application Data\Pegasus\O3 Server VFP\System\EDM. Generally this error occurs when multiple installs are seen on the system or the license files have not updated correctly. Another potential could be to locate the correct versions of the license files and replacing the existing ones in the location specified (after they have been backed up).

Server Error in '/dashboard Application

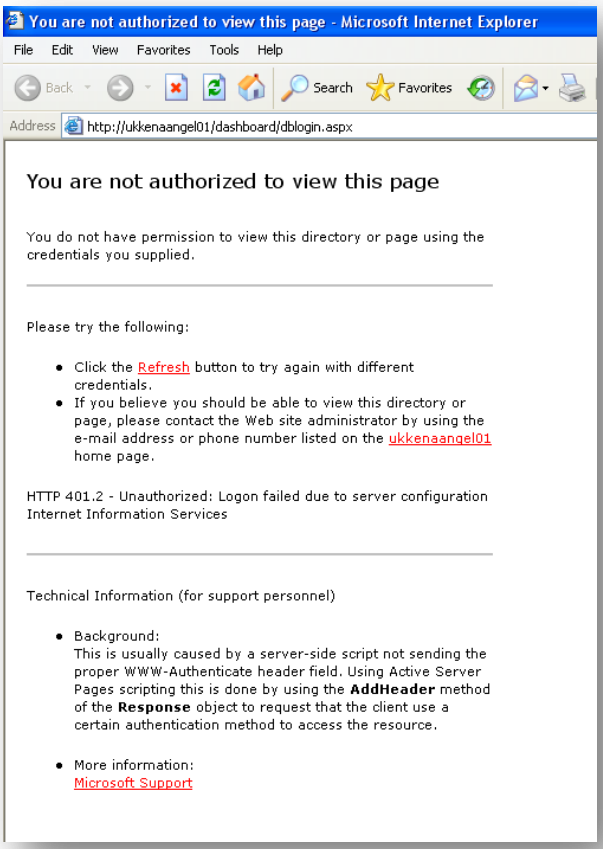
Notes



After upgrading received this error.

Check permissions
Possibly re-install .Net 3.5 Sp1.
Then reinstalled Dashboards.

This should resolve the error. If the following error is experienced;



Try changing permissions / Security on files and folders.

Check permissions in IIS specifically the Anonymous User settings. This is generally switched on. Test by ticking this on. Address as appropriate.

Notes

HTTP Error 503. The service is unavailable on Server 2008 x64

Sites using Windows Server 2008 (x64) with Exchange Server, or Windows SBS 2008, reporting that when logging in to Dashboards the web browser displays the message "HTTP Error 503. The service is unavailable."

To correct this requires the editing of the applicationhost.config file. Full details are published in the Installation Guide, and steps to resolve the problem are also detailed below:

1. Take a back-up and make a copy of the following file:
2. C:\Windows\System32\inetsrv\config\applicationHost.config
3. Please note, this is a critical IIS system file, so it should never be edited without a backup.
4. Edit the original applicationHost.config file. There are some important areas to note when editing this file:
   a) Due to the location of this file you will need to run Notepad with Administrator privileges in order to save the file after editing.
   b) If you use a text file editor other than Notepad, in order to locate this file the editor itself must be a 64-bit application.
   c) The contents of this file are case sensitive. You must ensure that the changes made exactly match the details below.
5. Search for the following line:

```
<add name="PasswordExpiryModule"
image="C:\Windows\system32\RpcProxy\RpcProxy.dll" />
```

6. Change to:

```
<add name="PasswordExpiryModule"
image="C:\Windows\system32\RpcProxy\RpcProxy.dll" preCondition="bitness64" />
```

7. Save the file.

HTTP error 404 “website cannot be found”

HTTP error 404 “website cannot be found” – This is usually down to configuration problems with their dashboard website in IIS. It’s often down to the fact that their default web site isn’t running.

The HTTP 404 “website cannot be found” error may occur if:

- Default website: The default website under IIS is not running.
- Mapped drives: the Dashboard virtual directory path chosen in the installation is a “mapped” drive.

Potential Resolution

1. Default website: Enhance the current installation process to automatically start the default website (as part of the installation procedure) – or at least a check to be done.

2. Mapped drives: Changing the Dashboard virtual directory path to a physical drive e.g. “C:\Dashboards” resolves this issue. Alternatively, by setting a default directory in the installation programme to a known physical drive (such as one known to exist within Opera 3), this issue could be eliminated.

HTTP Error 500 Internal server error

Notes

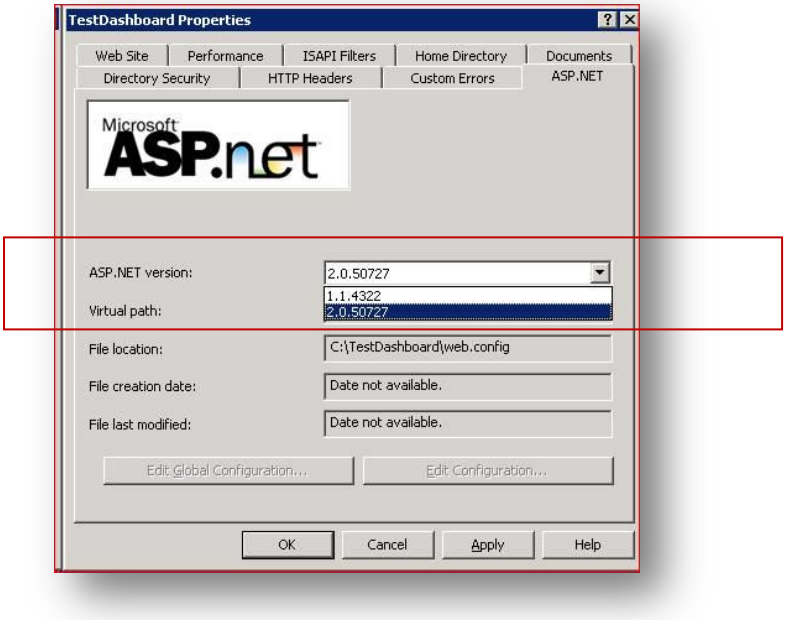
HTTP Error 500 Internal server error – This usually turns out to be down to running the wrong version of ASP.NET. We've also had users reinstall ASP.NET.

Potential Resolution

- Installation of ASP .NET 3.5: The Dashboards Web Application installer program does check that ASP.NET 3.5 SP1 is installed and the "Pegasus Dashboards Installation Guide" does state it is a prerequisite.
- Re-installation of ASP .NET 3.5: -

(Any) Installation of ASP .NET 3.5: Ensure the .NET Framework 3.5 SP1 is installed and registered with IIS.

In addition, it is important to check that the version of ASP .NET used by the Dashboards is the correct one. This can be easily checked by viewing the properties of the Dashboard application in IIS and ensuring that the ASP.NET version is set to "2.0.50727"* (and if not changing it):



*** NB** Even though 3.5 sp1 .Net is required, MS IIS does not offer this in the selection screen for the Dashboard Website properties – however, using the v2 family should ensure it will be compatible with the correct v3.5 sp1 .Net install.

HTTP Error 503 - Service unavailable

Notes

HTTP Error 503 - Service unavailable – The fix for this requires editing the application host.config to prevent RpcProxy.dll from loading into 32-bit application pools.

Potential Resolution

The "Pegasus Dashboards Installation Guide" already includes instructions on how to manually resolve this issue.

Windows Server 2008 (x64) with Exchange Server & Windows SBS 2008

Follow these steps on Windows Server 2008 (x64) installations with Exchange Server and on all Windows SBS 2008 installations after completing the Windows Server 2008 (x64), Windows SBS 2008, Windows Vista (x64) & Windows 7 (x64) section on page 23 above.

The installation of Exchange Server forces a 64-bit DLL program (*RpcProxy.dll*) to be loaded into all of the Application Pools including those set to allow 32-bit applications. This forced mixture of 32-bit and 64-bit DLLs will cause the Application Pool to fail and stop.

You must follow these steps to prevent this 64-bit DLL from being loaded into Application Pools that have been set to allow 32-bit applications.

These instructions require an important Windows system file to be manually edited.

To Prevent RpcProxy from loading into 32-bit Application Pools

1. Make a copy of the following file. This is a critical IIS system file, so never change it without a backup: *C:\Windows\System32\inetsrv\config\applicationHost.config*
2. Edit the original applicationHost.config file. There are several important things to note when editing this file:
   - Due to the location of this file you will need to run Notepad with Administrator privileges in order to save the file after editing.
   - If you use a text file editor other than Notepad, you will not be able to locate this file if the editor itself is not a 64-bit application.
   - The contents of this file are case-sensitive, so ensure the changes made exactly match the details below.
3. Search for the following line:

   <add name="PasswordExpiryModule" image="C:\Windows\system32\RpcProxy\RpcProxy.dll" />
4. Change it to:

   <add name="PasswordExpiryModule" image="C:\Windows\system32\RpcProxy\RpcProxy.dll" preCondition="bitness64" />
5. Save the file.
6. If you are running on Windows SBS 2008 follow the Windows SBS 2008 section on page 25 below. Otherwise, click *Stop IIS* and *Start IIS* to complete the configuration.

All the necessary steps to configure IIS on Microsoft Windows Server 2008 (x64) with Exchange Server are now completed. Now go to page 26.

This issue has only been found on the operating systems listed: "Windows Server 2008 (x64) with Exchange Server & Windows SBS 2008". However this may appear on other operating systems and would potentially require the same potential resolution.

Browser displays 'A problem has occurred whilst creating the chart'

Browser displays 'A problem has occurred whilst creating the chart '. Pegasus currently recommend several possible fixes for this (see earlier Troubleshooting sub-section).

Notes

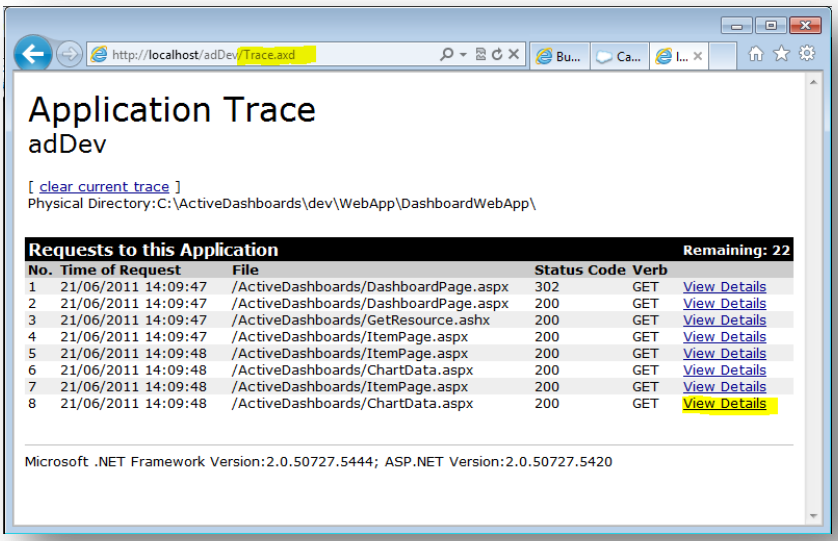
- Run Update Data Structures in Opera selecting the companies that need to be displayed in Pegasus Dashboards.
- Follow the instructions in the 'After the Installation – Modifying the Web.Config file" section of the Pegasus Dashboards Installation Guide. The Web.Config file needs to be amended on the server to allow access to Opera data across a network.
- Install and register the Visual FoxPro 9.0 SP1 OLE Database driver by either:
  - Reinstalling the Opera client
  - Downloading and installing the driver from the microsoft.com/downloads.

If the original suggestion do not work, check the following;

This issue is typically due to database access permissions preventing the dashboards from reporting on the database. Check all appropriate permissions.

Note: To assist with troubleshooting this type of error, details are logged in the Web Application Trace, which is accessible from the browser using the Dashboard URL and appending "/trace.axd".

For example:



Clicking on the last "View Details" displays details of the error in red text for that Dashboard request.

This could be resolved by automatically granting the required database access permissions as part of the Installation procedures.

Alternatively, after the browser displays 'A problem has occurred whilst creating the chart ', open the Application Trace page and view details of the error as described above. The error details indicate whether the issue is Database or Permissions (or possibly other) related.

Notes

FAQs

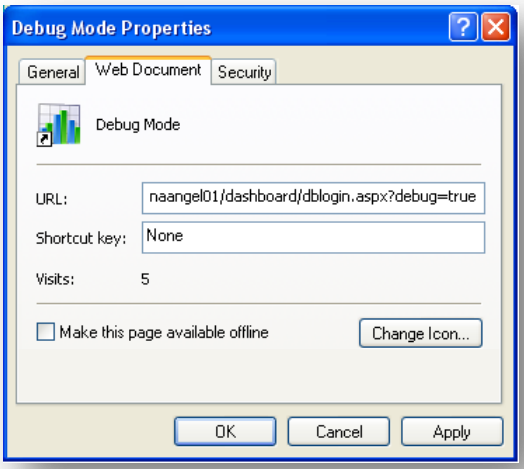
Question	Answer
Can the Dashboard Manager create grouping and sub-totalling as in Reporter Reports?	Currently PEDM does not handle grouping or sub-totalling as Reporter Reports – but in Version 2.5x onwards it can handle grouping.
Can the x and y axis not be based on a field selected i.e. a manual property setting?	Currently PEDM has to base the X and Y axis on fields selected. It must follow the Rules as stated in section 5 of the Training Guide and F1 Help.
Can I use Run Time Variable or System Variable in the Criteria settings?	Currently PEDM does not allow Run Time Variables or System Variables to be used. In some circumstances a work-around would be to use Filters.
Can I use Wildcards with a Generic Text Filter?	Yes you can use Wildcards in a Generic Text Filter. For example a filter based on SL A/C Code, you can enter A* and it will return ADA0001, AHL0001 etc. Please refer to the list of Wildcards in the filter section.
Can I base Filters on any field?	Currently PEDM offers a set of pre-defined fields that can be used as a filter. If the field required is unavailable, the work around would be to use a "Generic" option so that a free type field is entered.

Debug Mode (v2.02 Onwards)

From v2.02 Onwards the error trapping has been considerably improved and also offers a Debug Mode for Dashboards. * Subject to testing & development

To activate Debug mode,

1. Create a copy of the existing Dashboard Shortcut (Rename it to Debug mode if required).
2. Right Click on the Shortcut and select properties.
3. Add the text ?debug=true at the end of the URL Path.

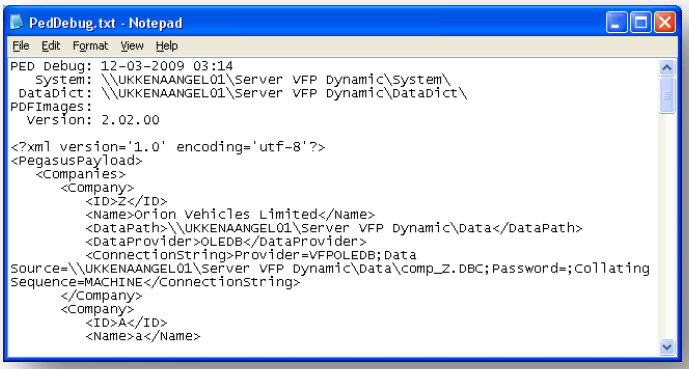


4. Double Click to launch the Shortcut
5. A PedDebug.txt file is created containing useful information. Any errors encountered now will also be logged in the txt file.

The file is located in the default directory C:\Program Files\Dashboards\Dashboards and called PedDebug.txt. This file is populated regardless whether an error is encountered.

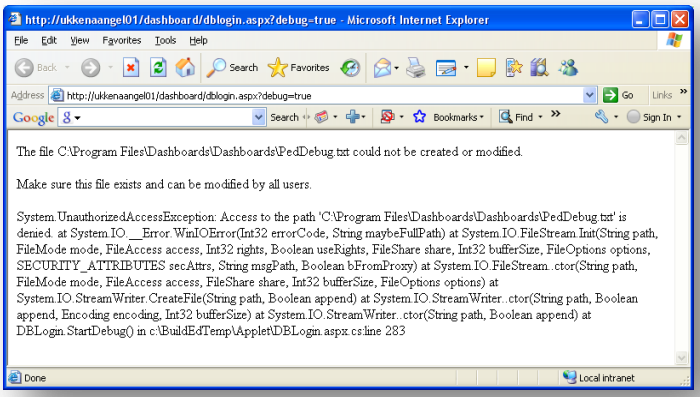
Notes

An example screenshot is illustrated below;



There are various errors which are now trapped in a more user friendly form and also update the PedDebug.txt file.

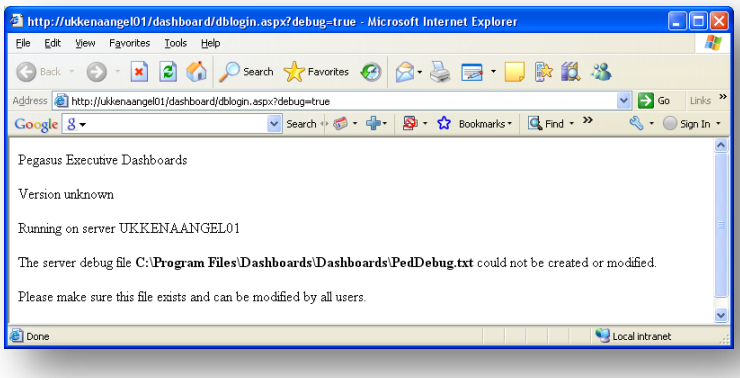
The following error may occur if permissions to the file / folder are incorrect;



Please ensure correct permissions are given on the security tab for the Dashboard folder so the PedDebug.txt file can be created. Then re-run the Shortcut

NB – The file is re-written with the last error encountered as such – ie. It is not a cumulative file update.

There could be another error if the file itself is created but the permissions on it are incorrect. This is usually encountered when Debug=True and PedDebug.txt is missing or has incorrect permissions. Address the permissions and this should resolve the issue and allow the file to be updated.

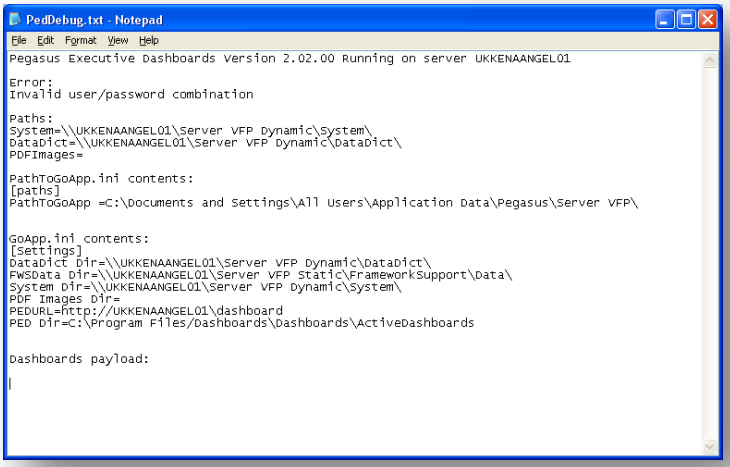


Other Errors

Notes

"Invalid user/password combination"

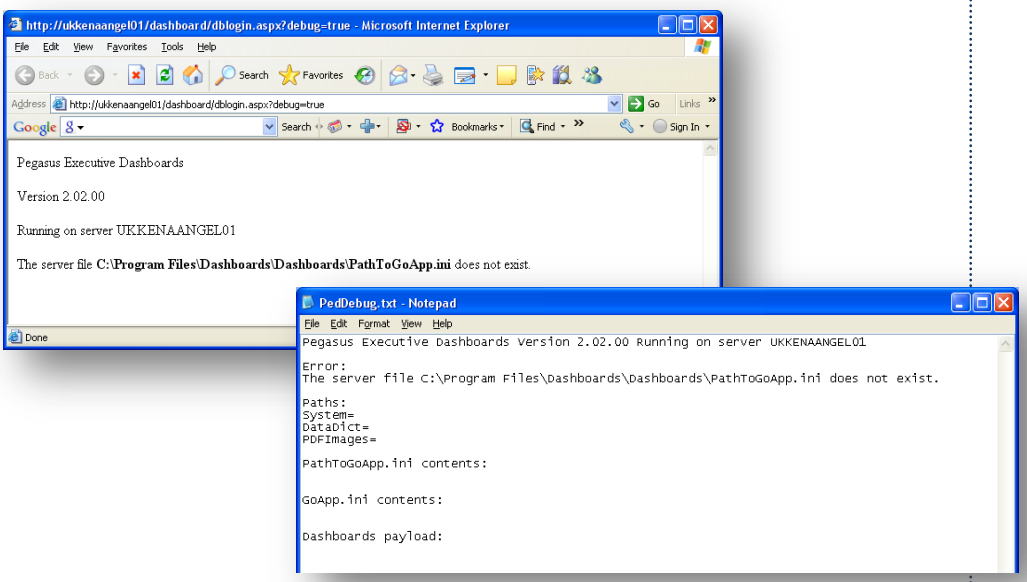
Due to the error trapping developed, this message should indicate a true invalid User and Password combination.



Paths can be checked but if these were wrong, other messages would now be offered.

"The server {0} <B>{1}</B> does not exist."

{0} = 'file' or 'path'. {1} = e.g. PathToGoApp.Ini

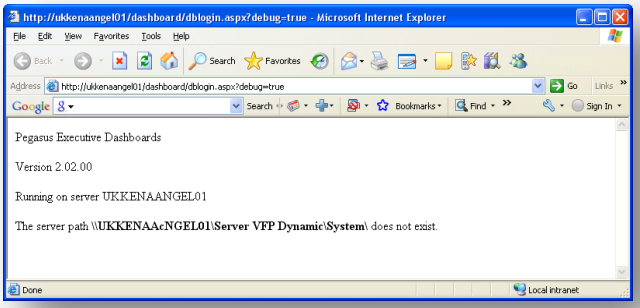


Check the file is there and can be accessed (permissions) and the path it contains is correct. As can be seen a message is displayed to report the error and the PedDebug.txt file is populated with useful (similar) information.

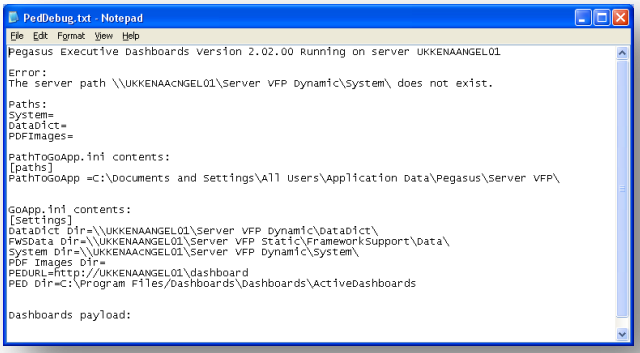
Notes

"The setting for <B>{0}</B> could not be determined from the server file <B>{1}</B>."

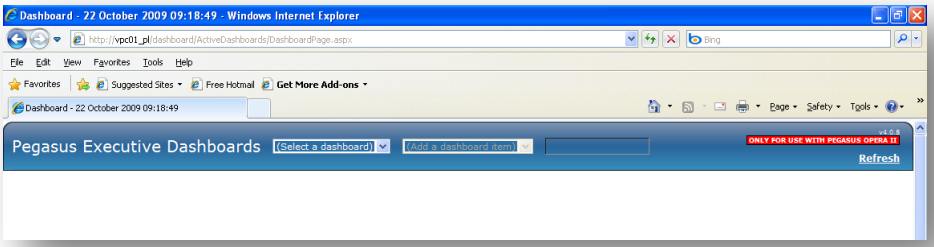
{0} = e.g. PathToGoApp, GoApp.ini, System etc.



Check the file is there and can be accessed (permissions) and the path it contains is correct. As can be seen a message is displayed to report the error and the PedDebug.txt file is populated with useful (similar) information.



Only for use with Opera II



Cause: A number of Causes can contribute towards this error.

Resolution: There are a number of steps to try and resolve this error;

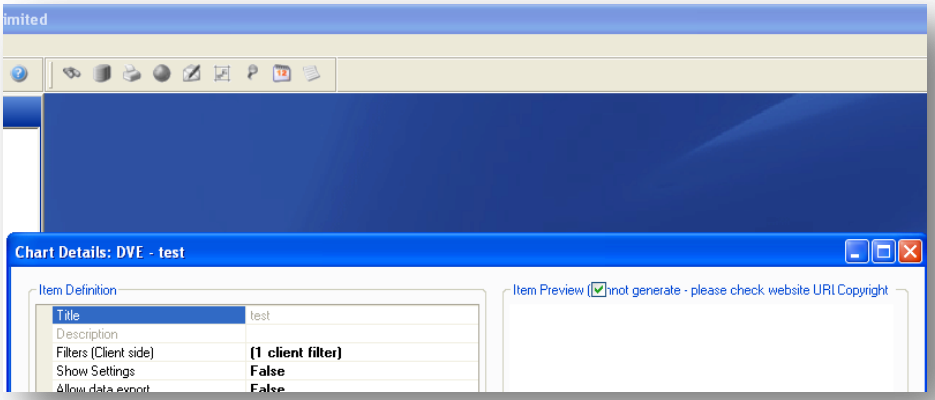
- Run a UDS
- Re-activate the Opera II software (basically force a new opera.sys) and re-launch

  NB: This can also cure a UDS issue where it fails and the Audit Log displays 2 lines of text – mentioning an issue with Bespoke.

- Check all the ini paths
- vfpoledb.dll may need registering usually gets the server working but potentially not the clients. Check the IP as Dashboards may require external IP addresses instead of names for PCs

Notes

Error generating Item Preview



Cause: A number of Causes can contribute towards this error but generally by entering an incorrect PEDURL in the GOAPP.INI file you can recreate the same error "Item previews cannot be generated, check website URL Copyright"

Resolution: Check that the address for your PEDURL settings are correct - you can also paste the address into your browser to see if its works. If it doesn't - then you would have to check the settings in IIS to make sure it has the correct address.

Error in Opera II Configuration Data

Cause: A number of Causes can contribute towards this error. Loggin in with a User that has no access to any company. Corrupted User DBF files or SEQUSER files

Resolution: There are a number of steps to try and resolve this error;

- Allow access to at least one company
- Create a new user and test
- Troubleshoot the system files – in particular the SEQUSER and specific USER files.

vfpoledb.dll may need registering usually gets the server working but potentially not the clients. Check the IP as Dashboards requires an external IP addresses instead of names for PCs

Accreditation Training Courseware

Appendix

Appendix A Wildcards

Regular expressions are sets of symbols that you can use to create searches for finding and replacing patterns of text. Regular expressions provide a concise and flexible way to specify more complex search and filter criteria against a selection of text than the wildcard character pattern searching available in the Find dialog box.

The following table describes the behavior of regular expression operators in a query.

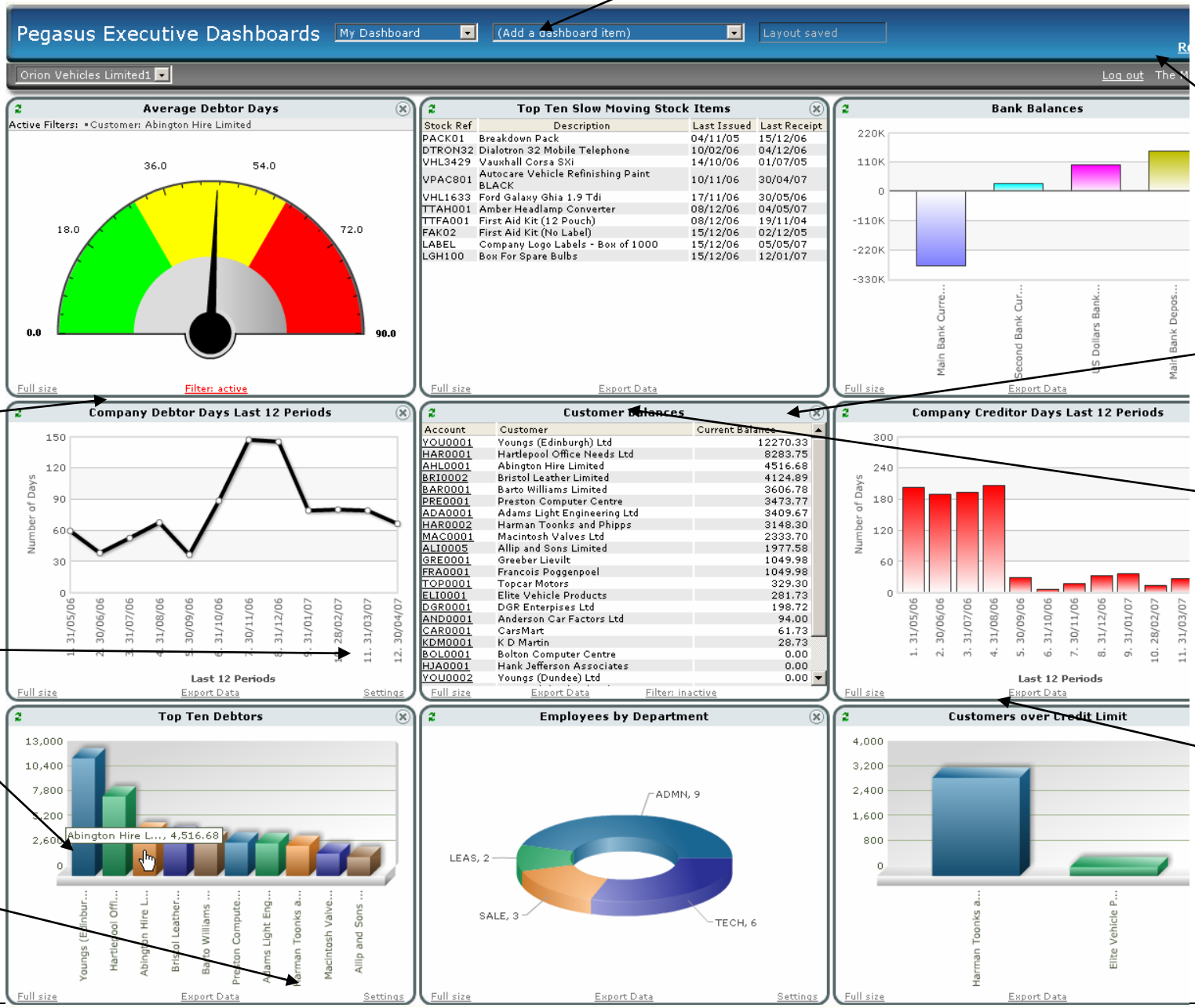
Operator	Behaviour
Text	*You can type in text to filter the data.*
%, * or ?	Matches the preceding character zero or more times. You can also use a question mark (?). **Example** "zo*" matches either "zo" or "zoo". The expression "n?ve?" matches the "ve" in "never".
Numeric	*You can select the number criteria that you wish to apply and then the number or number range you want to filter by.*
Equals	Number equals the number entered
Less Than	Number is less than the number entered
Greater Than	Number is greater than the number entered
Between	Number equals or is between the numbers entered
Date	*You can select the date criteria that you wish to apply and then the date or date range you want to filter by.*
Today	Date matches today's date
On The	Date matches entered date
Before	Date is before entered date
After	Date is after entered date
Between	Date is on or between the 'from' and 'to' dates entered
In Last	Date is in the last 'n' days, months or years
In Next	Date is today or in the next 'n' days, months or years
NB	***The Year and Period Filter are in relation to Period and Year fields only.***
	The format of any entered date must be dd/MM/yyyy. The dates entered will be validated against this format.
	The wild card characters can be placed anywhere in the text for SQL based data sources. For XML data sources the wild cards can only be placed at the end of the text.

Appendix B Pegasus Executive Dashboards

Add a Dashboard item here or **Remove All** items from your browser. **Add All** will show the first nine dashboards you have access to.

If you have access to more than one Opera 3 company, you can select another company's dashboard items here.

You can select up to 36 companies.



Click **Refresh** to refresh all items or to update individual items.

These pick up the latest data from Opera 3.

Click **Filter** to select a record like a customer or supplier.

Click and drag headers to change an item's position. The new position is remembered the next time you log in.

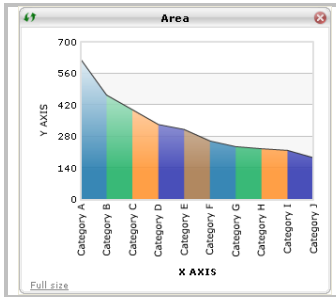
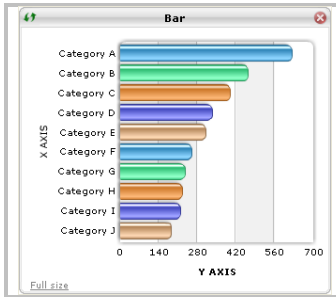
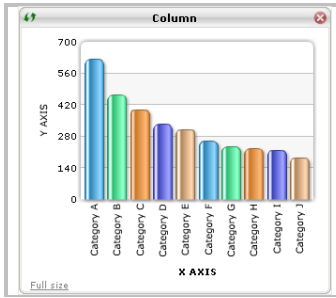
Click <u>underlined</u> codes in grids to drilldown to more detail.

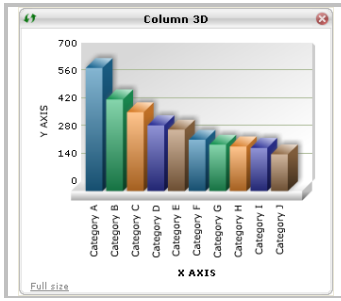
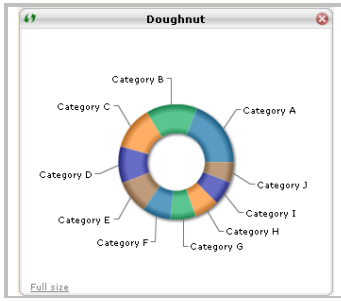
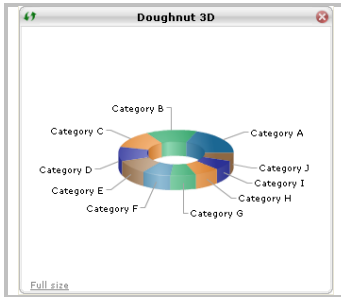
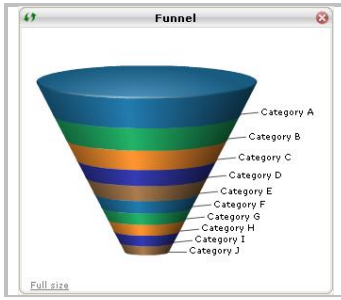
You can also drilldown when appears.

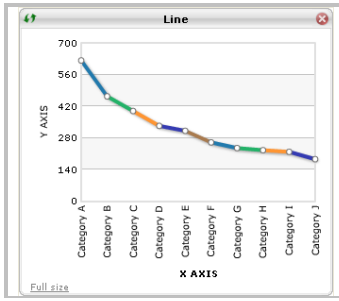
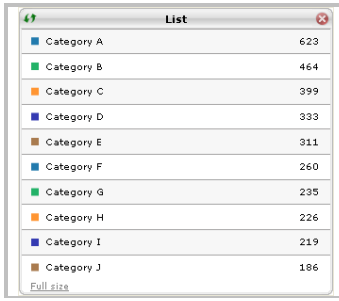
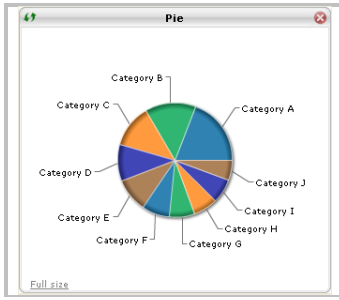
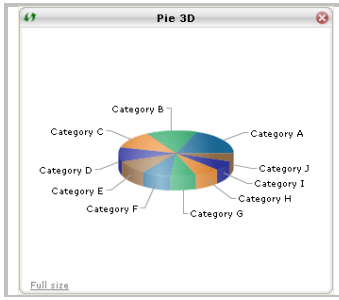
Click **Export Data** to export the data to a Microsoft Excel spreadsheet.

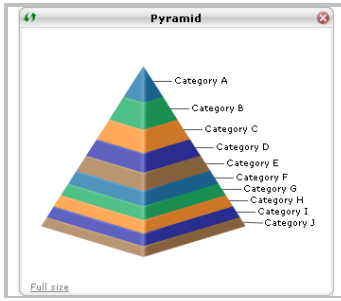
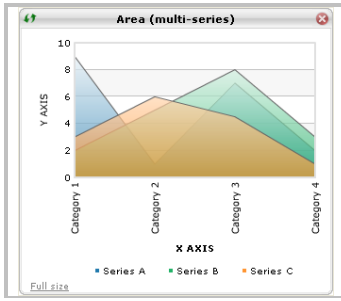
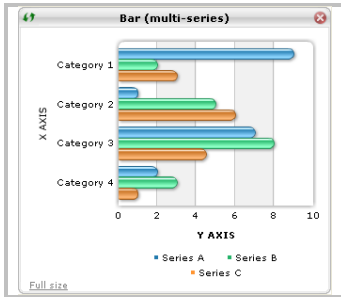
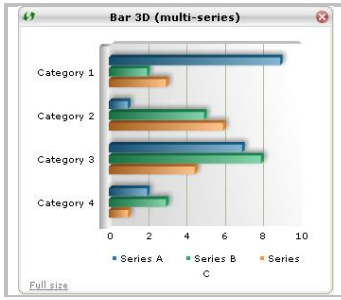
Click **Settings** to change the chart type and colour.

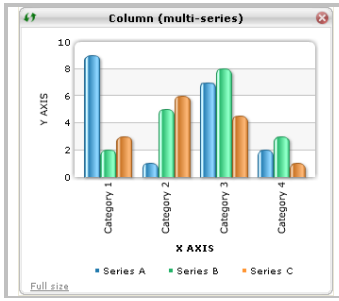
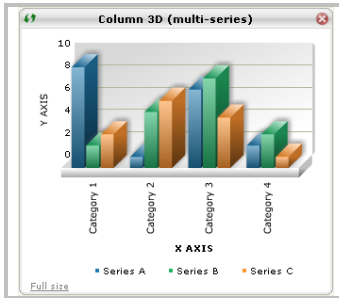
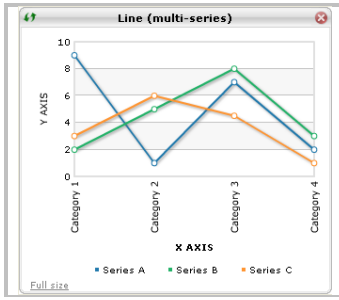
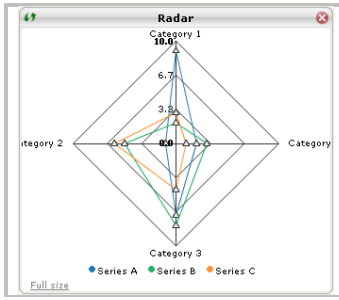
Appendix C List of Charts & respective descriptions

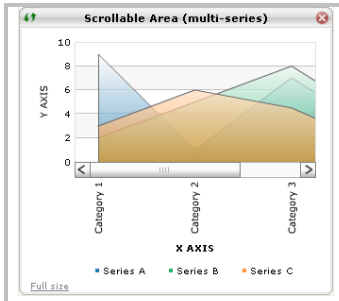
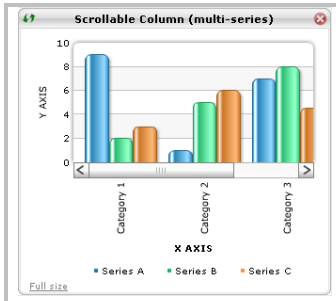
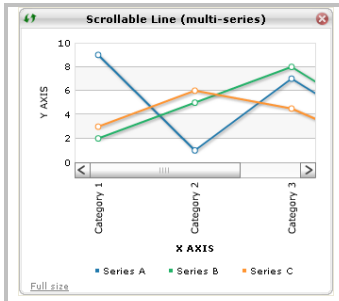
Title	Type	Suggested Use	Description	Data Required	Example
Area	Chart_SingleSet	Use an Area in the same way as a line chart for time series analysis. The shading can make the series fluctuations easier to read. It can also be used to compare approximate relationships / relative amounts over time / categories if more than one area is to be shown	Shows a single series of data with the values plotted and joined by line to form a coloured area.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	
Bar	Chart_SingleSet	Bar charts are best used to display data relationships/comparisons within a series or multiple series.	Shows a single series of data with each value plotted as a bar.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	
Column	Chart_SingleSet	Columns are best used to display data relationships/comparisons within a series or multiple series. They may also be used as a 'histogram' for frequency distributions etc.	Shows a single series of data with each value plotted as a column.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	

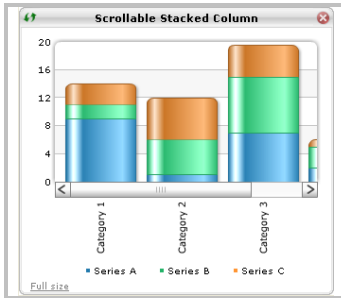
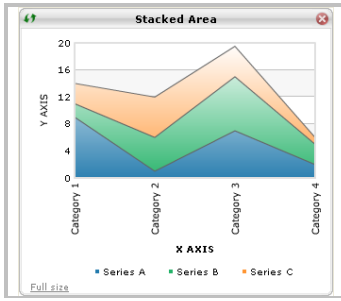
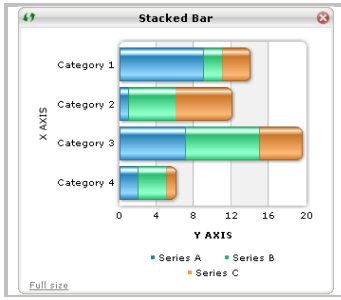
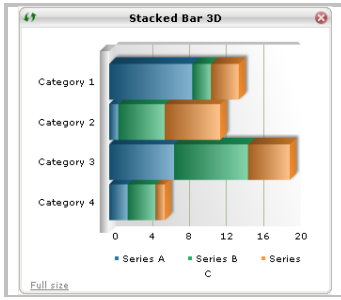
Column 3D	Chart_SingleSet	Columns are best used to display data relationships/comparisons within a series or multiple series	Shows a single series of data with each value plotted as a column.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	
Doughnut	Chart_SingleSet	Doughnut charts are best used to display proportional data relationships/comparisons. Best used with small data sets for analysis of relationships or parts of a whole at a given point in time.	Shows a single series of data with each value plotted as a slice of a doughnut.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	
Doughnut 3D	Chart_SingleSet	Doughnut charts are best used to display proportional data relationships/comparisons. Best used with small data sets for analysis of relationships or parts of a whole at a given point in time.	Shows a single series of data with each value plotted as a slice of a doughnut.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	
Funnel	Chart_SingleSet	Funnel charts are best used to display proportional data relationships/comparisons	Shows a single series of data as a Funnel with each slice's height depending on its value.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	

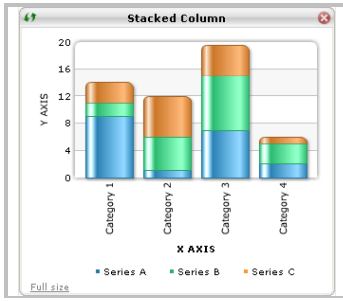
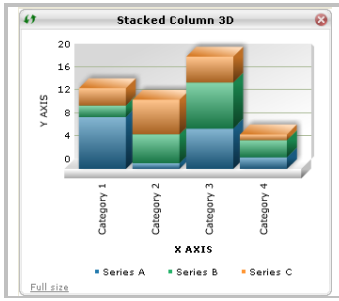
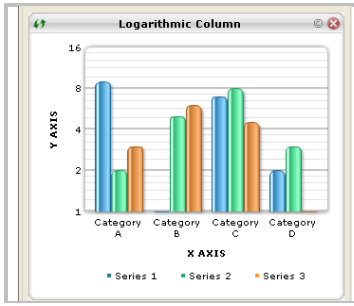
Line	Chart_SingleSet	Line charts should be used to display long data rows, compare trends, where data is best viewed in a meaningful pattern	Shows a single series of data with each value plotted and joined by line.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	
List	Chart_SingleSet	List charts are best used to display a simple uncluttered series of data.	Shows a simple list of data.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	
Pie	Chart_SingleSet	Pie charts are best used to display proportional data relationships/comparisons. Best used with small data sets for analysis of relationships or parts of a whole at a given point in time.	Shows a single series of data with each value plotted as a slice of a pie.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	
Pie 3D	Chart_SingleSet	Pie charts are best used to display proportional data relationships/comparisons. Best used with small data sets for analysis of relationships or parts of a whole at a given point in time.	Shows a single series of data with each value plotted as a slice of a pie.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	

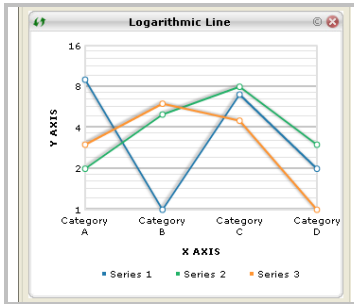
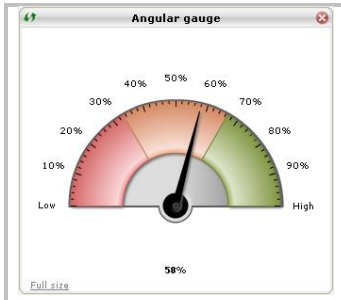
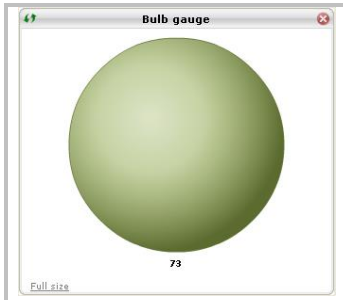
Pyramid	Chart_SingleSet	Pyramid charts are best used to display proportional data relationships/comparisons	Shows a single series of data as a Pyramid with each slice's height depending on its value.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot.	
Area	Chart_MultiSet	Use an Area in the same way as a line chart for time series analysis. The shading can make the series fluctuations easier to read. It can also be used to compare approximate relationships / relative amounts over time / categories if more than one area is to be shown	Shows multiple series of data with the values in each plotted and joined by line to form coloured areas.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Bar	Chart_MultiSet	Bar charts are best used to display data relationships/comparisons within a series or multiple series. Multi series bar charts can be used for interval analysis.	Shows multiple series of data with the values plotted as bars grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Bar 3D	Chart_MultiSet	Bar charts are best used to display data relationships/comparisons within a series or multiple series. Multi series bar charts can be used for interval analysis.	Shows multiple series of data with the values plotted as bars grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	

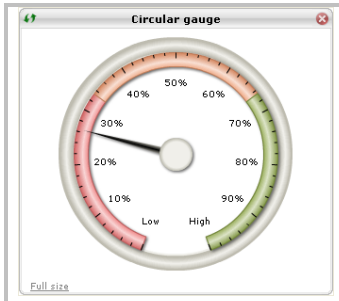
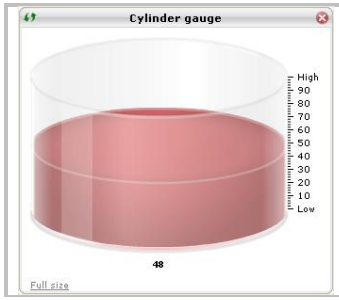
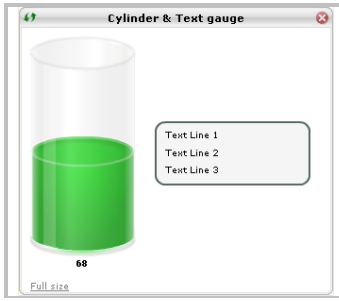
Column	Chart_MultiSet	Columns are best used to display data relationships/comparisons within a series or multiple series. Multi series columns can be used for interval analysis. They may also be used as a 'histogram' for frequency distributions etc.	Shows multiple series of data with the values plotted as columns grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Column 3D	Chart_MultiSet	Columns are best used to display data relationships/comparisons within a series or multiple series. Multi series columns can be used for interval analysis. These charts are best used for analysis of categories or over few intervals. They may also be used as a 'histogram' for frequency distributions etc.	Shows multiple series of data with the values plotted as columns grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Line	Chart_MultiSet	Line charts should be used to display long data rows, compare trends, where data is best viewed in a meaningful pattern. Multi series line charts can be used for interval comparison of trends and data.	Shows multiple series of data with the values in each plotted as points joined by line.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Radar	Chart_MultiSet	Use this chart to display data relationships/comparisons from a central point. Use this to view data from a different perspective to determine possible patterns not visible from a conventional chart.	Shows multiple series of data with the values in each plotted and joined by lines around a central point.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	

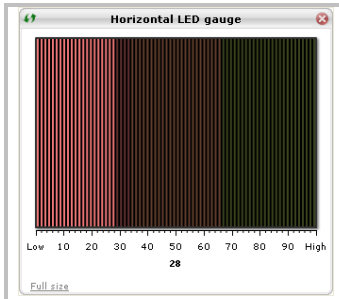
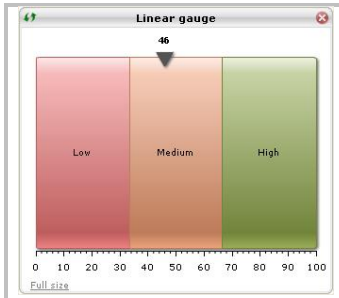
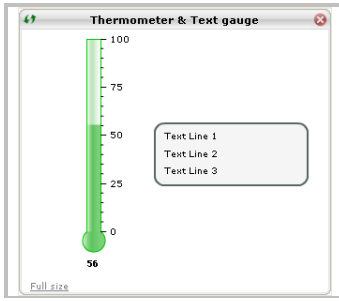
Scrollable Area	Chart_MultiSet	The contents of the chart are scrollable to allow large amounts of data to be shown in a small area. Use an Area in the same way as a line chart for time series analysis. The shading can make the series fluctuations easier to read. It can also be used to compare approximate relationships / relative amounts over time / categories if more than one area is to be shown	Shows multiple series of data with the values in each plotted and joined by line to form coloured areas.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Scrollable Column	Chart_MultiSet	The contents of the chart are scrollable to allow large amounts of data to be shown in a small area. Columns are best used to display data relationships/comparisons within a series or multiple series. Multi series columns can be used for interval analysis. They may also be used as a 'histogram' for frequency distributions etc.	Shows multiple series of data with the values plotted as columns grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Scrollable Line	Chart_MultiSet	The contents of the chart are scrollable to allow large amounts of data to be shown in a small area. Line charts should be used to display long data rows, compare trends, where data is best viewed in a meaningful pattern. Multi series line charts can be used for interval comparison of trends and data.	Shows multiple series of data with the values in each plotted as points joined by line.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	

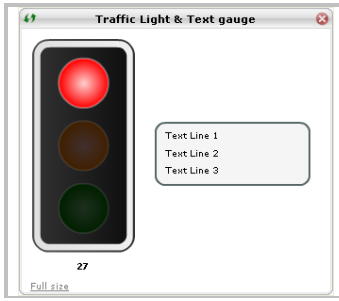
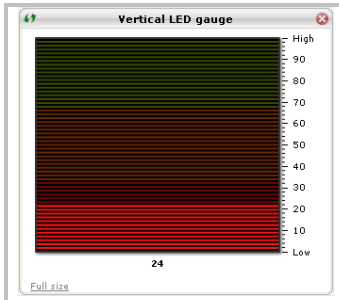
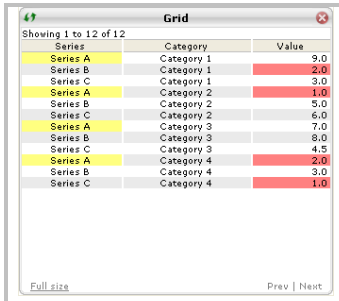
Scrollable Stacked Column	Chart_MultiSet	The contents of the chart are scrollable to allow large amounts of data to be shown in a small area.	Shows multiple series of data with the values plotted as stacked columns grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Stacked Area	Chart_MultiSet	Use Stacked Area to compare numbers or percentages and see the cumulative total thereof. Stacked areas are best used to compare multiple series of data and then the cumulative total of that data in a simple format.	Shows multiple series of data with the values in each plotted and joined by line to form stacked coloured areas.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Stacked Bar	Chart_MultiSet	Use this chart for whole/part comparisons over time. Most impact for the bars is achieved where the number of categories/intervals are few.	Shows multiple series of data with the values plotted as stacked bars grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Stacked Bar 3D	Chart_MultiSet	Use this chart for whole/part comparisons over time. Most impact for the bars is achieved where the number of categories/intervals are few.	Shows multiple series of data with the values plotted as stacked bars grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	

Stacked Column	Chart_MultiSet	Use this chart for whole/part comparisons over time. Most impact for the columns is achieved where the number of categories/intervals are few.	Shows multiple series of data with the values plotted as stacked columns grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Stacked Column 3D	Chart_MultiSet	Use this chart for whole/part comparisons over time. Most impact for the columns is achieved where the number of categories/intervals are few.	Shows multiple series of data with the values plotted as stacked columns grouped by Category.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Logarithmic Column	Chart_MultiSet	Use this chart if you want to present data with large differences in scale on the same chart. A logarithmic scale is also widely used for showing stock price changes over a long period of time.	Shows multiple series of data with the values plotted as columns grouped by Category. A logarithmically scaled y-axis is used.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	

Logarithmic Line	Chart_MultiSet	Use this chart if you want to present data with large differences in scale on the same chart. A logarithmic scale is also widely used for showing stock price changes over a long period of time.	Shows multiple series of data with the values in each plotted as points joined by line. A logarithmically scaled y-axis is used.	X axis data: the category name of each value plotted. Y axis data: the numerical values to plot. Series data: the series name of each value plotted.	
Angular gauge	Chart_SingleValue	Use an angular gauge to measure high level metrics where the data is dynamic and changing over time. Preset parameters can be set which allow a colour to be associated therewith. Values falling within a value band will colour the gauge that colour. This can be used to display for example low values as red, average values as orange and high values as green.	Shows a real-time single value on an angular dial gauge.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	
Bulb gauge	Chart_SingleValue	Use a bulb gauge to display single data values in a simplified format. Preset parameters can be set which allow a colour to be associated therewith. Values falling within a value band will colour the gauge that colour. This can be used to display for example low values as red, average values as orange and high values as green.	Shows a real-time single value as a Bulb that varies in colour depending on the current value.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	

Circular gauge	Chart_SingleValue	Use a circular gauge to measure high level metrics where the data is dynamic and changing over time. Preset parameters can be set which allow a colour to be associated therewith. Values falling within a value band will colour the gauge that colour. This can be used to display for example low values as red, average values as orange and high values as green.	Shows a real-time single value on a circular dial gauge.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	
Cylinder gauge	Chart_SingleValue	Can be used to easily indicate a single data value	Shows a real-time single value as a Cylinder that fills/empties according to the value.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	
Cylinder & Text gauge	Chart_SingleValue	Can be used to easily indicate a single data value	Shows a real-time single value as a Cylinder that fills/empties according to the value.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	

Horizontal LED gauge	Chart_SingleValue	Use this type of gauge to measure high level metrics where the data is dynamic and changing over time. Preset parameters can be set which allow a colour to be associated therewith. Values falling within a value band will colour the gauge that colour. This can be used to display for example low values as red, average values as orange and high values as green.	Shows a real-time single value as an LED that lights-up according to the value.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	
Linear gauge	Chart_SingleValue	Use this type of gauge to measure high level metrics where the data is dynamic and changing over time. Preset parameters can be set which allow a colour to be associated therewith. Values falling within a value band will colour the gauge that colour. This can be used to display for example low values as red, average values as orange and high values as green.	Shows a real-time single value as a pointer on a colour coded gauge.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	
Thermometer & Text gauge	Chart_SingleValue	Can be used to easily indicate a single data value	Shows a real-time single value as a Thermometer that rises/falls according to the value.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	

Traffic Light & Text gauge	Chart_SingleValue	Used to indicate whether the current value falls into a Red/Amber/Green status.	Shows a real-time single value as a Traffic Light that changes colour according to the value.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	
Vertical LED gauge	Chart_SingleValue	Use this type of gauge to measure high level metrics where the data is dynamic and changing over time. Preset parameters can be set which allow a colour to be associated therewith. Values falling within a value band will colour the gauge that colour. This can be used to display for example low values as red, average values as orange and high values as green.	Shows a real-time single value as an LED that lights-up according to the value.	Value data: the single value to plot. When monitoring dynamic data the 'Real-time update interval' should be set to an interval appropriate to the data updates.	
Grid	Grid	Best used for tabular data, lists and other data best viewed as a grid. Grids are often used as drill through charts to show specific data in greater detail.	Shows a tabular list of data.	Add as many columns as are required to display the data returned. Individual columns can be defined as particular type (string, date etc), format (e.g. dd/MM/yyyy), alignment and width. Grid cells may be highlighted depending on their value. This can be based on a single value such as "Series A" above, or on a numeric range.	

Appendix D Grid field formats

The following describes the formatting that can be applied to data shown in Grid items.

Field type = DateTime

The following table shows the characters that can be used to create a format string for a date/time:

Format Specifier	Description
d	Displays the current day of the month, measured as a number between 1 and 31, inclusive. If the day is a single digit only (1-9), then it is displayed as a single digit. Note that if the 'd' format specifier is used alone, without other custom format strings, it is interpreted as the standard short date pattern format specifier. If the 'd' format specifier is passed with other custom format specifiers or the '%' character, it is interpreted as a custom format specifier.
dd	Displays the current day of the month, measured as a number between 1 and 31, inclusive. If the day is a single digit only (1-9), it is formatted with a preceding 0 (01-09).
ddd	Displays the abbreviated name of the day for the specified date/time.
dddd (plus any number of additional "d" characters)	Displays the full name of the day for the specified date/time.
h	Displays the hour for the specified date/time in the range 1-12. The hour represents whole hours passed since either midnight (displayed as 12) or noon (also displayed as 12). If this format is used alone, then the same hour before or after noon is indistinguishable. If the hour is a single digit (1-9), it is displayed as a single digit. No rounding occurs when displaying the hour. For example, a date/time of 5:43 returns 5.
hh, hh (plus any number of additional "h" characters)	Displays the hour for the specified date/time in the range 1-12. The hour represents whole hours passed since either midnight (displayed as 12) or noon (also displayed as 12). If this format is used alone, then the same hour before or after noon is indistinguishable. If the hour is a single digit (1-9), it is formatted with a preceding 0 (01-09).
H	Displays the hour for the specified date/time in the range 0-23. The hour represents whole hours passed since midnight (displayed as 0). If the hour is a single digit (0-9), it is displayed as a single digit.
HH, HH (plus any number of additional "H" characters)	Displays the hour for the specified date/time in the range 0-23. The hour represents whole hours passed since midnight (displayed as 0). If the hour is a single digit (0-9), it is formatted with a preceding 0 (01-09).
m	Displays the minute for the specified date/time in the range 0-59. The minute represents whole minutes passed since the last hour. If the minute is a single digit (0-9), it is displayed as a single digit. Note that if the 'm' format specifier is used alone, without other custom format strings, it is interpreted as the standard month day pattern format specifier. If the 'm' format specifier is passed with other custom format specifiers or the '%' character, it is interpreted as a custom format specifier.
mm, mm (plus any number of additional "m" characters)	Displays the minute for the specified date/time in the range 0-59. The minute represents whole minutes passed since the last hour. If the minute is a single digit (0-9), it is formatted with a preceding 0 (01-09).

M	Displays the month, measured as a number between 1 and 12, inclusive. If the month is a single digit (1-9), it is displayed as a single digit. Note that if the 'M' format specifier is used alone, without other custom format strings, it is interpreted as the standard month day pattern format specifier. If the 'M' format specifier is passed with other custom format specifiers or the '%' character, it is interpreted as a custom format specifier.
MM	Displays the month, measured as a number between 1 and 12, inclusive. If the month is a single digit (1-9), it is formatted with a preceding 0 (01-09).
MMM	Displays the abbreviated name of the month for the specified date/time.
MMMM	Displays the full name of the month for the specified date/time.
s	Displays the seconds for the specified date/time in the range 0-59. The second represents whole seconds passed since the last minute. If the second is a single digit (0-9), it is displayed as a single digit only. Note that if the 's' format specifier is used alone, without other custom format strings, it is interpreted as the standard sortable date/time pattern format specifier. If the 's' format specifier is passed with other custom format specifiers or the '%' character, it is interpreted as a custom format specifier.
ss, ss (plus any number of additional "s" characters)	Displays the seconds for the specified date/time in the range 0-59. The second represents whole seconds passed since the last minute. If the second is a single digit (0-9), it is formatted with a preceding 0 (01-09).
t	Displays the first character of the A.M. /P.M. designator for the specified date/time. Note that if the 't' format specifier is used alone, without other custom format strings, it is interpreted as the standard long time pattern format specifier. If the 't' format specifier is passed with other custom format specifiers or the '%' character, it is interpreted as a custom format specifier.
tt, tt (plus any number of additional "t" characters)	Displays the A.M. /P.M. designator for the specified date/time.
y	Displays the year for the specified date/time as a maximum two-digit number. The first two digits of the year are omitted. If the year is a single digit (1-9), it is displayed as a single digit. Note that if the 'y' format specifier is used alone, without other custom format strings, it is interpreted as the standard short date pattern format specifier. If the 'y' format specifier is passed with other custom format specifiers or the '%' character, it is interpreted as a custom format specifier.
yy	Displays the year for the specified date/time as a maximum two-digit number. The first two digits of the year are omitted. If the year is a single digit (1-9), it is formatted with a preceding 0 (01-09).
yyyy	Displays the year for the specified date/time, including the century. If the year is less than four digits in length, then preceding zeros are appended as necessary to make the displayed year four digits long.
z	Displays the time zone offset for the system's current time zone in whole hours only. The offset is always displayed with a leading sign (zero is displayed as "+0"), indicating hours ahead of Greenwich mean time (+) or hours behind Greenwich mean time (-). The range of values is –12 to +13. If the offset is a single digit (0-9), it is displayed as a single digit with the appropriate leading sign. The setting for the time zone is specified as +X or –X where X is the offset in hours from GMT. The displayed offset is affected by daylight savings time.

zz	Displays the time zone offset for the system's current time zone in whole hours only. The offset is always displayed with a leading or trailing sign (zero is displayed as "+00"), indicating hours ahead of Greenwich mean time (+) or hours behind Greenwich mean time (-). The range of values is –12 to +13. If the offset is a single digit (0-9), it is formatted with a preceding 0 (01-09) with the appropriate leading sign. The setting for the time zone is specified as +X or –X where X is the offset in hours from GMT. The displayed offset is affected by daylight savings time.
zzz, zzz (plus any number of additional "z" characters)	Displays the time zone offset for the system's current time zone in hours and minutes. The offset is always displayed with a leading or trailing sign (zero is displayed as "+00:00"), indicating hours ahead of Greenwich mean time (+) or hours behind Greenwich mean time (-). The range of values is –12:00 to +13:00. If the offset is a single digit (0-9), it is formatted with a preceding 0 (01-09) with the appropriate leading sign. The setting for the time zone is specified as +X or –X where X is the offset in hours from GMT. The displayed offset is affected by daylight savings time.
:	Time separator.
/	Date separator.
"	Quoted string. Displays the literal value of any string between two quotation marks preceded by the escape character (/).
'	Quoted string. Displays the literal value of any string between two " ' " characters.
Any other character	Other characters are written directly to the result string as literals.

The following shows some example date/time formats that can be used.

Example format	Date Value	Result
dd/MM/yyyy	30/11/2006 10:15:23	30/11/2006
dd/MM/yy	30/11/2006 10:15:23	30/11/06
dddd – d – MMMM	30/11/2006 10:15:23	Thursday – 30 – November
yyyy	30/11/2006 10:15:23	2006
dd/MM/yyyy hh:mm	30/11/2006 10:15:23	30/11/2006 10:15

Field type = Number

The following table shows the characters that can be used to create a format string. Note that the resultant string may be influenced by the regional settings of the server and the client:

Format Character	Name	Description
0	Zero place holder	If the value being formatted has a digit in the position where the '0' appears in the format string, then that digit is copied to the result string. The position of the leftmost '0' before the decimal point and the rightmost '0' after the decimal point determines the range of digits that are always present in the result string. The "00" specifier causes the value to be rounded to the nearest digit preceding the decimal, where rounding away from zero is always used. For example, formatting 34.5 with "00" would result in the value 35.

#	Digit place holder	If the value being formatted has a digit in the position where the '#' appears in the format string, then that digit is copied to the result string. Otherwise, nothing is stored in that position in the result string. Note that this specifier never displays the '0' character if it is not a significant digit, even if '0' is the only digit in the string. It will display the '0' character if it is a significant digit in the number being displayed. The "##" format string causes the value to be rounded to the nearest digit preceding the decimal, where rounding away from zero is always used. For example, formatting 34.5 with "##" would result in the value 35.
.	Decimal point	The first '.' character in the format string determines the location of the decimal separator in the formatted value; any additional '.' characters are ignored.
,	Thousand separator & number scaling	The ',' character serves two purposes. First, if the format string contains a ',' character between two digit placeholders (0 or #) and to the left of the decimal point if one is present, then the output will have thousand separators inserted between each group of three digits to the left of the decimal separator. Second, if the format string contains one or more ',' characters immediately to the left of the decimal point, then the number will be divided by the number of ',' characters multiplied by 1000 before it is formatted. For example, the format string "0,," will represent 100 million as simply 100. Use of the ',' character to indicate scaling does not include thousand separators in the formatted number. Thus, to scale a number by 1 million and insert thousand separators you would use the format string "#,##0,,".
%	Percentage place holder	The presence of a '%' character in a format string

		causes a number to be multiplied by 100 before it is formatted. The appropriate symbol is inserted in the number itself at the location where the '%' appears in the format string.
‘ABC’ “ABC”	Literal string	Characters enclosed in single or double quotes are copied to the result string literally, and do not affect formatting.
;	Section separator	The ';' character is used to separate sections for positive, negative, and zero numbers in the format string.
Other	All other characters	All other characters are copied to the result string as literals in the position they appear.

Note numbers are rounded to as many decimal places as there are digit placeholders to the right of the decimal point. If the format string does not contain a decimal point, the number is rounded to the nearest integer. If the number has more digits than there are digit placeholders to the left of the decimal point, the extra digits are copied to the result string immediately before the first digit placeholder.

Different formatting can be applied to a number based on whether the value is positive, negative, or zero. To produce this behaviour, a custom format string can contain up to three sections separated by semicolons:

One section: The format string applies to all values.

E.g. if a format of *£#,##0.00* is defined, when it is applied to a value of 2450.45 will result in a value of £2,450.45 being displayed.

Two sections: The first section applies to positive values and zeros, and the second section applies to negative values.

If the number to be formatted is negative, but becomes zero after rounding according to the format in the second section, then the resulting zero is formatted according to the first section.

E.g. a format of *£#,##0.00;Zero* is defined, when it is applied to a value of 2450.45 will result in a value of £2,450.45 being displayed. When it is applied to a value of 0 or blank will result in a value of Zero being displayed.

Three sections: The first section applies to positive values, the second section applies to negative values, and the third section applies to zeros.

The second section might be left empty (by having nothing between the semicolons), in which case the first section applies to all nonzero values. If the number to be formatted is nonzero, but becomes zero after rounding according to the format in the first or second section, then the resulting zero is formatted according to the third section.

E.g. a format of *£#,##0.00;(£#,##0.00); Zero* is defined, when it is applied to a value of 2450.45 will result in a value of £2,450.45 being displayed. When it is applied to a value of -2450.45 will result in a value of (£2,450.45) being displayed. When it is applied to a value of 0 will result in a value of Zero being displayed.

This type of formatting ignores any pre-existing formatting associated with a number when the final value is formatted. For example, negative values are always displayed without a minus sign when section separators are used. If you want the final formatted value to have a minus sign, you should explicitly include the minus sign as part of the custom format specifier.

Appendix E Chart Details (Attributes)

The contents of this section vary depending on the Chart Type selected. The attributes are listed below for each Type of Chart. Some elements may not yet be available but are potential enhancements.

NOTE – a list of known fields will be provided on certain data entry controls. The user is able to select one of these or to enter the field name manually.

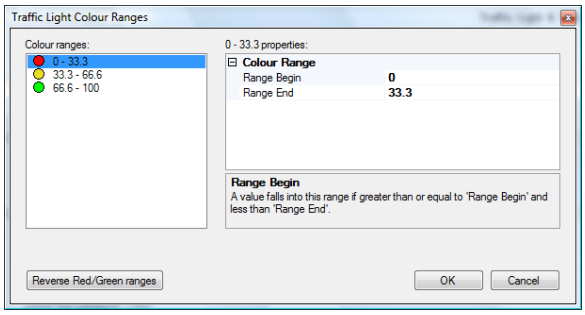
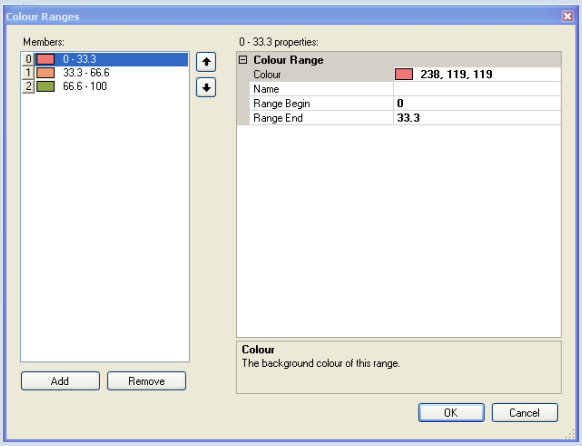
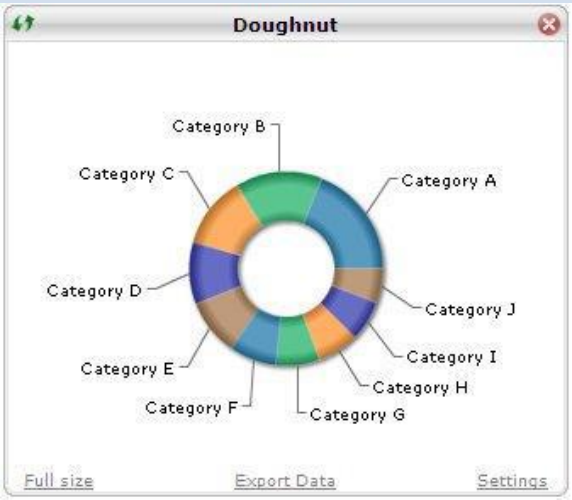
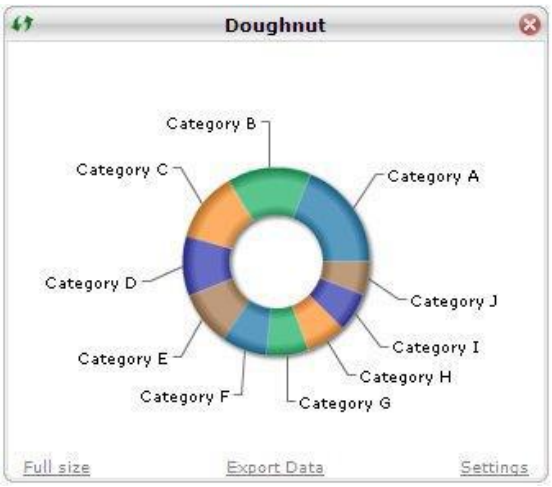
ITEM TYPE: CHART (SINGLE VALUE)	
– Required Values –	
Default chart type	Defines the default chart to display. This can be changed by the user whilst viewing an Item via the Settings link. Any change made by a user in the run-time web application applies only to the browser on that machine. Changes made will be stored on that machine between sessions. Changes to the Settings of an Item will be reflected across every Dashboard to which that Item belongs.
Real-time update interval	The number of seconds between updating the chart data. A value of 0 indicates that the chart is only updated when the user refreshes it or when the page is automatically refreshed. NOTE - It is recommended that the Lower limit and Upper limit chart values (see below) are set for real-time charts. If these are not set then the chart gauge will automatically scale based upon the Colour ranges defined (see below) for the chart. If no Colour ranges are defined then the chart will scale based upon the first value it displays.
Traffic Light colour ranges	(Only applicable to the Traffic Light & Text gauge chart) These are numerical ranges used to determine which Traffic Light bulb should be lit. Click the „…" button to define colour ranges for the chart as follows:  In the above example the ranges are: Red 0-33.3, Amber 33.3-66.6, Green 66.6-100 If the value shown by the gauge is 0 or above and below 33.3 then this will light up the Red bulb. If the value shown by the gauge is 33.3 or above and below 66.6 then this will light up the Amber bulb. If the value shown by the gauge is 66.6 or above and equal to or below 100 then this will light up the Green bulb. Ranges should be entered in ascending order and each range must start from where the previous one ended as in the above example. To swap the ranges used for the Red and Green bulbs click on the *Reverse Red/Green ranges* button. Click OK when you are happy with the ranges Click Cancel to discard any changes.

Chart	
Animate	Whether the chart should animate when displayed or refreshed.
Chart Colours	
Background colour	The background colour of the chart
Gauge border colour	Colour of border shown around the chart gauge.
Text colour	The colour to display any text shown on the chart.
Colour ranges	These are numerical ranges to divide the gauge into; each is given a colour to identify it. These affect the appearance of the gauge (except the Cylinder gauge). Click the „…" button to define colour ranges for the chart as follows:  In the above example the ranges are: Red 0-33.3, Amber 33.3-66.6, Green 66.6-100 If the single value being shown by the gauge is below 33.3 then this falls into the Red area. If the value is 33.3 or above and below 66.6 then this falls into the Amber area. If the value is 66.6 or above then this falls into the Green area. Ranges should be entered in ascending order and each range must start from where the previous one ended as in the above example. To re-order the ranges use the up and down arrow buttons. Click OK when you are happy with the ranges Click Cancel to discard any changes.
Chart Number Formatting	
Decimal precision	The number of decimal places to which numbers on the chart should be shown
Tick mark decimal precision	The number of decimal places to which tick mark numbers on the chart should be shown
Number prefix	Text to display before numbers shown on the chart e.g. L for litres
Number suffix	Text to display after numbers shown on the chart
Format Number Scale	If set to True then large numbers will be show with a K or M suffix denoting Thousands/Millions respectively
Chart Numerical Limits	
Lower limit	The lower limit of the chart. This value is used to scale the chart. If not specified then the chart will auto-scale depending on the first value it displays.
Upper limit	The upper limit of the chart. This is used to scale the chart correctly. If not specified then the chart will auto-scale depending on the first value it displays.
Lower limit label	Text to show instead of the lower limit number

Upper limit label	Text to show instead of the upper limit number
Major tick mark divisions	The number of tick mark divisions to show (leave blank for automatic scaling)
Minor tick marks	The number of tick marks to show between two major tick marks
Trend points	
Trend points	Click on the button to the right of the field to define one or more points you want to highlight on the chart. (Only applicable to Angular Gauge, Circular Gauge and Linear Gauge). For each point defined you can choose to display a static value ("Value"), or a dynamic value from the Item‟s Data Source ("Value field"). Note: Trend points with values that fall outside of the chart‟s range are not displayed.

ITEM TYPE: CHART (SINGLE SERIES)	
– Required Values –	
Default chart type	Defines the default chart to display. This can be changed by the user whilst viewing a dashboard item via the *Settings* link. This change only applies to the user and only applies for the lifetime of the user‟s session.
Category (X) axis field	The name of the data field used to populate the category axis of the chart
Value (Y) axis field	The name of the data field used to populate the value axis of the chart
Chart	
Refresh Interval	Property defaults to 0 for new charts, meaning that no automatic refresh takes place. Set this property to the number of seconds required between a refresh of the individual chart. Minimum value that can be set is 10 (seconds) Please note that this causes the Chart Item to refresh data from the Data Source, and thus causes both network traffic and load onto the data source (for example a SQL Server). For data sources that involve a complex query to retrieve data, it is recommended that real time updating be avoided or set to as large an interval as is possible.
Caption	Line of text to show above the chart
Sub-caption	Line of text to show below the Caption
Category (X) axis title	The title to display on the category axis
Value (Y) axis title	The title to display on the value axis
Animate	Whether the chart should animate when shown or refreshed
Show names	Set to True to show the Category names on the chart
Show values	Whether the value should be shown on the chart
Category names display	Category names are displayed vertically on Area, Column and Line charts by default. You can use this setting to display them in a different way (Angled, Horizontally, Vertically or Wrapped).
Category names length	Category names displayed on a chart are truncated if over 18 characters in length by default. You can use this setting to adjust how long the labels can be before being truncated.

Show full hover text	Select whether the chart show: • Standard hover text i.e. a shortened version of the category followed by a comma and the category value; or • Just the full text of the category name without the value being appended.
Show label connector lines	(Only applicable to Doughnut, Funnel, Pie and Pyramid charts) If this option is set to “False” then all the chart segments labels will be displayed and no lines will be displayed connecting these to the segments:  If this option is set to “True” then lines will be displayed and you will also get the following options:
Skip overlapping labels	(Only applicable to Doughnut and Pie charts) If this option is set to “False” then all segment labels will be displayed: 
Use slanted label connector lines	(Only applicable to Doughnut and Pie charts) If this option is set to “False” then label lines will not be displayed slanted but instead be made up of horizontal and vertical lines:

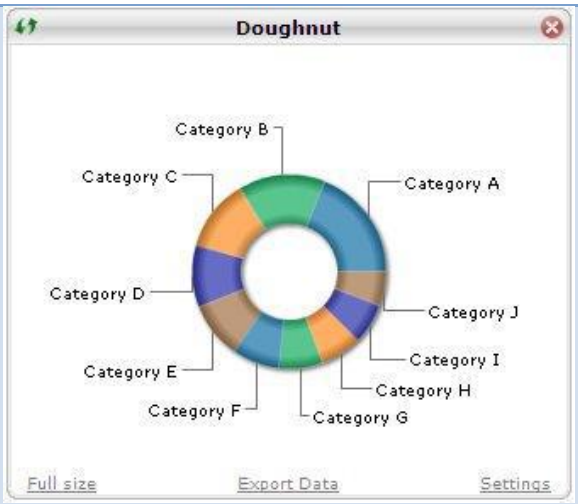
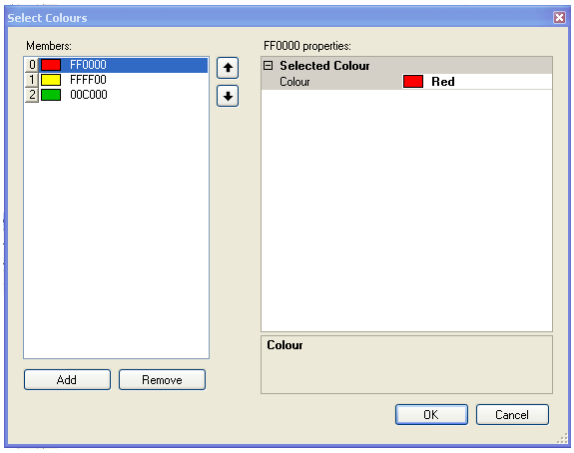
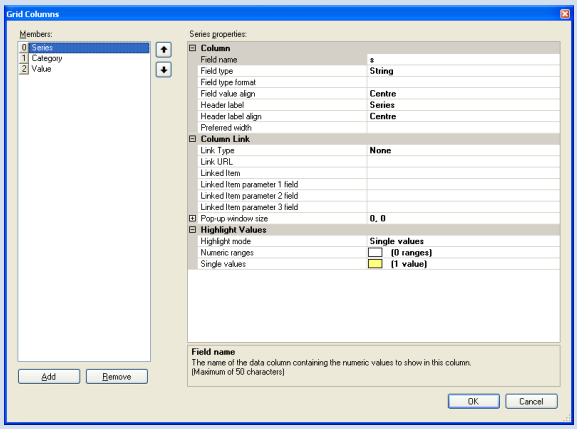
	
Chart Colours	
Background colour	The background colour of the chart
Canvas background	The background colour of plotted chart area
colour	
Canvas border colour	Colour of border shown around the chart
Text colour	The colour to display any text shown on the chart.
Category colours	List of colours used to display each Category on the chart. These affect the colours of the chart bars, columns, lines, etc. Click the „…" button to define colour ranges for the chart as follows:  Any number of colours may be added to the list. The colours are applies to each Category in the order shown. To show all categories in one colour then select one colour only.
Data plot style	Allows you to choose the shading style of the plotted bars, columns, etc
Chart Number Formatting	
Decimal precision	The number of decimal places to which numbers on the chart should be shown
Divisional lines decimal precision	The number of decimal places to which divisional line numbers on the chart should be shown
Number prefix	Text to display before numbers shown on the chart
Number suffix	Text to display after numbers shown on the chart
Format Number Scale	If set to True then large numbers will be show with a K or M suffix denoting Thousands/Millions respectively

Chart Numerical Limits	
Lower limit	The lower limit of the chart
Upper limit	The upper limit of the chart
Divisional lines	The number of divisional lines to show (leave blank for automatic scaling) NOTE – does not apply to Logarithmic Chart types
Chart Trend Lines	
Trend lines	Click on the button to the right of the field to define one or more straight or diagonal lines you want to display on the chart to highlight targets, trends, etc. (Only applicable to Area, Bar, Column, and Line charts). For each Trend line defined you can choose to display a static value or dynamic values from a Data Source. To display diagonal lines enter a Start and End value for the line. Note: Trend lines with values that fall outside of the chart‟s range are not displayed.

ITEM TYPE: CHART (MULTI SERIES)	
– Required Values –	
Default chart type	Defines the default chart to display. This can be changed by the user whilst viewing a dashboard item via the *Settings* link. This change only applies to the user and only applies for the lifetime of the user‟s session.
Data Source Mode	NA
Chart	
Refresh Interval	Property defaults to 0 for new charts, meaning that no automatic refresh takes place. Set this property to the number of seconds required between a refresh of the individual chart. Minimum value that can be set is 10 (seconds) Please note that this causes the Chart Item to refresh data from the Data Source, and thus causes both network traffic and load onto the data source (for example a SQL Server). For data sources that involve a complex query to retrieve data, it is recommended that real time updating be avoided or set to as large an interval as is possible.
Caption	Line of text to show above the chart
Sub-caption	Line of text to show below the Caption
Category (X) axis title	The title to display on the category axis
Value (Y) axis title	The title to display on the value axis
Animate	Whether the chart should animate when shown or refreshed
Show names	Set to True to show the Category names on the chart
Show values	whether the value should be shown on the chart
Number of visible plots	The amount of data to show in the scrollable area of Scrollable charts
Category names display	Category names are displayed vertically on Area, Column and Line charts by default. You can use this setting to display them in a different way (Angled, Horizontally, Vertically or Wrapped) on these chart types.
Category names length	Category names displayed on a chart are truncated if over 18 characters in length by default. You can use this setting to adjust how long the labels can be before being truncated.
Show full hover text	Select whether the chart show: • Standard hover text i.e. a shortened version of the

	category followed by a comma and the category value; or • Just the full text of the category name without the value being appended.
Chart Colours	
Background colour	The background colour of the chart
Canvas background colour	The background colour of plotted chart area
Canvas border colour	Colour of border shown around the chart
Text colour	The colour to display any text shown on the chart.
Series colours	List of colours used to display each Series on the chart. These affect the colours of the chart bars, columns, lines, etc. Click the … button to define colour ranges for the chart as described earlier. (only if 'Single Value Per Row' in Data Source Mode field)
Data plot style	Allows you to choose the shading style of the plotted bars, columns, etc
Chart Number Formatting	
Decimal precision	The number of decimal places to which numbers on the chart should be shown
Divisional lines decimal precision	The number of decimal places to which divisional line numbers on the chart should be shown
Number prefix	Text to display before numbers shown on the chart
Number suffix	Text to display after numbers shown on the chart
Format Number Scale	If set to True then large numbers will be show with a K or M suffix denoting Thousands/Millions respectively
Chart Numerical Limits	
Lower limit	The lower limit of the chart
Upper limit	The upper limit of the chart
Divisional lines	The number of divisional lines to show (leave blank for automatic scaling)
Chart Trend Lines	
Trend lines	Click on the button to the right of the field to define one or more straight or diagonal lines you want to display on the chart to highlight targets, trends, etc. (Only applicable to Area, Bar, Column, and Line charts). For each Trend line defined you can choose to display a static value or dynamic values from a Data Source. To display diagonal lines enter a Start and End value for the line. Note: Trend lines with values that fall outside of the chart"s range are not displayed.

ITEM TYPE: GRID	
– Required Values –	
Maximum Display Results	This field defines the number of rows that are returned by each grid. If the number of rows returned exceeds the number defined here then a “prev | next” link will be provided on the grid so that the user can navigate between row sets. A display in the form of “X to Y of Z” will also be shown as reference to which rows are currently being displayed. By default the number of rows displayed is set to 250.
Grid Columns	This field is only applicable if the Type is set to Grid. It allows you to define the columns to be displayed in the Grid. Clicking on the „…“ button launches the dialog box  From this the user can add columns to the Grid by pressing on the „Add“ button. This adds a new blank column. The user must then provide the following information: Column ▪ Field Name – the name of the data field / column used to populate the Grid column. A dropdown list of fields is provided based upon the Data Source selected. The user is able to select one of these or to type in the field name manually. ▪ Field Type - the type of data to be displayed in the column. This can be DateTime, Number or String. The default is String. ▪ Field Type Format - this only applies if DateTime or Number is selected as the Field type. The user can enter a format that is then applied to the data shown in the column. The format that can be applied is dependent on the Field types. These formats are described in Appendix 1 ▪ Field Value Align - controls the alignment of the column data. This can be Centre, Left or Right. The default is Left. ▪ Header Label - the name to show on the Grid column header. ▪ Header Label Align - controls the alignment of the column label. This can be Centre, Left or Right. The default is Left. ▪ Preferred Width - the width of the column. This can either be defined as a percentage or as pixels (e.g. “20%” as a percentage or “100” as pixels). NOTE - that this is only a “preferred” width - The Grid

dynamically sizes its columns based upon any Widths specified and the data shown in the Grid. It will try and apply the column width required but if this results in scroll bars it will reduce these column widths automatically.

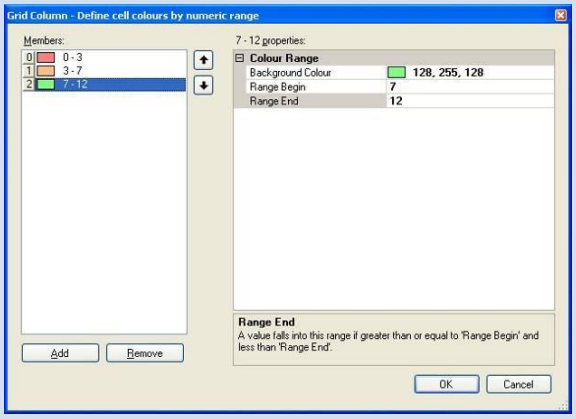
Highlight Values

- Highlight mode – the dropdown option allows you to select whether the highlight mode for individual grid cells should be switched on and, if so, to which of the two modes (Numeric Range or Single Value) is required. An explanation of how each mode is used follows.

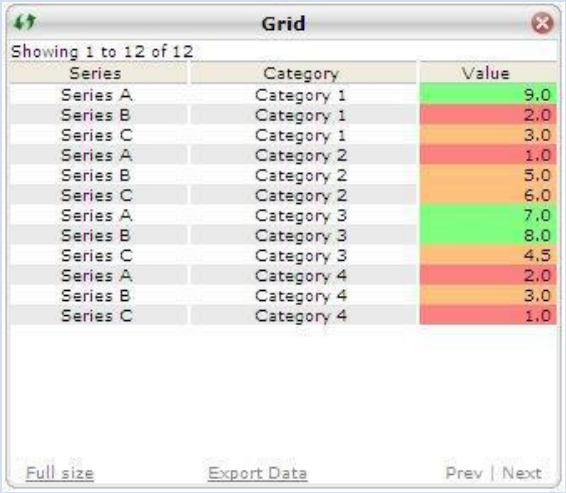
- Highlight Target – this dropdown option allows you to select whether the highlight will be applied to just the cell that contains the value (chose „This Column‟) or the entire row (chose „This Row‟). Please note that Row style highlights are applied first, then Cell highlights after – meaning that Cell style highlights are always applied.

- Numeric Range (first select „Numeric Range‟ as your Highlight mode) – clicking on the icon displays a window that allows you to enter a range of numeric values. Each range can be associated with a specific colour indicating, for example, proximity of an expiry date. See Figure 62 below.

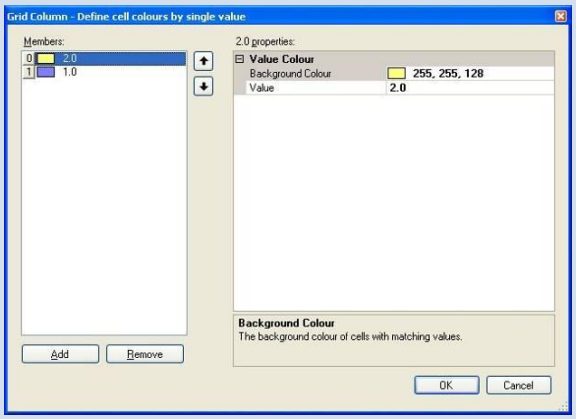
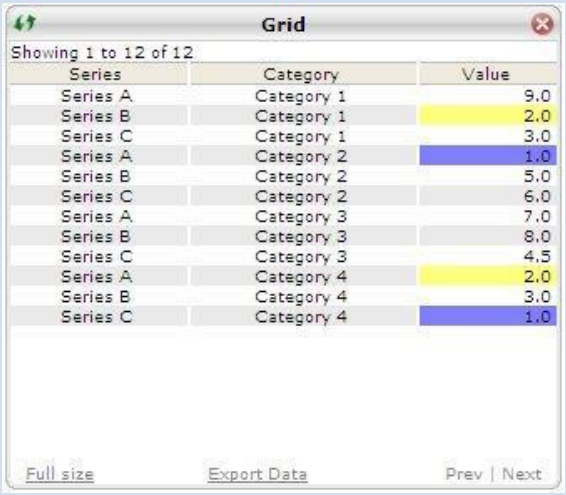
NOTE – a range of „0 – 4‟ represents values between 0 and 3.9999999. A range of „4 – 10‟ represents values between 4 to 9.999999 etc. If complete coverage is required, the end of one range must also be the beginning of another.



The ranges configured above would be displayed



Single Value (first select „Single Value‟ as your Highlight mode) – clicking on the icon displays a window that allows you to enter a series of single values. Each value can be

	associated with a specific colour  The values configured above would be displayed  Grid Showing 1 to 12 of 12 Series Category Value Series A Category 1 9.0 Series B Category 1 2.0 Series C Category 1 3.0 Series A Category 2 1.0 Series B Category 2 5.0 Series C Category 2 6.0 Series A Category 3 7.0 Series B Category 3 8.0 Series C Category 3 4.5 Series A Category 4 2.0 Series B Category 4 3.0 Series C Category 4 1.0 Full size Export Data Prev | Next
Refresh Interval	Property defaults to 0 for new charts, meaning that no automatic refresh takes place. Set this property to the number of seconds required between a refresh of the individual chart. Minimum value that can be set is 10 (seconds) Please note that this causes the Chart Item to refresh data from the Data Source, and thus causes both network traffic and load onto the data source (for example a SQL Server). For data sources that involve a complex query to retrieve data, it is recommended that real time updating be avoided or set to as large an interval as is possible.

Appendix F Installation Notes

PLEASE NOTE THESE ARE SOME EXTRACTS FROM THE INSTALL GUIDE – PLEASE REFER TO INSTALL GUIDE FOR FULL INFORMATION

Microsoft Internet Information Services (IIS)

Executive Dashboards Server (2.0) or later will not work unless IIS is correctly configured **before** Executive Dashboards Server is installed. Follow the instructions below to install IIS on the Windows software you are using before installing Executive Dashboards Server.

IIS on Microsoft Windows XP and Windows Vista

There are limitations in IIS running under non-server operating systems like Microsoft Windows Vista and Microsoft Windows XP. You should not install Executive Dashboards Server on computers running Windows Vista or Windows XP unless the Opera 3 installation and data are on the same computer, for example for software demonstrations.

To Install IIS on Microsoft Windows XP

1. Navigate to the *Control Panel > Add or Remove Programs.*
2. Click the *Add/Remove Windows Components* button.
3. Tick the *Internet Information Services (IIS)* box and click on the *Next* button.
4. Follow the instructions and click *Finish* at the end of the wizard.

To Install IIS on Microsoft Windows Vista

Windows Vista uses IIS version 7.0. However, IIS must be run with IIS version 6 compatibility settings enabled. Follow these to run install IIS (7.0) on Windows Vista.

1. Navigate to Control Panel > Programs > Programs and Features. Then click the Turn Windows features on or off link.
2. Expand *Internet Information Services > Web Management Tools > IIS 6 Management Capability*. Then tick *IIS Metabase and IIS 6 configuration compatibility.*
3. Expand *Internet Information Services > World Wide Web Services > Application Development Features.* Then tick *.NET Extensibility,* and *ASP.NET*.
4. Expand *Common HTTP Features* then tick *Default Document,* and *Static Content*.
5. Expand *Security* and tick *Request Filtering*.
6. Click *OK*.

IIS on Microsoft Windows Server 2008

Microsoft Windows Server 2008 uses IIS version 7.0. However, IIS must be run with IIS version 6 compatibility settings enabled. Follow these to install IIS (7.0) on Windows Server 2008.

To Install IIS on Microsoft Windows Server 2008

1. Navigate to *Control Panel > Programs and Features*. Then click the *Turn Windows features on or off* link. The Server Manager form is displayed.
2. In the Server Manager form, click the *Roles* node. The *Roles* pane on the right side of the Server Manager form is displayed.
3. Under *Roles Summary*, click *Add Roles.* A wizard is displayed. Click *Next.*
4. Tick the *Web Server (IIS)* box, then follow the instructions on the form. Make sure these options are ticked.

Web Server
Common HTTP Features
Static Content
Default Document
Directory Browsing
HTTP Errors
Application Development
ASP.NET
.NET Extensibility
ISAPI Extensions
ISAPI Filters
Health and Diagnostics
HTTP Logging
Request Monitor
Security
Request Filtering
Performance
Static Content Compression
Management Tools
IIS Management Console
IIS Management Scripts and Tools
IIS Management Compatibility
IIS 6 Metabase Compatibility
IIS 6 WMI Compatibility
IIS 6 Scripting Tools
IIS 6 Management Console

5. If you need to change any of the role services, click the *Add Role Services* link, and tick the necessary boxes on the *Select Role Services* form. Then click *Install* and follow the on-screen instructions. When the role services are installed, you may need to restart the file server.

IIS on Microsoft Windows Server 2000 and Windows Server 2003

Follow these instructions to install IIS on Microsoft Windows Server 2000 and Windows Server 2003.

To Install IIS on Microsoft Windows Server 2000 and Windows Server 2003

1. Navigate to the Control Panel > Add or Remove Programs.
2. Click the *Add/Remove Windows Components* button.
3. Tick the *Internet Information Services (IIS)* box and click on the *Next* button. Follow the instructions and click *Finish* at the end of the wizard.
    i. On Microsoft Windows Server 2003, these further steps are required:
4. From Administrative Tools select *Internet Information Services (IIS)* and ensure that the option for *ASP.NET v2.0.50727* is set to *Allowed*.
5. Navigate to the *Control Panel > Administrative Tools > Internet Information Services (IIS) Manager* and open the IIS Manager. Then set the *ASP.NET v2.0 Web Service Extension Status* option to *Allow*.

Sharing the Executive Dashboards Installation folder

This step is essential for Executive Dashboards Manager to work.

To use Executive Dashboards Manager in Opera II Enterprise (6.50) or later, the installation folder for Executive Dashboards must be shared and access must be allowed for those users who will use the Executive Dashboards Manager module. In the instructions below, access is given to all users but you want to restrict access to the folder to only some of the Opera II users.

To Share the Executive Dashboards installation folder

Windows Server 2003 & Windows XP

1. Using Windows Explorer on the Server computer, navigate to the Executive Dashboards installation location entered in Stage 2 of the installation. Then navigate to the `Dashboards` sub folder. (The default location is `c:\Program Files\Dashboards\Dashboards)`.
2. Right click on the `ActiveDashboards` folder, and select *Sharing and Security*.
3. On the *Sharing* tab, select *Share this folder*. Leave the default name of 'ActiveDashboards' in the *Share Name* field.
4. Click the *Permissions* button. A group called 'Everyone' is displayed. This gives all users in the domain access to the folder. If this is not acceptable, you need to create share permissions for the users who will use Executive Dashboards Manager.
5. Under *Permissions for …*, make sure the *Full Control*, *Change*, and *Read* boxes are ticked.
6. Click *OK*.

Windows Server 2008 & Windows Vista

1. Open Computer Management.
2. In Windows Vista: Click *Start*, click *Control Panel*, click *System and Maintenance*, click *Administrative Tools*, and then click *Computer Management*.
3. In Windows Server 2008: Click *Start*, click *Control Panel*, double-click *Administrative Tools*, and then click *Computer Management*.
4. In the console tree, click *System Tools*, click *Shared Folders*, and then click *Shares*.
5. On the *Action* menu, click *New Share*.
6. Follow the steps in the *Create a Shared Folder Wizard*, and then click *Finish*. Enter a share name of 'ActiveDashboards' and navigate to the `Dashboards` sub folder. (The default location is `c:\Program Files\Dashboards\Dashboards)`.
7. After the share has been created:
8. Right-click on the 'Active Dashboards' share and select *Properties.* Then select the *Security* tab and make sure all users have *Full Control* and *Modify* ticked.
9. Click *OK*.

Opera II 6.61 & Addons on 64bit Operating Systems

Opera II version 6.61.xx onwards support installations on 64bit Windows Operating Systems (OSs). These include;

- Windows 2008 Server 64bit
- Windows 2008 SBS
- Windows Vista 64bit (for Opera II Client installations)

Windows XP 64bit

Windows XP 64bit is not supported. As Microsoft no longer produce Windows XP, Pegasus have not added support for a XP 64bit configuration.

The other applications shipped on the Opera II CD have also been updated to allow installation on 64bit OSs. These include;

- OFM 2.71.00
- PED 2.02.00
- PDM 2.02.00
- PIM 1.81.00

XRL

Pegasus XRL is not currently supported on 64bit OSs**.** This applies to all versions up to and including the XRL 1.40.10 and 1.40.11 releases. The version number of XRL that will support installation on 64bit OSs will be released at a later date..

NB

- Pegasus applications have not been changed to be 64bit applications (i.e. there is no such thing as “64bit Opera II”).
- Pegasus applications are still 32bit that use 32bit installers.
- Changes have been made to allow/enable Pegasus’s 32bit applications to be installed on 64bit OSs.
- The same CD/installation files are used for both 32bit and 64bit OSs (there is no special 64bit version that needs to be shipped).
- There are no licence/activation changes related to installation on 64bit OSs.

Installation Changes

In order to allow installation on 64bit OSs, several changes were required:

1. Upgrade to InstallShield2009 for most of Pegasus installers as the previous version of InstallShield used (11.0) did not fully support Windows 2008 and 64bit OSs. This required a number of changes due to differences in the way installations are processed in the two versions of InstallShield.
2. Remove the “32bit-only” flag from Pegasus installations.
3. Changes made to get the default installation path in a way that supports the various OS differences.
4. Amyuni driver installation (used by the OperaII_PDFPrinter) changed to allow installation to 64bit OSs.

What is different on a 64bit OS?

The main Operating System differences are detailed below and are not specific to Pegasus products. Some installation/application changes were required to allow for these new restrictions.

No 16bit code.

64bit OSs only allow 64bit and 32bit EXEs, DLLs, etc. This limitation does not affect Pegasus products as listed above as they only contain 32bit code.

Installations flagged as 32bit-only will not be installed.

Windows Installer files (MSI files) may be restricted to only install on 32bit or 64bit windows, or be set to install on either. Previous versions of Pegasus installations (MSI files) were flagged as 32bit only. This restriction has been removed.

No 32bit device drivers allowed

Device drivers must be 64bit. This has required the Amyuni PDF driver to be installed in a different way (the Amyuni installer itself contains both 32bit and 64bit versions). This change means that the OperaII_PDFPrinter can not be automatically reinstated by Opera II if it is deleted when using a 64bit OS. To allow the printer to be recreated without having to reinstall the client, a small utility has been created that will do this.

EXEs and any DLLs, etc. used must be the same bitness*

(* bitness is the term used by Microsoft, it is simply how many bits something is)

32bit EXEs can only use 32bit EXEs/DLLs/OCXs/etc.
64bit EXEs can only use 64bit EXEs/DLLs/OCXs/etc.
To keep these incompatible files separate, different folders and registry locations are used.

Standard Windows folders have been moved

When Pegasus installations ask Windows for the “default application path” or the “system path”, the response will depend on the OS used.

Path type	32bit installer / 32bit OS (i.e. products on 32 bit OS) or 64bit installer / 64bit OS	32bit installer / 64bit OS (i.e. products on 64bit OS)
Application	C:\Program Files\	C:\Program Files (x86)\
System	C:\Windows\System32\	C:\Windows\SysWOW64\

Knowing whether the OS used is 32bit or 64bit will be essential for troubleshooting purposes as Pegasus applications will be installed under “C:\Program Files (x86)\” on 64bit OSs.
Data locations have **not** been moved - so will still be “C:\ProgramData\” (for all-users data) or “C:\Users\...” (for user-specific data).

Registry locations redirected

32bit applications will have all their calls to the registry redirected in order to prevent them from accessing the sections of the registry reserved for 64bit applications. Pegasus applications themselves are completely unaware of this, however knowledge of what is remapped is important when it comes to using RegEdit to locate those settings.

Listed below is a list of the most common remapped locations:

Location (32bit application)	Actual Location (seen in RegEdit)
HKey_Local_Machine\Software\	HKey_Local_Machine\Software\Wow6432Node\
HKey_Classes_Root\	HKey_Classes_Root\Wow6432Node\
HKey_Current_User\Software\	HKey_Current_User\Software\Wow6432Node\
HKey_Users*_Classes\	HKey_Users*_Classes\Wow6432Node\
HKey_Users*\Software\	HKey_Users*\Software\Wow6432Node\

Other locations may also be redirected, if so, the “Wow6432Node” remapping convention shown above will apply.

Task Manager

In order to show whether a process is 32bit or 64bit, Task Manager now lists 32bit processes with “*32” appended to their process name.

SQL Server 2005

There is a specific 64bit version of SQL Server 2005 for installation on 64bit OSs. Due to the fact that SQL Server 2005 was created before Windows 2008 Server, you may see some warnings when it is installed.

Windows 2008 SBS comes with a special version of SQL Server Express installed to hold some internal configuration data. This preinstalled version of SQL Server Express cannot be used for Pegasus databases (i.e. for Opera II SQL or Pegasus Document Management), the full version of SQL Server 2005 (64bit) will need installing to work with our products.

Application Specific Notes

These notes only apply when Pegasus applications are installed on a 64bit OS.
When installing on a 32bit OS, everything is the same as it was for Opera II 6.60.

PED 2.02

IIS Changes

There are a number of changes around IIS running 32bit DLLs on websites. Some manual changes to the IIS settings will be required after PED is installed. These changes are covered in detail in ‘IIS changes on 64bit OSs’.

IIS changes on 64bit OSs

Notes on IIS Application Pools

Websites on an IIS server may be configured to run in separate Application Pools. Each of these Application Pools runs as a different process on the server. This allows different IIS websites to run using very different settings, allows independent stopping and restarting of websites and also prevents websites that crash badly from bringing down other websites. Because there is a moderate overhead for each Application Pool, several websites are often placed in the same Application Pool.

Application Pools may either be 32bit or 64bit. If DLLs of the wrong bitness are used within an Application Pool it will be automatically stopped (and the website user will see an error).
Because PED is a 32bit application, it should ideally be placed into a new 32bit Application Pool. If PED is the only IIS application on the server, it may be left in the Default Application Pool (which can be switched to 32bit).

Supported Windows 2008 Server installations

There are 4 configurations to consider when installing PED 2.02.

- Windows 2008 Server 32bit (this is the current supported configuration)
- Windows 2008 Server 64bit
- Windows 2008 Server 64bit with Exchange Server
- Windows 2008 SBS (is always 64bit and Exchange Server is automatically included)

Each of these requires additional steps to be taken beyond those required for the version above it on the list.

These additional steps must be followed **after** Pegasus Executive Dashboards has been installed.

Once you have installed PED to any of the supported 64bit Operating Systems, you must follow the instructions below starting with “Additional steps for Windows 2008 Server/SBS 64bit”.

Additional steps for Windows 2008 Server/SBS 64bit

Provided there are no other IIS applications on the server, the default Application Pool can be changed to be 32bit. However it is safer to always create a new Application Pool for PED.

Create a new Application Pool for PED and Enable 32-bit Applications in it

- From Administrative Tools launch Server Manager
- In the main tree: expand Roles, then Web Server (IIS), then click on Internet Information Services (IIS) Manager.
- In the Internet Information Services (IIS) Manager, Connections tree: expand the server, then click on Application Pools.
- In the right-hand panel, right-click anywhere on the Application Pools list and choose Add Application Pool…
- In the dialog that appears set the following values then click OK.
    - Name: PED
    - .NET Framework version: v2.0.50727
    - Managed pipeline mode: Integrated
    - Start application pool immediately: unchecked
- In the Application Pools list, right-click the new Application Pool and choose Advanced Settings…
- In the dialog box that appears change the “Enable 32-Bit Applications” setting to True and click OK.

- Right-click on the new Application Pool and choose Start.
- In the Internet Information Services (IIS) Manager, Connections tree: expand the server, then expand Sites, then expand Default Web Site.
- Right-click on the dashboard site and choose Manage Application > Advanced Settings…
- In the dialog that appears change the Application Pool setting to the new Application Pool just created and click OK.
- If you have Exchange Server installed then follow the Additional steps for Windows 2008 Server/SBS 64bit with Exchange Server below. Otherwise click on the server name in the Connections tree then Stop and Start IIS to complete the configuration.

Additional steps for Windows 2008 Server/SBS 64bit with Exchange Server

The installation of Exchange Server forces a 64bit DLL (RpcProxy.dll) to be loaded into **all** of the Application Pools (even those set to allow 32bit applications). This forced mixture of 32 and 64bit DLLs will cause the Application Pool to fail and stop. Changes are required to prevent this 64bit DLL from being loaded into Application Pools that have been set to allow 32bit applications.
These instructions require an important Windows system file to be manually edited.

Prevent RpcProxy from loading into 32bit Application Pools

- Make a copy of the following file. **This is a critical IIS system file, so never change it without a backup**:

```
C:\Windows\System32\inetsrv\config\applicationHost.config
```

- Edit the original applicationHost.config file. There are several important things to note when editing this file:
  - Due to the location of this file you will need to run Notepad with Administrator privileges in order to save the file after editing.
  - If you use a text file editor other than Notepad, you will not be able to locate this file if the editor itself is not a 64bit application.
  - The contents of this file are case-sensitive, so ensure the changes made exactly match the details below.
- Search for the following line:

```
<add name="PasswordExpiryModule" image="C:\Windows\system32\RpcProxy\RpcProxy.dll" />
```

- Change it to:

```
<add name="PasswordExpiryModule" image="C:\Windows\system32\RpcProxy\RpcProxy.dll" preCondition="bitness64" />
```

- Save the file.
- If you are running on Windows 2008 SBS then follow the **Additional steps for Windows 2008 SBS** below. Otherwise Stop and Start IIS to complete the configuration.

Additional steps for Windows 2008 SBS

In addition to the 64bit Exchange DLL being loaded into all of the application pools, SBS server also sets IIS to use a 64bit compression DLL. This compression is set for the entire IIS server and applies to 32bit and 64bit application pools alike. As mentioned before, this forced mixture of 32 and 64bit DLLs will cause the Application Pool to fail and stop. Disabling this compression will allow PED to run, but will prevent certain data sent by IIS from being compressed on the way to the user's web browser (it will instead be sent uncompressed).

Disable httpCompression

- The following three commands need to be issued from an elevated (i.e. Run as Administrator) command prompt:
  - c:
  - cd \windows\system32\inetsrv
  - appcmd.exe set config -section:system.webServer/httpCompression /-[name='xpress']
- The final command should show a success message like:
  Applied configuration changes to section “system.webServer/httpCompression” for “MACHINE/WEBROOT/APPHOST” at configuration commit path “MACHINE/WEBROOT/APPHOST”
- Close the command prompt.
- Stop then Start IIS to complete the configuration.

Supplemental instructions for installing first time on Windows 7, Windows 2008 R2 or Small Business Server 2011

Instructions to install Pegasus Dashboards are included in the Installation Guide for the product. This information is supplementary to those instructions.

If Pegasus Dashboards is installed for the first time on Windows 7, Windows 2008 R2 or Small Business Server 2011, these instructions must be followed before running the application:

1. From the Windows **Start** button, click **Administrative Tools > Server Manager**.
2. In the main tree: expand **Roles**, then expand **Web Server (IIS)**, then click on **Internet Information Services (IIS) Manager**.
3. In the **Internet Information Services (IIS) Manager Connections** tree, expand the server and then click on **Application Pools**.
4. In the **Application Pools** list, right-click the **Application Pool** that is used for Pegasus Dashboards and choose **Advanced Settings**.
5. In the dialog box that appears change the Identity setting in the **ProcessModel** section to *NetworkService* and click **OK**.

Windows SBS 2011

Follow these steps on all Windows SBS 2011 installations after completing the steps in the Windows SBS 2008 and Windows SBS 2011 section on **page 27** above.

1. Four lines in the *applicationHost*.config file on Windows SBS 2011 needs to be changed .By default the file is in the *C:\Windows\System32\inetsrv\config* folder. Copy the file before making any changes. Open the file in Notepad with Administrator privileges and find each line under **Change from** in turn and carefully replace them with the adjacent line under **Change to**. After making the changes, save and close the file.

Important: The contents of this file are case-sensitive, so ensure the changes made exactly match the details below.

Change from	Change to
`<add name="kerbauth" image="C:\Program Files\Microsoft\Exchange Server\V14\Bin\kerbauth.dll"/>`	`<add name="kerbauth" image="C:\Program Files\Microsoft\Exchange Server\V14\Bin\kerbauth.dll" preCondition="bitness64" />`
`<add name="exppw" image="C:\Program Files\Microsoft\Exchange Server\V14\ClientAccess\Owa\auth\exppw.dll"/>`	`add name="exppw" image="C:\Program Files\Microsoft\Exchange Server\V14\ClientAccess\Owa\auth\exppw.dll" preCondition="bitness64" />`
`<filter name="Exchange OWA Cookie Authentication ISAPI Filter" path="C:\Program Files\Microsoft\Exchange Server\V14\ClientAccess\owa\auth\owaauth.dll" enabled="true" />`	`<filter name="Exchange OWA Cookie Authentication ISAPI Filter" path="C:\Program Files\Microsoft\Exchange Server\V14\ClientAccess\owa\auth\owaauth.dll" enabled="true" preCondition = "bitness64" />`
`<filter name="Exchange ActiveSync ISAPI Filter" path="C:\Program Files\Microsoft\Exchange Server\V14\ClientAccess\sync\bin\AirFilter.dll" enabled="true" />`	`filter name="Exchange ActiveSync ISAPI Filter" path="C:\Program Files\Microsoft\Exchange Server\V14\ClientAccess\sync\bin\AirFilter.dll" enabled="true" preCondition="bitness64" />`

Note: If Pegasus Dashboards is run without completing these steps, when someone logs on the error *HTTP Error 503 Service unavailable* will be displayed. This will stop the Application Pool that Dashboards uses so it will be necessary to restart the Application Pool in IIS.

Appendix G Installation of PED – behind the scenes

The installation checks the following things before prompting for any settings:

Checks for .NET Framework 2.0 installed, if it is not there the following message is offered and the installation stops:
DotNet 2.0 Framework is not found on this machine. Please install DotNet 2.0 Framework and try again.

Checks for IIS installed, if it is not there the following message is shown and the installation stops:
IIS is not found on this machine. Please install IIS and try again.

If these initial 2 prerequisites are ok then the installation wizard begins and asks for:

- **Prompts for Installation folder for dashboard**

This defaults to "C:\Program Files\Dashboards" (This is the recommended default path).

- **Prompts for Virtual Directory (Website) name for dashboard**

This defaults to "dashboard" (This is the default setting).

- **Prompts for Location of Opera 3 Server Dynamic**

This location is populated automatically if the setting in the registry is found. The installation checks the following in sequence and uses the first one found; Client VFP, Client SQL, Server VFP, Server SQL. If the registry key is found, the installer checks if there is a valid goapp.ini available and if not checks the next key in the sequence. If the installer cannot match any of these locations then this value defaults to "C:\".

When the user clicks NEXT on this stage the installer verifies certain elements and does not allow the install to proceed if anything is wrong. The installer will check the following in order:

Can we locate a "DataDictCore" folder? If not it displays: *Valid Opera 3 installation not found at this location. Unable to locate DataDictCore folder.*
Can we (via the setting in GoApp.INI) locate the Opera.sys file? If not we display: *Valid Opera 3 installation not found at this location. Unable to locate Opera.Sys file.*
Is Opera 3 activated for dashboard? If not it displays: *Opera 3 is not correctly activated for Executive Dashboard.*

After this you have the final "are you sure?" page, and if this is accepted the actual installation begins.

The actual installation consists of:

- WebSiteInstall.exe - is copied to the installation folder.
- WebSiteInstall.exe - is run silently using the parameters entered earlier.
- GoApps - are installed if required.
- VFP Runtimes - are installed if required.
- VFP OLEDB database driver - is installed if required.
- The App_Data - is updated with our dashboard items.
- The Login/Security applets/DLLs - are installed.
- PathToGoApp.INI file - is updated.
- Sets IIS to use .Net Framework 2.0
- Views and UDF definitions are copied to a subdirectory of the Opera 3 DataDictCore folder.
- A shortcut is placed on the desktop.

Opera 3 now needs UDS running in order to put the Views and UDFs into the company databases.

Web.Config (in the **dashboards/active dashboards** subdirectory of the installed folder) may need editing if the Opera 3 data is not on the server where the dashboard has just been installed. The following is taken directly from the Installation guide.

1. On the Server computer, navigate to the Pegasus Executive Dashboards installation location entered above. Then navigate to the ActiveDashboards sub folder. The default location is c:\Program Files\Dashboards\Dashboards\ActiveDashboards.
2. Open the Web.Config file using a text editor like Notepad.
3. Find the *<identity impersonate="false" />* line and modify it to contain the domain name and Windows user name for a user who has access to the location of the Opera 3 Enterprise or Opera 3 Enterprise SQL Server Dynamic share or Server Static and Dynamic share. If the installation is for Opera 3 Enterprise SQL, the user must also have access to the Opera 3 SQL Database.
The line must be edited to include a Windows user name (including the domain name) that has required access rights, the user's password, and the '*identity impersonate*' parameter must be set to *true.* The example below uses a domain name of 'sales', a user name of 'user1' and the password 'letmein'.
Installed version:

```
<?xml version="1.0"?>
<!-- ActiveDashboards settings -->
<configuration>
<appSettings/>
<system.web>
<identity impersonate="false" />
<!-- ActiveDashboards default culture for application - do not alter -->
<globalization enableClientBasedCulture="true" culture="en-GB" uiCulture="en-GB"/>
</system.web>
</configuration>
```

Modified version:

```
<?xml version="1.0"?>
<!-- ActiveDashboards settings -->
<configuration>
<appSettings/>
<system.web>
<identity impersonate="true" userName="sales\user1" password="letmein" />
<!-- ActiveDashboards default culture for application - do not alter -->
<globalization enableClientBasedCulture="true" culture="en-GB" uiCulture="en-GB"/>
</system.web>
</configuration>
```

Important: *The text is case sensitive so you must use the exact case as described above.*
4. Save the file and exit from the text editor.

During un-installation the dashboard files are removed. The Views and UDF definition files that were placed in the Opera 3 DataDictCore folder are not removed.

NB: Updating the Web.Config file (to allow Opera 3 data across network) only applies for Executive Dashboards version 1. The WebConfig file generally does not require editing for Dashboards v2 onwards.

Appendix H Files and Folders of note

Data

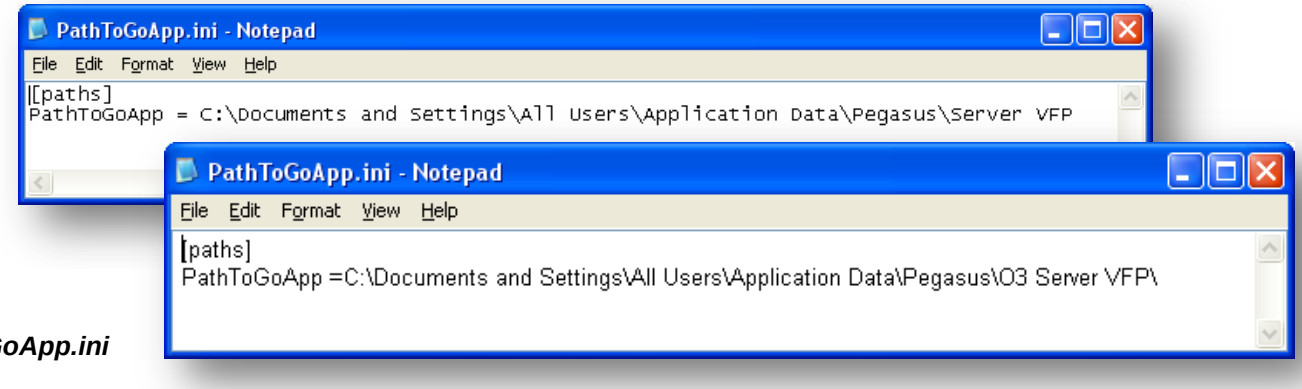
Data is held in XML files and are stored by default in *C:\Program Files\Dashboards\Dashboards\ActiveDashboards\App_Data*.

It is recommended not to alter these files in any way.

~The following files may be found in the C:\Program Files\Dashboards\Dashboards location.~

PathToGoApp.ini

This file holds the path to GoApp files as required by Applications using Opera 3.



GoApp.ini

Pegasus Executive Dashboards v2.00 installation (clean and upgrade) now writes 2 new settings to the GoApp.ini in the Opera 3 Server xxx Dynamic folder.

These are as follows;

[Settings]
DataDict Dir=\\<machinename>\O3 Server VFP Dynamic\DataDict\
FWSData Dir\\<machinename>\O3 Server VFP Static\FrameworkSupport\Data\
System Dir=\\<machinename>\O3 Server VFP Dynamic\System\
PDF Images Dir=
PEDURL=http:// <machinename>/dashboard
PED Dir=\\<machinename>\\ActiveDashboards

The installation does not change these settings if they already exist.

PEDURL is based on the website name chosen during Pegasus Executive Dashboard Server installation.

PED Dir will always be set to \\<machinename>\ActiveDashboards\

The share itself will need to be created manually.

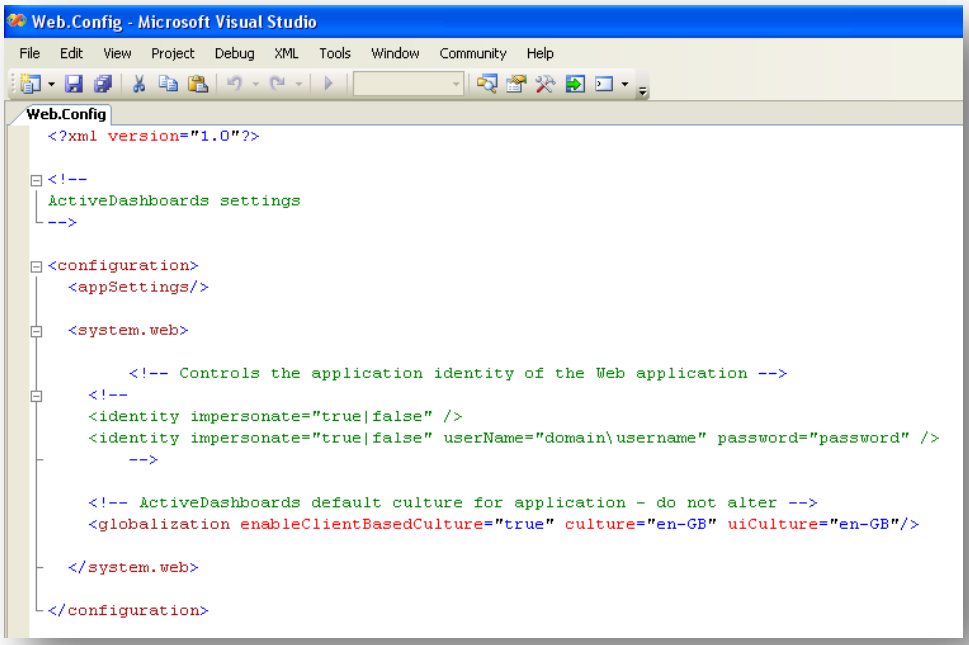
operasecurity.dll

The opera security dll file. If this file has not been registered properly it may cause potential accessing issues.

~ The following files may be found in the C:\Program Files\Dashboards\Dashboards\ActiveDashboards location~

Web.Config

The Web.Config file contains information in regards to the identity using Dashboards. This is one of the files covered in Appendix A which may require tweaking. Always ensure a back-up of a file is taken prior to any alterations.



NB: Updating the Web.Config file (to allow Opera 3 data across network) only applies for Executive Dashboards version 1. The WebConfig file generally does not require editing for Dashboards v2 onwards.

Appendix I Running Internet Explorer in Full Screen 'Kiosk' Mode

If you run Pegasus Executive Dashboards from a shortcut on the Windows desktop, Internet Explorer will load with the Internet Explorer title bar, toolbars, menus, and status bars as normal. This does use some of your screen so you may then have to use the scroll bars to see all of the Dashboard items.

When you run Internet Explorer in Kiosk mode, the Internet Explorer title bar, menus, toolbars, and status bar are not displayed and Internet Explorer runs in Full Screen mode. This means more of the desktop is used to display Dashboard items.

Warning: Because Internet Explorer is running in Full Screen mode, you cannot access the Windows desktop or Taskbar until you quit Internet Explorer by using ALT+F4.

To Run Internet Explorer in 'Kiosk' Mode

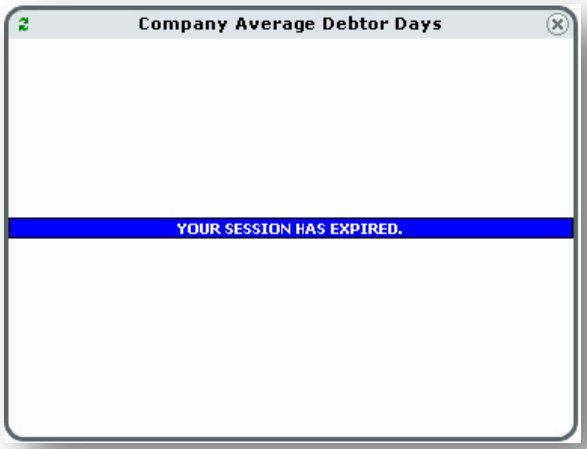
1. Click the Windows Start menu and select **Run**.
2. In the **Open** field, enter the following (where *servername* is the name of the server where Pegasus Executive Dashboards is installed and *dashboard* is the name given to the dashboard during the installation):
   `iexplore -k http://servername/dashboard/dblogin.aspx`
3. Click **OK.** Internet Explorer then loads in Full Screen mode.

Tip: A shortcut icon is added to the Pegasus Executive Dashboards server's desktop during the installation. Right-click on the icon and select **Properties**, then copy the URL into the Windows **Run** command. Don't forget to add 'iexplore –k' before the URL

Appendix JAdministration

Session Timeouts in Microsoft Internet Information Services (IIS)

The default 'session timeout' setting in IIS, which runs on the Pegasus Executive Dashboards Server, is 20 minutes. This means that if there is no Pegasus Executive Dashboards activity in a client computer's Internet Explorer for 20 minutes or more, IIS 'timeouts' and the information in the Dashboards is no longer displayed until you log out and log in again.



You can change the default session timeout setting in the *Web.config* file in the installation location on the Pegasus Executive Dashboards server.

To Change the Session Timeout Setting

1. Navigate to the installation location where Pegasus Executive Dashboards Server is installed. The default location on the server is `C:\Program Files\Dashboards\Dashboards`.
2. Open the Web.Config file using a text editor like Notepad.
3. Search for the word "sessionState" and change the *timeout* setting to the length of time you want IIS to wait before it activates the session timeout setting. You also need to remove the '`<!--` ' and '-->' characters so that IIS uses the setting. In this example, the number of minutes before IIS activates the setting is set to 60.

Installed version:

```
<!--
Set the session timeout minutes
-->
<!--
<sessionState timeout="120" />
-->
```

Modified version:

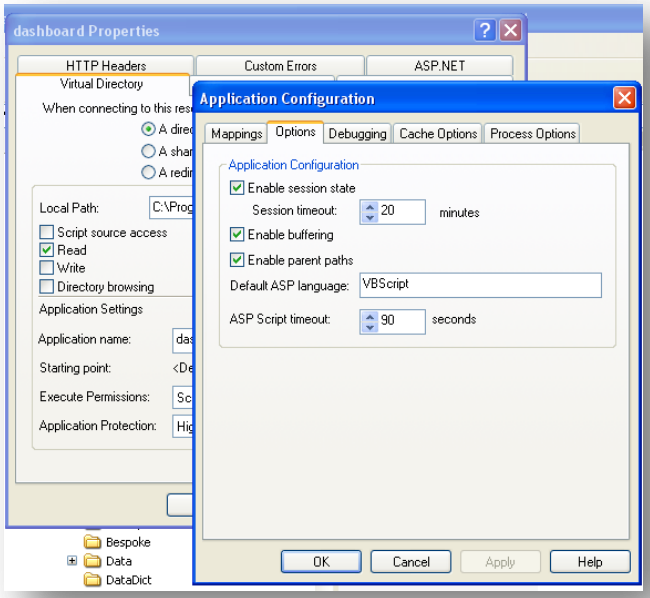
```
<!--
Set the session timeout minutes
-->
<sessionState timeout="60" />
```

Important: The text is case sensitive so you must use the exact case as described above.

Save the file and exit from the text editor.

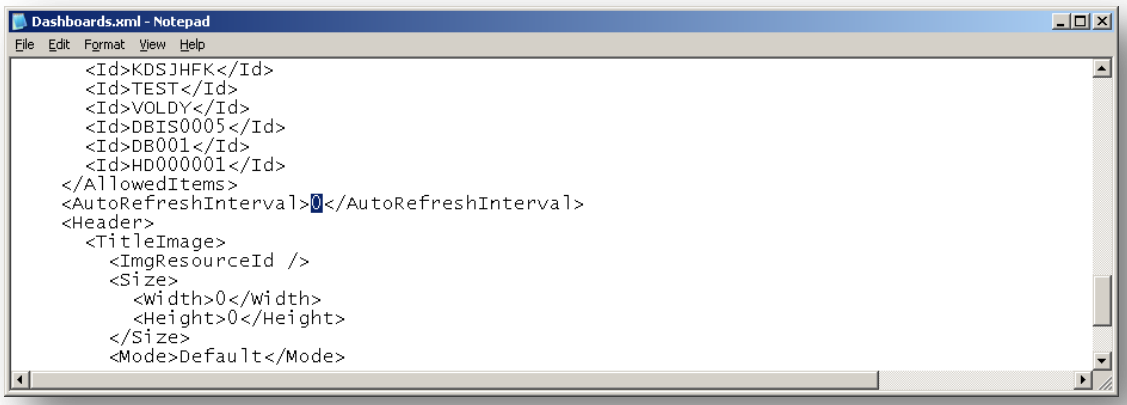
Alternatively the timeout setting could be amended in the Internet Information Services component, but this may depend on the IIS settings. Recommend consulting with the technician in charge of the IIS component.

1. Access IIS (See Appendix K for further information if required)
2. Right Click on the Dashboard Website and select Properties
3. Select the Configuration button
4. Select the options tab and set the timeout settings

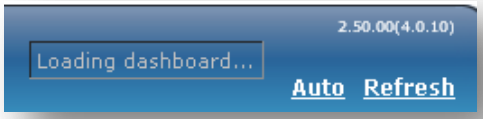


Dashboard Refresh Interval Settings (Behind the Scenes)

In post version 2.50.00 you can edit the XML files – Please note that changed to any underlying files are done at the editor's responsibility. You are able to make a small change to set the Refresh intervals.

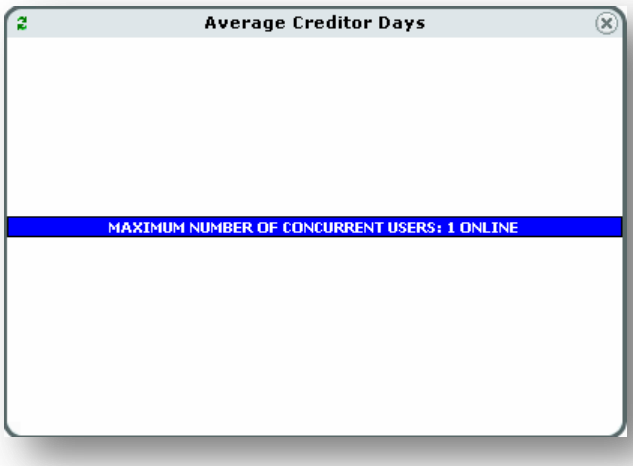


Changing this from 0 to the number of seconds between Refreshes can be done in the Dshboards.xml file. This will open up the Auto (Refresh) setting on the Dashboard in the top right of the window.



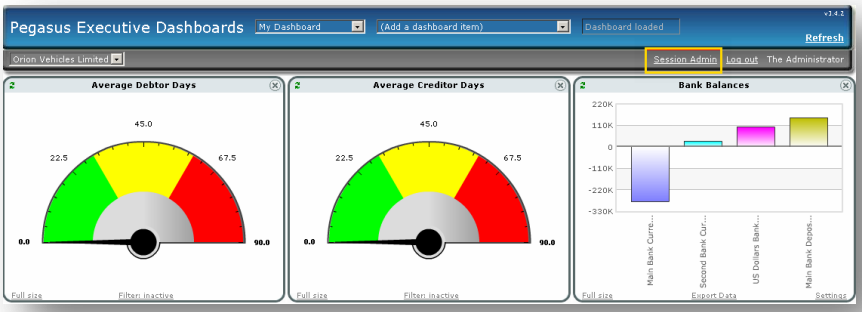
Session Administration

If you log in as the ADMIN user, you can see who is using Pegasus Executive Dashboards, their IP address, and how long they have been logged on. If the maximum numbers of users are logged in, a message like the one below will be displayed on each item. In Session Admin, you can log users out to allow other users to log in.

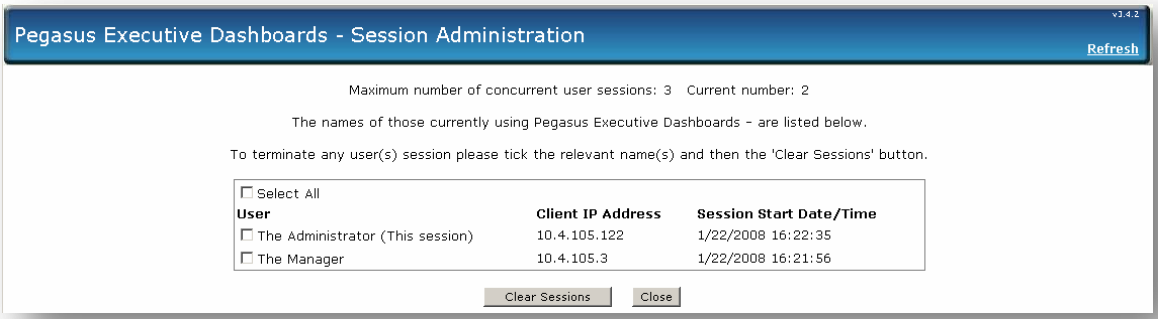


To Review the Status of Pegasus Executive Dashboards Users

1. Double-click the Pegasus Executive Dashboard icon in the computer's desktop. The Login form is displayed.
2. Login using the Opera 3 'ADMIN' log in, then enter the password and click the **Log In** button. The Dashboard is then displayed with an additional link called 'Session Admin'.



Click **Session Admin** to see the Session Administration screen.



Tick a box to clear an individual user or tick **Select All** to tick all users including ADMIN. Then click the **Clear Sessions** button. All ticked users will then have their session cleared. Then click **Close**.

Appendix K Components & Useful Utilities Notes

VFPOLEDBSetup.msi & VFPOLEDB.dll

Required for the Dashboards to work correctly and render as required. The component should already be installed and working as part of the Opera 3 Client installation, however re-installing this may cure any issues encountered with Dashboards.

http://www.microsoft.com/downloads/details.aspx?FamilyID=E1A87D8F-2D58-491F-A0FA-95A3289C5FD4&displaylang=en

The Visual FoxPro OLE DB Provider (VfpOleDB.dll) exposes OLE DB interfaces that you can use to access Visual FoxPro databases and tables from other programming languages and applications.

The MSI installs appropriate files/folders as required.

If there is no internet connection there is a potential workaround which could be attempted. The user would have to re-register the VFPOLEDB.dll file.

1. Browse to C:\Program Files\Common Files\System\Ole DB
2. Start-Run
3. Type in "regsvr32 C:\Program Files\Common Files\System\Ole DB\vfpoledb.dll" *(or type in regsvr32 and drag the file into the run box)*
4. Click OK
5. Ensure the dll registers successfully and try running Dashboards again.

Adobe Flash

Recommend a Google search for the *install_flash_player_active_x.msi* or *install_flash_player.exe* installer. This is required for the Flash element f Dashboards to function correctly (such as chart rendering). An example source found for the Firefox download was http://get.adobe.com/flashplayer/thankyou/. Recommend to check on the Adobe Website for the latest version http://www.adobe.com/support/flashplayer/downloads.html.

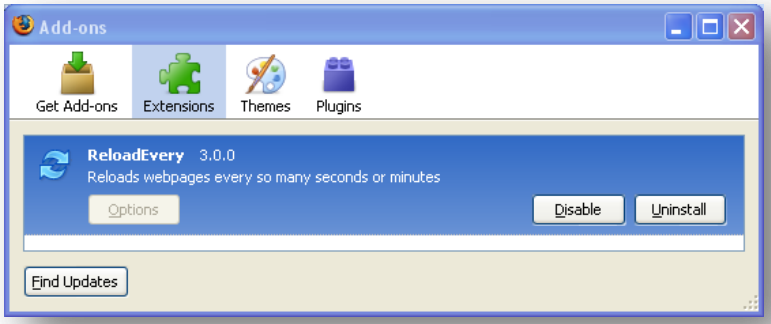
IE & Firefox

Obtain the latest version of these applications in order to run Dashboards. There are advantages and disadvantages for either solution, but both are tested;

MS – http://www.microsoft.com/windows/products/winfamily/ie/default.mspx
FireFox – http://www.mozilla.com/en-US/

MS follows the Microsoft fold and sits under the MS umbrella which may mean most users use this. Indeed the two applications do cover over 90% of all browsers (source: Wikipedia: http://en.wikipedia.org/wiki/Browser_wars @ http://www.w3schools.com/browsers/browsers_stats.asp

FireFox offers a variety of add-ons including an automatic refresh.



.Net Framework

.Net Framework (v2)

This MS component is provided on the DVD ROM but alternatively may be downloaded from the MS Download centre Website. Recommend to search or try the following link as a guide - http://www.microsoft.com/downloads/details.aspx?FamilyID=0856eacb-4362-4b0d-8edd-aab15c5e04f5&DisplayLang=en

.Net Framework (v3.5 sp1)

This MS component is provided on the DVD ROM but alternatively may be downloaded from the MS Download centre Website. 3.5 is required for Dashboard version 2.6+. Recommend to search or try the following link as a guide - http://www.microsoft.com/net/Download.aspx

Shares - ActiveDashboards

Ensure the share is done on the ActiveDashboard folder and none of the Parent “Dashboard” folders to avoid problems. Apply full control to the appropriate people on this folder.

Internet Information Services (IIS)

How to Launch IIS;

There are various methods to Launch IIS and to check whether it is installed (although the installation routine would error out if IIS was not present).

1. Start – Run
2. Type in “INETMGR” and press OK

Or

1. Start – Run
2. Type in “MMC” and press OK (This launches the Management Console)
3. From here – File – Add/Remove Snap In
4. Add – Internet Information Services

Or

1. Right Click “My Computer” and select Manage
2. Open Services and Applications (IIS should be located below this)

To install;

1. Control Panel – Add/Remove Programs.
2. Select the Windows Components (Right hand side)
3. Install IIS (May need Windows CD/Files

Loopback Adapter

On standalone systems which run Windows XP or lower, a MS Loopback Adapter may be required. This allows UNC paths to be resolved (pretend it is on a Network). The current Loopback Adapter provided by MS runs at 10Mbs. Windows Vista has this pre-installed but be aware this can be turned off.

There are several articles on the MS website to install the Loopback Adapter – suggest a Google search is done to find the appropriate steps (www.google.co.uk).

As an example the XP steps are found here - http://support.microsoft.com/kb/839013

1. Click Start, and then click Control Panel.
2. If you are in Classic view, click Switch to Category View under Control Panel in the left pane.
3. Double-click Printers and Other Hardware, and then click Next.
4. Under See Also in the left pane, click Add Hardware, and then click Next.
5. Click Yes, I have already connected the hardware, and then click Next.
6. At the bottom of the list, click Add a new hardware device, and then click Next.
7. Click Install the hardware that I manually select from a list, and then click Next.
8. Click Network adapters, and then click Next.
9. In the Manufacturer box, click Microsoft.
10. In the Network Adapter box, click Microsoft Loopback Adapter, and then click Next.
11. Click Finish.

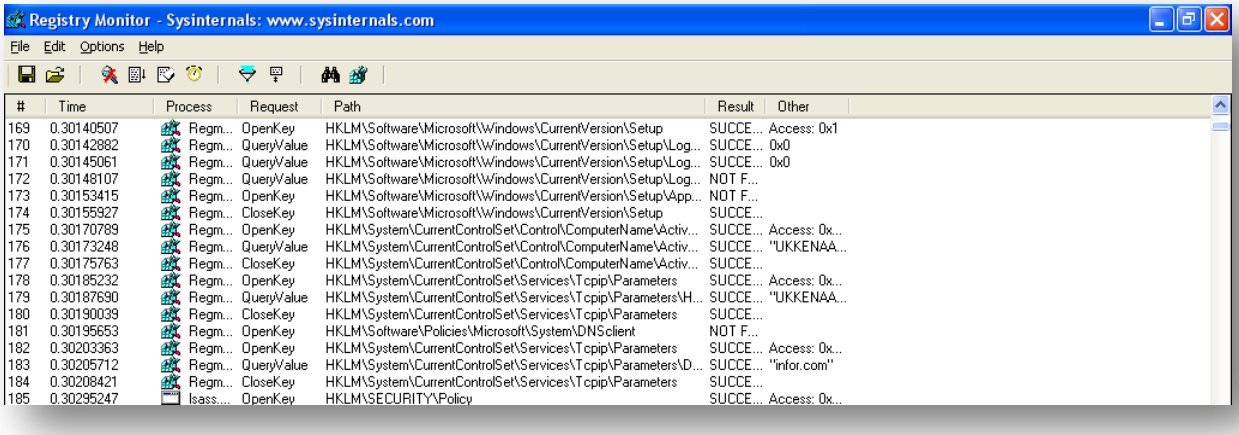
SYSINTERNALS Utility Suite

The Sysinternals Troubleshooting Utilities have been rolled up into a single Suite of tools. This file contains the individual troubleshooting tools and help files. It does not contain non-troubleshooting tools like the BSOD Screen Saver or NotMyFault.

It contains FileMon and RegMon with respective help files on how to use them. These two utilities are invaluable when checking permissions and access rights to files, folders and registry keys.

http://technet.microsoft.com/en-us/sysinternals/0e18b180-9b7a-4c49-8120-c47c5a693683.aspx is the latest link and was updated in March 2009. This is the complete Sysinternals suite that has several useful utilities. To ensure you have the most up-to-date suite, please ensure you search the Microsoft Technet site thoroughly, however we endeavour to keep the most updated link in the courseware.

A sample screenshot of the Registry Monitor is illustrated below;



#	Time	Process	Request	Path	Result	Other
169	0.30140507	Regm...	OpenKey	HKLM\Software\Microsoft\Windows\CurrentVersion\Setup	SUCCE...	Access: 0x1
170	0.30142882	Regm...	QueryValue	HKLM\Software\Microsoft\Windows\CurrentVersion\Setup\Log...	SUCCE...	0x0
171	0.30145061	Regm...	QueryValue	HKLM\Software\Microsoft\Windows\CurrentVersion\Setup\Log...	SUCCE...	0x0
172	0.30148107	Regm...	QueryValue	HKLM\Software\Microsoft\Windows\CurrentVersion\Setup\Log...	NOT F...	
173	0.30153415	Regm...	OpenKey	HKLM\Software\Microsoft\Windows\CurrentVersion\Setup\App...	NOT F...	
174	0.30155927	Regm...	CloseKey	HKLM\Software\Microsoft\Windows\CurrentVersion\Setup	SUCCE...	
175	0.30170789	Regm...	OpenKey	HKLM\System\CurrentControlSet\Control\ComputerName\Activ...	SUCCE...	Access: 0x...
176	0.30173248	Regm...	QueryValue	HKLM\System\CurrentControlSet\Control\ComputerName\Activ...	SUCCE...	"UKKENAA...
177	0.30175763	Regm...	CloseKey	HKLM\System\CurrentControlSet\Control\ComputerName\Activ...	SUCCE...	
178	0.30185232	Regm...	OpenKey	HKLM\System\CurrentControlSet\Services\Tcpip\Parameters	SUCCE...	Access: 0x...
179	0.30187690	Regm...	QueryValue	HKLM\System\CurrentControlSet\Services\Tcpip\Parameters\H...	SUCCE...	"UKKENAA...
180	0.30190039	Regm...	CloseKey	HKLM\System\CurrentControlSet\Services\Tcpip\Parameters	SUCCE...	
181	0.30195653	Regm...	OpenKey	HKLM\Software\Policies\Microsoft\System\DNSclient	NOT F...	
182	0.30203363	Regm...	OpenKey	HKLM\System\CurrentControlSet\Services\Tcpip\Parameters	SUCCE...	Access: 0x...
183	0.30205712	Regm...	QueryValue	HKLM\System\CurrentControlSet\Services\Tcpip\Parameters\D...	SUCCE...	"infor.com"
184	0.30208421	Regm...	CloseKey	HKLM\System\CurrentControlSet\Services\Tcpip\Parameters	SUCCE...	
185	0.30295247	lsass....	OpenKey	HKLM\SECURITY\Policy	SUCCE...	Access: 0x...

Appendix L Dashboard Chart Creation Summarised Notes

Rules

Grid	The columns appear in the chosen field order. All fields are available for use with filters.
Single Value	The last field in the list is used for the single value. Any other fields are made available for filters.
Single Series	The first field provides the ('x axis') categories of the chart with the second field as the ('y axis') values. These fields and any others are available for use with filters.
Multi Series	The first field gives the ('x axis') categories of the chart with the second field as the ('y axis') values (though the highest value will still be displayed on the Axis). All other fields form the various parameters for the values. All fields are available for use with filters (example used – Customer Over Credit Limit)

Other Rules (Data Details)

- No Run-Time Variables
- No System Variables
- Grouping is done differently – spurious grouping may require Edit SQL override
- No Constructs (However could attempt to use standard field and adjust using expression builder)
- Expression builder may produce errors with valid functions and statements (try 'Edit SQL')
- Edit SQL offers a stronger solution
- Joins may need to be modified to suite as different joins may produce different results

More Rules (Chart Designer)

- Pre-defined List – very complex (not really possible) to create new lists
- Generic Text – means single selection. Does not support lists
- Wildcards are supported – list is in the main Dashboards manual (Appendix)
- Axis are not a format-able as in Excel (Range up to 100 or it will automatically divide by – e.g. 5 with the highest rounded number)

Editing the HTML/XML

Although this is not advised or supported – need to explain what is contained in the files. Can be overwritten but may have unknown consequences. Some of the commonly used files by Dashboards are discussed below;

C:\Program Files\Dashboards\Dashboards\ActiveDashboards\App_Data

- DataSources (Contains the SQL and fields selected for Dashboard items).
- Dashboards (Contains created dashboards, including 'My Dashboard' – with permissions etc).
- DashboardItems (Contains the individual dashboard item settings, fields and formatting)
- Views are located in the DataDictCore location and may be required dependant on what is being edited.

Of course this section is really out of the realms of Pegasus (Support/training etc).

The SQL SELECT Statement

The SELECT statement is used to select data from a database.
The result is stored in a result table, called the result-set.

SQL SELECT Syntax

```
SELECT column_name(s)
FROM table_name
```

and

```
SELECT * FROM table_name
```

Note: SQL is not case sensitive. SELECT is the same as select.

A SQL SELECT Example

The "Persons" table:

P_Id	LastName	FirstName	Address	City
1	Hansen	Ola	Timoteivn 10	Sandnes
2	Svendson	Tove	Borgvn 23	Sandnes
3	Pettersen	Kari	Storgt 20	Stavanger

Now we want to select the content of the columns named "LastName" and "FirstName" from the table above.

We use the following SELECT statement:

```
SELECT LastName,FirstName FROM Persons
```

The result-set will look like this:

LastName	FirstName
Hansen	Ola
Svendson	Tove
Pettersen	Kari

SELECT * Example

Now we want to select all the columns from the "Persons" table.
We use the following SELECT statement:

```
SELECT * FROM Persons
```

Tip: The asterisk (*) is a quick way of selecting all columns!

The result-set will look like this:

P_Id	LastName	FirstName	Address	City
1	Hansen	Ola	Timoteivn 10	Sandnes
2	Svendson	Tove	Borgvn 23	Sandnes
3	Pettersen	Kari	Storgt 20	Stavanger

WHERE Clause Example

The "Persons" table:

P_Id	LastName	FirstName	Address	City
1	Hansen	Ola	Timoteivn 10	Sandnes
2	Svendson	Tove	Borgvn 23	Sandnes
3	Pettersen	Kari	Storgt 20	Stavanger

Now we want to select only the persons living in the city "Sandnes" from the table above.
We use the following SELECT statement:

```
SELECT * FROM Persons
WHERE City='Sandnes'
```

The result-set will look like this:

P_Id	LastName	FirstName	Address	City
1	Hansen	Ola	Timoteivn 10	Sandnes
2	Svendson	Tove	Borgvn 23	Sandnes

Quotes Around Text Fields

SQL uses single quotes around text values (most database systems will also accept double quotes).
Although, numeric values should not be enclosed in quotes.
For text values:

```
This is correct:
SELECT * FROM Persons WHERE FirstName='Tove'
This is wrong:
SELECT * FROM Persons WHERE FirstName=Tove
```

For numeric values:

```
This is correct:
SELECT * FROM Persons WHERE Year=1965
This is wrong:
SELECT * FROM Persons WHERE Year='1965'
```

Operators Allowed in the WHERE Clause
With the WHERE clause, the following operators can be used:

Operator	Description
=	Equal
<>	Not equal
>	Greater than
<	Less than
>=	Greater than or equal
<=	Less than or equal
BETWEEN	Between an inclusive range
LIKE	Search for a pattern
IN	If you know the exact value you want to return for at least one of the columns

Note: In some versions of SQL the <> operator may be written as !=

The AND & OR Operators

The AND operator displays a record if both the first condition and the second condition is true.
The OR operator displays a record if either the first condition or the second condition is true.

AND Operator Example

The "Persons" table:

P_Id	LastName	FirstName	Address	City
1	Hansen	Ola	Timoteivn 10	Sandnes
2	Svendson	Tove	Borgvn 23	Sandnes
3	Pettersen	Kari	Storgt 20	Stavanger

Now we want to select only the persons with the first name equal to "Tove" AND the last name equal to "Svendson":

We use the following SELECT statement:

```
SELECT * FROM Persons
WHERE FirstName='Tove'
AND LastName='Svendson'
```

The result-set will look like this:

P_Id	LastName	FirstName	Address	City
2	Svendson	Tove	Borgvn 23	Sandnes

OR Operator Example

Now we want to select only the persons with the first name equal to "Tove" OR the first name equal to "Ola":
We use the following SELECT statement:

```
SELECT * FROM Persons
WHERE FirstName='Tove'
OR FirstName='Ola'
```

The result-set will look like this:

P_Id	LastName	FirstName	Address	City
1	Hansen	Ola	Timoteivn 10	Sandnes
2	Svendson	Tove	Borgvn 23	Sandnes

Combining AND & OR

You can also combine AND and OR (use parenthesis to form complex expressions).
Now we want to select only the persons with the last name equal to "Svendson" AND the first name equal to "Tove" OR to "Ola":

We use the following SELECT statement:

```
SELECT * FROM Persons WHERE
LastName='Svendson'
AND (FirstName='Tove' OR FirstName='Ola')
```

The result-set will look like this:

P_Id	LastName	FirstName	Address	City
2	Svendson	Tove	Borgvn 23	Sandnes

The ORDER BY Keyword
The ORDER BY keyword is used to sort the result-set by a specified column.
The ORDER BY keyword sort the records in ascending order by default.
If you want to sort the records in a descending order, you can use the DESC keyword.

SQL ORDER BY Syntax

```
SELECT column_name(s)
FROM table_name
ORDER BY column_name(s) ASC|DESC
```

Examples

Sales Debtors

SL Aged Debt

Based on STRAN – Linked to Calc fields – Summed

Select trim(padr(stran.st_account, 100)) as Account, sum(pgfnslg_age(sname.sn_account,1,date())) as CurrentAgedBalance, sum(pgfnslg_age(sname.sn_account,2,date())) as _1MonthBalanceSL, sum(pgfnslg_age(sname.sn_account,3,date())) as _2MonthBalanceSL, sum(pgfnslg_age(sname.sn_account,4,date())) as _3MonthBalanceSL, sum(pgfnslg_age(sname.sn_account,5,date())) as _4MonthBalanceSL, sum(pgfnslg_age(sname.sn_account,6,date())) as _5MthsBalanceSL, sum(sname.sn_currbal) as CurrentBalance From stran left join sname on stran.st_account=sname.sn_account Group By 1

SL Aged Debt Transactions

Based on STRAN – with sequence and criteria – Could show and explain why Edit SQL Useful – Criteria with ANDs and ORs may need editing with Brackets.

Select stran.st_account as Account, stran.st_trdate as Date, stran.st_trref as Reference, stran.st_custref as CustomerReference, pgfnexpandtyp(stran.st_trtype) as Type, stran.st_trvalue as Value, stran.st_vatval as VATValue, stran.st_trbal as Balance From stran Where ((stran.st_trbal)<>0) and (inlist(upper((pgfnexpandtyp(stran.st_trtype))),upper('invoice'),upper('cr.note'))) Order By 1,2

Key Notes

- Show Drilldown based on Account.
- Show some limitations when using data details – difficult to allow drilldown to only transactions for that period.
- Show Dashboard use of Peg Functions
- Show using Field Names for Run Time Filters (ones which have not been selected in the data selection).
- Remember the “rules” for any Axis Charts
- Remember the “Summarisation” capabilities

Accreditation Training Courseware

Other Guides and Help

The following user documents are also provided with the respective software. Guides are available from various sources including Answerlink, the Opera 3 CD and from the Opera 3 Client installation's main folder, normally *C:\Program Files\Pegasus\O3 Client XXX\User documents (where XXX is either VFP or SQL)*. Some guides are also available from the Opera 3 Help menu or respective software Help menu.

Readme File

The Readme file is an HTML document. It contains late breaking news and any other release specific important information.

Note: This file can also be accessed from the Opera 3 CD Installation Menu with regards to Opera 3.

Release Guide

When new versions are released such as Opera 3, they are normally accompanied by a Release Guide that contains information such as What's New in this Release, Release History, and Functional Differences between versions.

Note: This guide can also be accessed from the Opera 3 CD Installation Menu with regards to Opera 3.

Installation Guide

The Installation Guide is provided to help you install the application in your chosen Windows environment. It contains technical information and advice to ensure the installation process is successful.

Demonstration Data Guide

This guide is provided to assist the use of the demonstration data and contains pertinent information that is not contained elsewhere in the product documentation. It is recommended that the Help be used at the same time.

Implementation Guide

The Implementation Guide provides a high-level view of an application such as Opera 3 and how to approach an implementation. It details how the modules are integrated, and recommends the order in which elements should be set up.

System Requirements Guide

The System Requirements Guide details the minimum and recommended computer hardware and software requirements that are required to install and use software such as Opera 3 Enterprise and Opera 3 Enterprise SQL.

It also includes guidance on using Opera 3 Enterprise and Opera 3 Enterprise SQL in a Terminal Services environment run in Windows Server 2003 and Windows Server 2008 (32-bit & 64-bit).

Help

F1 Help provides details of all the functions available in the application.

Document Management & Executive Dashboards Guides

Installation Guides are available for both Document Management and Executive Dashboards. A user guide is also available for Executive Dashboards. Help for Document Management is in the Opera 3 Help.

Note: The guides are in the respective folders on the Opera 3 CD and can be accessed from the Opera 3 CD Installation Menu.