Introduction

What is Sage Intelligence Reporting?

Organizations are increasingly suffering from information frustration, having to manage large volumes of data, and needing to report from several databases, using inflexible reporting tools. Information delivery and user empowerment is increasingly taking center stage in all enterprises with a resultant growth in the end user query and reporting (EUQR) category of the business intelligence market. Sage Intelligence Reporting is an innovative software reporting solution that offers users in organizations of all sizes a powerful and intuitive reporting tool to take control of their own reports. It introduces a revolutionary approach to leveraging the reporting power of Microsoft Excel and protects and extends organizations existing IT skills and investment.

What are the benefits of using Sage Intelligence Reporting?

- Work with a standard Windows look and feel
- Reduces the need for IT department intervention
- Reduces the need for expensive consultants and specialist software training
- Consistent format (Microsoft Excel) for reporting across multiple data sources
- Business intelligence can become a standard desktop tool
- Avoids inefficiencies in the report development life cycle thereby improving productivity
- Empowers the user thereby improving overall productivity
- Optimizes your return on investment by leveraging your existing IT infrastructure
- Extends Microsoft Excel skills rather than requiring learning of a new set of software skills

Sage Intelligence Reporting is a cost effective, high value reporting tool
that allows people to spend more time doing things that directly translate into business value. It offers flexible access to business intelligence and empowers the user to create and customize operational and analytical reports on a real time basis. Sage Intelligence Reporting allows an organization to track information more effectively and delivers a rapid return on investment at a moderate total cost of ownership.
System Requirements

Recommended System Requirements

- Microsoft .Net Framework 3.5 SP1
- Microsoft Excel 2003 and higher. Note: to run Report Designer reports, you need to have Microsoft Excel 2007 or higher. (32 bit only)
- Hardware: CPU > 1.3 GHz
- Memory: 1GB RAM
- Hard Drive Space: 350MB
Database Connectivity Supported

Sage Intelligence Reporting uses ODBC and OLEDB technology to gain access to Open Database Systems. Sage Intelligence Reporting includes direct support for most popular database systems and Connection Types for these are included within the Connector. For systems where a Connection Type does not exist but where the system has an ODBC driver these can be accessed via the System DSN connection types within the Connector.

Some of the more common Database types supported are:

- Microsoft SQL Server
- Pervasive
- Oracle
- Sybase
- Microsoft Access
- Microsoft Visual Foxpro
- Dbase
- MySQL
- Sage50
- Paradox
How it Works

Sage Intelligence Reporting uses an ODBC connection to access data and offers the system administrator and user separate interfaces to manage the report creation process. Sage Intelligence Reporting is then integrated with Microsoft Excel which is used as a powerful and familiar desktop reporting platform.
SAGE END USER LICENSE AGREEMENT

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(2) At Sage’s request and expense, give Sage such information and assistance as is reasonable under the circumstances, and
(3) Give Sage the right to settle the claim in Sage’s sole discretion and at Sage’s expense.

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(1) the service fee You incurred for the purchase of Your most recent service plan; and

(2) a pro rata portion of the license fees You incurred for the purchase of Your initial license and all upgrades, which pro rata portion will be determined on the basis of the remaining period of a useful life of (5) five years, where the five year useful life begins on the date of Your purchase of Your initial license and the remaining period begins on the date You so terminate.

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Workstation Licenses

*Please note that when the word ‘Workstation’ is used within this help file section it refers to a physical computer and not a Sage 300 ERP Workstation installation.

Sage Intelligence Reporting uses a Workstation Licensing model. After you have serialised your Sage Intelligence Reporting installation, you will have (n) Workstation Licenses available (where n is the number of licenses you have purchased). The first (n) workstations to access Sage Intelligence Reporting will be assigned these licenses. When the available (n) licenses have been assigned you will need to purchase more licenses or you will need to un-assign some existing licenses.

Licenses will be tied to a User Name and Workstation so the licensing is not “concurrent” licensing. The preferred method is to allow workstations to claim licenses at first access, however you may manually add workstation licenses.

The License Manager provides a snapshot of your Sage Intelligence Reporting licenses and module configuration.
Manually Adding Workstation Licenses

1. Select the **Add** button to add a new license, the window below will appear.
2. Enter the User name to assign the license to.
3. Select the license type you would like to add.
4. Click **OK**.
5. You will now see the license you added along with the license type.
Manually Changing Workstation Licenses

1. When the License Manager is opened, the screen below will open, listing the licenses.

2. Select the Workstation license you would like to change and select Change.
3. Select the dropdown arrow to change the license type to your desired setting.

4. Click **OK**.
Manually Deleting Workstation Licenses

1. When the License Manager is opened, the screen below will open, listing the licenses.

2. Select the Workstation license you would like to delete.

3. Select the **Delete** button. (The workstation license will be immediately deleted)
Upgrading from Older Versions of Sage Intelligence Reporting

Newer installations of Sage Intelligence Reporting do not overwrite existing installations when installed. Any existing reports required within a newer version of Sage Intelligence Reporting will need to be manually exported out of an existing installation, and imported into the latest installation.

The process for importing existing reports into the latest Sage Intelligence Reporting installation is as follows:

*Please note that as your existing reports have been designed for an older version of Sage Intelligence Reporting they may need to be modified to function correctly.*
Login Properties

- **User Name** – The name of the Login.
  - Your Sage Intelligence Reporting logon credentials will be required
- **Password** – Sage Intelligence Reporting password will be required.

![Open Company dialog box](image)
Standard Reports Available

Sage Intelligence Reporting comes with sample reports that you can use as templates when creating your own reports.

Financial Reports

<table>
<thead>
<tr>
<th>Sample Company Inc. Management Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Actual / Budget / Variance / Blank 1-12, Qtrs &amp; YTD / Annual Budget</td>
</tr>
<tr>
<td>2 - Actual / Prior / Blank 1-12, Qtrs &amp; YTD / Annual Prior</td>
</tr>
<tr>
<td>3 - Actual / Budget / Prior / Blank 1-12 &amp; YTD / Annual Budget &amp; Prior</td>
</tr>
<tr>
<td>4 - Actual 1-12, Qtrs &amp; YTD</td>
</tr>
<tr>
<td>5 - Actual 1-12 / Blank / Budget 1-12 &amp; YTD / Annual Budget</td>
</tr>
<tr>
<td>6 - Actual 1-12 / Blank / Prior 1-12 &amp; YTD / Annual Prior</td>
</tr>
<tr>
<td>7 - Actual 1-12 / Blank / Budget 1-12 / Blank / Prior 1-12 &amp; YTD &amp; Annual Budget / Annual Prior</td>
</tr>
<tr>
<td>8 - Actual / Budget / Variance / Blank - Current Month &amp; YTD / Annual Budget / Income Statement</td>
</tr>
<tr>
<td>9 - Actual / Budget / Prior / Blank - Current Month &amp; YTD &amp; Annual Budget / Annual Prior</td>
</tr>
<tr>
<td>10 - Annual Prior / Blank / Actual Current Month / Blank / Actual YTD</td>
</tr>
<tr>
<td>11 - Actual / Current month / Blank / Actual YTD / Annual Prior</td>
</tr>
<tr>
<td>12 - Actual YTD Comparison Last 5 Years</td>
</tr>
</tbody>
</table>

Financial Trend Analysis
Dashboard Analysis

The Dashboard Analysis report contains a one-page summary of key business information. The report features Top 5 Reporting on customers, items, expenses, and contains both text and graphics to help with daily and long-term planning. In addition, comparative Profit and Loss figures are displayed for both the current month and year-to-date figures from the start of the current financial year.
## Income Statements

### Sample Company Inc.

**Income Statement for Period Ending December 2020**

<table>
<thead>
<tr>
<th></th>
<th>Jan-20</th>
<th>Jan-21</th>
<th>Actual</th>
<th>Budget</th>
<th>Jan-20</th>
<th>Jan-21</th>
<th>Actual</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,440,226.63</td>
<td>2,629,060.00</td>
<td>2,679,060.00</td>
<td>2,726,060.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cost of Sales</strong></td>
<td>440,226.63</td>
<td>479,060.00</td>
<td>1,479,060.00</td>
<td>1,679,060.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gross Profit</strong></td>
<td>1,995,000.00</td>
<td>2,150,000.00</td>
<td>1,209,000.00</td>
<td>1,047,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other Income</strong></td>
<td>200,000.00</td>
<td>150,000.00</td>
<td>150,000.00</td>
<td>150,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>2,195,000.00</td>
<td>2,300,000.00</td>
<td>1,359,000.00</td>
<td>1,207,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cost and Expenses</strong></td>
<td>2,467,338.56</td>
<td>304,000.00</td>
<td>304,000.00</td>
<td>304,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net Profit (Loss)</strong></td>
<td>(272,338.56)</td>
<td>(94,000.00)</td>
<td>(65,000.00)</td>
<td>(77,000.00)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net Profit (Loss) after Tax</strong></td>
<td>(272,338.56)</td>
<td>(94,000.00)</td>
<td>(65,000.00)</td>
<td>(77,000.00)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Balance Sheets

### DASHBOARD - SAMPLE COMPANY INC.

**Prior & Loss**

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Variance</th>
<th>Budget</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>2,440,226.63</td>
<td>103,060.84</td>
<td>2,337,165.84</td>
<td>95,900.84</td>
</tr>
<tr>
<td>Cost of Sales</td>
<td>1,479,060.00</td>
<td>680,000.00</td>
<td>899,060.00</td>
<td>680,000.00</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>1,995,000.00</td>
<td>350,000.00</td>
<td>1,138,040.00</td>
<td>350,000.00</td>
</tr>
<tr>
<td>Expenses</td>
<td>1,479,060.00</td>
<td>680,000.00</td>
<td>899,060.00</td>
<td>680,000.00</td>
</tr>
<tr>
<td>Net Income before tax</td>
<td>232,940.00</td>
<td>69,000.00</td>
<td>239,940.00</td>
<td>69,000.00</td>
</tr>
</tbody>
</table>

### Top 5 Expenses

<table>
<thead>
<tr>
<th></th>
<th>Actual YTD</th>
<th>Budget YTD</th>
<th>Variance YTD</th>
<th>Budget YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion and Advertising</td>
<td>340,750.00</td>
<td>350,000.00</td>
<td>(9,250.00)</td>
<td>350,000.00</td>
</tr>
<tr>
<td>Commissions</td>
<td>104,710.00</td>
<td>100,000.00</td>
<td>4,710.00</td>
<td>100,000.00</td>
</tr>
<tr>
<td>Advertising</td>
<td>108,170.00</td>
<td>100,000.00</td>
<td>8,170.00</td>
<td>100,000.00</td>
</tr>
<tr>
<td>Telephone, Data, etc</td>
<td>163,710.00</td>
<td>150,000.00</td>
<td>13,710.00</td>
<td>150,000.00</td>
</tr>
<tr>
<td>Utilities</td>
<td>130,150.00</td>
<td>120,000.00</td>
<td>10,150.00</td>
<td>120,000.00</td>
</tr>
</tbody>
</table>

### Proc: January 2020 to March 2020

<table>
<thead>
<tr>
<th></th>
<th>YTD</th>
<th>Variance YTD</th>
<th>Quantity</th>
<th>Price YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Countertop</td>
<td>2,050.00</td>
<td>2,000.00</td>
<td>200.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Bagman Mat - Oakland</td>
<td>3,050.00</td>
<td>3,000.00</td>
<td>500.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Bagman Mat - San Diego</td>
<td>2,250.00</td>
<td>2,200.00</td>
<td>500.00</td>
<td>10.00</td>
</tr>
<tr>
<td>M. Branding/Black</td>
<td>1,250.00</td>
<td>1,200.00</td>
<td>500.00</td>
<td>10.00</td>
</tr>
</tbody>
</table>

### Top 5 Items

<table>
<thead>
<tr>
<th></th>
<th>YTD</th>
<th>Variance YTD</th>
<th>Quantity</th>
<th>Price YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows/Deck Lamp</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>200.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Desk Calendar Pad</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>200.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Buffet/Board</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>200.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Table/Barrel</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>200.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Desk Calendar Pad</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>200.00</td>
<td>10.00</td>
</tr>
</tbody>
</table>
Sample Company Inc.
Balance Sheet for Period Ending March 2020

<table>
<thead>
<tr>
<th></th>
<th>Jan 29 Opening</th>
<th>Current Mth Actual</th>
<th>YTD Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory</td>
<td>2,777,529.00</td>
<td>307,390.74</td>
<td>3,530,763.67</td>
</tr>
<tr>
<td>Work in progress</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Equipment</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Land</td>
<td>380,000.00</td>
<td>-</td>
<td>310,000.00</td>
</tr>
<tr>
<td>Accumulated Depreciation</td>
<td>(475,000.00)</td>
<td>(50,000.00)</td>
<td>(510,000.00)</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>6,638,349.10</td>
<td>1,111,856.70</td>
<td>7,254,473.53</td>
</tr>
<tr>
<td><strong>Current Liabilities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Long Term Liabilities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td>4,743,065.06</td>
<td>1,018,728.81</td>
<td>7,476,073.03</td>
</tr>
<tr>
<td><strong>SHAREHOLDERS EQUITY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retained Earnings</td>
<td>188,127.12</td>
<td>93,126.89</td>
<td>177,408.50</td>
</tr>
<tr>
<td><strong>TOTAL SHAREHOLDERS EQUITY</strong></td>
<td>188,127.12</td>
<td>93,126.89</td>
<td>177,408.50</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES AND SHAREHOLDERS EQUITY</strong></td>
<td>6,638,349.10</td>
<td>1,111,856.70</td>
<td>7,254,473.53</td>
</tr>
</tbody>
</table>

General Ledger Transaction Details
Sales Master

This report highlights pertinent sales information including item sales quantities, costs, and gross profits by customer and product.
Inventory Master

Displays item cost and quantity information over any given date range, as well as relevant item location details.
**Purchase Order Master**

This report lists relevant purchase information by vendor and item number for any given date range. The report can be filtered by vendor, item number, or unit of measure.
## Sample Company Inc.

**PURCHASE MASTER**

For the period from 01 Jan 2020 to 31 Dec 2020

<table>
<thead>
<tr>
<th>Vendor Code</th>
<th>Name</th>
<th>Item Code</th>
<th>Unit</th>
<th>Qty</th>
<th>Price</th>
<th>Total Unit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200</td>
<td>Chloride Systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A11030 - Fluorescent Desk Lamp</td>
<td>1200</td>
<td>67</td>
<td>5</td>
<td>600.00</td>
<td>3,000.00</td>
</tr>
<tr>
<td></td>
<td>A13100 - Halogen Desk Light</td>
<td>13100</td>
<td>5</td>
<td>1</td>
<td>117.50</td>
<td>587.50</td>
</tr>
<tr>
<td></td>
<td>A19999 - Answering Machine</td>
<td>19999</td>
<td>100</td>
<td>1</td>
<td>1,000.00</td>
<td>1,000.00</td>
</tr>
<tr>
<td></td>
<td>A19000 - Calculator</td>
<td>19000</td>
<td>100</td>
<td>1</td>
<td>500.00</td>
<td>500.00</td>
</tr>
<tr>
<td></td>
<td>A19001 - Personal Digital Assistant</td>
<td>19001</td>
<td>50</td>
<td>1</td>
<td>5,000.00</td>
<td>5,000.00</td>
</tr>
<tr>
<td></td>
<td>A2 KINGSS5099 - Kings 5000 Series Desk Accessories</td>
<td>20000</td>
<td>50</td>
<td>1</td>
<td>499.95</td>
<td>499.95</td>
</tr>
<tr>
<td></td>
<td>C15000 - High Back Arm Tiltt</td>
<td>15000</td>
<td>-5</td>
<td>-1</td>
<td>-499.95</td>
<td>-499.95</td>
</tr>
<tr>
<td></td>
<td>S22000 - Flat Screen 50 H x 5W</td>
<td>22000</td>
<td>-10</td>
<td>-1</td>
<td>-500.00</td>
<td>-500.00</td>
</tr>
<tr>
<td>1540</td>
<td>Hart Batteries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A11030 - Fluorescent Desk Lamp</td>
<td>1200</td>
<td>35</td>
<td>1</td>
<td>650.25</td>
<td>650.25</td>
</tr>
<tr>
<td></td>
<td>A24000 - Desk Note Book</td>
<td>24000</td>
<td>40</td>
<td>1</td>
<td>370.00</td>
<td>370.00</td>
</tr>
<tr>
<td></td>
<td>C15000 - High Back Arm Tiltt</td>
<td>15000</td>
<td>5</td>
<td>1</td>
<td>499.95</td>
<td>499.95</td>
</tr>
<tr>
<td></td>
<td>S22000 - Flat Screen 50 H x 5W</td>
<td>22000</td>
<td>3</td>
<td>1</td>
<td>159.95</td>
<td>159.95</td>
</tr>
</tbody>
</table>

**Grand Total**

<table>
<thead>
<tr>
<th>Vendor Code</th>
<th>Name</th>
<th>Item Code</th>
<th>Unit</th>
<th>Qty</th>
<th>Price</th>
<th>Total Unit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7,834.00</td>
</tr>
</tbody>
</table>
If the OLAP Module is purchased, the following Cube reports are also included:

**Financial Analysis Cube**

This report allows you to analyze G/L accounts by Account Group and segment over multiple fiscal years.

---

**Financial Analysis Cube Trend**

---

<table>
<thead>
<tr>
<th>Actual</th>
<th>Column Labels</th>
<th>2019</th>
<th>2019 Total</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MTH 01 (Jan)</td>
<td>MTH 02 (Feb)</td>
<td>MTH 03 (Mar)</td>
<td>QTR 1 Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Income Statement Accounts</td>
<td>-6771 054</td>
<td>-1 132</td>
<td>-100 787</td>
</tr>
<tr>
<td></td>
<td>29 - Sales Revenue</td>
<td>-7809 272</td>
<td>1 181</td>
<td>138 875</td>
</tr>
<tr>
<td></td>
<td>4000 - Sales</td>
<td>-7809 272</td>
<td>1 181</td>
<td>138 875</td>
</tr>
<tr>
<td></td>
<td>4010 - Sales, accessories</td>
<td>-7809 272</td>
<td>1 181</td>
<td>138 875</td>
</tr>
<tr>
<td></td>
<td>4020 - Sales, discounts</td>
<td>-7809 272</td>
<td>1 181</td>
<td>138 875</td>
</tr>
<tr>
<td></td>
<td>4030 - Sales, returns</td>
<td>-7809 272</td>
<td>1 181</td>
<td>138 875</td>
</tr>
<tr>
<td></td>
<td>4040 - Sales, rebates</td>
<td>-7809 272</td>
<td>1 181</td>
<td>138 875</td>
</tr>
<tr>
<td></td>
<td>21 - Other Revenue</td>
<td>-426 329</td>
<td>0</td>
<td>206 284</td>
</tr>
<tr>
<td></td>
<td>22 - Cost of Sales</td>
<td>2162 089</td>
<td>671</td>
<td>710 244</td>
</tr>
<tr>
<td></td>
<td>23 - Interest Expense</td>
<td>5 000</td>
<td>0</td>
<td>3 000</td>
</tr>
<tr>
<td></td>
<td>24 - Fixed Charges</td>
<td>1611 888</td>
<td>0</td>
<td>132 399</td>
</tr>
<tr>
<td></td>
<td>25 - Other Expenses</td>
<td>4131 772</td>
<td>0</td>
<td>539 129</td>
</tr>
<tr>
<td></td>
<td>26 - Income Taxes</td>
<td>36 000</td>
<td>0</td>
<td>15 000</td>
</tr>
<tr>
<td></td>
<td>27 - Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Inventory Analysis Cube

This report allows you to analyze year-to-date stock-on-hand quantities, purchase and sales order quantities, and actual stock values by inventory group.
Inventory Analysis Cube Trend

Top 10 Stocked Items
Sales Analysis Cube

This report allows you to analyze sales quantities, gross profits, and amounts by customer, product, and salesperson over multiple fiscal/calendar years.

Sales Analysis Cube Trend
Running a Report from the Report Manager

1. Select the report you want to run. For this example, click on **Sales Master** under **Sales**

2. To run the report, click on the green Run icon. You can also right-click and select **Run** or press **CTRL+R**.

3. Enter Report Parameters. (Date/ Month) (if required)

4. Click **OK**.

5. The progress status is displayed on the right of your screen and indicates the process of your report. Depending on the size of your company data, running a report may take some time. You can sometimes cancel the report if necessary.

6. Once the process has finished, the report opens in a new Microsoft Excel Workbook.
## Sales Master Report

**For the period from 01 Jan 2020 to 31 Dec 2020**

<table>
<thead>
<tr>
<th>Customer</th>
<th>Item Code</th>
<th>Item Name</th>
<th>Unit Price</th>
<th>Total Cost</th>
<th>Total Ext Amount</th>
<th>Total Discounts</th>
<th>Sales Excl</th>
<th>GP</th>
<th>GP %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200 - Mr. Ronald Black</td>
<td>A11030</td>
<td>Fluorescent Desk Lamp</td>
<td>55.00</td>
<td>1,080.35</td>
<td>5,479.42</td>
<td>3,479.42</td>
<td>2,000.00</td>
<td>4,779.02</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td>A13100</td>
<td>Halogen Desk Light</td>
<td>3.00</td>
<td>76.31</td>
<td>151.05</td>
<td>151.05</td>
<td>74.74</td>
<td>49%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A13200</td>
<td>50W/12V Halogen Bulb</td>
<td>32.00</td>
<td>1,024.48</td>
<td>2,048.48</td>
<td>2,048.48</td>
<td>876.05</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A14000</td>
<td>Desk Note Book</td>
<td>30.00</td>
<td>900.00</td>
<td>1,440.00</td>
<td>1,440.00</td>
<td>720.00</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A14500</td>
<td>Bulletin Board</td>
<td>15.00</td>
<td>225.00</td>
<td>225.00</td>
<td>225.00</td>
<td>147.73</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A19002</td>
<td>Answering Machine</td>
<td>10.00</td>
<td>100.00</td>
<td>180.00</td>
<td>180.00</td>
<td>251.65</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A19001L</td>
<td>Personal Digital Assistant</td>
<td>5.00</td>
<td>25.00</td>
<td>541.25</td>
<td>541.25</td>
<td>1779.05</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>1240 - The Courtyard</td>
<td>A11030</td>
<td>Fluorescent Desk Lamp</td>
<td>75.00</td>
<td>1,453.10</td>
<td>4,999.25</td>
<td>4,999.25</td>
<td>3,966.15</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A11050L</td>
<td>13W Mini Fluorescent Bulb</td>
<td>-14.20</td>
<td>-14.20</td>
<td>-14.20</td>
<td>-14.20</td>
<td>-100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A13100</td>
<td>Halogen Desk Light</td>
<td>15.00</td>
<td>381.55</td>
<td>755.25</td>
<td>755.25</td>
<td>373.67</td>
<td>49%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A13200</td>
<td>50W/12V Halogen Bulb</td>
<td>97.00</td>
<td>940.65</td>
<td>1,881.30</td>
<td>1,881.30</td>
<td>691.83</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A14000</td>
<td>Desk Note Book</td>
<td>100.00</td>
<td>1,000.00</td>
<td>2,456.00</td>
<td>2,456.00</td>
<td>1,710.15</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A14010</td>
<td>Desk Calendar Pad</td>
<td>78.00</td>
<td>615.60</td>
<td>1,247.22</td>
<td>1,247.22</td>
<td>761.72</td>
<td>60%</td>
<td></td>
</tr>
</tbody>
</table>

**Grand Total**

<table>
<thead>
<tr>
<th>Total Sales</th>
<th>Total Excl</th>
<th>Total GP</th>
<th>Total GP %</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,885.00</td>
<td>3,359.00</td>
<td>2,526.00</td>
<td>60%</td>
</tr>
</tbody>
</table>

---

*Sample Company Inc.*
Copy, Pasting and Renaming Reports

You can copy and paste a report, at any stage, in the Report Manager. These functions are useful in Sage Intelligence Reporting because all the Master reports are locked and you need to make a copy of these master reports. Use the **copy**, **paste**, and **renaming** methods so you can create new reports from an existing report and therefore not corrupt the master report.

You may have a sales report that shows a customer analysis on sales; however, you want to create another report that shows sales analyzed by Reps. You can create a copy of the original report, and then rename the copy to **Sales by Rep**, then customize the new **Sales by Rep** report. You have the benefit of re-using all the containers and expressions in the original report without having to create them from scratch.
To create a new report from an existing report

1. Open the Report Manager.

2. Right-click on the report you want to make a copy of.

3. Select **Copy** to copy that report to the clipboard or click on the Copy icon in the toolbar.

![Report Manager screenshot](image)

Now paste the copied report onto a folder.

4. Select a folder. You can choose the same folder that contains the original report or a different folder.

5. Right-click on the selected folder and select **Paste**. Note – You can use
the short-cut keys of `CTRL+C` to copy the report, and `CTRL+V` to paste instead of using the menus.

6. Rename the newly copied report. By default, the report’s name is Copy of `<report name>`.

Right-click on the report and select **Rename** to give the report a different name. You now have an exact duplicate of the original report that will obtain its data from the same place, and deliver it in the same format, until you make any changes to this new report.
Creating and Linking a Report

It is entirely possible to customize the look and layout of the Sage Intelligence Reporting Standard Reports. Although these reports are designed to encompass the needs of most business organizations, you may want to change the appearance (colors, text style, etc.) to reflect your company image, and perhaps change the order or inclusion of columns to suit your company processes. These changes can be saved for the next time you run the report.

Creating Microsoft Excel templates enables the user to create a template from an open Microsoft Excel workbook and link it to an existing report so as to standardize the output format of the chosen report for every run instance in future.

**Note:** If you are unsure of making changes to any of the Standard Reports, you should create a copy of the report before you make any changes.

Sage Intelligence Reporting users must make a copy of a report in order to edit the standard reports.

**To copy a report**

1. Open the Sage Intelligence Reporting Report Manager.
2. Right-click the report you want to copy and select *Copy*.
3. Right-click on the report folder in which you want to paste the copy and select *Paste*. The copy of the report is renamed as *Copy of* and the original report name.

**To create and link the Report**

1. Open the Sage Intelligence Reporting Report Manager.
2. Select and run the report you want to customize.
3. Make the changes to the report; ensure that Sheet1 (where Sage Intelligence Reporting puts the Raw Data) and Sheet2 (where Sage Intelligence Reporting puts the report parameters) are unchanged.

4. After completing the changes, leave the workbook open and go back to the Report Manager.

5. Right-click on the report for which the changes were made and select
Create and Link Template.

6. Select the Microsoft Excel workbook with the changes in the window that appears. Please note that all Microsoft Excel workbooks that you have open will be listed in the pop up window, so make sure you select the correct Microsoft Excel workbook to create and link.

7. Click OK.

8. When the following window appears, click Yes to link the workbook. Clicking No will not link the workbook.
9. When prompted to specify the template name, change the name of the template. Doing so ensures that the original template is not overwritten with the copy.

10. Click **OK**. Once the template has been successfully linked, a confirmation window appears.

11. Click **OK**.
Adding and Creating a New Report

To create a new report from existing containers, it is advisable to create a new folder or the other option is to create the report in an existing folder. Remember that folders contain all the reports related to a particular topic, for example, all reports related to Sales. You cannot create sub folders.
Creating a New Report from Existing Containers

This process consists of two steps:

- Adding a folder
- Adding a report

**To add a folder**

1. Open the Sage Intelligence Reporting Report Manager.
2. Click on the **Home** object.
3. Right-click and select **Add Folder**.

![Image](image.png)

4. The **Enter a Name for the Folder** window appears. Enter a name for your folder; for example, **Sales Test**.
5. Click **OK**.

**To add a report**

1. Select the Folder where you want to add the report; for example, Sales Test.
2. Right-click and select **Add Report**.
3. Select the type of report to add when prompted. You will add a **Standard Report**. A Union Report is made up of 2 or more standard reports.
4. Enter a new name for the report.

5. Click OK and the Select Data Container window appears.

6. Select the data container from which you want to source your data. The Choose Column fields window appears.
7. Select the columns you require in your report.

8. (Optional) Click Select All to select all of the expressions.

9. Click OK. Your new report is now in your specified folder.

To run the report: In the object window select the report you have just created and click on the Run icon on the Report Manager Toolbar.

Your data will be opened in Microsoft Excel in the required format.
Sage Intelligence Reporting Report Properties

The report type (Standard, Dataless, Sub query or Union) mainly determines which standard tabs are available on the selected Properties window. A typical Properties window of Standard report types has, besides the Properties tab also a tab for each report output property, namely Columns, Filters, Parameters, Sort Fields, and Aggregate Filters.
Report Properties Overview

We will look at the properties and columns of a standard report. When selecting a report, tabs appear on the right of the screen. These tabs allow you to modify the report’s display output.

Properties Tab

The Properties tab enables you to view and change general report details such as the report name and description. To confirm any change click the Apply button on the top right of the properties window.

Columns Tab

The columns window lists the columns that make up the Microsoft Excel report. You are able to Add, Remove or change the order of the columns using the buttons on the top right of the window.
Adding Additional Columns

1. Select the **Columns** tab from the Properties window.

2. Click **Add**.

3. Select the desired column.

4. Click **OK**. The new column appears in the **Columns** window.
Moving and Deleting Columns

Moving Columns
If you want the columns to appear in a certain order in Microsoft Excel, you can change their order in the Properties window.

1. From the Properties window, click the Columns tab.
2. Select the desired column/s.
3. Click Move Up or Move Down.

OR
4. Select the desired column/s
5. Drag to the appropriate position.
Deleting Columns

1. From the Properties window, right-click on the desired column.
2. Click Delete.

OR

3. From the Properties window, click on the desired column.
4. Click Remove.
Home > Getting Started Guide > Exporting Reports
Exporting Reports

Reports can be exported from one system and imported into another. The export function creates a compressed file with an .al extension which can be imported into other systems. The uncompressed version of the file will create a file with the extension .alx.

1. From the Object window, right-click the desired report and then select Export Report or click on Tools and then click Export Report.

2. Select the Export folder when prompted.

3. Click Save. A message will appear to confirm that your Export Succeeded.
4. Click **OK**.

To import a Report into Sage Intelligence Reporting from an export file see [Importing a Report](#).

**Note:** If you are running a Third Party Developer License of Sage Intelligence Reporting then it is possible for you to protect your export files. See [Exporting Reports with Protection](#) in the user's guide for more details.
Importing Reports

Reports can be exported from one system and imported into another. The export function creates a compressed file with an .al_ extension which can be imported into other systems. The uncompressed version of the file will create a file with the extension .alx

Report export files (.alx files) and compressed export files (.al_ files - version 3.5 and later) created using the Export Report facility can be imported into Sage Intelligence Reporting. Using this facility, reports can be created in one Sage Intelligence Reporting system and distributed to other Sage Intelligence Reporting systems.

1. Right-click on Home in the object window and select **Import Report** or click on **Tools** and then click **Import Report**.

2. Select the report to be imported (file with the _al extension) and click **Open**.

3. In the **Import Report window**, select the **Target Connection (Connector)**.

4. Then select the **Report Destination (the folder)**.
5. Click **Import**.

6. Click **OK**.

7. Double-click on the folder to refresh.

Below is a list of the information that is supplied to you for an import and a description of each element:

<table>
<thead>
<tr>
<th><strong>Report Name</strong></th>
<th>The original name of the Report in the Source Sage Intelligence Reporting System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Created By Company</strong></td>
<td>The Company that created the Export File</td>
</tr>
<tr>
<td><strong>Report Container Source</strong></td>
<td>The Source Container for the Report in the Source Sage Intelligence Reporting System</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Creation Time</strong></td>
<td>The Date and time that the Export File was created</td>
</tr>
<tr>
<td><strong>Original Template Name</strong></td>
<td>The name of the Report Template in the Source Sage Intelligence Reporting System</td>
</tr>
<tr>
<td><strong>Template File Size</strong></td>
<td>The size (in bytes) of the Report Template File</td>
</tr>
<tr>
<td><strong>Original Connection Name</strong></td>
<td>The name of the Source Data Connection in the Sage Intelligence Reporting Source System</td>
</tr>
<tr>
<td><strong>Export Library Version</strong></td>
<td>The Version of the Export Program Library used to create the export file</td>
</tr>
<tr>
<td><strong>Import Library Version</strong></td>
<td>The Version of the Import Program Library being used to perform the import</td>
</tr>
<tr>
<td><strong>Target Connection</strong></td>
<td>The Connection that you have selected as the Source for the new report that will be created by the import</td>
</tr>
<tr>
<td><strong>Target Connection Type</strong></td>
<td>The Source Connection Type of the Connection that you have selected as the Source for the new report that will be created by the import</td>
</tr>
<tr>
<td><strong>Report Destination</strong></td>
<td>The Report Manager Folder into which the new report will be imported</td>
</tr>
</tbody>
</table>
Reasons for Organizing Data into a Pivot Table

Four key reasons for organizing data into a Pivot Table are:

- To **summarize** the data contained in a lengthy list into a compact format
- To find **relationships** within the data that are otherwise hard to see because of the amount of detail
- To **organize** the data into a format that’s easy to chart
- To **view** the same data in many **different** ways quickly and easily

Pivot Table reports use functions, allowing you to total, average and count data. These functions also provide subtotals and grand totals automatically, where you choose to show them.

### Original Worksheet

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Branch</td>
<td>SalesPerson</td>
<td>CategoryName</td>
<td>ProductName</td>
<td>Date</td>
<td>Quantity</td>
<td>UnitPrice</td>
<td>ProductSales</td>
</tr>
<tr>
<td>2</td>
<td>East Coast</td>
<td>Anderson, P</td>
<td>Confections</td>
<td>Maxilaku</td>
<td>01/01/2006</td>
<td>30</td>
<td>16.00</td>
<td>480.00</td>
</tr>
<tr>
<td>3</td>
<td>East Coast</td>
<td>Johnson, A</td>
<td>Grains/Cereals</td>
<td>Gnocchi di nonna Alice</td>
<td>01/01/2006</td>
<td>70</td>
<td>30.40</td>
<td>2126.00</td>
</tr>
<tr>
<td>4</td>
<td>East Coast</td>
<td>Peters, K</td>
<td>Grains/Cereals</td>
<td>Tunnbrod</td>
<td>02/01/2006</td>
<td>60</td>
<td>7.20</td>
<td>432.00</td>
</tr>
<tr>
<td>5</td>
<td>East Coast</td>
<td>Bonders, P</td>
<td>Confections</td>
<td>Pardora</td>
<td>03/01/2006</td>
<td>21</td>
<td>13.90</td>
<td>291.90</td>
</tr>
<tr>
<td>6</td>
<td>East Coast</td>
<td>Newson, L</td>
<td>Grains/Cereals</td>
<td>Singaporean Hokkien Fried Mee</td>
<td>03/01/2006</td>
<td>40</td>
<td>11.20</td>
<td>448.00</td>
</tr>
<tr>
<td>7</td>
<td>East Coast</td>
<td>Lavin, T</td>
<td>Seafood</td>
<td>Boston Crab Meat</td>
<td>07/01/2006</td>
<td>2</td>
<td>14.70</td>
<td>29.40</td>
</tr>
<tr>
<td>8</td>
<td>East Coast</td>
<td>Perks, M</td>
<td>Seafood</td>
<td>Inland Sill</td>
<td>07/01/2006</td>
<td>5</td>
<td>15.20</td>
<td>76.00</td>
</tr>
<tr>
<td>9</td>
<td>East Coast</td>
<td>Anderson, P</td>
<td>Beverages</td>
<td>Chai</td>
<td>07/01/2006</td>
<td>10</td>
<td>14.40</td>
<td>144.00</td>
</tr>
<tr>
<td>10</td>
<td>East Coast</td>
<td>Johnson, A</td>
<td>Dairy Products</td>
<td>Gudbrandsdalæost</td>
<td>07/01/2006</td>
<td>15</td>
<td>26.60</td>
<td>432.00</td>
</tr>
<tr>
<td>11</td>
<td>East Coast</td>
<td>Peters, K</td>
<td>Dairy Products</td>
<td>Queso Cabriles</td>
<td>07/01/2006</td>
<td>30</td>
<td>16.80</td>
<td>504.00</td>
</tr>
<tr>
<td>12</td>
<td>East Coast</td>
<td>Bonders, P</td>
<td>Beverages</td>
<td>Chai</td>
<td>14/01/2006</td>
<td>24</td>
<td>14.40</td>
<td>345.60</td>
</tr>
<tr>
<td>13</td>
<td>East Coast</td>
<td>Newson, L</td>
<td>Confections</td>
<td>Tea time Chocolate Biscuits</td>
<td>16/01/2006</td>
<td>20</td>
<td>7.30</td>
<td>146.00</td>
</tr>
</tbody>
</table>

### Pivot Table
<table>
<thead>
<tr>
<th>Branch</th>
<th>East Coast</th>
<th></th>
<th>Dairy Products</th>
<th>Beverages</th>
<th>Grains/Cereals</th>
<th>Condiments</th>
<th>Meat/Poultry</th>
<th>Confections</th>
<th>Produce</th>
<th>Seafood</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson, P</td>
<td></td>
<td></td>
<td>2211.8</td>
<td>2816</td>
<td>1292.6</td>
<td>693.5</td>
<td>163.9</td>
<td>5326.2</td>
<td>978</td>
<td>1218.55</td>
<td>20950.55</td>
</tr>
<tr>
<td>Bonder, P</td>
<td></td>
<td></td>
<td>3792.5</td>
<td>1859.6</td>
<td>1769.6</td>
<td>757.8</td>
<td>4037</td>
<td>1268.7</td>
<td>1360</td>
<td>3958.4</td>
<td>18793.6</td>
</tr>
<tr>
<td>Johnson, A</td>
<td></td>
<td></td>
<td>1888.4</td>
<td>4130.65</td>
<td>7345</td>
<td>1146</td>
<td>2219.4</td>
<td>1351</td>
<td>1784</td>
<td>408</td>
<td>20272.45</td>
</tr>
<tr>
<td>Levin, T</td>
<td></td>
<td></td>
<td>3815.8</td>
<td>1918</td>
<td>1472</td>
<td>1988.5</td>
<td>1862.1</td>
<td>2393.65</td>
<td>1050</td>
<td>2331.4</td>
<td>16801.45</td>
</tr>
<tr>
<td>Newson, L</td>
<td></td>
<td></td>
<td>7053.5</td>
<td>4691.5</td>
<td>2440</td>
<td>1360</td>
<td>6917</td>
<td>5158.5</td>
<td>755</td>
<td>1837.78</td>
<td>30473.28</td>
</tr>
<tr>
<td>Perks, M</td>
<td></td>
<td></td>
<td>6922.6</td>
<td>11289.5</td>
<td>2492.8</td>
<td>3606.5</td>
<td>861.8</td>
<td>705.75</td>
<td>2931</td>
<td>6487.6</td>
<td>35196.55</td>
</tr>
<tr>
<td>Peters, K</td>
<td></td>
<td></td>
<td>3966.5</td>
<td>2104</td>
<td>963.5</td>
<td>994.1</td>
<td>820</td>
<td>4545.7</td>
<td>1410</td>
<td>4687.9</td>
<td>19481.7</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td>29641.1</td>
<td>29008.25</td>
<td>17765.5</td>
<td>16696.4</td>
<td>16801.2</td>
<td>20749.5</td>
<td>10308</td>
<td>20929.63</td>
<td>161979.58</td>
</tr>
</tbody>
</table>

**Pivot Chart**

![Pivot Chart](image_url)
Pivot Table Concept and Layout

Microsoft Excel 2007 Concept and Layout

An important point to remember when working with Pivot Tables is that you are working within a layout slightly different to a normal Microsoft Excel worksheet. A Pivot Table has its own Ribbon and that alone provides functionality specific to the Pivot Table and not to a normal Microsoft Excel cell on the worksheet.

Although one can format a cell using the Format Tools on the Home tab of the Ribbon, a Pivot Table provides its own Format Cells option on its Ribbon as it is treated as a separate entity.

A Pivot Table has its own layout and is split up into 4 sections.

<table>
<thead>
<tr>
<th>Drag fields between areas below:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Filter</td>
</tr>
<tr>
<td>Row Labels</td>
</tr>
</tbody>
</table>

Each of the above sections is used to show fields from the Pivot Table source data, each section having its own purpose.

| Report Filter | This section assists in providing a **third dimension** to your data. It can also provide a more **summarized/filtered** view of the rest of the fields displayed in the other sections. When placing a field in this section it therefore **reduces** the number of items within a Pivot Table and in some instances prevents the Pivot Tables number of **items** limitation from being reached. |
If you include a page field in your Pivot Table you can choose to display the Pivot Table pages on separate worksheets. Select the show pages button on the drop down menu of the Pivot Table toolbar button. Microsoft Excel will automatically replicate each page’s data on a separate worksheet.

<table>
<thead>
<tr>
<th>Column Labels</th>
<th>One would place fields in this section when wanting to group the data by a specific field for example, by Customer. Your customers will appear in the columns going across.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row Labels</td>
<td>One would place fields in this section when wanting to group the data by a specific field. e.g. by Customer. Your customers will appear in the rows going down.</td>
</tr>
<tr>
<td>Values</td>
<td>One would normally place fields in this section where their values are numbers such as a qty or amount field for example, Customer Sales. Calculations such as sum, average, min, max etc can be used on such fields. This section has to contain at least one field.</td>
</tr>
</tbody>
</table>
Create a Pivot Table Report

To create a Pivot Table you need to identify these two elements in your data:

- Have a list in Microsoft Excel with data fields (headings) and rows of related data
- Identify which fields are going to go where in your design

Method

1. Select any cell in the data list.
2. From the Insert tab, in the Tables group, click Pivot Table.

3. Make sure that Select a table or range is selected.
4. Make sure your data is listed in the Table/Range box.

5. Select where you want the Pivot Table to go, either in an Existing Worksheet or New Worksheet.

6. Click OK.

7. A blank Pivot Table will now be displayed.
8. In the **Field List** either select the fields you want in the **Row Labels** or drag them into the **Row Labels** area on the **Field List** box.

9. Repeat for **Report Filter**, **Columns Labels** and **Values**.
Pivot Table Field List

The Pivot Table Field List contains the fields available for your Pivot Table, based on the fields in the data range that the Pivot Table is based on. In addition there are areas where you can add Report Filter (Page Area fields), sections that list the row and column fields and a section for the Data Area fields.

Turn the Field List On/Off

The **Pivot Table Field List** is only visible while you are within the Pivot Table. If you are within the Pivot Table and it is still not visible, right-click and select **Show Field List**. You can also turn the field list on and off.
from the Ribbon.

**Method**

1. Select any cell in the Pivot Table
2. From the **Options** tab, in the **Show/Hide** group, click **Field List**

OR

1. Select any cell in the Pivot Table
2. Right-click and select **Show Field List**
Remove, Add and Move Fields

When selecting a field from the data area to move or remove, you need to select the field by placing the mouse pointer on the border of the field and clicking when the pointer changes to the normal arrow pointer.

Fields that appear in the Pivot Table will have a tick in their check box on the Field List. De-selecting this check box will remove the field from the Pivot Table.

Remove a Field

Method

1. From the Field List select the check box next to the field you wish to remove

OR

1. From the Field List, select the drop down arrow next to the field
2. Select Remove Field

Add a Field

Method

1. Select the check box next to the field in the Field List
OR

1. Select the Field in the **Field List** and drag it to the desired area for example, Report Filter

![Drag fields between areas below:](image)

<table>
<thead>
<tr>
<th>Drag fields between areas below:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Report Filter</strong></td>
<td><strong>Column Labels</strong></td>
</tr>
<tr>
<td><strong>Row Labels</strong></td>
<td><strong>Values</strong></td>
</tr>
<tr>
<td><strong>Sales Person</strong></td>
<td><strong>Sum of Produce</strong></td>
</tr>
<tr>
<td><strong>Defer Layout Update</strong></td>
<td><strong>Update</strong></td>
</tr>
</tbody>
</table>

**Move Fields within the Table**

**Method**

1. From the Field List, drag the field to the desired area

OR

1. From the Field List, select the drop down arrow next to the field
2. Select Move Up, Move down etc.
Move Up
Move Down
Move to Beginning
Move to End
Move to Report Filter
Move to Row Labels
Move to Column Labels
Move to Values
Remove Field
Field Settings...
Welcome to the Sage Intelligence Reporting Software Tutorials

Tutorial Overview

This tutorial is designed to take you on an interactive tour of the Sage Intelligence Reporting software. To accomplish this you need an overall understanding of the Sage Intelligence Reporting System software package. The Sage Intelligence Reporting software package is made up of two modules:

- **The Connector**
  The main purpose of the Connector is to create and maintain links to your data sources, for example, an Access database or any other ODBC compliant database.

- **The Report Manager**
  The main purpose of the Report Manager is to create and maintain Sage Intelligence Reporting reports linked to Microsoft Excel.

The following tutorials will take you through these processes in detail. Use the next --> link below to start the first tutorial.

[Next -->](#)
Report Process Overview

How are reports created in Sage Intelligence Reporting?
The process of creating a report requires that you use the Sage Intelligence Reporting Connector to create a connection to a data source. The Sage Intelligence Reporting Report Manager is then used to create the report and link it to a Microsoft Excel template. The following figure summarizes the entire process of creating a report using the Connector and the Report Manager:
Report Creation Summary

The tutorials following will take you through these processes in detail.
Welcome to the Sage Intelligence Reporting Connector Tutorial

Tutorial Overview

This tutorial is designed to take you on an interactive tour of the Connector. During this tour you will interact with and be exposed to all the important functionality of our product. The tutorial uses the Sage Intelligence Reporting sample database for the interactive exercises.
How do I use the tutorial?

This tutorial is divided into a number of interactive exercises. As you complete one exercise use the next --> link at the bottom of the page to advance to the next exercise. The sessions are linked together and therefore must be done in order.

The tutorials are designed to be used in conjunction with the help system. The purpose of completing the exercises using the help system is to ensure that you will be able to use the help system effectively when using the software.

To move between the tutorial, help file and the Sage Intelligence Reporting software, use the keystroke Alt+Tab.
What do I need before I start?

You will need the following in order to run the tutorial successfully:

- An installed and licensed version of Sage Intelligence Reporting.
- Correctly installed version of Microsoft Excel 2003, 2007 or 2010.
What skills do I need to be able to do the tutorial?

Although you are able to complete the tutorial with only the most basic computer skills, you will benefit most if you have the following skills:

- Intermediate Windows navigation skills. You should be familiar with using all the mouse functionality.
- Familiar with database design methodology and database terminology.
Getting Started

To effectively complete the exercises you need a good grasp of the Sage Intelligence Reporting interface and how to perform tasks in the software.
About the layout of the interface

The layout of the interface is uncomplicated. The software layout is divided into two main areas:

1. **Object Window**: You are able to select objects using your mouse from the object window in order to either view the objects properties or perform a task with the object. For example, you are able to select an object in the object window and rename the object just as you would rename a file in Windows Explorer.

2. **Property Window**: You are able to view and update the properties of a selected object using the property window. For example, you are able to add your own custom description of the object in object's property window.
About ways of performing tasks in Sage Intelligence Reporting

There are three methods of performing tasks in Sage Intelligence Reporting:

1. **Menu bar**: Use your mouse to select a task from the menu bar.

2. **Toolbar**: Use your mouse to select a task from the toolbar.

3. **Short-cut menu**: By right-clicking an object in the object window, you are able to display a short-cut menu of tasks that can be performed on the selected object. This menu is useful for completing tasks quickly.
Working with Objects

To view an object's associated elements, double-click on the object. This action is called **drilling-down**. To hide an object's associated elements, double-click an open object. This action is called **drilling-up**.

Next-->
Using the Help System

In order to complete the task you need to open the Sage Intelligence Reporting help system. Follow the steps below to open the help system.
Opening the help system

1. Open the Sage Intelligence Reporting Connector.

2. On the **Help** menu, click **Help**. The Sage Intelligence Reporting help system is displayed. (Shortcut = F1)
Locating a specific help topic
To locate a specific help topic, do one of the following:

- **Use the Contents window:** Navigate to the relevant topic using the Contents window.

- **Use the Search window:** Enter a search criterion in the Search window and click the List Topics button. Double click on a displayed topic in the selected topic window.

Next-->
The Data Connection Process

The main purpose of the Connector is to create and maintain data connections. Creating a data connection is a three part process:

1. Connect to a data source
   - Name Connection
   - Location
   - User ID

2. Add a Container
   - Select Container Type
   - Select Tables
   - Name Container
   - Check/Sample Container

3. Add an Expression
   - Select Fields

The following exercises take you through these processes.

Next-->
Connecting to a Data Source

1. Connecting to a data source
2. Add a Container
3. Add an Expression
Overview
You have been requested to create a report based on the Document Header table from your company database. Your first task is to create a connection to the database. Complete the following exercises to achieve this objective.
Exercise 1: Connecting to a Data Source

Connect to the data source using the details listed below. Use the help topic Add a Data Connection to assist you with this task.

We run an Access database with the following details:

- Data Connection Type: ODBC Driver for Access
- Data Connection Name: RKL Trading Demo
- Database Location: The position of the server folder depends on where the Sage Intelligence Reporting software was installed. Ask your network administrator for the exact location.
- Database name: RKL Trading.mdb
- User Name and Password: (blank)

Step-by-Step Solution:

Create the data connection by doing the following:

1. Open the Connector.

2. Double-click on the Enterprise icon in the Object window. All connection types are displayed.

3. Right-click on the ODBC Driver for Access and select the Add Connection from the displayed shortcut menu.

4. Use the details provided in the exercise to enter the Connection Name in the Connection Name field.

5. Use the Browse button on the right of the Access Database field to navigate to the database's location.

6. Select the RKL Trading.mdb database and click Open. The Select Access database dialog box is closed.

7. Click Add in the Connection Info dialog box. The dialog box closes and the data connection is displayed below the ODBC Driver for Access connection type.
Exercise 2: Check the Connection to a Data Source

Check the connection is connected correctly to the data source. Use the help topic Check/Test to guide you with this task.

Step-by-Step Solution:

Check the connection by doing the following:

1. Right-click on the connection you have just created: **Exercises**.
2. Select **Check/Test**. The Check/Test success dialog box is displayed.

![Success dialog box showing connection succeeded]

Next-->
Using a Microsoft Excel Workbook as a Data Source

In order to use an existing Excel Workbook as a data source for a report, the data needs to be organised into named ranges.

1. To do this, open the workbook in Microsoft Excel. The data should be stored with accurate headings so that when expressions are added, the data remains meaningful. Select the data required for report writing purposes by highlighting.

2. Go to **Formulas** Tab.

3. Click **Define Name**.
4. Add a suitable Name and click **OK**.

5. This range will now be available for selection when you add new data containers within the Connector module.

6. A new connection type has been added to the Connector for connecting to Microsoft Excel workbooks as source data via an ODBC connection. To add a new data connection to a Microsoft Excel workbook you will need to ensure that you have selected the applicable data in Microsoft Excel and have named the range prior to adding the connection within the Connector. [Adding a named range to a Microsoft Excel workbook](#).
7. Click on the **Add** Icon [ ] which will display the **Connection Info** window.
8. Name the connection and specify the Microsoft Excel workbook that you will be accessing.

9. If the workbook has been protected you will need to add the relevant user id and correct password. Click Add.

10. Test the connection by clicking the Check/Test button, ✅, or by right-clicking the mouse and selecting Check/Test.
Editing Data Connection Properties

1. Connecting to a data source → 2. Add a Container → 3. Add an Expression
Overview

Once you have created a data connection, you are able to view the data connection’s details in the **Property** window. (The property window displays the properties of any selected object). You are also able to edit your connection properties in the property window, by doing any of the following:

- Change the connection properties
- Rename a connection
- Delete a connection
- Move a connection

Complete the following editing exercises:
Exercise 1: Renaming a Connection

To make it easy for our report writers to recognize the data connection, rename the connection to: **Sage Intelligence Reporting Tutorial**

**Step by Step Solution:**

1. Select the Data connection.

2. Edit the connection name in the **Connection Name** property field and click **Apply**.
Exercise 2: Move a Connection

- Move the Connection: Sage Intelligence Reporting Tutorial from the ODBC driver for Access connection type to the ODBC Driver for dBase connection type.

- Check the connection. An error message is displayed as the connection is located in the wrong ODBC driver.

- Move it back to its original ODBC driver location.

Step-by-Step Solution:

1. Select the Data connection: Sage Intelligence Reporting Tutorial.

2. Right-click and select Move to.

3. Select the connection type: ODBC Driver for Dbase from the displayed list and click OK.

4. Click OK. The data connection is moved to the ODBC Driver for Dbase connection type.

5. Double-click on the ODBC Driver for Dbase to view the moved data connection.

6. Right-click on the connection and select Check/Test. An error message is displayed.

7. Select the Data connection: Sage Intelligence Reporting Tutorial.

8. Right-click and select move to.

9. Select the connection type: ODBC Driver for Access from the displayed list and click OK.
Add a Data Container

1. Connecting to a data source
2. Add a Container
3. Add an Expression
Overview

In order to gain access to all the information in the DocumentHeader, we need access to the DocumentHeader table. The following exercises take you through this process.
What is a data container?
A data container is a published Table, View or Dataset (based on a join) that can be used as the source of data for a report.
What type of data containers are there?

- **Database Table**
  A single database table

- **SQL Join**
  A join between two or more tables using SQL syntax

- **View or Query**
  A view or query that exists in the database

- **Graphical Join**
  A join between two or more tables using a graphical join tool
Exercise 1: Add a data container using a single table as the source

- Create a data container that adds the `DocumentHeader` table to the `Sage Intelligence Reporting Tutorial` connection.
- Sample this data container to ensure that it is returning the correct data.

Use the help topics: **Add Data Containers** and **Sample Data** to assist you with this task.

**Step by Step Solution:**

1. Right-click on the data connection `Sage Intelligence Reporting Tutorial`.
2. Select **Add data Containers**.
3. Select **Table** and click **OK**.
4. Check **DocumentHeader** and click **OK**. The `DocumentHeader` container is displayed under the data connection link.
5. Right-click on the `DocumentHeader` container and select **Sample Data**. The sampled data from the `DocumentHeader` table is displayed in a property window.
   **Tip:** To view all data in the window, use the scrollbars to navigate.
6. Click the **Close** button in the **Sample** window. The **Sample Data** window is closed.

Next-->
Add a Graphical Join Data Container

1. Connecting to a data source → 2. Add a Container → 3. Add an Expression
Overview

From the sample data viewed in the previous exercise, you will notice that the **DocumentHeader** table is unable to display the Customer name, only the Custsupp ID. We need the customer name for the Microsoft Excel report.

This exercise takes you through the process of creating a container that joins two tables together. This enables you to access all the data in both tables. We will use the Graphical Join tool to do this. Use the help topics: **Joining Tables** to assist you with this task.
Exercise 1: Add a data container using the graphical join tool

- Create a new graphical join data container named **Customer Documents** using the following details:
  
  - **Data Connection:** Sage Intelligence Reporting Tutorial
  - **Container Name:** Customer Documents
  - **Tables:** DocumentHeader and Customers
  - **Join Key:** CustSuppID(DocumentHeader) and the ID (Customers)
  - **Join Type:** Inner Join

- Check this data container is returning data by sampling the data.

**Step by Step Solution:**

1. Right-click on the **Sage Intelligence Reporting Tutorial** Connection and select **Add data containers**. The **Select the Container Type** dialog box is displayed.

2. Select the **Graphical Join** option then click **OK**.

3. Enter **Customer Documents** as the name of the container and click **OK**.

4. Select the **Customer Documents** container.

5. In the property window click the **Graphical Join** button.

6. From the **Choose Tables** dialog box select the **DocumentHeader and Customers** tables and click **OK**. The tables appear in the **Graphical Join Tool** window.

7. Drag the **CustSuppID** field from the **DocumentHeader** table to **Customer** table and drop it on the **ID** field. A graphical join line appears as shown in the figure below.
8. Click the **Apply** button. The **Graphical Join Tool** window closes and the SQL syntax appears in the **Join SQL** field.

**Next**-->
Add Data Expressions to a Data Container

1. Connecting to a data source
2. Add a Container
3. Add an Expression
Overview

Adding data expressions to the data container is the final step in completing the creation of a data connection. For our report we need access to all the fields in the one table and only one in the other.
**What is a data expression?**

A data expression is the selection from a data container. A data expression can be a:

- **Data Field**
  A single database field. For example, a field containing customer details such as surname or initials.

- **SQL Expression**
  Returns data from a field or combination of fields based on a SQL Expression.

- **Microsoft Excel Formula**
  Returns data based on a Microsoft Excel Function or Formula.
Exercise One: Add data expressions to a container

Add all the fields available in the **DocumentHeader** table and only the **Customer Name** from the **Customers** table. Sample the data to ensure that the expressions are returning a result.

Use the help topics: **Add Data Expression** and **Sample Data** to assist you with this task.

**Step-by-Step Solution**

1. Right-click on the data container **Customer Documents**.
2. Select **Add Expressions**.
3. The **Select Expression Type to Add** dialog box is displayed. **Data Field** is highlighted by default. Click **OK**.
4. The **Choose Publish Fields** dialog box is displayed.
5. Check all the expressions from the **DocumentHeader** and the **Name** expression from the **Customers** Table.
6. Click **OK**. The data expressions are displayed below the data container.

Next-->
Editing Data Expression Properties
Overview

Like other elements in the object window, once a data expression is selected, properties are displayed on the right of the screen. Read through the help topic: **Data Expressions** to familiarize yourself with the nature of each data expression property.

You are also able to update and maintain your Data Expressions by doing the following:

- Rename an Expression
- Copy an Expression
- Delete an Expression
Exercise 1: Rename a data expression

Field names in databases are often difficult to interpret. Using user-friendly names enables you to understand the field’s contents more easily. For example we are unable to tell from the expression Name whether the expression refers to a customer name or salesman name. Changing the expression: Name to Customer Name makes the expression less ambiguous.

Rename the following data expressions:

- Current Name to New Name
- Name to Customer Name
- TotalTax to TotalVAT
- CustSupplID to Customer Code

Step-by-Step Solution

1. Right-click on the data expression to be renamed.
2. Select Rename. The Rename dialog box is displayed.
3. Enter the new name and click OK. The new name is displayed.
Exercise 2: Copying and renaming data expressions

You are only able to create special expressions, for example, formulas and SQL expressions from a copy of existing data expressions. An existing expression is copied and changed to a special expression.

- Copy the TotalVAT expression and paste it into the same data container
- Rename the new expression TotalVAT2

Step-by-Step Solution

1. Right-click the expression TotalTax and select Copy.
2. Right-click on the data container: Customer Documents and select Paste. The copy of the expression is pasted below the container.
3. Right-click the expression and select Rename.
4. Enter the new name: TotalVAT2 in the Rename dialog box and click OK.
Exercise 3: Deleting data expressions

Delete the following expressions:

- ID
- TotalVAT2

Step-by-Step Solution

1. Right-click on the expression.
2. Click Delete.
3. Click Yes to confirm the deletion.

Next-->
Creating a Custom Expression

1. Connecting to a data source

2. Add a Container

3. Add an Expression
Overview
There are times that a data field in the database does not provide the data needed by the report writer. The Connector enables you to use either SQL statements or Microsoft Excel statements to create custom expressions.

The current data expressions do not provide a combined sales and sales tax value. For our report we require the combined totals of sales value and sales tax. This can be achieved using an SQL expression. Complete the exercise below to create this custom expression.

Exercise 1: Creating an SQL Expression
Follow the step-by-step guide to create a SQL expression that adds the sales value and the sales tax value to create a combined total.

1. Ensure that the Customer Documents container is open.
2. Copy and paste the TotalExcl expression to the Customer Documents container.
3. Rename the new expression TotalIncl.
4. In the Property window, select the Expression Type field and change the expression type to SQL expression.
5. Click Apply. The SQL expression property window is displayed.
6. Highlight the contents of the Expression Source property and enter the following expression: `[DocumentHeader].[TotalExcl]+[DocumentHeader].[TotalTax]`
7. Click Apply.
8. Ensure the expression is correct by sampling the data. (Right-click > Sample Data) The sample data screen displays the combined total.

Next-->
Conclusion

Congratulations, you have successfully completed the **Creating a Data Connection** process using the Connector. To see how your new data connection is used in the Sage Intelligence Reporting Report Manager, complete the **Report Manager** tutorial.
Welcome to the Sage Intelligence Reporting Report Manager Tutorial

Tutorial Overview

This tutorial is designed to take you on an interactive tour of the Report Manager. During this tour you will interact with and be exposed to all the important functionality of our product. The tutorial uses the Sage Intelligence Reporting sample database for the interactive exercises.
How do I use the tutorial?

This tutorial is divided into a number of interactive exercises. As you complete one exercise use the next --> link at the bottom of the page to advance to the next exercise. The sessions are linked together and therefore must be done in order.

The tutorials are designed to be used in conjunction with the help system. The purpose of completing the exercises using the help system is to ensure that you will be able to use the help system effectively when using the software.

To move between the tutorial, help file and the Sage Intelligence Reporting software, use the keystroke Alt+Tab.
What do I need before I start?

You will need the following in order to run the tutorial successfully:

- An installed and licensed version of Sage Intelligence Reporting
- Correctly installed version of Microsoft Excel 2003, 2007 or 2010
What skills do I need to be able to do the tutorial?

Although you are able to complete the tutorial with only the most basic computer skills, you will benefit most if you have the following skills:

- Intermediate Windows navigation skills
  You should be familiar with using all the mouse functionality

- Familiar with database design methodology and database terminology
Using the Help System

In order to complete any task in the tutorial, you need to use the Sage Intelligence Reporting help system. Follow the steps below to access the help system.
Accessing the help system

1. Open the Sage Intelligence Reporting Connector.

2. On the Help menu, click Help. The Sage Intelligence Reporting help system is displayed. (Shortcut = F1).
Locating a specific help topic

To locate a specific help topic, do one of the following:

- **Use the Contents window:** Navigate to the relevant topic using the **Contents** window

- **Use the Search window:** Enter a search criterion in the **Search** window and click the **List Topics** button. Double click on a displayed topic in the **Selected topic** window
Getting Started

To effectively complete the exercises you need a good grasp of the Sage Intelligence Reporting interface and ways of performing tasks in the software.
About the layout of the interface

The layout of the interface is uncomplicated. The software layout is divided into two main areas:

1. Object Window: You are able to select objects using your mouse from the object window in order to either view the objects properties or perform a task with the object. For example, you are able to select an object in the object window and rename the object just as you would rename a file in Windows Explorer.

2. Property window: You are able to view and update the properties of a selected object using the property window. For example, you are able to add your own custom description of the object in object's property window.
About ways of performing tasks in Sage Intelligence Reporting

There are three methods of performing tasks in Sage Intelligence Reporting:

1. **Menu bar:** Use your mouse to select a task from the menu bar.

2. **Toolbar:** Use your mouse to select a task from the toolbar.

3. **Short-cut menu:** By right-clicking an object in the object window, you are able to display a short-cut menu of tasks that can be performed on the selected object. This menu is useful for completing tasks quickly.
Working with Objects

To view an object's associated elements, double-click on the object. This action is called **drilling-down**. To hide an object's associated elements, double-click an open object. This action is called **drilling-up**.

Next-->
The main purpose of the Report Manager is to create and maintain Sage Intelligence Reporting reports linked to Microsoft Excel. Creating a report is a five part process:

1. Connect to a data source
2. Add a Report
   • Select Container
   • Add columns
3. Set Report Properties
   • Sorting
   • Column Positions
   • Filters
   • Parameters
   • Aggregate Filters
4. Run the Report
5. Link Workbook as Template
Report Creation Process

1. **Add a Folder**
   Folders contain all the reports related to a particular topic. For example, all reports related to a particular financial year or reports related to the stock of a company. You cannot create subfolders.

2. **Add a Report**
   The report process is wizard driven and you are required to select a container to create the report from.
   
   **Note:** The data container is created in the Connector.

3. **Set Output Properties**
   Output properties govern the type and manner in which your data is displayed in Microsoft Excel. For example, you are able to apply filters to restrict the amount of data displayed or apply aggregate functions to summarize the data.

4. **Run the Report**
   The first time a report is created it is necessary to run the report and then link it back to Sage Intelligence Reporting as a Microsoft Excel template. Subsequent report runs of the report will automatically use the allocated template.

5. **Link Microsoft Excel**
   Once a report’s data has been exported to Microsoft Excel it is necessary to link it to Sage Intelligence Reporting as a Microsoft Excel template. This process enables you to create complex templates that will always have access to the latest data at the reports run time.

The following exercises take you through these processes.

[Next-->](#)
Exercise 1 Creating and Linking a Basic Report

Overview

The following exercises will enable you to create a basic report and link the subsequent Microsoft Excel workbook back to Sage Intelligence Reporting as a Microsoft Excel template. As the company report writer for R.K.L Trading, you have been requested to create a report that displays all the transactions from the Customer Documents container created in the Connector tutorial.

In this exercise you will complete the following tasks:

- Add a folder
- Add a report to a folder
- Run the report
- Link the report back to Sage Intelligence Reporting
**Step 1: Add a folder**

Read the help topic: *Creating a Folder* and then create a new folder called *Training*.

**Step-by-Step Solution:**
Create the folder by doing the following:

1. Open the Report Manager.

2. Do one of the following:
   - Right-click on the Home object and select **Add folder**
   - Click the **Add folder** icon on the toolbar

3. From the **Add folder** dialog box, enter the name of the folder.

4. Click **OK**. The folder is displayed below the **Sage Intelligence Reporting Home** icon.
Step 2: Add a Report

Use the help topic Creating a Report to assist with the task. Add a new report named Document History with the following details:

- **Container:** Customer Documents
- **Parent Connection:** Sage Intelligence Reporting Tutorial
- **Columns:**
  - CustomerName
  - CustomerCode
  - Date
  - TotalExcl
  - TotalTax
  - TotalCost
  - DocNo
  - DocType
- **Description:** This report provides all customer documents for the RKL Trading

Step-by-Step Solution:

Add a report, by doing the following:

1. Do one of the following:
   - Right-click on the new folder and select Add Report
   - Click the Add Report icon
2. Choose the type of report to add: in this case a Standard Report.
3. From the Add Report dialog box, enter the name of the report.
4. Click OK. The Select Data Container dialog box is displayed.
5. Select the data container to be used as the source of the report and click **OK**.

6. In the **Choose Column Fields** dialog box, check the columns to be displayed and click **OK**. The report is displayed under the specified folder.
Step 3: Run a Report

Run the Document History report located under the Training folder. Use the help topic: Running a Report to assist with this task. Read the help topic: How Data is Rendered to gain an understanding of the processes that are performed when data is rendered to Microsoft Excel.

Step-by-Step Solution: Run a report

To run the report, do the following:

1. Select the Document History report in the object window.

2. Click the Run button. The report creation process commences and the progress and process monitors are displayed. The report results are displayed in Microsoft Excel.
Step 4: Link a Report

Link the Microsoft Excel workbook generated from the Document History report to Sage Intelligence Reporting. Leave the name of the template as Document History.xlt. Read the help topic Creating and Linking a Report to assist you with this task.

Step-by-Step Solution: Linking the report

To link the Microsoft Excel workbook to the report in the Sage Intelligence Reporting Report Manager do the following:

1. Leave the workbook open in Microsoft Excel and activate the Sage Intelligence Reporting Report Manager.

2. In the Report Manager, ensure that the Document History report is selected.

3. Click the Create and Link template icon on the toolbar. The Select a workbook to convert to a Template dialog box is displayed. Click Yes.

4. Select the workbook and click OK.

5. In the Specify Template Name dialog box enter the name of the template and click OK. The template is saved to the template folder.

Next-->
Editing Report Properties

Overview

Once you have created a report, you are able to view the report's details in the **Property** window. You are also able to edit your report's properties in the **Property** window, by doing any of the following:

- Edit the report name
- Edit the report description
- Add/remove columns from the report
- Change the position of the columns
**Exercise 1: Edit the report name**

Use the help topic **Edit Report Properties** to assist with the task: Change the name of the **Document History** report to **Customer Document History** report.

**Step by Step Solution:**

1. Select the **Document History** report.
2. In the property window, highlight the current report name.
3. Enter the new name and click **Apply**. You are prompted to select an option for the template.
4. Leave the selected choice unchanged and click **OK**. The new report name is saved.
Exercise 2: Edit the report description

Update the report description to reflect the following: **Customer Document totals for current and previous year.**

**Step by Step Solution:**

1. Select the report name.

2. In the property window, enter the description in the **Description** field and click **Apply**.
Exercise 3: Edit the columns in the report

Use the help topic Add or Remove Columns and Change order of Columns to assist with the task.

1. Remove the following column: TotalCost
2. Add the following column to the report: TotalIncl
3. Arrange the columns as follows:
   - CustomerCode
   - CustomerName
   - DocType
   - DocNo
   - Date
   - TotalExcl
   - TotalVAT
   - TotalIncl

Step-by-Step Solution: Edit the report:

Remove a column:

1. Select the report in the Object window. The reports properties are displayed.
2. Click the Column tab.
3. Select the column to be deleted.
   Note: To select multiple columns use the CTRL key.
4. Click the Remove button. The selected columns are deleted.

Add Columns to a report:

1. Select the report in the Object window. The report's properties are displayed.
2. Click the **Column** tab.

3. Click the **Add** button.

4. Check the columns to be added in the **Choose Column Fields** dialog box.

5. Click **Ok**. The columns are added to the report.

**Rearrange the order of the columns:**

1. Select the report in the **Object** window. The report’s properties are displayed.

2. Click the **Column** tab.

3. Select the column you want to rearrange and use the **Move Up** and **Move Down** buttons to move the field to the new location.

This concludes the section on editing report properties. The next section will deal with advanced report settings.

[Next]-->
Adjusting the Output with Advanced Options

Overview

Once a report has been created the output can be adjusted by using the following options:

- **Filters** Filters enable you to refine or limit the rows of data that will be displayed in the report by setting criteria.

- **Sort**
  You are able to set the sort order of your data prior to it being exported to Microsoft Excel.

- **Parameters**
  Parameters enable you to refine or limit the rows of data, but unlike filters, the criteria are set at run time.

- **Aggregate Functions**
  Aggregate functions enable you to summarise data using one of a number of functions, for example **Sum** or **Average**, prior to the data being rendered to Microsoft Excel.

- **Aggregate filters**
  Aggregate filters enable you to refine or limit rows of data based on aggregation criteria. For example, you may only want to view values of a particular field if they are greater than the average of the field.
Exercises Overview
The following exercises will show you how to use these options when creating reports.

- Filter Exercise
- Parameter Exercise
- Aggregate Function Exercise

Next-->
Filter Exercise

You have been requested to create a report that reflects the data for all current year documents. The current year is identified as a positive value in the Period field. Use the Add and Remove filters help file to assist you with this task.
**Step 1: Create a copy of a report:**

Create a copy of the *Customer Documents History* report and rename it *Customer Documents History - Current Year*

**Step by Step Solution**

1. Right-click on the *Customer Documents History* report and click *Copy*.

2. right-click on the *Training* folder and click *Paste*.

3. Right-click on the new report and click *Rename*. (shortcut key – F2)

4. Enter the name *Customer Documents History - Current Year* in the *Rename* dialog box and click on *OK*. The report is renamed.
Step 2: Set the Filter

Set a filter on the new report with the following details:

- **Field:** Period
- **Comparison Method:** Greater than or Equal To
- **Value:** 1

Step by Step Solution

1. Select the report.
2. Click the Filter tab.
3. Click the **Add** button on the right of the property window.
4. From the **Choose a Filter Field** dialog box, click **Period** then click **OK**.
5. From the **Choose Comparison Method** dialog box, click **Greater than or Equal to** then click **OK**.
6. Enter 1 in the **Comparison Value** dialog box then click **OK**. The filter is displayed in the Filter window.
**Step 3: Run the report**

Run the report.

**Step by Step Solution**

1. Click the **Run** button. The data is exported to Microsoft Excel.

2. Compare the output to the figure below to ensure that it is correct.
Step 4: Link the Microsoft Excel report back to Sage Intelligence Reporting

Link the Microsoft Excel report back to Sage Intelligence Reporting.

Step by Step Solution

1. Select the **Customer Documents History - Current Year report** in the **Report Manager**.

2. Click the **Create and Link Template** button.

3. Select the Microsoft Excel workbook containing the rendered data and click **OK**. The Replace dialog box is displayed. Click **Yes**.
   
   **Note:** As the report is a copy of a previously created report, you will need to either replace the existing template or create a new template based on the previous template.

4. Leave the default name unchanged and click **OK**. The Microsoft Excel workbook is converted to a template and linked to the report.

5. Ensure the Report Manager is active for the next exercise.
Parameter Exercise

A user has requested reports that fall between specified dates. You are required to set the report dates when you run the reports. Complete the following steps to create a report that enables you to set the dates at run time using two date parameters.
Step 1: Copy the report and remove the filter

Create a copy of the previous report and do the following:

- Rename the report: Customer Documents History - Parameters
- Remove the filter from the report

Step by Step Solution

1. Right-click on the Customer Documents History - Current Year report and click Copy.
2. Right-click on the Training folder and click Paste.
3. Right-click on the new report and click Rename. (shortcut key – F2)
4. Enter the name Customer Documents History with Parameters in the Rename dialog box and click on OK. A dialogue box presents template options as shown in the figure below.

![Select option for the report's template](image)

5. Leave the default option selected and click OK. A copy of the report is created and displayed the training folder.
6. Click the Filter tab on the Property window.
7. Select the Period filter and click Remove.
8. Click OK to confirm the deletion. The filter is removed from the report.
Step 2: Set the parameters
Set the following parameters for the report:

- **First Parameter**
  - Filter Field: Date
  - Operator Name: Greater than or Equal to
  - Comparator/default option: (blank)

- **Second parameter**
  - Filter Field: Date
  - Operator Name: Less than or Equal to
  - Comparator/default option: (blank)

Step by Step Solution

1. Select the report.
2. Click the **Parameter** tab.
3. Click the **Add** button on the right of the property window.
4. From the **Choose a Filter Field** dialog box, click **Date** then click **OK**.
5. From the **Choose Comparison Method** dialog box, click **Greater than or Equal to** then click **OK**.
6. Leave the **Comparison Value** value blank (this value will be set at run time) then click **OK**. The parameter is displayed in the **Parameter** window.
7. To set the second parameter, click the **Add** button again on the right of the property window.
8. From the **Choose a Filter Field** dialog box, click **Date** then click **OK**.
9. From the **Choose Comparison Method** dialog box, click **Less**
than or Equal to then click OK.

10. Leave the **Comparison Value** value blank (this value will be set at run time) then click **OK**. The parameter is displayed in the **Parameter** window.
Step 3: Run the report
Run the report setting the parameters to reflect the month of April 2003 (01/04/2003 – 30/04/2003). Check the output result against the diagram below.

Step-by-Step Solution

1. Click the Run button. The Parameter dialog box prompts you for the dates.

2. Click the Browse button and enter the following dates:
   - Greater than or Equal to: 01/04/2003
   - Less than or Equal to: 30/04/2003

3. Click OK. The data is exported to Microsoft Excel.

4. Compare the output to the figure below to ensure that it is correct.
   Note: The dates must reflect only transactions between 01/04/2003 and 30/04/2003.
Step 4: Link the Microsoft Excel report back to Sage Intelligence Reporting

Link the resulting workbook to the Report Manager as a template.

Step-by-Step Solution

1. Select the **Customer Documents History with parameters** report in the Report Manager.

2. Click the **Create and Link Template** button.

3. Select the **Customer Documents History with parameters1** book and click **OK**. The **Specify a Template name** dialog box is displayed.

4. Leave the default name unchanged and click **OK**. The Microsoft Excel workbook is converted to a template and linked to the report.

5. Ensure the **Report Manager** is active for the next exercise.
Advanced Options - Aggregate Function Exercise

Aggregate Functions
You have been asked to summarize the sales for the company by Customer per Period for the current year. This will require the use of an Aggregate function. Complete the following steps to create a report that enables you to summarize the data prior to it being rendered to Microsoft Excel.
Step 1: Create a new report

Use the Help File Edit Column Properties. Create a new report with an aggregate function using the following details:

- **Folder:** Training
- **Report Name:** RKL Sales Summary by Customer
- **Data Container:** Customer Documents
- Place the following fields in the report
  - Customer Code
  - Customer Name
  - Period
  - TotalExcl

**Step by Step Solution:**

1. Select the Training folder and click the Add Report button on the toolbar.
2. Select the type of report to create: in this case Standard Report.
3. Enter the name of the report in the Report Name dialog box.
4. Select the Customer Document container from the Select Container dialog box.
5. Select the fields listed above and click OK. The report is displayed under the Training folder.
6. Click the Filter tab.
7. Click Add. The Choose Field dialog box is displayed.
8. Select Period and click OK.
9. Select Greater than or equal to and click OK.
10. Enter 1 in the Comparison value dialog box and click OK.
Step 2: Set the Aggregate Filter

Set the following aggregate function to the report:

- **TotalExcl** aggregate function is set as **Sum**

**Step by Step Solution:**

1. Ensure that the report is selected.
2. Click the **Columns** tab.
3. Right-click on the **TotalExcl** column and select **Properties**.
4. In the **Properties** dialog box, click the **Aggregate Function** drop-down list and select **Sum**.
5. Click **OK**. The **Sum** aggregate function is displayed to the right of the **TotalExcl** field in the Column tab.
Step 3: Run the report

Run the report

1. Run the report. The summarised data is rendered to Microsoft Excel.

Step by Step Solution

1. Click the Run button. The data is exported to Microsoft Excel.

2. Compare the output to the figure to ensure that it is correct.
Step 4: Link the Microsoft Excel report back to Sage Intelligence Reporting

Link the Microsoft Excel report back to Sage Intelligence Reporting.

Step by Step Solution

1. Select the **RKL Sales Summary by Customer** report in the Report Manager.

2. Click the **Create and Link** button.

3. Select the **Microsoft Excel workbook** that contains the report and click **OK**. The **Specify a Template name** dialog box is displayed.

4. Leave the default name unchanged and click **OK**. The Microsoft Excel workbook is converted to a template and linked to the report.

5. Ensure the **Report Manager** is active for the next exercise.

This concludes the section on Advanced Settings. The next section takes you through the process of creating advanced reports.

Next-->
Creating Advanced Reports: Union Reports Part 1
Step 1: Create the first base report

Create the first report using the details listed below:

- **Report Name**: RKL Sales (YTD)
- **Folder**: Training
- **Data Container**: Customer Documents
- **Columns**:
  - Customer Code
  - Customer Name
  - Period
  - TotalExcl
- **Filter 1**:
  - **Column**: Period
  - **Comparison Function**: Greater than or Equal to
  - **Value**: 1
- **Filter 2**:
  - **Column**: DocType
  - **Comparison Function**: Is In
  - **Value**: CRN, INV

**Note**: Run the report and ensure that the report is working correctly.

Step-by-Step Solution

1. Right-click on the **Training folder** and select **Add Report**.
2. Select **Standard Report**.
3. Enter the report name: **RKL Sales (YTD)** in **Name Report** dialog
4. Select the Customer Documents container from the Add Container dialog box and click OK.

5. Add the following columns:
   - Customer Code
   - Customer Name
   - Period
   - TotalExcl

6. To set the first filter, click the Filter tab.

7. Click the Add button on the right of the property window.

8. From the Choose a Filter Field dialog box, click Period then click OK.

9. From the Choose Comparison Method dialog box, click Greater than or Equal to then click OK.

10. Enter 1 in the Comparison Value dialog box then click OK. The filter is displayed in the Filter window.

11. To set the second filter, click the Add button in the Filter window.

12. From the Choose a Filter Field dialog box, click DocType then click OK.

13. From the Choose Comparison Method dialog box, click Is In then click OK.

14. Enter CRN, INV in the Comparison Value dialog box then click OK. The filter is displayed in the Filter window.

15. Click OK. The report is displayed below the Training folder.

16. Run the report to ensure that it displays the correct data as shown in the diagram below:
<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Customer Code</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>JENS JAMS</td>
<td>2</td>
<td>3392.186648</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>KENS TAVERN</td>
<td>2</td>
<td>339.0322581</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>BRONSES CC</td>
<td>2</td>
<td>1627.483971</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>BRONSES CC</td>
<td>2</td>
<td>835.6987092</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>KENS TAVERN</td>
<td>2</td>
<td>3331.290322</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>FRUITY JOES</td>
<td>3</td>
<td>4548.367097</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>TROTTERS CC</td>
<td>3</td>
<td>435.483971</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>BOTTLE SHOP</td>
<td>1</td>
<td>540</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>DCEES TEAS</td>
<td>1</td>
<td>464.516129</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>SUNSHINE CAFÉ</td>
<td>1</td>
<td>464.516129</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>THE GRUB SHOP</td>
<td>1</td>
<td>900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>PLSTORES</td>
<td>1</td>
<td>696.7741936</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>JENS JAMS</td>
<td>1</td>
<td>3331.290322</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>SPICE POT</td>
<td>1</td>
<td>4103.229006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>ALL Sorts STOP SHOP</td>
<td>1</td>
<td>4606.454513</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Step 2: Create the second base report

Create the second report using the details listed below:

- **Report Name**: RKL Outstanding Orders (YTD)
- **Folder**: Training
- **Data Container**: Customer Documents
- **Columns**:
  - Customer Code
  - Customer Name
  - Period
  - TotalExcl
- **Filter 1**:
  - **Column**: Period
  - **Comparison function**: Greater than or Equal to
  - **Value**: 1
- **Filter 2**:
  - **Column**: DocType
  - **Comparison function**: equal
  - **Value**: SO

**Note**: Run the report and ensure that the report is working correctly.

**Step-by-Step Solution**

1. Right-click on the **Training folder** and select **Add Report**.
2. Select **Standard Report**.
3. Enter the report name: **RKL Outstanding Orders (YTD)** in **Name Report** dialog box.
4. Select the **Customer Documents** container from the Add Container dialog box and click **OK**.

5. Add the following columns:
   - Customer Code
   - Customer Name
   - Period
   - TotalExcl

6. To set the first filter, click the **Filter** tab.

7. Click the **Add** button on the right of the property window.

8. From the **Choose a Filter Field** dialog box, click **Period** then click **OK**.

9. From the **Choose Comparison Method** dialog box, click **Greater than or Equal to** then click **OK**.

10. Enter 1 in the **Comparison Value** dialog box then click **OK**. The filter is displayed in the **Filter** window.

11. To set the second filter, click the **Add** button in the **Filter** window.

12. From the **Choose a Filter Field** dialog box, select **DocType** then click **OK**.

13. From the **Choose Comparison Method** dialog box, click **Is Equal To** then click **OK**.

14. Enter **SO** in the **Comparison Value** dialog box then click **OK**. The filter is displayed in the **Filter** window.

15. Click **OK**. The report is displayed below the **Training** folder.

16. Run the report to ensure that it displays the correct data as shown in the diagram below:
<table>
<thead>
<tr>
<th>A</th>
<th>Customer Code</th>
<th>B</th>
<th>Customer Name</th>
<th>C</th>
<th>Period</th>
<th>D</th>
<th>TotalExc'</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>TEA001</td>
<td></td>
<td>TEA 4 U (JMB)</td>
<td>5</td>
<td>580.8451613</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>TTG01</td>
<td></td>
<td>TREE TEA GARDENS</td>
<td>5</td>
<td>464.516129</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>JUIC01</td>
<td></td>
<td>JUICE HAVEN</td>
<td>5</td>
<td>567.8709677</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Create the union report using the details listed below:

- **Report Name**: YTD RKL Sales and Outstanding Orders
- **Reports to be used in the union report**:
  - RKL Sales (YTD)
  - RKL Outstanding Orders (YTD)

**Note**: Run the report and ensure that the report is displaying the correct data. The union report’s results displayed must be a combination of the two base reports created in Part 1 of the exercise.

**Step-by-Step Solution**

1. Select the **Training** folder.
2. Right-click the **Training** folder and select **Add Report**.
3. Select **Union Report**.
4. Enter **YTD RKL Sales and Outstanding Orders** in the **Name** dialog box.
5. Select **RKL Sales (YTD)** and **RKL Outstanding Orders (YTD)** from the **Select Reports** dialog box. Select **OK**. The union report is displayed below the **Training** folder.
6. Double-click on the **YTD RKL Sales and Outstanding Orders** report to display **Union Sub Reports** entity.
7. Double-click on the **Union Sub Report** entity to display **Union Sub Report** links.
8. Click **RKL Sales (YTD)** link and in the property window enter 1 in the **Output Sheet Number (Left to Right)** field, then click **Apply**.
9. Click the **RKL Outstanding Orders (YTD)** link and in the property window enter 2 in the **Output Sheet Number (Left to Right)** field.
Right) field, then click Apply.

10. Click the YTD RKL Sales and Outstanding Orders report then click Run. Ensure that it is displaying the correct data as shown in the diagram below:

![Excel Sheet Diagram](image)

**Note:** The diagram above shows both sheets in a single window to enable you to view both results simultaneously. In your report, you will view the results in two separate worksheets.

This concludes the exercises on the advanced reports. The next section takes you through managing of reports.

Next-->
Sub-Query Reports

Sub-Query Reports Scenario

You have been asked to create a report to list all sales invoices, excluding those where a credit note has been raised, for the six months from July to December 2003. You want to include the Customer's name.

Creating a sub-query report is a two part process:

- **Part 1:** Create a sub-query report whose output will be used as the criteria in a subsequent report. In this scenario, a list of order numbers where the DocType is equal to CRN.

- **Part 2:** Use the sub-query report's results as the basis of a filter in a new report.

Next-->
Part 1: Creating a Sub-Query Report

Step 1: Create the sub-query report
Use the Sub-Query Reports Help file to assist you with this task. Create the following sub-query report:

- **Report Name**: Sub-Query - Credit Notes
- **Source Container**: Customer Documents
- **Display Field**: OrderNo

Step-by-Step Solution

1. Right-click the **Training** folder and select **Add Sub Query Report** option.
2. Enter the name: **Sub-Query - Credit Notes** for the report in the **Enter a Name** dialog box and click **OK**.
3. Select the **CustomerDocuments** container from the **Select a Data Container** dialog box.
4. Select **DocType** from the **Display Name** dialog box. The sub-query is displayed under the **Training** folder.
Step 2: Set the Filter
Set a filter with the following parameters:

- **Filter**: DocType is equal to CRN

**Step-by-Step Solution:**

1. Select the **Sub-Query Report** and click the **Filter** tab.
2. Click the **Add** button.
3. Select the **DocType** field from the **Choose a Field Filter** dialog box.
4. Select the **Equal to** operator from the **Comparison Method** dialog box.
5. Enter **CRN** in the **Comparison Value** dialog box and click **OK**. The filter is displayed in the Filter tab.
**Step 3: Run the sub-query report**

Run the report to ensure that the results of the sub-query are correct.

**Step-by-Step Solution:**

1. Select the **Sub-Query Report** and click the **Run** button. The report is run and the results are displayed in Microsoft Excel.
   
   Ensure the data displayed in the Microsoft Excel workbook is correct, then close the workbook without saving any changes.

2. **Note:** This sub-query report will be used in the next exercise.
Part 2: Using the Sub-Query Report as a Filter

Use the sub-query Report as the basis of a filter in a report.
Step 1: Set the sub-query filter
To use the sub-query created in the exercise above, set it as a filter in a report. Create a new report called **Customer Invoice List** using the following details.

- **Report Name**: Customer Invoice List
- **Container**: CustomerDocuments
- **Columns**: CustomerCode, CustomerName, Date, DocNo, DueDate, OrderNo, TotalExcl
- **Filter**:
  - DocType Equal to INV and
  - DocNo Is Not In Sub-Query: Sub Query - Credit Notes
- **Parameters**:
  - Date Greater than or Equal to 01 July 2003
  - Date Less than or Equal to 31 December 2003

Step-by-Step Solution
1. Right-click on the **Training** folder and click **Add Report**.
2. Select **Standard Report**.
3. Enter the name: **Customer Invoice List** and click **OK**.
4. Select the data container: **CustomerDocuments**.
5. Select the columns listed above and click **OK**. The Report is displayed below the **Training Folder**.
6. Select the Filter tab.
7. Click the **Add** button and add the **DocType** filter to the report, using the filter details listed above.
8. Click **Add**. The **Filter field** dialog box is displayed.
9. Select the **DocNo** field as the filter field.

10. Select **Is Not In Sub Query** from the **Comparison Operator** dialog box. A list of sub query reports are displayed.

11. Select **Sub Query - Credit Notes** from the list displayed. Then click **Ok**.

12. Click the **Parameter** tab.

13. Click **Add** and complete the parameters using the details listed above then click **OK**.
  
  **Note:** Ensure both parameters are included.
Step 2: Run the report

Run the report.

Step-by-Step Solution:

1. Select the Customer Invoice List and click the Run button. The report is run and the results are displayed in Microsoft Excel as shown in the figure below:
Step 3: Link the Microsoft Excel report back to Sage Intelligence Reporting

Link the Microsoft Excel report back to Sage Intelligence Reporting.

Step-by-Step Solution


2. Click the Create and Link button.

3. Select the Microsoft Excel workbook that contains the report and click OK. The Specify a Template name dialog box is displayed.

4. Leave the default name unchanged and click OK. The Microsoft Excel workbook is converted to a template and linked to the report.

5. Ensure the Report Manager is active for the next exercise.

This completes the section on sub-query reports. The next section deals with union reports.

Next-->
Managing Reports

Overview
Creating and linking your reports are the core functions of the Report Manager. Around these core functions are a number of functions to facilitate managing your reports. This section will familiarize you with these functions.

The management functions are:

- **Delete a Report**
  You are able to delete reports that are no longer needed or have become obsolete. You have the choice when deleting the report of deleting the associated template. This should only be done if you are sure that the template is of no value and is not being used by other reports.

- **Link and Un-link Templates**
  You are able to un-link an associated template from a report. This is necessary if you want to link a different template to the report.

- **Lock a Report**
  You are able to lock a completed report. This ensures that there are no changes made to the structure of the report.
  
  **Help File:** Locking/Unlocking a Report

- **Export and Importing Reports**
  You are able to export reports from Sage Intelligence Reporting. These reports can be imported into other Sage Intelligence Reporting systems.
  
  **Help File:** Exporting a Report; Importing a Report

- **Schedule a Report Run**
  You are able to schedule a report to run by adding the Sage Intelligence Reporting schedule command line to a 3rd party Scheduler program.
  
  **Help File:** Scheduling a Report Run

Next-->
End of the Report Manager Tutorial

Congratulations, you have successfully completed the Report Manager tutorial.
Modules

Sage Intelligence Reporting can give users an open view of their data across several platforms and consists of user friendly modules:

- The **Connector Interface** provides the facility to connect to all ODBC compliant data sources for example, SQL Server, Oracle, Access, Btrieve (Pervasive) using a Windows Explorer look and feel, for simple administration of all data connections.

- The Report Manager **Interface** which provides access to the data as defined in the Connector’s tool and empowers the user to customise their reports for Microsoft Excel.

- The Report Viewer allows report layouts in Microsoft Excel to be changed on the fly for viewing once reports have been executed, but the source reports cannot be changed using this license type.

- The **Security Manager** defines security for reports and users.

- The License Manager manages module licensing.

### Sage Accpac Intelligence Components and Icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Report Manager" /></td>
<td>Report Manager</td>
<td>Author (design, create) and run reports</td>
</tr>
<tr>
<td><img src="image" alt="Report Viewer" /></td>
<td>Report Viewer</td>
<td>View authored reports – no editing</td>
</tr>
<tr>
<td><img src="image" alt="Security Manager" /></td>
<td>Security Manager</td>
<td>Defines security for reports/users</td>
</tr>
<tr>
<td><img src="image" alt="License Manager" /></td>
<td>License Manager</td>
<td>Manages module licenses</td>
</tr>
<tr>
<td><img src="image" alt="Connector" /></td>
<td>Connector</td>
<td>Connect to additional data containers</td>
</tr>
</tbody>
</table>
Creating a Metadata Set

Sage Intelligence Reporting uses Metadata to describe an organizations useful data. Metadata is often referred to as data which describes data. Typically a Metadata set will provide a user friendly view onto a set of technically obscure data. It allows data to be more easily available to non technical users or to users who have no knowledge of the underlying source data system. A good Metadata set should describe a data set in a manner which is consistent and easy to understand. Where data comes from different sources and systems with inconsistent naming conventions, the Metadata can achieve a consistent facade allowing the user to be unconcerned with the source and source type of any given data.

Sage Intelligence Reporting allows a System Administrator to perform a Metadata mapping exercise once which then benefits all end users. The Connector is used to perform this mapping exercise. In addition to mapping the Metadata the exercise should also involve some configuration to optimize the way in which data is accessed by Sage Intelligence Reporting.

Creating a Metadata set:

1. Create and test a Data Connection.
2. Publish Data Containers and Data Expressions giving them meaningful names.
3. Configure the Data Expressions so that the data is accessed in a sensible manner.

Once a good Metadata set is published the users of the Report Manager Interface will be able to easily access the data. The Connector allows the System Administrator to rename the technical expression names normally contained in databases. By renaming the expressions, the System Administrator creates a metadata set that is user friendly and which allows the user to clearly identify the relevant fields for reporting when using the Report Manager Interface.
Home > Connector > Getting Started > What is the Connector Tool?
What is the Connector Tool?

The Connector allows an organization's System Administrator to make a connection to their database so as to access the relevant tables for reporting purposes. It also allows an organization's System Administrator to configure the metadata so as to empower the users to create their own reports. The Connector will typically be used by an organization's System Administrator or the relevant technically skilled person.

To use the functions of the Connector, you will first need to select an object (i.e. a Data Connection, Data Container or Data Expression) in the Object window.

When you have selected an object in the Object window, you can edit the properties of your chosen object by using the Properties fields provided in the Properties window.
To save any changes you make to the properties of your chosen object, you must click the **Apply** button.

The Connector also includes a standard Windows Menu bar and a **Connector Toolbar** to simplify the use of the Sage Intelligence Reporting software functionality.
# Connector Toolbar

The Connector toolbar has various icons which perform several functions as follows:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="add.png" alt="Add" /></td>
<td>Add</td>
<td>Enables the user to add a Data Connection, Data Container or a Data Expression</td>
</tr>
<tr>
<td><img src="delete.png" alt="Delete" /></td>
<td>Delete</td>
<td>Enables the user to delete their selection</td>
</tr>
<tr>
<td><img src="properties.png" alt="Properties" /></td>
<td>Properties</td>
<td>Displays context specific field properties</td>
</tr>
<tr>
<td><img src="refresh.png" alt="Refresh" /></td>
<td>Refresh</td>
<td>Refreshes on screen properties of the selected object</td>
</tr>
<tr>
<td><img src="copy.png" alt="Copy" /></td>
<td>Copy</td>
<td>Copies the selected object to the clipboard.</td>
</tr>
<tr>
<td><img src="paste.png" alt="Paste" /></td>
<td>Paste</td>
<td>Pastes an object from the clipboard into the selected object</td>
</tr>
<tr>
<td><img src="move_to.png" alt="Move To" /></td>
<td>Move To</td>
<td>Moves a connection or a container</td>
</tr>
<tr>
<td><img src="check_test.png" alt="Check/Test" /></td>
<td>Check/Test</td>
<td>Checks that the selected object will function correctly</td>
</tr>
<tr>
<td><img src="sample_data.png" alt="Sample Data" /></td>
<td>Sample Data</td>
<td>Takes a 50 row sample from the selected Source Data Container and displays this data on the Data Screen</td>
</tr>
<tr>
<td><img src="apply_mpb.png" alt="Apply Metabase Update" /></td>
<td>Apply Metabase Update</td>
<td>Applies a supplied Metadata Hot fix or Service Pack</td>
</tr>
<tr>
<td><img src="import_report.png" alt="Import Report" /></td>
<td>Import Report</td>
<td>Enables the import of reports into your system</td>
</tr>
<tr>
<td><img src="help.png" alt="Help" /></td>
<td>Help</td>
<td>Launches the Help Files</td>
</tr>
</tbody>
</table>
Data Connection

A **Data Connection** holds the relevant connection information to connect to a supported ODBC or OLEDB compliant Data Source. This Data Connection object is then used for all connections to this Data Source. By adding a Data Connection the System Administrator can make data available from this Data Source.

To display the properties of your Data Connection, select a Data Connection and on the Toolbar, click the Properties button 📦. The Data Connection Properties window will appear.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection ID</td>
<td>A Technical Key Value used to identify the Data Source</td>
</tr>
<tr>
<td>Connection Type ID</td>
<td></td>
</tr>
<tr>
<td>Connection Name</td>
<td>[Sage Accpac Auto Connect]</td>
</tr>
<tr>
<td>Server Name</td>
<td>[Blank for local engine]</td>
</tr>
<tr>
<td>Database Name</td>
<td>[AUTO_CONN CATALOG@]</td>
</tr>
<tr>
<td>User ID</td>
<td>[AUTO_CONN_USER@]</td>
</tr>
<tr>
<td>Password</td>
<td>[AUTO_CONN_PASSWORD@]</td>
</tr>
<tr>
<td>Use Time with DTS</td>
<td>[Disabled]</td>
</tr>
<tr>
<td>Date Format</td>
<td>[YYYY-MM-DD]</td>
</tr>
<tr>
<td>Date Time Format</td>
<td>[YYYY-MM-DD HH:mm:ss]</td>
</tr>
<tr>
<td>Date/Time Delimiter</td>
<td>[Disabled]</td>
</tr>
<tr>
<td>Connection Type</td>
<td>[Pervasive ODBC Client Interface]</td>
</tr>
<tr>
<td>Use Connection Variables</td>
<td>[Disabled]</td>
</tr>
<tr>
<td>Consoladtion Connection</td>
<td>[Disabled]</td>
</tr>
</tbody>
</table>

To Hide/Unhide advanced properties check/unchecked the Show Advanced option 🟢 Show Advanced.
<table>
<thead>
<tr>
<th>ID</th>
<th>Connection.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection Type ID</td>
<td>Value used to associate the Data Connection with a Connection Type</td>
</tr>
<tr>
<td>Use Auto Connection System</td>
<td>The Auto Connection System is a system used to automate a connection to a data source at report execution time. This system allows the database connection properties for reports to be set at execution time and not to be hard wired into the Connection in the Connector. See <a href="#">Auto Connection System</a> for further details.</td>
</tr>
<tr>
<td>Connection Name</td>
<td>The name assigned by the Administrator for the Data Connection</td>
</tr>
<tr>
<td>User ID</td>
<td>The user ID that will be used to gain a connection to the underlying Data Source.</td>
</tr>
<tr>
<td>Password</td>
<td>The Password that will be used to gain a connection to the underlying Data Source.</td>
</tr>
<tr>
<td>Use Time with Dates</td>
<td>Forces the full Date and Time values to be passed to the underlying database system. If this option is not selected the Date Format (to pass to Driver) will be enabled and the format specified will be used, otherwise the Date Time Format (to pass to Driver) will be enabled and the format specified will be used. See <a href="#">Connection Date Time Formats</a> for further information.</td>
</tr>
<tr>
<td>Date Format (to pass to Driver)</td>
<td>The Date format that the underlying Database System expects Dates to be presented in. This is the format that Sage Intelligence Reporting will convert dates to, before passing them to the underlying system. This needs to be correctly configured in order for Filters and Parameters to work correctly with dates in the Report Manager Interface. It is not the Date that a user of the Report Manager has to use. For a full list of the expected Date Formats for</td>
</tr>
</tbody>
</table>
supported Connection Types please check [Connection Date Formats](#) for further information. This is only available when Use Time with Dates is not selected.

<table>
<thead>
<tr>
<th>Connection Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Time Format (to pass to Driver)</td>
<td>The Date Time format that the underlying Database System expects Dates/ Times to be presented in. This is the format that Sage Intelligence Reporting will convert dates to before passing them to the underlying system. This needs to be correctly configured in order for Filters and Parameters to work correctly with dates in the Report Manager Interface. It is not the Date that a user of the Report Manager has to use. This is only available when Use Time with Dates is selected. See <a href="#">Connection Date Time Formats</a> for further information.</td>
</tr>
<tr>
<td>Date/Time Delimiter</td>
<td>This is the Date Delimiter that the Connection expects dates to be prefixed and suffixed with. This needs to be correctly configured in order for Filters and Parameters to work correctly with dates in the Report Manager Interface. Most systems use a single quotation mark (') for this while some use a hash (#) symbol.</td>
</tr>
<tr>
<td>Connection Type</td>
<td>Sets the type of the Data Connection</td>
</tr>
</tbody>
</table>
Add a Data Connection

A **Data Connection** holds the relevant connection information to connect to a supported ODBC or OLEDB compliant Data Source. This Data Connection object is then used for all connections to this Data Source. By adding a Data Connection the Connector can make data available from this Data Source.

To add a new Data Connection, double click on and select the relevant Connection Type (driver) to use for the Connection by clicking on it in the object window, for example, select.

![Diagram of Sage 300 ERP Business Intelligence 6.1 - [Connector] with Object window showing various drivers and DSN options]

Add a Data Connection:

1. On the Toolbar, click the **Add** button 📚. The **Connection Info** dialog box appears.
2. In the **Connection Name** box type the name of your connection.  
**Note:** Depending on the Connection Type of the Connection being created, certain values will need to be entered to specify how the data is accessed (some connection types will allow you to browse for data using the buttons to the right of the text boxes). Where paths or folder names are required for creating a Data Connection always use the Universal Naming Convention as opposed to using drive mappings. For example \Servername\c\mydata\ as opposed to X:\mydata where X is a mapped drive to \Servername\c\. This will ensure that reports against this Data Connection can be run from any workstation regardless of drive mappings.

3. In the **Server** box, browse to or add your server name.

4. In the **Database Name** box, enter the name of your SQL Database.

5. In the **User Id:** box type your User Id: if you have security settings on the data folder.

6. In the **Password** box type your password for the above entered User Id.
7. Click on Add. The new Connection will now appear in the Object window.

8. To test the Connection; On the Toolbar, click the Check/Test button.
Using the Auto Connection System

In order for Sage Intelligence Reporting to communicate via ODBC to any database, these values need to be resolved:

- Server Name
- Database Name
- User ID
- Password

The Auto Connection System in Sage Intelligence Reporting is used to automate a Connection between a data server and data source at report execution time.

The Auto Connection System takes care of the above values by passing all these critical values during the company log on process to Sage Intelligence Reporting. Especially if more than one server (Database Host) and database exists on the network, this feature proves very helpful to automate seamless integration to automatically use the relevant logged in server and company.

Notice the following four field variables values of the Connection Properties:
• **Server: @AUTO_CONN_SERVER@**
  The @ signs indicates that upon report runtime some variable value is expected to be supplied. In the case of the above string it’s the appropriate MySQL Server name to access the data.
  Therefore the relevant MySQL server PC’s name will be automatically supplied by the Auto Connection System.

• **Database Name: @AUTO_CONN_CATALOG@**
  The above string indicates the expected value to be supplied by the Auto Connection System upon report runtime of any report is the relevant Database Folder.
  Therefore the specific currently opened company’s equivalent Database Folder will be supplied by the Auto Connection System.

• **User ID: @AUTO_CONN_USER@**
  This string indicates that the MySQL server’s User ID field that is logged into Sage Intelligence Reporting would be automatically supplied by the Auto Connection System.

• **Password: @AUTO_CONN_PASSWORD@**
  This string indicates the MySQL’s password that Sage Intelligence Reporting is using that would be automatically supplied by the Auto Connection System upon report runtime.
Automatic Query and Response Dynamics

All Sage Intelligence Reporting reports that are run, are passed through the Auto Connection Properties (automatic query prompt running in the background) for the 4 mentioned variables to be specified first before data can be extracted from the database.

In response the relevant 4 variables values are supplied in accordance with the specific company opened and the relevant MySQL Server PC name.
Data Container

A Data Container is simply a set of data which is made available (published) by the Connector which will allow users access to the data using the Report Manager interface. The source of this data can be either a Database Table, View, Stored Procedure or a custom Join based on two or more Tables/Views.

To display the properties of your Data Container, select a Data Container and on the Toolbar click the Properties button.

The Data Container properties window will appear.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container ID</td>
<td>A Technical Key Value used to identify the Data Container</td>
</tr>
<tr>
<td>Published</td>
<td></td>
</tr>
<tr>
<td>Container Name</td>
<td>The name assigned by the System Administrator for the Data Container</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------------------------------------------------------------</td>
</tr>
<tr>
<td>Description</td>
<td>A description for the Data Container</td>
</tr>
<tr>
<td>Connection ID</td>
<td>A Technical Key Field for the Data Connection to which the Data Container is assigned</td>
</tr>
<tr>
<td>Source Container</td>
<td>The name of the underlying Source Data Structure (TABLE, VIEW or STORED PROCEDURE) or a supported SQL JOIN to define a set of Data. Note that selection for the Source Container Type property must reflect what is held in this Source Container property</td>
</tr>
<tr>
<td>Source Container Type</td>
<td>This is used to specify how the underlying source data is held. Set this to TABLE if it is simply a single data structure (most common), to a VIEW if it is a virtual table based on a query and to a JOIN if it is a logical combination of data from two or more tables defined using a SQL join</td>
</tr>
<tr>
<td>Timeout Enquiries After</td>
<td>Allows a threshold to be set for the amount of time that Sage Intelligence Reporting will spend attempting to query the Data Container</td>
</tr>
<tr>
<td>(Seconds)</td>
<td>• Set this to 0 for Sage Intelligence Reporting to wait indefinitely for execution to complete</td>
</tr>
<tr>
<td></td>
<td>• Set this to -1 for Sage Intelligence Reporting to use the defaults settings of the underlying database system</td>
</tr>
<tr>
<td></td>
<td>Note that this setting may have no effect for certain underlying Database systems</td>
</tr>
<tr>
<td></td>
<td>For more information on troubleshooting Timeouts see <a href="#">Timeouts</a></td>
</tr>
<tr>
<td>Container</td>
<td>Sets the Company that has been authorised to import reports that use this container. If this property is left blank then anyone can import and use the</td>
</tr>
<tr>
<td>Licensed To</td>
<td>Container. See <a href="#">Container Protection</a> for further information</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Container Owned By</td>
<td>Sets the Company that is the owner of the original Container and all those created on import to other systems. See <a href="#">Container Protection</a> for further information</td>
</tr>
</tbody>
</table>

In addition to these container properties you can also view a list of reports that have been created from this container. Right-click on the container and select **Show Dependencies**. The following screen will display, listing the reports that are dependent on this container.
Go To Container

The Data Container that a report is running from can be viewed from within the Report Manager module. This makes it easier to identify the source container to which tables or expressions must be added should the reports running from this container need updating.

**Step by step process:**

1. Double-click the report.
2. Double-click **Source container**.
3. Right-click the report.
4. Click **Go to Container in Connector**.

5. The following dialog box will appear asking if you would like to open another instance of the Connector.
6. Click **Yes**.

7. Your container that the selected report is running from will now be selected in the Connector.
Add Data Containers

A Data Container is simply a set of data which is made available (published) by the Connector which will allow users access to the data using the Report Manager Interface.

The source of this data can be either a Database Table, SQL Join, View, Graphical Join, Stored Procedure, or a SQL Query. Once you have configured your new Data Connection you will need to select your data containers which contain your source data.

Method:

1. Open the Connector.

2. Select a Data Connection: Sage Accpac (Auto Connect)

3. Click the Add Connection button.

4. The Select the Container Type dialog box appears.
5. Click **OK** to accept the default container type, which is **Table**, allowing you to add single containers.

6. The **Publish Data** dialog box appears.

7. Select the tables that you want to report on and click **OK**. The new data container(s) will now appear in the object window.
8. **Note:** You can select Table to add a container and then change the Container Type afterwards to a Join or a Graphical Join if you later decide to join this table to other tables. See [Joining Tables](#) for more information.

To check that your chosen Data Containers are working and accessible, select the Data Container in the [Object Window](#) and on the Toolbar, click the [Check/Test](#) button which checks that the selected object will function correctly.
Joining Tables

Using the Sage Intelligence Reporting Connector, data is made available through the addition of Data Containers and relevant Expressions. The source of the underlying data can be a Table, a View, a Stored Procedure or a user defined SQL Join or a Graphical Join. To create a Container based on a SQL Join, the System Administrator should add a data container, selecting the option “SQL Join” from the Select Container Type window and providing a name for the container. Then, before adding Expressions, you would type in the join syntax in the Source Container (Join) field. The Source should thus be the FROM clause (excluding the FROM keyword) of a SQL query that would define the Join. The syntax of the Join can be verified by using the Check/Test facility for the Container. When the SQL Join is verified to be correct, the Administrator can choose to Add Expressions. The Expression list will then include all Fields from all the Tables in the Join. There are two main SQL Join styles that are used by Database Systems. For some systems either will work while for others only one of the methods might work. It is recommended where possible to use Syntax 2 (the newer ANSI style Join).

Join Syntax 1

```
TABLE1, TABLE2, TABLE3
WHERE TABLE1.KEYFIELD = TABLE2.KEYFIELD
AND TABLE2.KEYFIELD_2 = TABLE3.KEYFIELD
```

for example,

timesheet, employee, department
WHERE timesheet.employee_id = employee.id
AND employee.department_id = department.id

Join Syntax 2

```
TABLE1
[INNER | LEFT | RIGHT] JOIN TABLE2
ON TABLE1.KEYFIELD = TABLE2.KEYFIELD
[INNER | LEFT | RIGHT] JOIN TABLE3
AND TABLE2.KEYFIELD_2 = TABLE3.KEYFIELD
```

for example,
timesheet
INNER JOIN employee
ON timesheet.employee_id = employee.id
INNER JOIN department
ON employee.department_id = department.id
INNER JOIN ON

**NOTE:** Some systems allow tables to have names, which include space characters. Where this is the case then it is necessary to surround table names and field names with square brackets.

The matrix below shows which styles of joins are supported by the most common Database Systems.

<table>
<thead>
<tr>
<th></th>
<th>Pervasive ODBC 32</th>
<th>Pervasive ODBC Interface</th>
<th>DBASE</th>
<th>SQL</th>
<th>Access</th>
<th>Oracle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joins (Old WHERE style)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Joins (New ANSI)</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>
Creating a Graphical Join

To create a Container based on a Graphical Join, the System Administrator should add a Data Container, selecting the option “Graphical Join” from the Select Container Type window and providing a name for the container. Then, before adding Expressions, the System Administrator would create the Joins between the tables by adding tables within the Graphical Join tool, then dragging the relevant field from one table and dropping it onto the appropriate field in the joining table. The illustration below displays two joins between 3 tables.

An Inner Join is created by default, which can be changed by right-clicking on the Join box on either side of the Join and selecting Outer Join. The reverse polarity option on the shortcut menu switches the Join between a Left or Right Join.

The SQL syntax for the Join can be viewed by selecting the check box “Show SQL.”

Once the Joins have been created they should be verified by using the Check/Test facility for the Container. On closing of the Graphical Join tool the Join will be displayed as a SQL syntax. When the SQL Join is verified to be correct, the System Administrator can choose to Add Expressions.
**Changing from a Join to a Graphical Join**

You may change existing Joins to a Graphical Join but on doing so you will have to recreate the Join within the Graphical Join tool.

1. To change the source container type from a Join to a Graphical Join, select the arrow in the Source container type field and select Graphical Join.

2. Then click the **Apply** button. The container properties window will now display a Graphical Join Tool button.

3. Select the **Graphical Join tool** button, add the required tables, create the Joins then click the **Apply** button to accept your changes.
Home > Connector > Data Containers > Adding a Graphical Join Container
Adding a Graphical Join Container

Sage Intelligence Reporting supports the use of a Graphical Join as the source for Data Containers.

**Method**

1. In the Connector add a new Container to your Connection.

2. When the **Select the Container Type** window appears, select **Graphical Join**.

3. Click **OK**.

4. Enter a descriptive name for the container.

5. Click **OK** to complete adding the container.

6. Select the newly created container and in the properties window, click **Graphical Join tool**.

7. Select the tables that you wish to have participate in this graphical join. Join the tables by dragging primary fields in one table onto the secondary fields in the next table.

8. Once you have added the tables and joins that you require click
Apply.

9. Right-click on the new Container and select Add Expressions. When prompted for the expression type to add, select Data Fields.

10. The list of fields that the view holds will appear. Select those fields which you would like to be available for reporting on and click OK.

The Container is ready to be used in reports.
## Adding a Table Container

Sage Intelligence Reporting supports the use of a single Table as the source for Data Containers.

### Method

1. In the Connector Tool add a new Container to your Connection. When prompted to Select the Container Type, select **Table**.

2. The Container name will default to the Table name.

3. When prompted select the Table that you would like to use as the source for this Data Container.

4. Click **OK** to complete adding the container.

5. Right-click on the new container and select **Add Expressions**. When prompted for the Expression Type to add, select **Data Fields**.

6. The list of fields that the table holds will appear. Select those fields which you would like to be available for reporting on, and click **OK**.

The Container is now ready to be used in reports.
Adding a View Container

Sage Intelligence Reporting supports the use of a View as the source for Data Containers for certain Database systems.

Method

1. In the Connector, add a new Container to your Connection. When prompted to Select the Container Type, select View.

2. The Container name will default to the View name.

3. When prompted, select the View that you would like to use as the source for this Data Container.

4. Click OK to complete adding the container.

5. Right-click on the new container and select, Add Expressions. When prompted for the Expression Type to add, select Data Fields.

6. The list of fields that the View holds will appear. Select those fields which you would like to be available for reporting on, and click OK.

The Container is now ready to be used in reports.
Find and Replace

The Find and Replace feature in the Connector lets you change all instances of a name change, for example a table name that has changed.

Method

1. Open the Connector and right-click on the affected container.
2. Select Find and Replace.
3. Enter the existing table name under Find What and the new name under Replace With.
4. Select all expressions you would like to effect, and also select what to include in the replacement by selecting the relevant options.
5. Click OK.
6. Confirm by selecting Yes.
7. The following window will appear confirming that the Find and Replace was successful.
[documentlines] was replaced 18 times in the container.
Container Protection

Sage Intelligence Reporting uses protection at a Container and Container Expression Level to protect intellectual property. This means that advanced data modeling in relational databases and advanced SQL Expressions can be protected when reports are distributed. To enforce this protection Sage Intelligence Reporting stores information about who the Container is Owned By (the original Container and all those created on import to other systems) and who the Container is Licensed To. Such information can be viewed on the properties screen of a container when you check the Show Advanced button at the bottom of the properties screen.

<table>
<thead>
<tr>
<th>Container Licensed To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anyday Accountants</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Container Owned By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alchemex (Pty) Ltd</td>
</tr>
</tbody>
</table>

The **Container Licensed To** property specifies the Company (Sage Intelligence Reporting licensed company) that has been authorised to import reports that use this container. Authorisation is performed by the Owner of the Container on Export. If this property is left blank then anyone can import and use the Container.

The **Container Owned By** property is the Company (Sage Intelligence Reporting licensed company) that created the original Container. The Ownership and protection options of a Container can only be changed by the Owner of the Container on Export of the report and using a Solution Developer license. Unless the Ownership options are changed all Containers created in destination systems will retain the original Owner on import.

The Owner of a Container can also specify protection options for an Export File and its Container at Export. See [Exporting Reports with Protection](#) for more information.

The Owner of a Container can also remotely unlock the Container, for a
client using the Container, using the "Generate Unlock Pin Codes" facility supplied (Solution Developer License only). See Unlocking A Container and Expressions for more detail.

A Container Owner may set up a trust relationship between a report End User and a Third Party (for example, outsourced report writer) in order to facilitate remote modifications to reports. For more information see the topic Importing a Report licensed to another Company for details on.
Stored Procedures

Sage Intelligence Reporting supports the use of Stored Procedures as the source for Data Containers for certain Database systems. For a list of the supported systems please go to Stored Procedure Supported Databases.

Adding a Stored Procedure Container - Step by Step

1. In the Connector, add a new container to your connection. When prompted to Select the Container Type select Stored Procedure.

2. Enter a descriptive name for the Container.

3. When prompted to Specify the Stored Procedure details enter the name of the Stored Procedure and any Input Arguments for the stored Procedure. In the example below the Stored Procedure is called **sp_sales_by_region** and it expects a integer argument for the Year and a string argument for the Continent.

4. Click OK to complete adding the Container.

5. Right-click on the new container and select Add Expressions. When prompted for the Expression Type to add, select Data Fields.

6. The list of fields that the Stored Procedure returns will appear. Select those fields which you would like to be available for
reporting on, and click OK. The Container is now ready to be used in reports.

Dynamically Setting Stored Procedures Input Arguments at Report Run Time - Step by Step:

To dynamically parameterize reports that use a Stored Procedure that expects input arguments the Container must be used in conjunction with Pass Through Variable(s). The defined Pass Through Variables must in turn be defined as Parameters on the report.

1. Add Pass Through Variable(s) to the Container.


3. Edit the Source Container property of the Container to include the Pass Through Variable defined codes in the stored procedure input argument list. For the example above the syntax would be:

@YEAR@, @CONTINENT@

where @YEAR@ and @CONTINENT@ are the Expression Source (or Variable Code) property values of defined Pass Through Variables within the Container. Note: When a stored procedure expects non numeric (for example, text based inputs) then the Variable code must be prefixed and suffixed with a single quotation mark (').
Limitations of Using Stored Procedures as Containers

The following limitations exist when using Stored Procedures as Data Containers:

- Only Expression Fields of types Data Field and Pass Through Variable can be used in the Container. SQL Expression and Excel Formula type expressions are not supported.

- Reports that use Stored Procedure type containers cannot use Filters or Aggregate Filters. Filtering can only be achieved with a combination of Report Parameters, Pass Through Variables and Stored Procedure Input Arguments.

- Stored Procedure must return a single data set only.

- Only a single Stored Procedure can be used in a Container. Stored Procedures cannot be joined.
Data Expression

A Data Expression is a field in a Data Container chosen by the Connector to be available through the Report Manager Interface.

To display the properties of your Data Expression, select a Data Expression and on the Toolbar click the Properties button.

The Data Expression properties window will appear.

To Hide/Unhide advanced properties check/uncheck the Show Advanced button.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression ID</td>
<td>This is a Technical Key Identifier for the Data Expression</td>
</tr>
<tr>
<td>Expression Name</td>
<td>The Name or Alias for the Data Expression</td>
</tr>
<tr>
<td>Expression Source</td>
<td>The Source Data Field Name of the underlying data for the Data Expression or a SQL Expression or an Excel Formula depending on the Expression Type (see below)..&lt;br&gt;&lt;br&gt;Expression Type</td>
</tr>
<tr>
<td>Allow Lookups</td>
<td>Allow users to perform lookups on this Expression which will make Parameter Lookup Lists available for this Expression. This option should only be used on Data Expressions which are expected to have a fairly limited set of distinct values. Using Lookups against large diverse data sets can vastly hinder system performance</td>
</tr>
<tr>
<td>Lookup Type</td>
<td>Sets where the Parameter Lookup List dataset is pulled from. See Defining Parameter Lookups for further information</td>
</tr>
<tr>
<td>Data Type</td>
<td>The underlying data type for the Expression. If you change an Expression to be of Expression Type SQL Expression then you should pick the correct Data type that the Expression is expected to return</td>
</tr>
</tbody>
</table>
Add Data Expressions

Adding a Data Expression enables the system administrator to choose the data fields (publish) from the Data Container(s) which are available through the Report Manager.

Once you have selected your Data Container(s) which contain your source data you will need to add your Data Expression.

Add a Data Expression:

1. Select a Data Container.

2. On the Toolbar, click the Add button.

3. The Select the Expression Type to Add dialog box will appear.

4. For Field(s) in a Table select the Data Field(s) option. If Data
Fields are being added to a container that uses more than one table then you will be prompted for the Tables to add fields from. Select the Tables. A **Choose Publish Fields** dialog box which contains your data container fields will appear.

5. Select the fields that you want to be available in your container (and will be available for reporting) and click **OK**.

6. The new Data Expression(s) will now appear in the object window.
Edit a Data Expression

To edit a Data Expression, select the Data Expression which you want to edit and on the Toolbar click the properties button. The properties window will be displayed.

Amend your Data Expression properties and click OK to save your changes.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression ID</td>
<td>This is a technical key identifier for the expression</td>
</tr>
<tr>
<td>Expression Name</td>
<td>The Name/Alias for the Expression</td>
</tr>
<tr>
<td>Expression Source</td>
<td>The Source Data Field Name</td>
</tr>
<tr>
<td>Expression Type</td>
<td>This indicates the type of expression that is being used. By default it is set to Data Field and in this case will be referring to a single column in an underlying Data Table. It can also be set to SQL Expression to allow a raw SQL expression to be used (including the use of the ODBC drivers available Functions), or to Microsoft Excel Formula. In the last case Excel formulae can be specified in the Expression source. No equal sign should be used to prefix the formulae. When Excel formulae are used here then to reference other Data Expressions in the formula use their Expression Names. E.G. CONCATENATE(Category,&quot; - &quot;,ProductName). If the Expression names have spaces or other non Alpha-numeric characters in them then simply replace these characters with underscores in your Excel Formula.</td>
</tr>
<tr>
<td>Allow Viewing</td>
<td>Make this Expression available for using in a Report Column</td>
</tr>
<tr>
<td>Allow Filtering</td>
<td>Allow users to filter on this Expression</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Allow Sorting</td>
<td>Allow users to perform sorting using this Expression</td>
</tr>
<tr>
<td>Allow Lookups</td>
<td>Make Parameter Lookup Lists available for this Expression</td>
</tr>
<tr>
<td>Lookup Type</td>
<td>Make Parameter Lookup Lists available for this Expression</td>
</tr>
<tr>
<td>Data Type</td>
<td>The underlying data type for the Expression. If you change an Expression to be of Expression Type <em>SQL Expression</em> then you should pick the correct Data type that the Expression is expected to return.</td>
</tr>
</tbody>
</table>
Using Microsoft Excel Formulae in Data Expressions

There are two ways of using Microsoft Excel Formulae in Data Expressions. You can either choose to add a Microsoft Excel Formula from the add data expression field or you can add a normal data field and then change its properties to an Excel Formula.

To add a Microsoft Excel Formula from the Add Data Expression window:

1. Once you choose Excel Formula you are prompted to type in name for the expression as shown below:

```
Enter a name for the Excel Expression

Product & Category

OK Cancel
```

2. Type in a name then click OK. The following screen displays, prompting you for the Excel formula:

```
Enter the Excel Formula

Note to refer to other expressions in the formula use the expression names and replace spaces with underscore characters:

CONCATENATE (ProductName, ".", Category)

OK Cancel
```

3. Type in the formula, then click OK.

The other method in creating Microsoft Excel Expressions is as follows:

1. Add a data expression by using the normal method (see Adding Data
Expressions).

2. On the properties window of the new data expression, change the Expression Type from a Data Field to an Excel Formula.

3. In the Expression Source field, type in the correct syntax for the expression type chosen, then click the apply button. An example of what the properties window should look like is shown below.

Here the standard Microsoft Excel CONCATENATE function has been used to combine the contents of the two Data fields ProductName and Category and with a dash in between them. Note that the formula does not begin with an Equal sign. Sage Intelligence Reporting allows the names of Columns to be used in the Microsoft Excel Formulae through the way it applies named ranges to the raw data sheet in a report. Where the word ProductName has been used then the report is resolving this through a named range for that column. The Data Expressions ProductName and Category must be included as Display Columns in your report for this Excel Formula Data Column to work.
For more information on understanding how Sage Intelligence Reporting applies Named Ranges to its data area see the topic How Data is Rendered. For further information on the Microsoft Excel Functions that can be used refer to your Microsoft Excel Help file.
Using SQL in functions in Expressions

Expressions can be modified to include SQL functions and operations. To do this, type in the SQL syntax into the Expression Source property and change the Expression Type to SQL Expression. The SQL functions available are specific to the ODBC driver used by the connection type for the container. For information on the available functions for a connection type see the Help files or documentation provided for the driver.

As an example you may have a text field in a table called AccountNo which is a seven digit code. The first three digits may be significant as they signify a high level Main Account while the last four digits signify a Sub Account. To strip the Main Account out from the AccountNo you can create an expression that simply takes the first three characters from the AccountNo. First add a new expression selecting the AccountNo field. Select the new field and rename it "Main Account". Then uncheck the "This is a Base Field" property and modify the Expression Source.

For a SQL Server connection type the syntax would be:

```
SUBSTRING([table].[field],1,3)
```

The syntax for this example for some other systems are shown below:

- **Pervasive**:
  
  `SUBSTRING("LedgerMaster"."AccountNo",1,3)`

- **Access**:
  
  `LEFT([LedgerMaster].[AccountNo],3)`

- **SQL Server**:
  
  `SUBSTRING([LedgerMaster].[AccountNo],1,3)`

**Some of the most common uses for SQL functions are:**

- Stripping out parts of a text field (shown in the above example)
- Casting one data type to another (for example, a Date stored as a text field could be cast to a real date)
- Performing mathematical operations (for example, Summing two
fields)

- Returning a certain value based on some logic (for example, Returning the text YES whenever a certain boolean field is equal to 1)

Note that you cannot use an expression name within a SQL expression, you have to use the expression source
Pass Through Variables

Pass Through Variables enable the queries (or SQL statements) that are sent to the Database Systems during report execution to be affected at run time. Where ordinary Parameters are used to modify the filtering element (or WHERE clause) of a query only Pass Through Variables can be used with Parameters to modify other parts of the query. Pass Through Variables must be used in conjunction with a reports Parameters to be effective.

Pass Through Variables are an advanced report writing facility and require a strong understanding of the Sage Intelligence Reporting Connector Functions and of basic database query concepts. Pass Through Variables are a special type of Container Expression and are defined within containers in the Sage Intelligence Reporting Connector. Pass Through Variables can also be effectively used to pass common Parameter Values through a series of Union Child Reports within a Union Report. In this way a Union Report may be configured to use one pop up Parameter screen to parameterise a number of Union Child Reports.
Terminology

- **Pass Through Variable** A special type of Container Expression used to hold a variable value that can be used within a report.

- **Pass Through Variable Code** The Expression Source property defined as a unique code prefixed and suffixed with @ symbols. This code can be used in Report Filters, Report Aggregate Filters and in other Expression Source properties. Where literal values are usually placed in filter comparison values the Pass Through Variable Code may be substituted.

- **Pass Through Variable Value** The value held within a Pass Through Variable during the execution of a Report. Note that the value can only be set through a Report Parameter based on the Pass Through Variable. Note that the lifetime of the Pass Through Variable Value is from when the value is set during report parameterization to when the report execution completes.
What can Pass Through Variables be used for?

Pass Through Variables can thus be used to achieve the following:

- Dynamically modify the outcome of a Report Column through Display Fields that are based on Expressions which include Variables
- To filter data in a report
- Parameterize multiple Union Child Reports in a Report through a single Parameter selection
- Parameterize multiple Reports in a report batch through a single Parameter selection
- Apply multiple Filters that use a single Parameter which is based on a Pass Through Variable
- Create Aggregate Parameters by using Aggregate Filters with Pass Through Variable based Parameters
- Set Stored Procedure input arguments.
To define a Pass Through Variable - Step by Step

1. Add an expression to a container

2. When prompted for the type of expression choose "Pass Through Variable"

3. You will be prompted for a descriptive name for the Variable. Enter a name for example, *Company Name*

4. You will then be prompted for a Code for the Pass Through Variable. The code is a unique identifier for the Pass Through Variable. The code must be prefixed and suffixed with @ symbols. for example, @COMPANY@. This code that you choose for the Pass Through Variable has no relation to any existing Expressions in the Container. The Code must however be unique within the Container and should preferably be unique within your Sage Intelligence Reporting System to prevent conflicts when using Pass Through Variables in Union Reports
   Note: having done this you may then use the code @COMPANY@ in any of the containers Expressions or any Report Filters to dynamically effect queries at report run time

5. To set the Pass Through Variable Value you must define a Parameter on a report that uses the Pass Through Variable. Add a Parameter to a report in the usual way but specifying the defined Pass Through Variable as the expression to use for the Report. When you run the report you will be prompted for a Parameter which will then set the Pass Through Variable Value and any occurrences of the variable within the underlying queries will be replaced with variable value

To Use a Pass Through Variable Within Another Container Expression

1. Modify the Source Property of the Expression to include the Pass Through Variable Code. See the example below where a SQL Expression has included a Pass through Variable Code:
2. Add a Parameter to your report and choose the Pass Through Parameter Expression as the source.

3. Run your report and enter a value for the Parameter "Company". The value that you enter for the parameter will be placed into the variable @COMPANY@ and substituted into the expression "Company & Department".

**To Use a Pass Through Variable to Filter Data in a Report**

1. Make sure that the Container that is used in your report has Pass Through Variable(s) defined as explained above.

2. Add a Parameter to your report based on the Pass Through Variable. Note that running the report and entering a value for the Pass Through Variable will have no effect on the report output until the Pass Through Variable Code has been added to a filter (or aggregate filter) as in step 3.
3. Add a filter to the report that you wish to based on an Expression that must be filtered in conjunction with the Pass Through Variable Code. Choose the relevant Comparison Method for the filter (for example, Is Equal To) and then enter the code for the pass through variable (for example, @COMPANY@).

4. Run the Report. The Parameter prompt will be used to set the Pass Through Variable value. This value will be substituted for the Pass Through Variable code (@COMPANY@) in the Filter set in step 3 and will thus effect the output of the report Query (through the SQL WHERE clause).

To Use a Pass Through Variable to Filter Aggregated Data in a Report

Follow the steps as outlined in "To use a Pass Through Variable to Filter Data in a Report" but in step 3 use an Aggregate Filter instead of a standard Filter.

To Use a Pass Through Variable Within Multiple Union Sub Reports

When a Union Report runs the individual Union Sub Report queries are executed and the data placed into a single Microsoft Excel Workbook. Although the underlying queries are executed independently and possibly against different Databases the Pass Through Variables that are populated become available for the remaining scope of the Union Report execution. This means that a Pass Through Variable defined in a container for the first Union Sub Report is set as the first Union Sub Report is executed. The Variable can then be reused in the subsequent Union Sub Reports. This can be useful to avoid multiple Parameter popup boxes where the Union Sub Reports require similar parameterisations. An example is described below:

The first Union Sub Report needs to pull Ledger Balances for the Account ACC001 and the second Union Sub Report needs to pull Transactions for the same account. The first Report is based on the Container "General Ledger" and the second report is based on the Container "Ledger Transactions". To create a Union Report that achieves this but with a single parameter screen you could do the following:

1. Define a Pass Through Variable called Account with code
@ACCOUNTNUM@ in the container "General Ledger".

2. Create a Union Report that uses the pre-created reports "Ledger" (based on General Ledger container) and "Transactions" (based on "Ledger Transactions" Container).


4. On the report "General Ledger" add a Filter based on the Container Field AccNum with Comparison Method "Is Equal To" and with Comparison Value as @ACCOUNTNUM@.

5. On the report "Transactions" add a Filter based on the Container Field AccNum with Comparison Method "Is Equal To" and with Comparison Value as @ACCOUNTNUM@.

6. Note: Make sure that the order of the Union Sub Reports is "Transactions" first and then "General Ledger".
   The reason for this is that Union Reports use a LIFO (Last In First Out) technique with Sub Reports and thus the "General Ledger" Sub Report will execute first and the Pass Through Variable will be set upfront and thus also be available to the report "Transactions".
Defining Parameter Lookups

When a report has Parameters defined for it a user may use the lookup facility to pick parameters from a database list (see Running a Report with Parameters for more details). By default the parameter list is pulled directly from the Source Container of the report. Often this can be very time consuming and load heavily on the underlying database and often there is a more logical place to pull the list from.

An example of this might be where your report is pulling information from a large transactional table (for example, Sales) and a parameter is defined on the report against a Customer Account code. The Customer Account Code might also be defined in a smaller reference data table (for example, Customers) and it would make sense to then define this as the lookup table.

To do this locate the underlying expression for the Parameter in the Connector and set Lookup Type property to the appropriate lookup type. Sage Intelligence Reporting supports the following lookup types:

- **Direct from Container** (Default)
  This option will cause Lookups to be drawn directly from the Source Container. Note that this is inefficient if the source container contains more than one table however it will only bring back entries where they are contained in the container

- **SQL Statement Defined**
  This option allows you to insert a SQL statement which will be used to define the Lookup. This is useful where you want maximum control over the values that are returned in the Lookup. Using this option requires that you are familiar with SQL and with any SQL specifics of the Database system being accessed. Once you select this option and click the Apply button a new property named Lookup SQL SELECT Statement will appear and you can edit it to customise the lookup

- **SQL Statement Defined (Code & Desc Pair)**
  This option allows you to insert a SQL statement which returns a code and description pair for each data item to be returned in the Lookup. The Description is displayed in the Lookup but the Code of the selected Lookup item is used for the Parameter Value. This is useful where the
parameter value required is not meaningful to the user. An example would be where Store Code is required as a Parameter Value, however users only know stores by the Store Name. By using a Code & Desc Pair Lookup, the Store Names will be displayed in the Lookup list but the Store Code will be passed through as the parameter value when a Store Name is selected from the list. Using this option requires that you are familiar with SQL and with any SQL specifics of the Database system being accessed. Once you select this option and click the Apply button a new property named *Lookup SQL SELECT Statement* will appear and you can edit it to customise the lookup.

- **Text File**

This option allows you to specify a text file which will be used to define the Lookup. The text file must contain a single item on each line. Using Text Files can be useful when the list provided in a parameter lookup is very specific. Where a normal SQL lookup might bring back some items which are not relevant to a user then a Text File can be used to populate with just the relevant items. It should be noted that the text files that are used for Lookups lie outside of the Containers and are not bundled with a Report that is exported for redistribution. The text files would need to be implemented in the target system manually.
Check/Test

The Check/Test feature enables checks to be run on objects selected in the Object Window to make sure that they will function correctly.

This is especially useful when advanced options are used for an Object. For example when changing a Data Containers source from a simple Table to a SQL Join then this function can be used to check the SQL against the Source Database System, OR when using it against a Connection Object it will test that the Connection can be established.
Sample Data

The Sample Data icon enables a sample of data to be viewed from a source container in a Sage Intelligence Reporting Data Screen. The sample includes 50 Rows with all columns from the underlying source.

Note that the sample brings back all fields regardless of what expressions have been published for the container.

This feature is useful in the MetaData mapping process and allows a quick way to view and choose the fields that should be published. It is also useful when used on individual expressions, especially when using SQL expressions to ensure that the syntax you have used will achieve the desired result.

Note that the Sample Data feature cannot be performed on a container or a container expression where the connection server and database names are set as pass through variables.
Apply Metabase Update

Occasionally upgrades and fixes become available for the Metadata structure.

When these are supplied they can be applied through this feature using the **Update Metabase** button available on the Toolbar in the Connector.
Dynamic Connections

For some systems it is useful for Reports to prompt for connection information at run time. In this way a Report user can specify where data is coming from at run time. To achieve this, a connection needs to be modified by the System Administrator to be dynamic. This is an advanced administrative function. To achieve this the System Administrator modifies any of the connection properties using free text in a PROMPT format or a PICKLIST format.

If a PROMPT is used then a user is simply prompted to enter free text for the information required.

For a PICKLIST the user is supplied with choices for the information. When the user supplies a given piece of information Sage Intelligence Reporting offers the facility to cache the information for the remainder of the session. If the user chooses to cache the information then they will not be asked for the information again and the cached information will be assumed for all subsequent references to the connection. The text that the System Administrator must enter for a PROMPT is of the format:

PROMPT=<Prompt text here>

For example:
In the Server Property of a SQL Server connection enter the following:

PROMPT=Please specify server name

The user will then be prompted at run time with a dialog box with the prompt "Please specify server name"

The text that the System Administrator must enter to supply the user with a PICKLIST is of the format:

PICKLIST=<PromptText>;<DESCRIPTION_1>::<TECH_INFO_1>;<DESCRIPTION_2>
For example in the **Access Database (*.mdb) Property** enter:

PICKLIST=Where is Your Data;Office::X:\Data\Filofax2002.mdb;Online::

The user will then be supplied with a PICKLIST titled "Where is Your Data" and with the three choices Office, Online and At Home.

Note that a PICKLIST or prompt format cannot be used on a connection if the Connection is using an "Auto Connection System"
**Date Formats**

Different database systems store and recognise dates in different formats. Sage Intelligence Reporting attempts to hide this detail from its end users by translating dates at run time into a recognizable format before passing the date to the underlying Database System. In order for Sage Intelligence Reporting to know how the Database System is expecting the dates, the Data Connection (property **Date Format**) in the Connector is pre-configured. Additionally, different Database Systems expect dates to be delimited with different characters. This is also configured on the Data Connection object as the property **Date Delimiter**.

For the end user dates in report Parameter boxes can always be picked using the Sage Intelligence Reporting Calendar thus hiding the common problems that occur with ambiguous date formats. The list below shows date formats that are recognized by some of the more common Database Systems.

<table>
<thead>
<tr>
<th></th>
<th>Date Format</th>
<th>Date Delimiter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pervasive</td>
<td>M/DD/YYYY</td>
<td>’</td>
</tr>
<tr>
<td>DBASE</td>
<td>YYYY/MM/DD</td>
<td>#</td>
</tr>
<tr>
<td>SQL Server</td>
<td>DD-MMM-YYYY</td>
<td>,</td>
</tr>
<tr>
<td>Access</td>
<td>M/DD/YYYY</td>
<td>#</td>
</tr>
<tr>
<td>Oracle</td>
<td>DD-MMM-YYYY</td>
<td>’</td>
</tr>
</tbody>
</table>

**Note:** Changing these settings on a Connection or Connection Type object can cause report execution problems and may cause incorrect date ranges to be returned. For supported Connection types in the Sage Intelligence Reporting Connector you should not change the settings for these fields.
Selecting Dates in Report Parameters

It is preferable to use the Sage Intelligence Reporting Calendar when selecting Dates in Parameters. If you prefer to key in Date values for a Report Parameter or Filter it is best to use the format \textbf{dd mmm yyyy} to avoid ambiguity and Date errors. for example, 19 January 2008 OR 19 Jan 2008.

In this way Sage Intelligence Reporting can unambiguously translate the date into the format expected by the underlying Database system. The Sage Intelligence Reporting Calendar is shown below:
Time Formats with Dates

By default when filtering and paramatizing reports, Date and Date Time fields are treated as Dates only. This is, since commonly information in Databases is stored by date and the time component is deemed insignificant.

In certain situations it is necessary to paramatize on the Date and the Time. To force Sage Intelligence Reporting to pass full Date and Time values to the underlying database system you must check on the advanced property **Use Time with Dates** option on the specific connection in the Connector. If you do this all Dates will be passed through to the Database as Date and Time for reports belonging to the connection. Additionally the Sage Intelligence Reporting Calendar that is used in report parameterization will include a Time selection option.
Selecting Date Times in Report Parameters

It is preferable to use the Sage Intelligence Reporting Calendar when selecting Dates Times in Parameters. If you prefer to key in Date Time values for a Report Parameter or Filter it is best to use the format **dd mmm yyy hh:mm:ss** to avoid ambiguity and Date errors. for example, 19 January 2008 13:15:00 or 19 Jan 2008 13:15:00.

In this way Sage Intelligence Reporting can unambiguously translate the date and time into the format expected by the underlying Database system.
Configuring the Sage Intelligence Reporting Rendering Engine

The Sage Intelligence Reporting data rendering engine can be configured to include or omit certain steps in the rendering process. Note that these changes are global and affect how all your Sage Intelligence Reporting reports run. The default settings should only be changed if there is a specific reason for the change. Usually these settings are only changed when trying to isolate problems for slow running or problematic reports.

To change configuration settings Launch the Connector. Select the Sage Intelligence Reporting Enterprise object in the Object Window and on the Tools menu click Configure Excel Output Engine.

The screen shown below will appear:
Toggle on or off the required settings and then click **OK**. Each setting corresponds to a step performed by the Sage Intelligence Reporting rendering engine. Switching the setting off will stop that step from running for all reports until such time that the setting is set back on.

**An explanation for each option is listed below:**

- **Refresh Add-In Links** - Refreshes links in Microsoft Excel to Add-In libraries. This option is necessary when functions are used in your workbooks that are outside of the standard Microsoft Excel function set (for example, functions in the Analysis Toolpak add-in).

- **Write Book Summary Information** - Writes report summary information to each workbook.

- **Refresh Pivot Table Data** - Refreshes Pivot Table data for all pivot tables in a report.

- **Name Ranges and Update Microsoft Excel Formulae** - Applies Sage Intelligence Reporting standard Name Ranges for data columns and data ranges as well as updating formulae which might reference Named Ranges. N.B. Do not switch this option off if any of your reports use Named Ranges or Sage Intelligence Reporting Microsoft Excel Formulae type expressions defined in your Data Containers.

- **Force Book Recalculation** – This option instructs the workbook to recalculate all formulae after data has been rendered. If you switch this option off then your reports will have to be manually recalculated by the user. It is best not to turn this option off.

- **Allow Running of Add-Ins** - This step runs the Sage Intelligence Reporting Add-in functions defined on reports. Only switch this option off for debugging purposes.

- **Allow Running of Template Macros** - This step runs the Template Macros defined on reports. Only switch this option off for debugging purposes.

- **Allow Autoformatting of Data Sheet** - This step facilitates the automatic formatting of raw data sheets, for example, column widths.

- **Allow Retaining of Run Instances** - This step facilitates the saving of
report instances at run time.

- **Allow Run Instance Auditing** - This step facilitates the saving of report audit instances at run time.

- **Allow Output File Generation** - This option allows reports to be saved to a specific location.

- **Take Tight Control of Microsoft Excel** - Allows Sage Intelligence Reporting to take tight control of Microsoft Excel while running a report. This is to stop a user from causing problems with a report while it is running. Switching off this option could cause your reports to be unreliable and is not recommended. Use this option for debugging problematic reports only.

- **Take Tight Control of Workbook** - Allows Sage Intelligence Reporting to take tight control of the Microsoft Excel Workbook for a report while running a report. This is to stop a user from causing problems with a report while it is running. Switching off this option could cause your reports to be unreliable and is not recommended. Use this option for debugging problematic reports only.

- **Allow Book to Close on Completion** - This option allows reports to be closed on completion automatically. This option is generally used for reports which have been set to run unattended.

- **Automatically Activate Reports** - This option allows Sage Intelligence Reporting to activate reports on completion, for example, you want to run a number of reports in sequence on a monthly basis, so set a command in the properties of the first report to automatically run the next report as soon as it has run, and so on.

- **Lock Windows when Locking Workbooks** - This option can be used to select the way you wish Sage Intelligence Reporting to Lock Workbooks when the "Protect the Output Book" option is used on a report. Leaving the option on will cause Workbook Windows to be locked as well as the Workbook Data and structure. Switching it off will only lock Workbook data and structure and not the actual Workbook Window.

- **Forces Reports to Abort if no data returned** - This option can be used to configure the way in which a report that obtains no data during its
"Data In" phase continues. If this option is set on then the report will abort, saving some time. If the option is set off then the report will continue to run but with no data.

- **Allow Render Delays for User Cancel** - This option is used to allow a user the option of canceling a report while it is running data into Microsoft Excel. This option, although useful, significantly slows down the data out phase of a report run. Switch this option off to speed report execution time. If you have problematic reports that need the user cancel facility then this option should be checked on.

- **Refresh Microsoft Excel Formulae in Raw Data** - If Microsoft Excel formulae are used in a container and then in a report, it can come through uncalculated or with errors. Selecting this option will force Microsoft Excel to recalculate these.

- **Maintain Pivot Cache Cube Connections** - For cube reports this instructs Microsoft Excel to keep a database connection to the cube open while the book is open so that each drill down in the pivot table does not need to reconnect to the cube. If this option is off (the default) then Microsoft Excel reconnects to the cube on each Pivot query.

- **Attempt repair Colorless Charts in Microsoft Excel 12** - Some templates that were created in Microsoft Excel 2003 or earlier versions lose their colors when run out into Microsoft Excel 2007 due to a change between versions. This option attempts to run out the reports and repairing the chart colors.

- **Allow Running of Hook** - A workbook generated by the running of a report, can be customized by an external dll.
Compacting MetaData

Compacting your MetaData occasionally can result in improved system performance. Depending on your usage levels it may be desirable to do this more often.

1. Select File.

2. Select Compact Metadata.

3. A window will appear stating that Sage Intelligence Reporting must shut down.

4. Select Yes.

5. The Maintenance Utility will then open.
6. Select **Compact SVD**.

7. A **Confirm** message box will appear.

8. Select **Yes**.

9. The Sage Intelligence Reporting Maintenance Utility window will be populated with commands as it gets executed.

10. When it has completed, a message will appear, asking you to delete the backup file after verifying that Sage Intelligence Reporting is working
correctly.

11. Select **OK**.

12. The backup file can either be deleted or kept as an additional backup.
Direct SQL Query Tool

The Direct SQL Query tool allows direct interrogation via SQL of data within your Connector defined Data Connections. The query tool allows only SELECT queries and {call} type queries for stored procedure execution (if supported). UPDATE, DELETE and INSERT and DDL (Data Definition Language) queries are not allowed.

Launch the tool from your Connector. Click on the Enterprise object. Click on Tools, Direct Query Tool, and then edit and execute SQL queries.

To execute a Query either select:

- Query > Execute or
- Press the F5 key

If a certain part of the Query text has been highlighted then only this portion of the query will be executed.

Note that the SQL syntax from driver to driver may differ. Consult the documentation for a each system for more information.

Query results can be displayed in the tools own query results grid or it can be rendered directly into a new Microsoft Excel Workbook. To toggle the output modes select the menu item:

- Query > Results to grid or
- Query > Results to Microsoft Excel

A Direct SQL Query window is shown below.
Query files can be saved and opened from the **File** menu.
How Data is Rendered

Sage Intelligence Reporting always outputs the data for a report to the first (left most sheet) in a workbook. Subsequent worksheets in the workbook are available for you to create your report output formats.

The expression names for the columns in the report are placed in the first row of the worksheet as the column headings. Sage Intelligence Reporting then uses Named Ranges on the data columns and the used data range. Although these Named Ranges do not have to be used by the rest of the report they can be useful and provide more clarity in formulae and ranges that you use in your report formulae and Pivot Tables. Sage Intelligence Reporting names each column of raw data with the same name as the Column Heading for the column but replaces any special characters (which are not allowed in named ranges) with underscore characters.

Note: When you use Excel Formulae in your Sage Intelligence Reporting Data Containers then you should reference columns in the raw data by their Named Range headings. For example if you have a Data Expression called *Order Date* in your container and you want a Data Expression that uses a Microsoft Excel Formula to extract the month from the Order Date then you could create a Data Expression of type Excel Formula and then set the source to `MONTH(Order_Date)`. Here we have used the standard Excel Formula `MONTH` and referenced the *Order Date* expression. Note that an underscore has been used to replace the space character between the words Order and Date (since special characters are not allowed in Named Ranges).

If a column in a report has a column heading beginning with a numeric then the Name Range applied to the column will be prefixed with an underscore (Since Named Ranges cannot begin with a numeric). You will also need to bear this in mind if you reference such a field using an Excel Formula in a Container Data Expression.

Lastly Sage Intelligence Reporting names the range of all the Columns in the Raw Data range as `RawDataCols` and the range of the Rows and Columns used by the Raw Data as `RawData`. These two named Ranges
can be very useful when Pivot Tables feed off the Raw Data. Rather than using the column ranges (for example, Sheet1!$D:$J) for the source of a Pivot Table use the Named Range RawData (or RawDataCols), for example, Sheet1!RawData. In this way if new Display Columns are later appended to a report then the Range of the Pivot Table(s) will not have to be extended to include these (since with the Named Range the inclusion will be automatic).
Report Manager Interface

The Report Manager Interface allows users to design and manage their own reports and to display results in Microsoft Excel.

To use the functions of the Report Manager Interface you will first need to select an object (i.e. a Folder or Report) in the object window. When you have selected an object in the object window, you can edit the properties of your chosen object by using the property fields provided in the properties window. To save any changes you make to the properties of your chosen object, you must click the Apply button.

The Report Manager Interface also includes a standard windows menu bar and a Report Manager Toolbar to simplify its use.
# Report Manager Toolbar

The Report Manager Toolbar has various Icons:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Add Icon]</td>
<td>Add</td>
<td>Enables the user to add new folders and reports</td>
</tr>
<tr>
<td>![Delete Icon]</td>
<td>Delete</td>
<td>Enables the user to delete their selection</td>
</tr>
<tr>
<td>![Properties Icon]</td>
<td>Properties</td>
<td>Displays context specific object properties</td>
</tr>
<tr>
<td>![Refresh Icon]</td>
<td>Refresh</td>
<td>Refreshes on screen properties of the selected object</td>
</tr>
<tr>
<td>![Copy Icon]</td>
<td>Copy</td>
<td>Copies the selected object to the clipboard</td>
</tr>
<tr>
<td>![Paste Icon]</td>
<td>Paste</td>
<td>Pastes an object from the clipboard into the selected object</td>
</tr>
<tr>
<td>![Move To Icon]</td>
<td>Move To</td>
<td>Moves a connection or a container</td>
</tr>
<tr>
<td>![Check/Test Icon]</td>
<td>Check/Test</td>
<td>Use this to check that a report satisfies minimum requirements to function correctly. Minimum requirements are that at least one Column is selected and that if a template has been assigned to the report then that the template exists</td>
</tr>
<tr>
<td>![Run Icon]</td>
<td>Run</td>
<td>Runs a report</td>
</tr>
<tr>
<td>![Run Sample Icon]</td>
<td>Run Sample</td>
<td>Runs a report using just a sample of the data (sample size is specified by the user). Useful when designing and testing reports that are data intensive</td>
</tr>
<tr>
<td>![Create Template Icon]</td>
<td>Create template</td>
<td>Enables the user to create a template for the current report from an open Microsoft Excel workbook</td>
</tr>
<tr>
<td>![Un-link Template Icon]</td>
<td>Un-link Template</td>
<td>Enables the user to un-link a template from the current report</td>
</tr>
<tr>
<td>Icon</td>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td><img src="image" alt="Design" /></td>
<td>Design</td>
<td>Allows the user to design a report by opening its template in Microsoft Excel for modification</td>
</tr>
<tr>
<td><img src="image" alt="Lock" /></td>
<td>Lock</td>
<td>Locks the current report</td>
</tr>
<tr>
<td><img src="image" alt="Unlock" /></td>
<td>Unlock</td>
<td>Unlocks the current report</td>
</tr>
<tr>
<td><img src="image" alt="History" /></td>
<td>History</td>
<td>Displays a Reports Run History</td>
</tr>
<tr>
<td><img src="image" alt="Help" /></td>
<td>Help</td>
<td>Display Help Files</td>
</tr>
<tr>
<td><img src="image" alt="Export a Report" /></td>
<td>Export a Report</td>
<td>Enables the export of reports for import to other Sage Intelligence Reporting systems</td>
</tr>
<tr>
<td><img src="image" alt="Generate Scheduler Command" /></td>
<td>Generate Scheduler Command</td>
<td>Generates the command to run the report unattended</td>
</tr>
<tr>
<td><img src="image" alt="Run Report Batch" /></td>
<td>Run Report Batch</td>
<td>Runs all the reports in the chosen folder from top to bottom</td>
</tr>
<tr>
<td><img src="image" alt="Add Consolidation report" /></td>
<td>Add Consolidation report</td>
<td>Runs a report that contains macros with the purpose of consolidating data from various other workbooks</td>
</tr>
<tr>
<td><img src="image" alt="Unlock Microsoft Excel" /></td>
<td>Unlock Microsoft Excel</td>
<td>It is possible that if a report runs into rendering problems Microsoft Excel can be left locked. Clicking this will unlock Microsoft Excel and allow user interaction</td>
</tr>
<tr>
<td><img src="image" alt="Security Manager" /></td>
<td>Security Manager</td>
<td>Opens the Security manager</td>
</tr>
</tbody>
</table>
## Using Shortcut Keys

You can use various shortcut keys as follows:

<table>
<thead>
<tr>
<th>Shortcut Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTRL-R</td>
<td>In the Report Manager, this runs the selected report</td>
</tr>
<tr>
<td>CTRL-N</td>
<td>Moves to the next object in the object window</td>
</tr>
<tr>
<td>CTRL-P</td>
<td>Moves to the previous object in the object window</td>
</tr>
<tr>
<td>CTRL-O</td>
<td>Displays the properties of the selected object</td>
</tr>
<tr>
<td>CTRL-C</td>
<td>Copies the selected object</td>
</tr>
<tr>
<td>CTRL-V</td>
<td>Paste an object from the clipboard</td>
</tr>
<tr>
<td>DEL</td>
<td>Deletes the selected object</td>
</tr>
<tr>
<td>SHIFT</td>
<td>In the Connector holding down the Shift key will toggle the display in the object window to show the Container and Expression Source property value instead of object name. This provides a quick method when trying to locate specific expressions</td>
</tr>
<tr>
<td>F12</td>
<td>Adds a child object to the selected object</td>
</tr>
<tr>
<td>F2</td>
<td>Renames the selected object</td>
</tr>
<tr>
<td>F5</td>
<td>Refreshes the object list</td>
</tr>
</tbody>
</table>
Creating a Folder

A folder enables the user to manage reports in a logical subject grouping. For example, a Sales folder will typically contain all sales related reports.

Method

1. Select the Sage Intelligence Reporting **Home** object in the **Object Window**.

2. On the Toolbar, click the Add button.

3. The following dialog box will appear.
4. Enter a name for your folder (for example, Sales or Inventory)

5. Click OK.

The new folder will now appear in the object window.
Edit Folder Properties

To edit the properties of a folder, select the folder you want to edit and on the toolbar, click the Properties button. The Properties window will be displayed.

Type your amendments and click OK.
Edit Report Properties

To edit the properties of a report, select the report you want to edit in the left pane and make the amendments in the properties fields in the right pane.

A report property which is not available on this properties screen is the source container (the container from which this report was created).

To view this information:

1. In the object window, double-click on the report.
2. Double-click on Source Container.
3. The source container name will then be displayed beneath the source container line.
4. If you wish to go to this container within the Connector then proceed as follows:
a. Right-click on the source container name (the name which appeared in step 3).

b. Select **Go to Container In Connector**. (See also **Go to Container** Topic)

c. Click **Yes** to continue.

d. The Connector will open displaying the source container.
Comparison Methods

Comparison Methods are used with filters and parameters to refine or limit the rows that are returned to a report. Note that when doing string comparisons, the comparisons may or may not be case sensitive. This will depend on the underlying data source. An example for each comparison method is shown below:

<table>
<thead>
<tr>
<th>Comparison Method</th>
<th>Example</th>
<th>Search Objective</th>
<th>Alpha/Numeric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal To</td>
<td>South Africa</td>
<td>True when the expression contains 'South Africa'</td>
<td>Both</td>
</tr>
<tr>
<td>Greater Than</td>
<td>100</td>
<td>True when the expression is greater than 100</td>
<td>Both</td>
</tr>
<tr>
<td>Less Than</td>
<td>100</td>
<td>True when the expression is less than 100</td>
<td>Both</td>
</tr>
<tr>
<td>Greater Than Or Equal To</td>
<td>100</td>
<td>True when the expression is greater than or equal to 100</td>
<td>Both</td>
</tr>
<tr>
<td>Less than Or Equal To</td>
<td>100</td>
<td>True when the expression is less than or equal to 100</td>
<td>Both</td>
</tr>
<tr>
<td>Is Like</td>
<td>%S%3%</td>
<td>True when the expression contains an 'S' and a '3' (but not before the 'S')</td>
<td>Alpha</td>
</tr>
<tr>
<td>Condition</td>
<td>Pattern</td>
<td>Description</td>
<td>Type</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Not Equal To</td>
<td>Ken</td>
<td>True when the expression is not equal to 'Ken'</td>
<td>Both</td>
</tr>
<tr>
<td>Begins With</td>
<td>Darang</td>
<td>True when the expression begins with 'Darang'</td>
<td>Alpha</td>
</tr>
<tr>
<td>Ends With</td>
<td>K</td>
<td>True when the expression ends with 'K'</td>
<td>Alpha</td>
</tr>
<tr>
<td>Contains</td>
<td>Woodridge</td>
<td>True when the expression contains the text 'Woodridge'</td>
<td>Alpha</td>
</tr>
<tr>
<td>Does Not Begin With</td>
<td>doc</td>
<td>True when the expression does not begin with 'doc'</td>
<td>Alpha</td>
</tr>
<tr>
<td>Does Not End With</td>
<td>s</td>
<td>True when the expression does not end with 's'</td>
<td>Alpha</td>
</tr>
<tr>
<td>Does Not Contain</td>
<td>@</td>
<td>True when the expression does not contain '@' symbol</td>
<td>Alpha</td>
</tr>
<tr>
<td>Is Not Null</td>
<td></td>
<td>True when the expression is Not Null</td>
<td>Both</td>
</tr>
<tr>
<td>Condition</td>
<td>Value</td>
<td>Description</td>
<td>Type</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Is Null</td>
<td>Null</td>
<td>True when the expression is Null</td>
<td>Both</td>
</tr>
<tr>
<td>Is In</td>
<td>1,3,4</td>
<td>True when the field is equal to one of the values in the comma separated list</td>
<td>Both</td>
</tr>
<tr>
<td>Is Not In</td>
<td>1,3,4</td>
<td>True when the field is not equal to any of the values in the comma separated list</td>
<td>Both</td>
</tr>
<tr>
<td>Is Not Like</td>
<td>%S%3%</td>
<td>True when the expression does not contain an 'S' and a '3' (but not before the 'S')</td>
<td>Alpha</td>
</tr>
<tr>
<td>Is In Sub Query</td>
<td>Report ID</td>
<td>True when the results from a field are contained within the results from the specified Sub Query Report</td>
<td>Both</td>
</tr>
<tr>
<td>Is Not In Sub Query</td>
<td>Report ID</td>
<td>contained within the results from the specified Sub Query Report</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>----------</td>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Is In Parallel Query</td>
<td>Report ID</td>
<td>True when the results from a field are contained within the results from the specified Sub Query Report</td>
<td></td>
</tr>
<tr>
<td>Is Not In Parallel Query</td>
<td>Report ID</td>
<td>True when the results from a field are not contained within the results from the specified Sub Query Report</td>
<td></td>
</tr>
</tbody>
</table>
Like Operator

The Like Operator is used in Filters and Parameters for doing pattern matching. Combinations of literal characters and wildcard characters can be used to locate patterns. The two wildcard characters that are supported by most Data Access Drivers are the _ (underscore) wildcard; which means any single character, and the % (percent) wildcard; which means any zero or more characters. For example the pattern _a_b% would match any words that have an 'a' as the second character and a 'b' as the fourth character.

Additional symbols for pattern matching are supported by some Data Access Drivers. These may include:

<table>
<thead>
<tr>
<th>Symbol(s)</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>Any single character within the specified range ([a-f]) or set ([abcdef])</td>
<td>'A-J%' is requesting words having the first letter between A and J</td>
</tr>
<tr>
<td>#</td>
<td>Any single numeric character</td>
<td>'A#%' is requesting words beginning with an A and having a numeric in the second position</td>
</tr>
<tr>
<td>[^]</td>
<td>Any character not within the specified range ([^a-f]) or set ([^abcdef])</td>
<td>'S[^l]%' is requesting words beginning with S and not having a 1 in the second position</td>
</tr>
</tbody>
</table>
System Variables

System variables can be used with Parameters and Filters to dynamically determine a comparison Value at report Run Time. An example of this is where a report is run and expected to return data for the current day. In this example a Filter could be set on the report for a Date field and the filter comparison value (or comparator) could be set to the system Variable @DATE@. When the report is run the system variable @DATE@ in the filter comparator will be replaced with the current date.

To select a System Variable when adding a Filter or Parameter click the System Variable button on the Enter Comparison Value screen. The Select System Variables screen (shown below) will appear. Select the required System Variable and click OK.
Custom System Variables

Note that the set of available System Variables defined can be extended by adding Custom System Variables to the *Alchemex.ini* file under the section *[GlobalSysVars]*. These Custom System Variables are hard coded values in the *Alchemex.ini* file and cannot contain script logic. Each Variable must be added on a separate line under the section and must also be added to the comma separated list defined in the *Active* key under the *[GlobalSysVars]* section. An example of two Custom System Variables defined in the *Alchemex.ini* file is shown below. With this example the System Variables @FINYEARSTART@ and @FINYEAREND@ will be available to all reports in the Sage Intelligence Reporting system.

```
[GlobalSysVars]
Active=@FINYEARSTART,@FINYEAREND@
@FINYEARSTART@=01 March 2004
@FINYEAREND@=28 February 2005
```
System Variable Format

System Variables must always be prefixed and suffixed with a single @ symbol and must contain no other occurrences of an @ symbol. System Variable names must be unique. System Variables that do not comply to this format will not be recognized by Sage Intelligence Reporting.
Considerations when using System Variables in Reports

It should be noted that Custom System Variables are defined in the Alchemex.ini file. Due to this the set of Custom System Variables will vary from site to site. If Custom System Variables are used on a report intended for distribution then the same definitions will have to be created at the destination sites. Ordinary System Variables are available to all Sage Intelligence Reporting sites without the requirement to create them. This means that Reports intended for distribution should avoid using Custom System Variables where possible.
Listing Available System Variables

To obtain a list of all available system variables (Standard and Custom) select the Sage Intelligence Reporting Home object in the Report Manager and from the Tools menu select **Show System Variables**. A list of all available System Variables will be displayed.
Add or Remove Columns

Adding or removing Columns enables the user to manage the data that will be displayed in the report by identifying what Columns should be included or removed.
Add Columns to your report:

1. Select the report where you want to add columns.
2. In the Object Window, click on the Columns tab.
3. In the Object Window, click on the Add button, the Choose Column Fields dialog box will be displayed.
4. Select the Columns you would like to add to your report and click on OK. 
   You have now successfully added Columns to your report.
To Remove Columns

1. In the Properties Window, select the Columns that you would like to delete.

2. Click the Remove button.
Edit Column Properties

To edit the Properties of a Column, select the Column you want to edit and on the Toolbar click the Properties button. The **Properties** window will be displayed.

Whilst editing columns, you can change the Aggregate Function. An example where you would use an Aggregate Function is if you want to sum sales by Customer.

Before using an Aggregate function, the report needs to have an unique identifier such as an Invoice number. Also ensure the report does not have too many variables, then the function will not work.

Use the drop down arrow on the Aggregate Function Field to make your selection as follows:

<table>
<thead>
<tr>
<th>Aggregate Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>No aggregate function is applied to the Column and no data grouping occurs</td>
</tr>
<tr>
<td>Average</td>
<td>The average value for this Column will be used and the remainder of the fields which have no aggregate functions applied will be grouped into distinct rows</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Count</td>
<td>A count value for this Column will be used and the remainder of the fields which have no aggregate functions applied will be grouped into distinct rows</td>
</tr>
<tr>
<td>Maximum</td>
<td>A Maximum value for this Column will be used and the remainder of the fields which have no aggregate functions applied will be grouped into distinct rows</td>
</tr>
<tr>
<td>Minimum</td>
<td>A Minimum value for this Column will be used and the remainder of the fields which have no aggregate functions applied will be grouped into distinct rows</td>
</tr>
<tr>
<td>Sum</td>
<td>A Sum value for this Column will be used and the remainder of the fields which have no aggregate functions applied will be grouped into distinct rows</td>
</tr>
</tbody>
</table>

When you have made your selection click on **OK**. Aggregate functions can be applied to multiple columns at once by selecting the columns, right-click and selecting **Apply Aggregate**. Please note only value fields can have an Aggregate function.
Change Order of Columns

Changing the order of Columns changes the order of the data Columns in Microsoft Excel. To change the order of columns for reporting, select the Column that you would like to move.

Use the Move Up or Move Down buttons to change the order of your columns. Alternatively drag and drop the columns into the correct order.
Add or Remove Filters

Adding or removing Filters enables the user to refine or limit the rows of data that will be displayed in the report. To add or remove Filters from your report, select the report where you want to add or remove Filters and then click on the Filters Tab.

The existing Filters that you have selected will be displayed.

Add Filters:

1. In the Properties Window, click the Add button and the Choose Filter Field dialog box will appear.

2. Select the Filter Field you would like to add to your report and click OK.

3. The Choose Comparison Method dialog box will appear.
4. Choose your comparison method and click **OK**. The **Enter Comparison Value** window will appear.

5. You may now either:
   - Enter your Comparison Value in the field provided, or
   - Use the lookup button to view a selection Comparison Values, and click **OK**.

6. **Note:** The Lookup facility will only be available if it has been enabled in the Connector for this expression. See Add Data Expressions.

7. Use the Select System Variable button to view a list of System Variables, and click **OK**.
   **Note:** For further information about System Variables see System Variables.

8. The new Filter should now appear on the Filters Tab.
   To remove Filters, in the Properties Window, select the Filters that you would like to delete and click the **Remove** button.
Edit Filter Properties

To edit the properties of a Filter, select the Filter you want to edit and on the Toolbar click the Properties button. The Properties window will be displayed.

Enter your amendments in the active fields provided. For more help see using Comparison Operators.

Select the check box options according to your requirements as follows:

<table>
<thead>
<tr>
<th>Check Box Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use 'OR' Logic</td>
<td>By default when multiple filters are used on a report they are applied using Boolean AND logic. So for data to satisfy filters with AND logic all the filters must evaluate to true. When OR logic is used only one of the filters needs to</td>
</tr>
<tr>
<td>evaluate to true</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>Prefix With Logic Break</td>
<td></td>
</tr>
<tr>
<td>Where complex Boolean Logic is needed for combing filters that use combinations of AND and OR logic then logic breakers can be used to group filters together. Use this setting to prefix the filter with a logic breaker</td>
<td></td>
</tr>
<tr>
<td>Suffix With Logic Break</td>
<td></td>
</tr>
<tr>
<td>Where complex Boolean Logic is needed for combing filters that use combinations of AND and OR logic then logic breakers can be used to group filters together. Use this setting to suffix the filter with a logic breaker</td>
<td></td>
</tr>
</tbody>
</table>

When you have entered your selections click on OK.
Column to Column Filtering

To filter data based on a comparison between two expressions, follow the steps below:

1. First add a normal filter as in *Adding a Filter* Topic choosing one of the Container fields that should participate in the Column to Column filter.

2. Then select the newly added filter (or Aggregate Filter) on the reports Filters Tab.

3. Press the Properties button on the Toolbar.

4. Scroll down on the properties window to the property *Filter Type*. Change the *Filter type* from Normal Filter to Column to Column Filter and click Apply.

5. The Property screen will update and the Comparator property will now be a drop down box of the available columns to Compare with.

6. Choose the column to compare with and apply the changes.

For a Column to Column filter the property window should look like this:
**Note**: Should you wish to export a report that uses a Column to Column filter, then on import thereof you have to reset the column to column filter. This is due to the fact that the expression ID on the column before export will not be the same as the expression ID on that same column after import.
Change Order of Filters

Changing the order of Filters enables the user to pre-determine the order in which the Filters are applied when running the report. To change the order of Filters for reporting, select the Filter that you would like to move.

Use the Move Up or Move Down buttons to change the order of your Filters. Alternatively Drag and Drop the Filters into order.
Using Variables in Other Report Properties

Variables (System and Pass Through) variables can also be used in certain properties on a report to dynamically effect them when a report is run. Some scenarios where this might be useful are listed below:

**Example 1**
You are specifying an output file in the “Generate Output File” property on a report and you want the file name to not be totally hard coded but to be effected by the System Variable such as the today's date (@DATE@).
In the “Generate Output File” property specify a file name such as C:\MyReports\Sales_@DATE@.xls
Whenever the report is then run a copy will be saved with the name “Sales_” plus the date.

**Example 2**
You are specifying an output file in the “Generate Output File” property on a report and you want the file name to not be totally hard coded but to be effected by a Pass Through Parameter on the report named @REGION@
In the “Generate Output File” property specify a file name such as C:\MyReports\Sales_@REGION@.xls
Whenever the report is then run a copy will be saved with the name “Sales_” plus the Parameter specified for the @REGION@ pass through variable.

**Example 3**
You are using the PublishSheet Add-In on a report to publish to an HTML output file using the “Run Add-Ins” property on the report. You want the HTML file name to be effected by a Pass Through Parameter on the report named @REGION@
In the “Run Add-Ins” property specify something similar to this: PLPLUGA.C.PublishSheet(Pivot,\myserver\intranet\reports\Sales_@REC
Whenever the report is then run a copy will be published with the name “Sales_” plus the Parameter specified for the @REGION@ pass through variable.
**Example 4**

You are using the EmialSMTP Add-In on a report to email the report using the “Run Add-Ins” property on the report. You want the Email address to be dynamic based on a Pass Through Variable that is entered at run time. The pass through variable is named @EMAILTO@

In the “Run Add-Ins-” property specify something similar to this:

```
PLPLUGA.E.MailSMTP(MySMTPServ13,@EMAILTO@,me@myservo.qq,Sales Report,Please see attached file.,1,Report.xls)
```

Whenever the report is then run a copy will emailed to the email address specified in the parameter for the pass through variable @EMAILTO@

**Example 5**

You have written a macro into your reports template file in Microsoft Excel that requires a Sales Rep to be passed in at Run time. The Macro is called AnalyseSalesRep and takes one parameter for the Sales Rep Code. You have defined a Pass Through Variable in the container and on the report called @SALESREP@ that you wish to pass in to the Macro so it can perform some specific logic.

In the “Run Macros” property specify something similar to this:

```
AnalyseSalesRep(@SALESREP@)
```

Whenever the report is then the Macro will receive the selected Sales Rep code and execute.
Add or Remove Parameters

Adding or removing Parameters enables the user to refine or limit the rows of data that will be displayed in the report based on Run Time user selections.

Method

1. Select the report where you want to add or remove Parameters and click the Parameters Tab.

2. The existing Parameters that you have selected will be displayed.

3. To add a Parameter, click on the Add button, the Choose Filter Field dialog box will appear.

4. Select the Filter Field you would like to add as your Parameter and click OK.

5. The Choose Comparison Method dialog box will appear.
6. Choose your comparison method and click **OK**. The **Enter an Optional Default for the Parameter** dialog box will appear.

![Enter an Optional Default for the Parameter](image)

7. You may now either:
   - Enter your **Optional Default** value in the field provided, or
   - Use the lookup button ![lookup](image) to search for an Optional Default Value, and click **OK**.

8. **Note**: The Lookup facility will only be available if it has been enabled in the Connector for this expression. See **Add Data Expressions**. Use the Select System Variable button to view a list of System Variables, and click **OK**.

![Select System Variable](image)

**Note** For further information about System Variables see **System Variables**.

9. The new Parameter should now appear on the Parameters tab. To remove Parameters, select the Parameters that you would like to delete and click on the **Remove** button.
Edit Parameter Properties

To edit the properties of a Parameter, select the Filter you want to edit and click on the properties icon 📊. The Properties window will be displayed.

Enter your amendments in the active fields provided. Click here for help on using Comparison Operators.

<table>
<thead>
<tr>
<th>Check Box Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use 'OR' Logic</td>
<td>By default when multiple filters are used on a report they are applied using Boolean AND logic. So for data to satisfy filters with AND logic all the filters must evaluate to true. When OR logic is used only one of the filters needs to evaluate to true.</td>
</tr>
</tbody>
</table>
Where complex Boolean Logic is needed for combing filters that use combinations of AND and OR logic then logic breakers can be used to group filters together. Use this setting to prefix the filter with a logic breaker.

| Prefix With Logic Break | | Where complex Boolean Logic is needed for combing filters that use combinations of AND and OR logic then logic breakers can be used to group filters together. Use this setting to prefix the filter with a logic breaker. |
|-------------------------|------------------------|

| Suffix With Logic Break | | Where complex Boolean Logic is needed for combing filters that use combinations of AND and OR logic then logic breakers can be used to group filters together. Use this setting to suffix the filter with a logic breaker. |
|-------------------------|------------------------|

When you have entered your selections click on **OK**.
Change Order of Parameters

Changing the order of Parameters enables the user to pre-determine the order in which the Parameters are prompted for when running the report and also the order in which they are logically applied to limit the report rows. To change the order of Parameters for your report, select the Parameter that you would like to move.

Use the Move Up or Move Down buttons to change the order of your Parameters. Alternatively Drag and Drop the Parameters into order.
Add or Remove Sort Fields

Sorting fields enables the user to pre determine the order of the data rows in the report.

Method

1. Select the report where you want to add or remove sort fields and click the Sort Fields Tab.

2. The Sort Fields that you have selected will be displayed.

3. To add a Sort Field, click the Add button, the Choose Sort Fields dialog box will appear.

4. Select the Sort Field you would like to add and click OK. You have now successfully added a sort field to your report.

To remove a sort field, in the Properties Window, click the Sort Field you would like to delete and click the Remove button.
Change Order of Sort Fields

Changing the order of Sort Fields enables the user to change the precedence of the Sort Fields in the report. The Sort Field which has the highest precedence is applied first and then all subsequent Sort Fields are applied as a sub-sort within the preceding sort operation.

For example choosing two Sort Fields, the first being Surname and the second being First Name will sort rows by Surname and then by First Name. To change the order/precedence of Sort Fields for your report, select the Sort Field that you would like to move.

Use the Move Up or Move Down buttons to change the order of your Sort Fields. Alternatively Drag and Drop the Sort Fields into order.
Change Sort Field Ascending/Descending Order

Changing the Sort Field ascending/descending order changes the Sort Order of the Sort (for example descending on text would sort alphabetically from Z to A). To change the order of your Sort Field from Ascending to Descending or vice versa, select the Sort Field you would like to amend (Note: An arrow pointing upwards indicates an ascending sort order)

Click the Asc/Desc button [Asc/Desc] to toggle between Ascending and Descending sort order.
(Note: The arrow will point downwards when the sort order is changed to descending.)

You have now successfully changed the Sort Order of your Sort Fields.
Add or Remove Aggregate Filters

Adding or removing Aggregate Filters enables the user to refine or limit the rows of data that will be displayed in the report based on aggregation criteria (equivalent to a HAVING clause in SQL).

To add or remove Aggregate Filters from your report, select the report where you want to add or remove Aggregate Filters and then click the Aggregate Filters Tab.

Method

1. Click on the **Add** button. The **Choose Filter Field** dialog box will appear.

2. Select the **Filter Field** you would like to add to your report and click **OK**.

3. The **Choose Comparison Method** dialog box will appear.
4. Choose your comparison method and click **OK**.
The **Enter Comparison Value** dialog box will appear.

![Enter Comparison Value Dialog Box]

5. You may now either:
   - Enter your Comparison Value in the field provided, or
   - Use the lookup button 📘 to view a selection Comparison Values, and click **OK**.

   **Note:** The Lookup facility will only be available if it has been enabled in the Connector for this expression. See **Add Data Expressions**.

6. Use the Select System Variable button 🍀 to view a list of System Variables.

![Select System Variable Dialog Box]

   **Note:** For further information about System Variables see **System Variables**.

7. The new Aggregate Filter should now appear on the Aggregate Filters Tab with a default Aggregate Function of **Count**. To change the Aggregate Function select the Aggregate Filter and on the Toolbar
select the **Properties** button. Select the Aggregate Function and click **Apply**.

To remove filters, in the Properties Window, select the Filters that you would like to remove and click the **Remove** button.
The Process Monitor

The Process Monitor window will be displayed at the base of your screen and will show all running report processes. Each report that is run executes as a new process.

For problematic reports that are taking too long to run and that cannot be cancelled use the process monitor to cancel (or kill) the report process. Using the Cancel facility on the process monitor should be a last resort to end a report.

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Launch Time</th>
<th>Run Time</th>
<th>Proc Handle</th>
<th>Exit Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>252</td>
<td>Sales Master 2...</td>
<td>2005/04/26 9:31</td>
<td>1:18</td>
<td>380</td>
<td>259</td>
</tr>
</tbody>
</table>

The Process Monitor is only visible when running reports from the Report Manager.
The Progress Status Window

The Progress Status window will be displayed on the right of your screen and will indicate the progress of your report.

Running a report occurs in two stages which can be seen by the Progress Status window. The first stage, being the "Data In" stage or the "Execution" stage, the stage at which data is being extracted from the underlying database as can be seen in the following screen:

![Image of Progress Status Window]

The second stage being the "Data Out" stage, is the stage at which the data is being rendered to Microsoft Excel.

Once a report has completed running, the data should be visible in a new workbook in Microsoft Excel.

Depending on the underlying Database system and your configuration of the rendering engine, the Progress Status may offer a cancel facility. This Cancel facility should be used as the preferred method for cancelling a report.
Home > Report Manager > Working with Reports > Run a Report > Running a Report with Parameters
Running a Report with Parameters

To run your report with Parameters, click on the Run Icon which will activate your report. The parameter prompt window will automatically be displayed.

You may now either:

- Enter your selection in the field provided or
- Use the lookup (where available) to search for a selection, and click on OK.

**Note:** The Lookup facility will only be available if it has been enabled by the System Administrator for this expression. See Add Data Expressions.

Also refer to Defining Parameter Lookups for more information on the lookup facility.

Once your data has been retrieved, Sage Intelligence Reporting will automatically open a Microsoft Excel workbook to display your data.
Home > Report Manager > Working with Reports > Run a Report > Editing a Report Template
The Design feature allows you to format a Microsoft Excel template that is attached to a report without having to run the report with all the data coming though. It is only active for reports that have an attached template.

1. In the Report Manager Module, Select the report you would like to make design changes to, and right-click on the report and select Design or, select the Design Icon from the Toolbar.

2. The following message box will open:

Select Yes. Your Template will then open.
3. Make your desired changes and save the workbook/template.

For example, add company logos, change font, color etc. You can then **create and link** your newly designed template. These changes will then be included in your template when you next run this report.
Advanced Options

Using advanced options enables a user to apply advanced settings to a report.

To enable the Advanced Options Menu on the Report Manager Interface you must check the Show Advanced check box.
To enable the advanced features for your report you will need to check the box alongside the advanced option you wish to enable. The Advanced Options features and their respective functions are as follows:

<table>
<thead>
<tr>
<th>Advanced Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameters on Second Sheet</td>
<td>An option to place the report runtime parameters on Sheet2 of the exported Microsoft Excel report. This could be very useful when Microsoft Excel formulae as per the actual report design depend on certain critical variables on Sheet2</td>
</tr>
</tbody>
</table>
| Report Locked                       | An option box to lock all Report Manager property fields of the selected report. Once it and the **Apply** button is selected, the user will be prompted to enter a case sensitive unlock password (entered twice to confirm) All tabs of the report (Properties, Filters, Columns etc.) will then be unavailable and no changes are further allowed. When changes need to made, the following need to be done:  
  - In the Report Manager, right-click on the relevant report and click Unlock  
  - Enter the correct password and click OK.  
  - All property tabs and their fields will now be available again |
<p>| Show Distinct Rows                  | An Option Box to ensure that no duplicate records are exported.                                                                                                                                 |
| Top Rows (Leave blank for All Rows) | Enter a numerical value of how many records (rows not including the heading row) should be exported, in accordance with the current report |</p>
<table>
<thead>
<tr>
<th>sort options</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Automatically Format First Sheet</strong></td>
<td>Ensures that, among others, any previous column row height or width changes made on Sheet1 of the relevant Microsoft Excel Template file are disregarded when the report is exported to the relevant Microsoft Excel Template file</td>
</tr>
<tr>
<td><strong>Hide the Source Data in Report</strong></td>
<td>An option box to ensure that the first worksheet of the exported Microsoft Excel file is automatically hidden. If no other security restrictions are in place, then it may still be possible to right-click on any worksheet tab at the bottom of the exported Microsoft Excel file and select Unhide to open the Unhide screen to unhide any specific automatically hidden worksheets from the list</td>
</tr>
<tr>
<td><strong>Protect the Output Book</strong></td>
<td>An Option Box to ensure that the exported Microsoft Excel file is read-only and not editable by unauthorized persons</td>
</tr>
<tr>
<td><strong>Retain All Run Instances</strong></td>
<td>This is disabled by default for performance reasons. Saves report run instances for audit purposes</td>
</tr>
<tr>
<td><strong>Keep Original Instance Audit</strong></td>
<td>This is disabled by default for performance reasons. This saves a runtime snap shot of a report for audit purposes</td>
</tr>
<tr>
<td><strong>Run Macros On Completion</strong></td>
<td>Insert the name of a Microsoft Excel macro that is linked to the selected report’s linked template file. The moment the report has been exported successfully to Microsoft Excel, the specified macro will also execute on it. If there is more than one macro that needs to be run then separates their names with semi-colons</td>
</tr>
<tr>
<td>Use the browse button on the right to select relevant add-ins to link to the selected report.</td>
<td></td>
</tr>
<tr>
<td>Run Add-ins</td>
<td>Reports can be exported to numerous other mediums besides Microsoft Excel, and the ability to execute a number of actions upon report runtime is available. These are all referred to as Add-ins and in detail discuss later in the manual</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Generate Output File</td>
<td>Use the browse button on the right to specify the location and Microsoft Excel file name that need to be created alternatively to the normal Microsoft Excel exported file, when the selected report is run. Having a value here will therefore not export the report in the name format: TEMPLATE1, but instead in the specified file name</td>
</tr>
<tr>
<td></td>
<td>E.g. If you don’t have a Generated Output File value upon report runtime, then, if the selected report’s template file is called XYZ then the exported file name will be called XYZ1.xls. Else with the Generate Output File value in place then the specified file name will be created</td>
</tr>
<tr>
<td>Close book on Completion</td>
<td>An option box to ensure that the Microsoft Excel Workbook is closed after running a report</td>
</tr>
<tr>
<td>Clear Additional Ranges on Create and Link</td>
<td>Data in all the Raw Data sheets get cleared when a Microsoft Excel book is linked to a report. If any additional ranges need to be cleared, name these ranges in this property</td>
</tr>
<tr>
<td>Clear Ranges on Export</td>
<td>Ranges are cleared when the report is exported.</td>
</tr>
<tr>
<td>An Option Box to hide the selected report from the Report Folder. When this option and the Apply button have been selected, the report will suddenly disappear from the Report Manager interface</td>
<td>To show hidden reports again, do the following:</td>
</tr>
</tbody>
</table>
1. Right-click the Home object.
2. Select the option: Show Hidden Reports.
3. Double click on the relevant Report Folder to refresh it and the hidden report will re-appear, although its hide property setting is still selected.
4. You can now either deselect the Report Hidden option on the Property tab to make it permanently available again, or decide to hide it any ways again by right-clicking on the Home Object and selecting the Do Not Show Hidden Reports option. Double click then on the Home object or relevant report folder to refresh the views.

<table>
<thead>
<tr>
<th>Make Available in Menus</th>
<th>An Option Box to make the selected report available from the front end of Sage Intelligence Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlock Report on copy</td>
<td>Unlocks the report when the report is copied, thus keeping the original intact</td>
</tr>
<tr>
<td>Requires Report Designer</td>
<td>Indicates that this report has the functionality built into it to take advantage of the Microsoft Excel Report Designer plug-in to auto generate report layouts</td>
</tr>
</tbody>
</table>

To hide the Advanced Option menu simply uncheck the Show Advanced check box.  

☑️ Show Advanced.
Clear Additional Ranges

When a Microsoft Excel workbook is linked back to a report (via Create and Link function), Sage Intelligence Reporting clears out the data for all the Raw Data Sheets (for a standard report this is always the first sheet, for Union Reports it is the sheets specified for each Union Child report.

If there are any other ranges that you would like cleared whenever the Create and Link function is used then you can name these ranges in this property and the ranges will be cleared each time the book is linked.
Report Viewer

Users who have been given access to Report Viewer can run various reports using this tool.

In the Report Manager, when a report is selected as **Allow Report Viewer and External Access**, it is available for selection via the Report Viewer.
The description as added in the Report Manager is therefore very important as this description will be displayed in the Report Viewer:
Importing and Exporting Reports

Sage Intelligence Reporting facilitates the easy transfer of information using simple yet powerful import and export procedures which enable the user to easily share information across installations. Using this facility, Reports can be created in one Sage Intelligence Reporting system and distributed to other Sage Intelligence Reporting systems.

Note that reports can be exported in a compressed file format, which in this case creates a .AL_ file.

To export Reports see Exporting a Report.
To import Reports see Importing a Report.
**Bulk Import**

This operation allows for the bulk importation of new reports that are obtained either from newer versions of Sage Intelligence Reporting or from existing reports.

- When doing a bulk import of new reports, current reports and settings are not deleted. The intention of bulk imports is to import new reports into the current metadata repository only and not modify current versions of reports and settings that were created and saved prior to the bulk import.

**Method**

1. Open your Report Manager.

2. Click **Bulk Import/Update Reports** either on the **Tools** menu or by right-clicking on the Home icon in the Object window.

![Bulk Import/Update Reports](image)

3. You will need to place any .al_ files that will be bulk imported/updated into their relevant subfolders as per the instructions that appear within the ‘Bulk Import/Update Reports’ dialog form, if not a new folder will automatically be created in the Report Manager for the new imported reports.
4. Once the files are in the correct location, click **YES** to proceed.

5. The new reports will be imported alongside any existing reports, if desired old reports may now be removed via the report manager.
Exporting Reports with Protection

If you are running a Solution Developer License of Sage Intelligence Reporting, then it is possible to protect your packaged export files for re-distribution. This allows you to protect your intellectual property from others while still allowing you to distribute and deliver your reports to other Sage Intelligence Reporting installations.

Protection happens at the Container and Container Expression level. Containers can be protected with a number of options. The Export Options screen for the Solution Developer is shown below. This screen only appears if you are the creator of the container (Container Owned by) used in a report that is being exported.

![Export Options for Report](image)

The export protection options are explained below.
Export File Usage Options

The concept of **Container Usage** exists so that report writers can restrict who can import their reports.

See the options available for Usage below:

1. **Allow anyone to import and export for re-distribution** - Selecting this option will allow the export file to be imported by anyone. Use this option when you are not concerned about the file being shared.

2. **Allow anyone to import and export but not export for re-distribution** - This option will create an export file that can be imported by any company. On import though the container created will be stamped for usage just by the company that is importing it. Any reports connected to the container that are later exported by the company can only be re-imported by that same company. This option is best suited for export files that will be made available on the Community.

3. **Allow only this named Company to import the file** - This option provides the most secure way to re-distribute your reports however it does require that you export a report every time you need to send it to a company.
Container Ownership in Destination System Options

The concept of **Container Ownership** exists so that report writers can protect their intellectual property, most commonly for re-sale of reusable reports. The Company which has **Ownership** should not be confused with the Company that is licensed for **Usage**. Only under special circumstances should you change Ownership of your Containers.

See the options below for Ownership:

1. **Retain Existing Ownership** - This is the default option and should be left as this to keep ownership of your Container intellectual property in all Sage Intelligence Reporting systems which receive your reports.

2. **Remove Creator Ownership from Container** - Use this option when do not wish the created Container in destination systems to have an owner.

3. **Allow Destination System to take over Ownership** - Use this option only when you wish to transfer the ownership of your intellectual property to the receiving company. Note that all companies that receive the export file will assume ownership of the container on import.

4. **Change Owner to Named Company at Import** - This option allows you to explicitly name the Company that will assume Container Ownership at import. This option should be used when you wish to transfer ownership of your Container intellectual property to a named company.
Protection within Destination System Options

Sage Intelligence Reporting allows the intellectual property that exists in Containers to be protected. Protected containers can be used in destination systems but the details of the Container are not accessible. Where a large amount of IP is contained in a container (for example, complex SQL Joins and SQL Expressions) then these details can be hidden by using these protection options.

The protection options available are:

1. **Lock Container in destination system(s)** - This will hide the Source properties of the Container in the destination system and not allow it to be edited. Only protecting at this level will mean that Expressions can still be added, edited and deleted.

2. **Lock Expressions in destination system(s)** - This will hide all the properties of all the Expressions in the Container in the destination system. Expressions cannot be added, edited or deleted in the Container when this option is selected.

For maximum protection of your Container IP select both of these options on export.

Note that it is possible to perform an unlock of a Container and its Expressions in a system with the assistance and authorisation of the Container Owner. See the topic [Unlocking a Container and its Expressions](#) for more details.
Home > Report Manager > Working with Reports > Advanced Importing and Exporting > Importing a Report Licensed to another Company
Importing a Report That is Licensed to Another Company

Sage Intelligence Reporting Report Developers that have protected their **Intellectual Property** through the Sage Intelligence Reporting Container Protection paradigm can authorise a third party to be able to import a report that has been licensed to a different End User Company.

This is useful where the company that is licensed to use the report outsources changes to that report to a third party. In this case the third party would need to obtain a unique **Handshake Pin Code** from the **Report Developer (Container Owner)**. This pin code is a unique code that allows the third party to import any reports created by the Report Developer but licensed to the End User. This mechanism allows reports to be sent to a third party, changes to be made and then sent back to the licensed End User.

A Report Developer uses the **Authorise Remote Report Import** menu option on the Sage Intelligence Reporting Enterprise object in the Connector to generate unique Handshake Pin Codes. After entering the Licensed User (Sage Intelligence Reporting Registered Company Name) and the receiving Third Party (Sage Intelligence Reporting Registered Company Name) a unique Handshake Pin Code is supplied.

Since the authorisation must come from the Report Developer (Container Owner) the relationship is a trusted one and prevents abuse of the Report Developers intellectual property.

When a third party that tries to import a report that is licensed for use by a different Company they will receive an **Import Authorisation screen**. To continue with the import at this point a valid **Handshake Pin Code** must be entered. This Handshake Pin Code must be obtained from the Report Developer. The Import Authorisation screen is shown below.
Report Scoping

Sage Intelligence Reporting uses a metadata repository to store all its metadata, including connection, container and report information. Since a site may have more than one set of company data (for example, a holding company that has 5 separate companies) it may be necessary to have some reports that are specifically for one, for multiple or for all of the companies. In this scenario it may be useful to make certain reports visible only when logged in to a given company. For this Sage Intelligence Reporting provides the concept of Scoping, where a report can be ‘scoped’ or made available only when logged in to certain companies. A report that deemed useful across all companies should be Scoped Globally (this is the default for each report).

The most common scenario where a report would be Scoped is probably where Financial Reports are customized. Since customizing these reports usually involves keeping a set of account numbers in a report’s excel template, these customized reports become only useful to the company they have been customized for.

Method


2. Name the report accordingly (for example, “Financials for Company ABC” where the company is ABC).

3. Open the Scope Manager by clicking on the Home Object and then from the Tools Menu bar, select Manage Object Scope and specify the scope of the report to the relevant company.
4. Customize the report using Microsoft Excel and Report Manager as per usual processes for Financial Reports.
Sub Query Reports

A Sub Query report is used to generate a list of items that is then used in a filter of an outer parent report.

An example might be where a Sub Query report is first used to generate a unique list of customer codes whose purchases to date sum to a value larger than $1000. The outer report might then want to pull out information on what cars these same customers drive from a different container but specifically for the Customer subset generated by the Sub Query report. A Sub Query report always only has one Display field so that a parent Report can reference it in a filter.

The logic for the above example in English might read:

Give me the Cars that my Customers drive, and only show me the this information for those customers that have spent more than $1000 to date.

In the Structured Query Language (SQL) this would read something like this:

```
SELECT Customer.Name, Customer.Car FROM Customer
WHERE Customer.Code IN
  (SELECT Sales.CustomerCode FROM Sales
   GROUP BY Sales.CustomerCode
   HAVING SUM(Sales.Amount) > 1000)
```

In Sage Intelligence Reporting to achieve this same effect you could:

1. First create a Sub Query Report (right-click on a folder > Add Sub Query Report) called Big Spenders using the container Sales, with the Display Field CustomerCode, and an Aggregate Filter on Amount with Comparison Operator Greater Than, Comparator 1000 and Aggregate function SUM.

2. Then create an ordinary report using the container Customer with Display Fields Name and Car and specify a filter using the expression Code, Comparison Operator Is In SubQuery and SubQuery Big Spenders.
Union Reports

A Union Report is used to merge rows of data from disparate sources into a single report. The Union Report has pointers to other normal Reports and it simply runs out the raw data from the specified Reports (referred to as Union Sub Reports when referenced in a Union Report) sequentially into a single Workbook. The Union Report can have its own template file specified and the template files of the Union Sub Reports are not used.

Method


2. You will be prompted for the reports to include as Union Sub Reports in the Union Report.

3. Choose one or more existing reports.

To add subsequent Union Sub Reports to the union report:

1. Double click on the Union Report.

2. Select the object Union Sub Reports.

3. Right-click and select Add Union Sub Reports.

It should be noted that a Union Report will simply pull the raw data from all Union Sub Reports and sequentially output the data sets into the Output Book. All properties set on the source reports are ineffective when they are run as Union Sub Reports in a Union Report. All filtering and sorting logic is applied to each Union Sub Report before it is output into
the Union Report Template and the logic between Union Sub Reports is unrelated.

**Note:** By default the data from the Union Sub Reports will be output into the same worksheet. This behavior can be overridden though by setting the Output Sheet property for the individual Union Sub Reports.

**Setting the Output Sheet property:**

1. Open up the Union Report in the Object window (by double clicking).

2. Open the Union Reports object so that the individual Union Sub Reports become visible.

3. Select each Union Sub Report and then set the Output Sheet property to the number of the Sheet to output the data to (for example, 1 for the left most sheet in the book).

Note: The specified output sheet must exist in the Union Reports output template.
If the data is configured (or defaulted) to the same sheet for the Sub Reports then it makes sense that the data is comparable. Although you could specify any reports to be the Sub Reports for the Union Report, it only makes sense to specify Union Sub Reports that have comparable data and with the corresponding Display Fields laid out in the same order in all the Sub Reports to go to the same Output Sheet, so that in the final Workbook there is like data in each column. If the data is not similar then it should be output to different sheets.
Financial Reports Pack

The Financial Reports is one of the many standard reports that ship with Sage Intelligence Reporting but probably the most complex due to its wide functionality scope. Simply put, the Financial Reports embodies a collection of different formatted Balance Sheet and Income Statement reports as run for at a specific period in addition to multiple period trial balances. There are many standard types of Financial reports:
Accessing the Financial Reports

By default the Financial reports can be found in the Report Manager in the Financials folder.

Note: You can create as many different layouts as required to complete your report set within this workbook.
Selecting a reporting date: (Change Month)

A reporting date is the date which controls the display of values on any layouts you have generated within the workbook. Example: If it is now the month of September, and you wish to have the Income statement display values to the end of August, then by selecting the reporting date as August, you would achieve this.

Method

- Microsoft Excel 2003:
  a. Click on the Change Month button located on the toolbar at the top left of your Microsoft Excel screen, above the name box.
  b. Click the downward arrow and select the month to view.

- Microsoft Excel 2007:
  a. Click on Add-Ins on the menu bar, then click on Change Month on the Custom Toolbar.
  b. Click the downward arrow and select the month to view.

NOTE: The reporting date is totally separate to the period range chosen at run time. The period range chosen at runtime, only has an effect on the transactions that are displayed when using the Drill Down Account Feature and has no effect on the display of values on generated layouts. See "Using the Drill Down Account Feature".

Cannot find the toolbar to change the month:

1. Microsoft Excel 2003: Press Alt-F8 (or Select, Tools, Macro, Macros, from the menu bar).
   Microsoft Excel 2007: Press Alt-F8 (or Select Developer, then Macro from the menu bar).

2. Select the macro named Build FA toolbar.

3. Click the Run button to run the macro.
4. The toolbar should now be visible again.

**Adding New Accounts to your existing report layouts:**

If you have added new accounts into your general ledger within your accounting system, then the next time you run this report Sage Intelligence Reporting will synchronise the new list of accounts it extracts from your accounting system with the chart of accounts already listed on the Lookup sheet within this workbook. If it finds any difference between them, then Sage Intelligence Reporting will prompt you as follows:

1. To add the new accounts it has detected to the Lookup sheet - in which case you select YES.

2. To highlight any accounts it finds that no longer exist within your accounting system by shading the account number in red - say YES.

Once this has been done you will then need to link these new accounts to the required report layouts you have included in the workbook. The new accounts will be placed below the last account displayed on the Lookup sheet.

The instructions below will assist you with this process:

1. You may leave the new accounts (green shaded account numbers) exactly where they appear on the Lookup sheet.

2. Select the sheet that contains the layout to which you wish to Add the New Account.

3. Select the row where the first New Account should be inserted.

4. From the **Menu Bar:**
   - Microsoft Excel 2003: Choose Report Tools > Add Accounts. A list of accounts that are not in the layout should appear.
   - Microsoft Excel 2007: Choose Add-Ins > Report Tools > Add Accounts. A list of accounts that are not in the layout should appear.

5. Use the Type drop down to filter by Account Type (for example
Income Statement/Balance Sheet) and the other filter text boxes to help locate the specific accounts.

6. Select the accounts that you wish to insert at the specified row (Note: you can select a different row in Microsoft Excel while the Add Accounts form is active).

7. Click the Insert button. The accounts will be inserted at the specified row and the formulae for the rest of the row added.

8. Click the Cancel button once all accounts have been inserted.

**Note:** The Add Accounts function has to have a row to copy formulae from. By default it assumes the row above the row that is being copied into. If this row does not contain the formulae that references back to the Lookup Sheet then the insert will not pick up the formulae. It is important to note that if the row above the Insert At Row does not contain the correct formulae then you must press the previous button to navigate to the Copy From Row dialog and select the row that contains the correct formulae.

**Deleted Accounts:**

The accounts highlighted with red shading on the Lookup sheet represent the accounts which have now been deleted from your accounting system. If you leave these accounts on the Lookup sheet then each time you run the report, Sage Intelligence Reporting will detect these accounts and prompt you once again to highlight them. If they are already highlighted then you can ignore the prompt by selecting NO.

To prevent this prompt on these accounts each time you run the report, you will need to remove them from the Lookup sheet.

Remove the deleted accounts as follows: On the Lookup sheet, it is best to delete only the account number, then delete the blank row which will appear on the report layouts where this row is linked.

**Using the Drill-Down Report Tool:**

This report has been setup with a pre-defined Drill Down definition enabling you to drill down to a selected general ledger account.

To drill down to the General Ledger Transactions you would require access to the Sage Intelligence Reporting report named "GL
Transactions by Account”. Ensure that this report is available in the Report Manager.

1. To use this pre-defined Drill Down Definition, click on any cell in a row that has an account no present in column A, on any Income Statement or Balance sheet within the workbook.

2. From the Microsoft Excel Menu bar:

3. Then select Drill Down.
   The Select Drill Down window will display, showing the pre-defined definition which contains the definition code of GL_001. Ensure that this pre-defined definition is highlight in blue (click anywhere on the line if not highlighted).
   Click the Execute button.
   The GL Transactions by Account report will run and display in its own window for you to view.

4. This pre-defined Drill Down Definition will always drill down to one period, being the period relating to the month currently selected in the workbook. To drill down to a different period, use the Change month button first to select a different month, then execute the drill down definition.

**Note:** The Drill Down Report Tool is only available in Microsoft Excel if Sage Intelligence Reporting is installed on the PC.
Working with PR# files

A .PR# extension denotes a file created using Sage Intelligence Reporting software. Note: # denotes a designated number.

A PR# file allows a report to be run from a shortcut without needing to use the Report Manager Interface. To use PR# files they need to be created using the Report Manager Interface and then associated with the Sage Intelligence Reporting execution program under the windows operating system.
Creating a PR1 file

To create a .PR1 file select a report in the Object Window and click on the Create .PR# icon.
You will be prompted to select a location and name for the new .PR# file.
Associating a PR# file with Sage Intelligence Reporting

When you double click on the .PR# file you have created, Windows will prompt you to choose a file to "Open With...". Browse to the Sage Intelligence Reporting program and choose OK. The report associated with the .PR1 file will be launched.

If you want to permanently associate .PR# files with Sage Intelligence Reporting then check the option Always use this program to open these files and click on OK.

![Image of Open With dialog box]
Locking/Unlocking a Report

Locking freezes the properties of a report so that it cannot be modified. Users can then only run the report. To lock a report, select the report that you want to lock.

1. Click the **Lock** button 🔒 to lock your report. You will be promoted for an unlock password and the report properties will immediately be unavailable.

2. Click the **Unlock** button 🛠️ to unlock your report, the report properties will immediately be available upon entering the unlock password set in step 1.
Close Book on Completion and Generate Output File

Sage Intelligence Reporting allows you to automatically close your Microsoft Excel workbook on completion of your report and to save the report to a fixed file in a designated folder. This is useful when a report needs to be run to a centralised location on a regular basis or when the report is being run as part of a report batch.

To do this, enable the Advanced Options Menu on the Report Manager Interface by checking the Show Advanced check box. Use the browse button on your Generate Output File property filed to browse to a folder and name the output file. Type the name of your file and click on the Save button. When you refresh your report, your Output file will be displayed in the Generate Output File property field.

To automatically close your work book on completion of your report, ensure that you place a check in the check box.
Using Add-In Functions in a Report

Sage Intelligence Reporting supplies Add-In’s that further enhance Microsoft Excel's reporting capabilities. These Add-Ins are designed to tackle common problems that come up during reporting. The list of available Add-In Functions is regularly updated so for the most comprehensive list of functions update your software on a regular basis.

Method

1. Select your report.
2. Place a check in the Show Advanced option checkbox.
3. Press the Lookup button next to the Run Add-Ins field.
4. An Add-In function selection screen will appear. Once selections have been made, the screen appears as shown below:

5. Start by selecting the Add-In Library.
6. A list of Modules for the selected library will then become available in the Select Add-In Library Module drop down box.
7. Select a Module.
8. A list of Add-In functions will then be displayed in the Select Add-In list.

9. To see a description for a Function you can select the function and view the description on the right hand side.

10. Once you have chosen your Add-In function click OK.

11. A screen will appear for specifying the relevant Function Parameters, as shown below:

![Specify Function Parameters](image)

12. Specify your Function Parameters and click OK.

13. The Add-In function should now appear in the reports Run Add-Ins property field.

Whenever this report is run the Add-In will now be executed. To edit the parameters of an Add-In function that has been specified already simply click the Add-In Function Builder button next to the Run Add-Ins box on your report properties and select the Function that you wish to edit, then follow the same steps as above.

- Add-Ins placed in the "Run Add-Ins" property field will always run
before any macros placed in the "Run Macros on Completion" property field

- Should you wish to have an Add-In run after a macro, then either place the Add-In in the "Run Macros on Completion" property field after the macro name or, place the macro name in the "Run Add-Ins" property field before the Add-In
Running Macros

If a report template that you have created contains macros that you wish to use each time the report is run, then type the names of the macros you wish to run in the "Run Macros on Completion" property of your report. To do this, enable the Advanced Options Menu on the Report Manager Interface by checking the Show Advanced check box. Type the name of your Macros in the "Run Macros On Completion" property field and click on the Apply button. The Macros in your report template that have been specified will now be run every time that the report is run.

- If there is more than one macro that needs to be run then separate their names with semi-colons

- If a Macro takes parameters then place these in brackets after the macro name in a comma separated list

```
Run Macros On Completion
Zeroing; Consolidate[1992,Jan]
```

- Macros will always run after any Add-Ins should you have any Add-Ins placed in the "Run Add-Ins" property

- Combine macro names and Add-Ins in the same property to ensure the correct order thereof when running the report. Example: To have a macro run before an Add-In, place the macro name in the "Run Add-Ins" property before the Add-In
Creating new Macros from Microsoft Excel

1. Open your Report Manager.

2. Select the report that you want the macro to run in, run the report or open the Microsoft Excel template.

3. Create the macro you want to run automatically, ensuring that in your macro you specify which sheet you need the macro to work in. (This will help by forcing the macro to select the correct sheet even after you Create and Link the workbook with a different active sheet).

4. Once you have created and tested your macro, save the template back or create and link the workbook back to the report.

5. Highlight the report in which you have created the macro, under the Properties tab, tick the Show Advanced option at the bottom of the screen.

6. In the advanced options list that is now available, locate the Run Macros on Completion option.
In the text box type the name of the macro you created.
Add Dataless Report

Sage Intelligence Reporting allows a user to Add a Dataless Report for the purpose of consolidating data from various sources. The Dataless report does not access any database but rather activates a Microsoft Excel workbook that contains Macros designed to consolidate information from workbooks that you have stored previously in other reports. The Dataless report will usually contain some advanced bespoke Macros which will perform a consolidation or reconciliation of some type. The Dataless Report is not to be confused with the Picklist Functionality. Picklists allow you to consolidate data from same and disparate databases. Typically you will link your Dataless report to a Microsoft Excel workbook that contains macros that references other workbooks that store your information.

Method

1. Right-click on the Report folder.
2. Select Add Dataless Report.
3. Enter a name for the Dataless report in the dialog box and select OK.
4. Notice the Report button , indicating that it is a Dataless Report.
5. You will then need to link the Dataless report to a Microsoft Excel book that contains the functional macros.
   To do this: Open the Microsoft Excel workbook, then from the Report Manager, use the create and link template function to link the workbook as a template file.
Run All Reports in Folder

The **Run Report Batch** facility allows users to run a sequence of reports one after the other from top to bottom.

The option **Run Report Batch** aborts the batch of reports if any of the reports return no data. The second option **Run Report Batch (Mode 2)** will run all reports regardless of there being no data for any of the reports.

**Note**: The run sequence will always be top to bottom so it is important to name your reports in a way that will ensure that the report you want run first is at the top of the batch.

For example: if you have an existing group of reports in a folder which will not run in the sequence that you would like, then rename your reports numerically viz:

- Report Name = 1. (First Report)
- Report Name = 2. (Second Report)
- Report Name = 3. (Third Report) and so on until you have the reports running in the sequence that you would like

Once you have named your reports in sequential order, select the folder that contains your reports, right-click and select **Run Report Batch** or **Run Report Batch (Mode 2)**.

Sage Intelligence Reporting will automatically run each report in sequence.
Scheduling a Report

Sage Intelligence Reporting reports can be run unattended, from Operating System batch files or under the control of external scheduling software (such as the Microsoft Windows Scheduler or the Microsoft SQL Server Agent). This can be useful when you have certain reports that you need to run on a regular basis.

When reports are run unattended they are automatically closed on completion. Scheduled reports must use the Generate Output File in the Advanced report or the Retain All Run Instances option to be useful. See Advanced Report Properties for more information.

Typically reports that are scheduled will have the Generate Output File property set so that the unattended reports are saved to a specific location. Set this property under the Advanced options on the Report Properties tab. Click here for more details.

To generate the command to schedule a report run:

1. Open the Report Manager.
2. Select the report you wish to generate a schedule command for.
3. Click on the Schedule Icon
4. If the report expects parameters then you will be prompted to enter these. Enter any necessary parameters and click OK.
5. A message box will then appear that will display the syntax for the running the report. Additionally this text will be placed on the Windows clipboard so that it can be pasted into the application or batch file that will be controlling it. An example is shown below.
When reports are run unattended the information that is usually sent to the Process Monitor window is redirected to a log file. You should review this log file to make sure that your reports are running as expected. The log file is named BICoreUnattend.log and can be found in the Intelligence folder which is a sub folder of the Sage Intelligence Reporting Installation folder.

You can view this log file in a text editor application such as Notepad. The file can also be opened directly from the Connector. To do this open the Connector and choose the Menu item Tools > Open Log File. The application returns a process exit code for the scheduled report to indicate Success (0) or Failure (1) allowing the calling process to check the result of a shelled report.

To view an example of how to schedule a report using the Windows Scheduler click here.
Windows Scheduler Example

1. Select the report that you wish to schedule in the Report Manager.

2. Click on the Schedule Icon on the toolbar or right-click on the report and choose Generate Scheduler Command.

3. If the report expects parameters then you will be prompted to enter these.

4. A message box will then appear that will display the syntax for running the report.

5. Additionally this text will be placed on the Windows clipboard so that it can be pasted into the scheduled task command field.

Reports that are Scheduled are closed on completion and therefore must use the Generate Output Advanced report or the Retain Run Instances option to be useful. See Advance Report Properties for more information.

1. Open the Windows Control Panel and then open the Administrative Tools, Task Scheduler item.

2. From the menu choose Action, Create Task.

3. The Create Task window will appear.
4. Give the task a meaningful name.
5. Click on the **Actions** tab.
6. Click **New**.
7. Under **Program/script**, paste the command from the clipboard.
8. Click **OK**.
9. Confirm the arguments specified by clicking **Yes**.

This Task pane is shown below:
10. In the **When running the task, use the following user account** box enter the user name that should be used to run the report under (for domain user accounts use the format domain_name\user_name). The user name must be a valid account on the domain or local machine with sufficient privileges to run Sage Intelligence Reporting.

11. To set the Schedule for the Task click on the **Triggers** Tab.

12. Click the **New** button.
13. When you have set the schedule options click the **OK** button.

It is important to understand that the **user account** that is used for the scheduled report **must have sufficient permissions to access all the necessary resources to run the Sage Intelligence Reporting report.** It is best to log on to the machine that will be running the scheduled report as that user and test that the report can be run interactively under the user account before using the account for scheduled reports.

For more information about how Sage Intelligence Reporting reports are scheduled and checking log file information please [click here](#). For more detailed information on the windows scheduling options see the Windows Help files.
Report History

**Note: History Logging** is turned off by default. Should you wish to store report history then you can turn this feature on by setting History Logging to 1 in the configuration file found in the default installation folder.

The Report History window lets a user view the details of previous report runs. A report that has been run is referred to as an Instance. By selecting an Instance from within the Report History window details of the instance can be viewed through its properties.

![Report History Window](image)

A definition of the report history properties can be found below.

<table>
<thead>
<tr>
<th>Property</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instance ID</td>
<td>Technical Key Identifier for the Instance</td>
</tr>
<tr>
<td>Instance</td>
<td>The name of the Instance. This is the name of the report with a date-time stamp in the format: [REPORT NAME]_YYYYMMDD_HH_MM_SS_NNNN.xls</td>
</tr>
<tr>
<td>Location</td>
<td>The file path of the instance if it was retained (Retaining Instances is an advanced Report setting)</td>
</tr>
<tr>
<td><strong>Parent Report ID</strong></td>
<td>The Technical Key Identifier of the Instances Parent Report</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Run by ID</strong></td>
<td>Not Currently Supported</td>
</tr>
<tr>
<td><strong>Parameters Supplied</strong></td>
<td>The Parameters supplied to the report at Run Time</td>
</tr>
<tr>
<td><strong>Run on Server</strong></td>
<td>The Workstation on which the Report was initiated</td>
</tr>
<tr>
<td><strong>Launch Time (@Server)</strong></td>
<td>The time at which the Report was initiated</td>
</tr>
<tr>
<td><strong>Completion Time (@Server)</strong></td>
<td>The time at which the Report completed/failed</td>
</tr>
<tr>
<td><strong>Process Error</strong></td>
<td>Errors raised by the Report Run</td>
</tr>
<tr>
<td><strong>Process Time (seconds)</strong></td>
<td>The amount of time in seconds for the Run to complete</td>
</tr>
</tbody>
</table>
Creating a Microsoft Excel 2007 template

To change a xlt (Microsoft Excel 2003) template to a xltx (Microsoft Excel 2007) template the following steps need to be followed:

3. Go back to Report Manager and unlink the xlt template from the report by selecting the Unlink Template button on the Toolbar.
4. Confirm that you would like to unlink the template.
5. Notice that there is now no Template linked to your report.
6. While your report is still selected, select the Create and Link button on the Toolbar.
7. Select the Workbook to link as Template (the Microsoft Excel workbook you've minimized) and click **OK**.

8. Confirm that you would like the Parameters on the Second Worksheet by clicking **Yes**.

9. You will now be given the option to select the Template File Format. Select the Microsoft Excel 2007 Template (*.xltx) and click **OK**.

10. Click **OK**. The new template is now successfully linked to the report.
Add-In Modules

Sage Intelligence Reporting supplies Add-In modules which are constantly being upgraded. These modules extend the functionality of Sage Intelligence Reporting with Microsoft Excel. These Add-In modules are supplied as is and are used at your own risk.

To use the Add-In wizard click the Add-In Function Builder button next to the Run Add-Ins property of a report. To make sure that you always have the latest set of Add-In functions available keep your Sage Intelligence Reporting software up to date.

The Add-in functions available are self documenting. For a description of a given function select the function and view the Function Description in the Choose Add-In Function dialog box.

Once you have selected an Add-In function you will need to enter parameters for the function. Click the Fill in Example button to fill in an example of the parameters required for this function.

An example of this screen is shown below.
Add-In Modules: General Excel Extensions Module

The following Add-in Functions are available:

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
<th>Use When</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExtendFormulaeToUsedRows</td>
<td>Extends formulae in a range to the specified area</td>
<td>Use when you wish to apply formulae to a dynamic row range</td>
</tr>
<tr>
<td>FormulaToDateColumn</td>
<td>Place the formula in the specified start cell and copies it to the used row range specified</td>
<td>Use when a calculated field is required alongside a set of source data whose number of rows is unknown</td>
</tr>
<tr>
<td>ReplaceFormulasWithValues</td>
<td>Replaces any formulas in the specified range with their resultant values</td>
<td>Use when you wish to break the links in a range so that the range becomes an independent range containing values only and no formulae</td>
</tr>
<tr>
<td></td>
<td>Draws data from a set of</td>
<td>Use when you wish to</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
<td>Use</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Union</td>
<td>named files in a specified directory and unions it into the specified destination sheet</td>
<td>consolidate data from 2 different sources but containing comparable information</td>
</tr>
<tr>
<td>UnionValuesOnly</td>
<td>Draws data from a set of named files in a specified directory and unions it into the specified destination sheet. Only data is unioned (ie no formatting)</td>
<td>Use when you wish to consolidate data from 2 different sources but containing comparable information</td>
</tr>
<tr>
<td>UnZeroPivot</td>
<td>Hides Pivot items in a Pivot field based on a specified value in a specified column</td>
<td>Use when you wish to conditionally exclude Pivot items based on an amount field</td>
</tr>
<tr>
<td>ZeroingII</td>
<td>Hides or remove rows based on a specified columns value</td>
<td>Use when you wish to discard or hide insignificant rows of data</td>
</tr>
<tr>
<td></td>
<td>Removes all the blank row</td>
<td>Use when you do not wish</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
<td>Use</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>RemovePivotBlanks</td>
<td>Removes (blank) Pivot Items from the specified Pivot Fields in the specified Pivot Table(s) on specified worksheet(s)</td>
<td>Use when you want your Pivot Table to not be showing blank entries</td>
</tr>
<tr>
<td>HidePivotDataFieldCols</td>
<td>Hides columns in a worksheet with Pivot Tables based on the Pivot DataField SourceNames</td>
<td>Use when you wish to hide certain columns in a worksheet based on the SourceNames of the DataFields in the Pivot Table</td>
</tr>
<tr>
<td>ExcludePivotBlanks</td>
<td>Filters out (blank) Pivot Items in the specified Pivot Fields of a specified Pivot Table</td>
<td>Use when you want your Pivot Table to not be showing blank entries</td>
</tr>
</tbody>
</table>
## Add-In Modules: Accounting Trial Balance Module

The following Add-in Functions are available:

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
<th>Use When</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBSync2</td>
<td>Customized addin routine designed specifically to work hand in hand with supplied Pivot to Lookup solution used for Financial Templates. This version (TBSync2) is required for the Financial Analysis solution supplied with Version 3.1 or greater</td>
<td>Use when you want to automate the synchronisation of a Pivot Table -&gt; Lookup table combination</td>
</tr>
<tr>
<td>RegionalisePack</td>
<td>This customized add-in routine is designed specifically to work hand in hand with supplied Management Pack Templates. The add-in is not useful for other reports</td>
<td>Use with supplied Management Pack solutions</td>
</tr>
<tr>
<td>SelectLastPeriod</td>
<td>add-in routine is designed specifically to work hand in hand with supplied Financial Report Pack Templates to Select the Last Active period in the report</td>
<td>Use with supplied Financial Pack solutions</td>
</tr>
</tbody>
</table>
Add-In Modules: Intranet/Internet Integration Module

The following Add-in Function is available:

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
<th>Use When</th>
</tr>
</thead>
<tbody>
<tr>
<td>PublishSheet</td>
<td>Facilitates the publishing of a sheet in the report to html and to a specified location</td>
<td>Use when you wish to generate static reports for an Intranet or Internet</td>
</tr>
</tbody>
</table>

1. Select the report you want to publish to a website.
2. Check **Show Advanced** option on the properties tab.
3. Select **Run Add Ins**.

4. Select an Add-In Function.
5. From the **Choose an Add-in Function** box.
6. Select an Add-in Library.
7. Select an Add-in Library module.
8. Select an Add-in function (Publish sheet). Select **OK**.
9. Specify function parameters.

10. Name, the name of the sheet to publish (Pivot).

11. Fully qualified path, (with filename & extension) for the HTML file. Example: `\myserver\intranet\reports\ThisReport.htm`.

The Add-In function should now appear in the reports Run Add-Ins property field.

Whenever this report is run, the Add-In will now be executed.
To edit the parameters of an Add-In function that has been specified already, simply press the Add-In Function Builder button next to the Run Add-Ins box on your report properties and select the function that you wish to edit, then follow the same steps as above.
## Add-In Modules: Operating System Functions Module

The following Add-in Functions are available:

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
<th>Use When</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeleteFiles</td>
<td>Deletes a list of specified files</td>
<td>You wish to delete temporary files that have been created by macros or by other reports in a report batch</td>
</tr>
<tr>
<td>SaveBook</td>
<td>Saves the Report Output Book to a specified location</td>
<td>You wish to save the reports output book to a specified location</td>
</tr>
<tr>
<td>NetSend</td>
<td>Sends a network message to someone whenever the report runs</td>
<td>You want a network message to be sent to someone whenever the report runs</td>
</tr>
<tr>
<td>CmdExec</td>
<td>Runs any Operating System Command or Executable Program</td>
<td>You want your report to launch an Operating System Command or Executable Program. Note that your report will continue to run asynchronously and the new process created will run on its own. For safety reasons this option will require that the user confirms execution of the command each time the report is run</td>
</tr>
</tbody>
</table>
Add-In Modules: E-mailing functions

The following Add-in Function is available:

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
<th>Use When</th>
</tr>
</thead>
<tbody>
<tr>
<td>MailSMTP</td>
<td>Emails a file via SMTP</td>
<td>Use when you want to email a report on completion</td>
</tr>
</tbody>
</table>

1. Open your Report Manager.

2. Select the report that you want to setup for e-mailing automatically once it has been run.

3. Select the check box to **Show Advanced** properties of a report, at the bottom of the properties tab window.

4. Select the button to Run Add-ins - this will be listed in the properties window of the report.
5. Select the option to **Specify a New Add-in Function** and select **OK**.

6. The following dialog box will appear:
7. Select the Add-In Library, and Add-in Library Module as shown above. Select the Add in Function, click **OK**.

8. A box will pop up asking you to enter all the relevant details for emailing – see below.
This will include details about your mail SMTP server which you must get from your Mail administrator, as well as the 'from' and 'to' addresses. To send to multiple e-mail addresses, use a colon in between addresses. Ensure that when you give the report a name that you include the " .xls" extension as well. Scroll down on this window to see more available options.

9. When you have entered your details, select OK and you will see that a string has been added into the Add-Ins text box in the properties window of your report.

10. Run the report, and it will automatically be e-mailed to the selected recipients.
Home > Report Manager > Troubleshooting the Report Manager > Timeouts
Timeouts

There are various types of Timeouts that can occur during data extraction phase of a report execution. The three most common that can affect the execution of a report and troubleshooting options are described below:

- **Connection Timeout** - This occurs when Sage Intelligence Reporting cannot connect to the Database System in good time. By default Sage Intelligence Reporting will try to connect for 30 seconds. If there is no response from the Database System then a connection timeout error will occur. To increase this threshold add (or modify) the Key SQLConnectTimeout to the [Publisher] section of the ALCHEMEX.INI file, for example, to increase it to 60 seconds add this key to the Publisher Section:

  SQLConnectTimeout=60.

**Note**: Setting this value affects all Sage Intelligence Reporting Connections. Setting this value to 0 (zero) will cause Sage Intelligence Reporting to wait indefinitely for Connections to be established.

- **Query Execution Timeout** - This occurs when Sage Intelligence Reporting cannot execute a SQL statement against the Database System in good time. For some database systems this Execution Timeout is configured within the Database System. It is sometimes referred to as a Query Governor Limit and is usually configured to prevent long running queries from monopolizing the Database System. Either of the following techniques can be used to address the problem:

  - Configure a Timeout threshold at the Container level in the Connector. You will need to do this for all Containers that are being used in Reports that are experiencing Execution Timeouts. See the advanced property *Timeout Enquiries After (Seconds)* of the container. For more details [click here](#).

  - If a Query Governor Limit (or equivalent configuration option) is available in your Database System then arrange with your Database Administrator (DBA) to configure this...
value.

- **Wait Lock Timeout** - These timeouts occur when a query is waiting for another process to release a locked record in a table. Records usually get locked when they are being updated (or edited) in a system. These timeouts cannot usually be avoided by the Database System you are using may provide setting for minimizing occurrences of Wait Lock Timeouts.

**Note:** The underlying Database System Configuration may override the available Sage Intelligence Reporting Timeout Settings. If this is the case and you continue to experience Timeout problems then please refer the problem to your DBA.
Common Report Execution Errors

Sage Intelligence Reporting uses ODBC and OLEDB technologies for accessing data. Each ODBC driver or OLEDB provider has slight differences and limitations. This means that certain Sage Intelligence Reporting features may have problems or not work for certain Database Systems.

If you are receiving errors when running a report use this reference to try and identify if the problem is due to one of these limitations.

- **[Pervasive Software][ODBC Interface][Pervasive Software SQL Engine]** The position you specified in the ORDER BY clause is invalid.
- **[Pervasive Software][ODBC Interface][Pervasive Software SQL Engine]** The position you specified in the ORDER BY clause is invalid.
- **[Pervasive Software][ODBC Interface][Pervasive Software SQL Engine]** The data type is invalid for the expression.
- **[Pervasive Software][ODBC Interface][Pervasive Software SQL Engine]** The column does not exist in the dictionary.
- **[Pervasive Software][ODBC Interface][Pervasive Software SQL Engine]** A character in the numeric data is invalid.
- **[Microsoft][ODBC dBase Driver]** ORDER BY clause ([TABLE].FIELD) conflicts with distinct.
- **[Microsoft][ODBC dBase Driver]** You tried to execute a query that does not include the specified expression '[TABLENAME].[FIELDNAME]' as part of an aggregate function.
- **[Microsoft][ODBC dBase Driver]** Data type mismatch in criteria expression.
- **[Microsoft][ODBC dBase Driver]** Syntax error in query expression '([TABLENAME].[FIELDNAME] Like %<VALUE>).'
- **[Microsoft][ODBC dBase Driver]** Syntax error in date in query expression '([TABLENAME].[FIELDNAME] Like #<VALUE>%#)'.
- **[Microsoft][ODBC Microsoft Access Driver]** Data type mismatch in criteria expression.
ORDER BY clause ([TABLE].FIELD) conflicts with distinct.

You tried to execute a query that does not include the specified expression '
[TABLENAME].FIELDNAME' as part of an aggregate function.

Syntax error in date in query expression '
([TABLENAME].FIELDNAME Like <VALUE>%)'.

ORA-00932: inconsistent datatypes
ORA-00911: invalid character
ORA-00979: not a GROUP BY expression
ORA-01791: not a SELECTed expression

ORDER BY items must appear in the select list if SELECT DISTINCT is specified.

Operation cannot be performed while executing asynchronously
Incompatible Operator for Data Type
Incompatible Operator for Data Type

**Cause:** Sage Intelligence Reporting offers a number of different Operators that can be used in Filters and Parameters and Aggregate Functions that can be used with Display Columns. Certain of these Operators and Aggregate Functions will not work with certain Data Types. This may simply be because the Operator or Aggregate Function and the Data Type combination is nonsensical or that there is a limitation with the Data Access Driver.

Since Sage Intelligence Reporting has been designed with an open data access architecture it would be impossible to cater for or publish every incompatible combination of Data Type and Operator or Aggregate Function. For the most common combinations with the most common Data Source types check the [Comparator and Aggregate Function Compatibility Matrix](#).
Debugging Reports

The Report Manager has two tools for assisting in Debugging reports. To switch the Report Manager into one of the debugging modes right-click Home and click Switch Output Mode. The following dialog box will appear.

The available options are:

- **Microsoft Excel**
  This is the Sage Intelligence Reporting default mode and is the mode in which Sage Intelligence Reporting reports are run out to Microsoft Excel.

- **Screen**
  This mode runs the Data extraction stage of a report and then simply outputs it to screen. All of the usual Microsoft Excel data rendering functions are ignored (i.e. no template is used and no macros are run).

- **Screen (SQL Debug)**
  Like the Screen mode above this mode runs the Data extraction stage of a report and then simply outputs it to screen. Additionally when running a report the SQL query that is generated by the report for the Data extraction stage is intercepted by a SQL Debug window. This window allows the raw SQL statement to be viewed and tested.

1. If you choose the **Screen (Sql Debug)** option, the SQL Debug window will pop up with the SQL code that gets passed to the ODBC driver.
You can go through the SQL code to try find the problem, and then make the relevant changes to the container (Connector) of the report (Table joins, Field expressions . . .) or to the Report (Report Manager) itself (Filters, Aggregate Functions . . .)

**Note:** You will not be able the edit the SQL code in the Debug mode, you have to correct / make changes to the Container or Report directly.

From the SQL Debug window you can

- **Test SQL** – Test the SQL code to see if it runs out successfully or not
- **Continue** – To see what the raw data will look like in a Data output window

2. If you choose the Screen option, the raw data window will pop up with the raw data before it is passed to Microsoft Excel.
You can now easily go through the raw data, sorting fields by clicking on the field headings.

**Things to Keep in Mind**

- When you open the Report Manager it defaults the Output mode to Microsoft Excel every time, regardless of the state you closed the Report Manager in.

- In a networked environment of Sage Intelligence Reporting, the Output mode you select will only be effective on the PC it was set on.
Problems with Microsoft Excel when Running Reports

Microsoft Excel Frozen

When Sage Intelligence Reporting runs a report out to Microsoft Excel it takes control of Microsoft Excel and prevents user interaction with Microsoft Excel. If a report runs into rendering problems it is possible that Microsoft Excel can be left locked.

To release Microsoft Excel:

1. In the Report Manager Module, select the **Home** object.

2. Right-click and select **Unlock Excel** or click the key on the toolbar. Microsoft Excel will now be unlocked and user interaction will be allowed again.
Trapping Errors in Macros

When an error occurs in a Microsoft Excel Macro with no error traps the VBA (Visual Basic for Applications) Editor automatically goes into Debug Mode and awaits a response from the user. If the Macro is being called from a Sage Intelligence Reporting Report it may not be convenient for this interaction to take place. In particular if a report is running unattended (for example, from a scheduler) then the report will freeze at the debug point and Microsoft Excel will hang. To prevent this from happening include an error trap in your Macro that passes the Error description back to Sage Intelligence Reporting. Sage Intelligence Reporting will then handle the error.

Method

1. Open your template with the Macro in it.

2. Change the Sub Keyword to Function (this allows the Macro to return a value).

3. Turn Error Trapping on in the Routine with the "On Error Goto [TrapName]" VBA syntax, for example,

   On Error GoTo MyErrorTrap

4. As the last lines in the Routine include the Error Trap. The error trap should return the error from the Macro as a string so that Sage Intelligence Reporting can catch the error and handle it. The error trap should be of the following structure:

   Exit Function
   MyErrorTrap:
   MyMacro = Err.Description

An Example of the full structure of a Macro with an error trap is shown below:

Function MyMacro()
On Error GoTo MyErrorTrap
'----------------------------------------------------------
' [Included here should be the functional code of the Macro]
Exit Function
MyErrorTrap:
  MyMacro = Err.Description
End Function

**Note**: Using this method to trap Errors and pass them back to Sage Intelligence Reporting will allow errors to be rendered in Sage Intelligence Reporting and stop the errors being Debugged by the VBA debugger within Microsoft Excel. Sage Intelligence Reporting will not take any action on the errors. For intelligent error trapping for bespoke Macros, more intelligent error handlers will have to be implemented within your macros and will require a good working knowledge of VBA.
Unlocking a Container and Expressions

If a Container and/or its Expressions have been locked using Sage Intelligence Reporting’s intellectual property (IP) protection facilities then it can be unlocked by the Owner of the Container if necessary. There are two scenarios that could occur.

The owner of the Container needs to Unlock in their system

In this scenario, where the Container Owner (see the Property "Container Owned by" of the Container) is the same as the Sage Intelligence Reporting registered Company in the License Manager, then the Unlock operation is simple. Right-click on the Container and select Unlock Container or Unlock Container Expressions to perform the required Unlock operation. The unlock will occur without any authorisation required.

A Company licensed for usage of the Container but not the Container Owner needs to Unlock in their system

In this scenario the unlock operation needs to authorised by the Owner of the Container. Note that once this is done the IP will no longer be hidden from the user of the container.

The Owner of the Company will need to supply Pin Codes to the Usage Company to perform the unlock. These Pin Codes are unique to the Container and the Usage Company and cannot be re-used by other companies to perform an unlock. One Pin Code is required for unlocking the Container and one is required for unlocking a Containers Expressions.

For the Container Owner to generate these Pin Codes:

1. Select the Container, right-click and choose Generate Unlock Pin Codes.

2. The screen shown below will display.
3. Enter the Usage Company that you wish to supply the Pin Codes to. (Note that the Company name must be identical to the Company Name in the License Manager of the destination system.) This name is Case Sensitive.

4. Press **OK** and you will receive a Pin Code message as shown below. Note the Pin Codes and supply these to the destination company (ABC Company in this example).

5. ABC Company should select the Container in their Sage Intelligence Reporting system.

6. Right-click and select **Unlock Container** or **Unlock Container Expressions**.

7. A prompt will appear for each unlock operation requiring the supplied Unlock Pin Code. On entering a valid Pin Code the unlock operation will occur.
Distribution

Improve workflow and speed up business processes by automating report delivery and distribution. Report distribution is a powerful feature which saves time and effort by allowing you to send reports to a file, ftp site or email in a number of standard formats.

Simply set up which reports you would like to distribute, whether you would like them in Microsoft Excel, MHMTL or PDF and who it should be sent to. You can even create custom criteria for sending out reports.

Features include the ability to customise each email format, use your existing outlook profile and address book, or specify a SMTP or Exchange server. The same report can be set up to be distributed to different destinations.

Distribution is ideal for sending reports out to line managers or providing corporate management with tailored reports.
Distribution Settings

Email is the most popular distribution channel. By default, your Microsoft Outlook profile settings will be used by Sage Intelligence Reporting to send emailed reports automatically, however, if this is not preferable or you do not have Microsoft Outlook installed, an Exchange or SMTP Server may be specified. These details will have to be obtained by your network administrator.

The SMTP / Exchange Server option is recommended for an unattended distribution as the Use My Outlook Profile option requires Outlook to be open at the time of distribution.
Home > Distribution > Manage Instructions > Accessing Distribution Instructions
Accessing Distribution Instructions

Distribution Instructions save time by sending reports, along with pertinent information, automatically to the right person/people using the chosen electronic method. Use the Manage Distribution Instructions to set up different instructions for each report that requires a unique distribution method, i.e. distributed to different people or via different methods eg, Email, FTP or Saved to a folder.

Method

1. Run a report from the Sage Intelligence Reporting Report Manager to Microsoft Excel.

2. Select the BI Tools Tab.

3. Select Manage Instructions.

4. From the Manage Distribution Instructions window, you can now Add, Edit, Delete or Rename your Instructions.
Add Distribution Instructions

1. From the Manage Distribution Instructions window, select Add.

2. Enter a Distribution Instruction Name. eg. Head Office Financial Manager

3. You will be presented with a window which has three distribution methods, namely Email, File Publish and FTP
4. By default the methods are disabled. You may enable one or multiple options by selecting the **Enable** box/es.
Add Email Distribution Instruction

When the **Enable Email** box is selected, you will be able to fill in the email details.

1. Enter the recipients' e-mail addresses or names in the **To**, **Cc**, or **Bcc** box. Always separate multiple recipients with a semicolon. To select from your outlook address book, select the **To**, **Cc** or **Bcc** buttons and select the name/names. If you do not have Microsoft Outlook installed, you will need to enter the recipients full email address.
   - **To...** A message is sent to the recipients in the To box.
   - **Cc...** A copy of the message is also sent to recipients in the Cc box.
   - **Bcc...** A copy of the message is also sent to recipients in the Bcc box; however it is a blind carbon copy so the names of the recipients in the Bcc box aren't visible to other recipients.

2. In the **Subject** box, type the subject of the message.

3. In the message body you can type in the required text to accompany your report. You may also use [Cell References](#) to reference any data in your report. All of the standard formatting commands are also available from the menu bar.

4. You will need to specify a file name for your report in the **File Name** box.

5. In the format box, select the format you would like the report to be emailed in.
6. You also have the option to distribute each worksheet as separate documents or leave this option disabled to send worksheets in one workbook.

7. Select **OK**.
Adding Cell References to the Body of an Email Message

A cell reference refers to a particular cell or range of cells in your worksheet. Cell references are used to identify data for use in formulas to calculate results based on your data. From your Email Distribution form, you can add cell references to the body or headers of your email message. For example, you could reference the gross profit for the month.

Method

1. Whilst in the Email Distribution Instruction, at the point where you would like to reference the Excel cell reference click on the fx button.

   Dear Mr Smith
   Attached is the Sales Details Report. You will notice that our Gross Profit for this period is
   Regards
   Joe Soap

2. The Select a Cell window will appear in Microsoft Excel.

3. Enter the cell reference/s, or click on the cell/s you would like to add and you will notice that its reference is automatically inserted into the window.

4. Click on the Expand Dialog box.
5. You will be returned to your email distribution instruction and you will notice that the cell reference has been added to your message text.

6. If you click on the **Preview Cell References** box, you will be able
to see the text that would be inserted for the report which is currently open in Microsoft Excel from cell F45 for this example.

7. Note: You cannot edit the window whilst in Preview Cell References mode. To exit, select the Preview Cell References box again.
Adding Cell References to Email Headers

Cell References can also be added to the headers of your email message. For example, you could email a particular person if a condition was true. Eg. In Excel you could specify that if the Sales Revenue was above a certain amount, then the sales manager would receive a congratulatory email with the financial report.

Method

1. In your Excel Report, add an IF formula in a blank cell, for this example we will add it into cell N2,

   \[
   =\text{IF}(B12>1000000, "jones@worldwide.xyz", ";")
   \]
   
   where Cell \(B12\) represents your Sales Revenue and \(jones@worldwide.xyz\) represents the email address of the sales manager.

2. In the Manage Instructions, email message header, right-click in the To... box, select Insert, Cell Reference.
3. In Microsoft Excel, select cell N2.

4. Select the Expand Dialog box.
5. In your Distribution Instruction, you will notice the cell reference has been inserted into the **To...** box.

6. If you now select the **Preview Cell References** box, you will be able to see the value that will be inserted if your Sales Revenue exceeds $1,000,000.
7. If your sales revenue does not exceed $1,000,000 the email will not be sent to the sales manager as your Preview Cell References To... Box will show you that the sales manager's email will not be inserted.
Enable Email

To: [input field]
Cc: [input field]
Bcc: [input field]

Subject: CONGRATULATIONS
Add File Publish Instruction

In order to save a report to a specified location, the file publish option can be enabled.

**Method**

1. Select the File Publish tab.
2. Select the **Enable File Publish** box.

3. Select the **Browse** button to locate the folder where you would like the Reports saved to and select the **OK** button.
4. Type in the file name you would like to save your report to and select the format you would like the report to be in.

5. For the Excel and MHTML format, you will have the option to save each worksheet as separate documents. Select the box to apply the option.

6. Select OK.
Add FTP Instruction

In order to FTP a report to a specified location, the FTP option can be enabled.

**Method**

1. Select the **FTP** tab
2. Select the **Enable FTP** box.
3. The server information can be obtained from your IT administrator as well as the logon information.

4. Specify a file name you would like the report to be saved to.

5. Specify the format you would like the report to be saved in.

6. For the Excel and MHMTL format, you will have the option to save each worksheet as separate documents. Select the box to apply the option.

7. Select **OK**.
Edit Distribution Instructions

1. To edit existing distribution instructions, select the BI Tools Tab.

2. Select Manage Instructions

3. Select the Distribution Instruction you would like to edit.

4. Select Edit
5. Make the necessary changes and select **OK**.
Rename a Distribution Instruction

1. To rename an existing distribution instructions, select the BI Tools Tab.

2. Select Manage Instructions

3. Select the distribution instruction you would like to rename

4. Select the Rename button.

5. Type in the new name for the distribution instruction.

6. Select OK.
Delete a Distribution Instructions

1. To delete an existing distribution instructions, select the BI Tools Tab.

2. Select Manage Instructions

3. Select the distribution instruction you would like to delete.

4. Select Delete.

5. A confirmation message box will appear.

6. Select Yes. Note: Once a distribution instruction is deleted, it cannot be undone.
Select Instructions

Once the distribution instructions have been set up, the instructions need to be linked to the report, and the worksheets which the instructions must apply to, need to be selected.

Method

1. Select the BI Tools Tab.

2. Select Select Instructions.

3. On the left you will see all the instructions you have previously set up. On the right is all the worksheets available in the current excel report you have run out from the Sage Intelligence Reporting Report Manager.
4. Select the Instruction from the left that you would like to apply, and select the right arrow button.
5. Select the boxes next to the worksheets you would like to include in your distribution instruction.
6. If you would like to include an additional instruction, repeat from step 4.

7. If you would like any selected distribution instruction(s) to be executed when a report is automatically scheduled via a scheduler command, please view Scheduling a Report and Automated Distribution.

8. Select OK.

9. NOTE : If you would like the distribution instruction to be permanently saved to the report, you will need to Create and Link the report.
Automated Distribution

In order to use automated distribution it is recommended that you use the **SMTP / Exchange Server** option in your **Distribution Settings** as the **Use My Outlook Profile** option requires Outlook to be open at the time of distribution.

1. From your **Select Distribution Instruction** window, If you would like the distribution instruction to be executed when **scheduling the report**, select the check box :

   ![Send all selected distribution instructions when this workbook is automatically scheduled using a scheduler command](image)

2. You will then need the distribution instruction to be permanently saved to the report, so you will need to **Create and Link** the report.

3. You can then **schedule the report** as per the normal procedure.
Send Now

Once the distribution instructions have been selected for a report, you can execute the instructions by selecting the Send Now button.

**Method**

1. Select the **BI Tools** Tab.

   ![BI Tools Tab](image)

2. Select the **Send Now** button.

   ![Send Now Button](image)

3. The distribution instructions will then be validated. If there are any errors, these will be displayed, thereafter the distribution instructions will be executed.
Sage Intelligence Reporting Microsoft Excel Add-In

The Sage Intelligence Reporting Microsoft Excel Add-In is provided to offer extra functionality within your Sage Intelligence Reporting Reports directly from within Microsoft Excel. The Microsoft Excel Add-In currently supports the following Functions:

- **Drill-Down Tool**
- **Hide Zero Rows Tool**
- **Quick Pivot**
- **Format Pivot**
- **Add Accounts**
- **About Report Tools**

**Note:** If Microsoft Excel has been re-installed then the Sage Intelligence Reporting Microsoft Excel Add-In may not be available in Microsoft Excel. To rectify this make sure that Microsoft Excel is closed and run the PLMAINT.EXE tool in your Sage Intelligence Reporting [Metadata Server] folder on each Sage Intelligence Reporting client workstation.

From the Tools Menu choose **Register Sage Intelligence Reporting Add-Ins**. This will register the Add-In with Microsoft Excel and the menu will become available in Microsoft Excel at next run. Should you register the add-in and find that the **Report Tools** menu is still not available on the Microsoft Excel menu bar, then using **PLMAINT.EXE** again, register the COM Server as well.
Drill-Down

The **Drill-Down** tool allows Sage Intelligence Reporting to interrogate data directly from within your Microsoft Excel reports. A common scenario might be, where one high level Sage Intelligence Reporting report needs to drill down to line level transactional data in other reports. As a fast interrogation method the Drill-Down tool allows individual Sage Intelligence Reporting reports to be executed with parameters based on Microsoft Excel cell values. These reports render their data directly to a fast grid style window rather than to a new Microsoft Excel Report. From this screen the user may then choose to dump the data into Microsoft Excel via the data screen menu. In this form a Sage Intelligence Reporting report definition is being used as the source for an Ad-Hoc data enquiry.

1. To use the **Drill-Down** tool locate the **Report Tools** menu on your standard Microsoft Excel Menu Bar. Select the **Drill-Down** Menu. Menu is shown below:

   ![Report Tools Menu](image)

   The **Drill-Down** tool will appear. To execute a pre-configured Drill-Down simply double click on it or select it then click the **Execute** button.
2. To configure a Drill-Down select the **Drill-Down** and click **Edit**. The **Configure Drill-Down** window will appear. This window is shown below.

3. To add a Drill-Down click the **Add** button and follow the same process outlined below.

   **Note:** A Drill-Down definition set is contained within a Microsoft Excel book or template. If you change or add a Drill Down definition in a Report you should link it back to your Report in the Report Manager to keep the changes.

The properties of a Drill-Down definition are listed below:

- **Drill-Down Defined Code**: A unique code for the Drill-Down within the Microsoft Excel workbook

- **Drill-Down Descriptive Name**: A meaningful name used to identify the Drill-Down

- **Source Sheet**: The Source sheet used to interrogate from. This is the sheet that has the parameters for the report. This must be the Microsoft Excel worksheet name OR the word `ActiveSheet` for the drill-down to work from any sheet in the workbook.

- **Report Parameter Columns**: A semi-colon delimited list of the column numbers or names used to define where to obtain the report parameters from.

  As an interrogation tool the data will most likely not be needed in your Microsoft Excel report and once viewed the window can be closed.

If you wish to analyze the data in Microsoft Excel however, then use the Data to Report Workbook provided to transfer the data into Microsoft Excel. A number of options are provided for this.
Home > Custom Add-In for Excel > Hide Zero Rows
Hide Zero Rows

The **Hide Zero Rows** tool is an add-in which can aid in the analysis of data. Specifically the tool allows rows within a selection to be hidden based on a zero value in a specified column. This can be particularly useful when viewing financial type reports.

1. To use the tool select the **Hide Zero Rows** option from the **Report Tools** menu within Microsoft Excel.

2. Choose the range to perform the operation on and the column that contains the value to check for zeros. Then click **OK**. See the window below.

   ![Enter Ranges for Hiding Zero Rows](image)

   The rows within the **Row Range** that have a zero value in the column specified in the **Column with Values** box will be hidden.

   **Note:** If the function is reused on an overlapping range with hidden rows already then the rows are unhidden before performing the operation.

3. To **unhide** hidden rows in a range use Microsoft Excel's standard Unhide function. To do this select the row range that includes the hidden rows to unhide then right-click and choose **Unhide**.

   **Tip:** Should you wish to hide zero value rows but only when based on a
certain condition, then using a normal Microsoft Excel formula, create another column containing the formula based on the condition which will result in specific rows being zero, then configure that column as the Column with Values in the Enter Ranges for Hiding Zeros screen.

Example: To hide a Year to Date column of values but only if there was no movement in the other monthly columns. In this case using the Year to Date column as the column with values would not work.
Quick Pivot

The user is able to create Pivot Tables from within existing reports as and when needed. The user is able to customize Pivot Tables without leaving an existing report pack. Within the applicable Microsoft Excel report generated from the Report Manager, access the Quick Pivot option from the Report Tools menu on the Microsoft Excel Menu bar.
## Options Tab

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Sheet</td>
<td>Defines the sheet where the data is stored on</td>
</tr>
<tr>
<td>Source Data</td>
<td>Defines the data source name</td>
</tr>
<tr>
<td>Target Location for Pivot Table</td>
<td>Specifies the location where the new sheet will be sent to</td>
</tr>
<tr>
<td>Pivot Table Name</td>
<td>Defines the name of the new pivot report</td>
</tr>
<tr>
<td>Row Fields</td>
<td>Dimensions that will be reported horizontally</td>
</tr>
<tr>
<td>Column Fields</td>
<td>Dimensions that will be reported vertically</td>
</tr>
<tr>
<td>Page Fields</td>
<td>Dimensions reported on a global level</td>
</tr>
<tr>
<td>Data Fields</td>
<td>Aggregated measures reported within the content of the report</td>
</tr>
</tbody>
</table>

Click **OK**. The report will be created as a new sheet within the specified workbook.
Format Tab

- **Row Field Heading Color**
- **Column Field Heading Color**
- **Page Field Heading Color**

**Sum by Default**

- **No Gridlines on Sheet**
- **Freeze Window Pane for Data**
- **Zoom Sheet to %:** 75
- **Apply Number Format:** ###0.00

- **Hide Blanks**
- **Grand Total Columns**
- **Grand Total Rows**
- **Sub Total Row Fields**
- **Auto Sort Fields**

**Defaults**

- **Bold**

Defines colours used within the pivot report. Additional colour pallets, click the colour box.

Restores original default colours.

Uses the Sum Aggregation as default within.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Gridlines on Sheet</td>
<td>Removes the grid lines from the sheet</td>
</tr>
<tr>
<td>Free Window Pane for Data</td>
<td>Freezes the report headings</td>
</tr>
<tr>
<td>Zoom Sheet to ___ %</td>
<td>Zooms the sheet to the percentage specified</td>
</tr>
<tr>
<td>Apply Number Format</td>
<td>Changes the number format to what has been</td>
</tr>
<tr>
<td>Hide Blanks</td>
<td>Hide all Blanks</td>
</tr>
<tr>
<td>Grand Total Columns</td>
<td>Includes Grand Total for all the Columns</td>
</tr>
<tr>
<td>Grand Total Rows</td>
<td>Includes Grand Total for all the Rows</td>
</tr>
<tr>
<td>Sub Total Row Fields</td>
<td>Gives a Sub Total for the Row fields</td>
</tr>
<tr>
<td>Auto Sort Fields</td>
<td>Automatically Sorts the Fields</td>
</tr>
</tbody>
</table>
Home > Custom Add-In for Excel > Format Pivot
Format Pivot

The user is able to change the format of Pivot Tables from within existing reports as and when needed. This can be done without leaving an existing report pack.

1. Within the applicable Microsoft Excel report generated from the Report Manager, access the **Format Pivot** option from the **Report Tools** menu on the Microsoft Excel Menu bar.

2. Select **Format Pivot**. The **Pivot Table Format Wizard** will open.
3. Select the Pivot you wish to format.

4. Select the **Format** Tab.
5. Make the required changes (See *Quick Pivot*).

6. Select **OK**.
Add Accounts

If new accounts have been added into the General Ledger within the accounting system, these will be added to the lookup sheet and highlighted in green. But still need to be added to your Financial Report Layout.

(Please note: This function is intended for use with the shipped Financial reports and customized versions of these.)

1. The Add Accounts functionality can be accessed from the Report Tools menu on the Microsoft Excel Menu bar.

![Report Tools menu with Add Accounts option]

2. Select the Accounts to Insert dialog box will open.

![Select the Accounts to Insert dialog box]

A list of accounts that are not in the layout will appear.

3. Use the Type drop down arrow as well as the other filter
textboxes to locate the specific accounts.

4. Select the account that you wish to insert at the specified row. You can select a different row in Microsoft Excel while the Select the Accounts to Insert form is active.

5. Select the Insert button to add the accounts.

6. Select the Close button once all the accounts have been inserted.
About Report Tools

The *About Report Tools* displays which version of Sage Intelligence Reporting is currently installed.
The *About Report Tools* functionality can be accessed from the *Report Tools* menu on the Microsoft Excel Menu bar.
The Report Designer is an add-in built into Microsoft Excel.

It gives you flexible report design functionality from raw data in Microsoft Excel.

**Drag and drop** functionality of fields.

**Formula Builder** gives you the option to create additional calculated fields.

The **Report Designer** makes reporting simple, flexible and fast.

The **What If Analyzer** allows you to change a set of values and see the impact it has on the rest of your data. (Useful for forecasting)
The SAI Report Designer interface is shown, with various sections for Text Columns, Financials, and Rows. The Text Columns tab contains columns labeled ACCOUNTNO, ACCOUNTNAME, and UNTNOCOMPANY. The Financials section includes columns for Actual Q1, Actual Q2, Actual Q3, Actual Q4, Budget Q1, Budget Q2, Budget Q3, Budget Q4, Prior Q1, Prior Q2, Prior Q3, Prior Q4, Var AB Jan 20, Var AB Feb 20, Var AB Mar 20, Var AB Apr 20, Var AB May 20, and Var AB Jun 20. The Rows section is not fully visible, but it appears to include dates such as Actual Jan 20, Actual Feb 20, Actual Mar 20, Actual Apr 20, Actual May 20, Actual Jun 20, Actual Jul 20, and Actual Aug 20.
Home > Report Designer > Running a Report with a Predefined Data Setup
Running a Report with a Predefined Data Setup

1. Open the Report Manager.

2. Select the report you wish to run and click the green run button.

3. Please note if you have unmapped accounts the mapping tool will open. (See **Mapping tool** section). Once you have mapped your accounts you can continue to design your report.

4. The data will be rendered into Microsoft Excel.

5. You can now use the Report Designer to generate a report or edit a report layout.

6. To generate a report from the **BI Tools** tab, simply select **Quick Generate**, and a drop down menu will appear. Select the report layout you wish to generate.

   ![Quick Generate](image)

   Alternatively you can **Launch** the **Report Designer** and choose to **Generate** or **Edit** the report layout.

   ![Launch Report Designer](image)
7. If you choose this option you will be taken to the Main Menu, where you will choose **Load Layout**.

8. The menu interface will then come up, from here you can choose to **Generate**, **Edit**, **Copy** or **Delete** a layout.
9. If you select **Generate** the desired report layout will be delivered in Microsoft Excel.
Accessing the Sage Intelligence Reporting Report Designer

1. Run the Report Designer report from the Sage Intelligence Reporting Report Manager into Microsoft Excel.

2. You will access the Report Designer from the open Microsoft Excel workbook.

3. Select the **BI Tools** tab in Microsoft Excel.
4. **Launch** the Report Designer Layout Generator
5. This will bring up the Main Menu Screen.

6. Here you can choose to create a New Layout, Load an existing layout or Exit.
- **New Layout** option will allow you to create a report from scratch.

- **Load Layout** would bring up existing report layouts that ship with the Report Designer.

- **Exit** will close down the Sage Intelligence Reporting Report Designer main screen.
The Load Layout interface will display the existing report layouts that ship with the Report Designer and any new layouts that you have created.

From here you can select a layout and choose to edit, copy, delete or generate the layout.
- **Edit** – will allow you to edit the existing layout.
- **Copy** – will make an exact copy of an existing layout, you can then rename this copy.
- **Delete** – will remove the report layout from the menu.
- **Generate** – this will run the report layout selected.
This interface allows you to create layouts from scratch or edit existing report layouts.
• **Text columns**

(What level of detail do you want to view in your layout?)

1. **Text Columns** - Select fields here that you want to see at the most detailed level on your report. For example GLMain_Acc and GLAccDescription, depending on which accounting package you are using.

2. To add fields to the Text Columns area select the field from the fields in the **Text Columns** Tab.

3. To remove a field from the Text Columns area, right-click on the field in the **Text Columns** area.
Row Area

(What information do you want to see down the left hand side of the layout?)

1. Before you can add rows into the Row area you need to select a **Primary Row** to Group by. The **Primary Row Grouping** is mandatory. An example of a primary row grouping is Financial Category, GLCategoryDescription, Account Group, Main
Account. Again this will differ for the Accounting or ERP application you are using.

2. You can add a further 2 levels of grouping to the row area if required. In total there are 3 levels of grouping available in the row area.

3. You can now add your fields from the Rows Tab into the **Rows** area. For example: Sales, Cost of Sales, Income, Expenses. Or you can pull fields through from standard **calculated row fields** such as Gross Profit, Gross Profit %. These standard calculated fields will ship with the Report Designer layouts but you are able to edit, add new or delete calculated fields.

4. **Add Spacer** button simply adds a space between fields in the row area. Spacers can be dragged and moved to neaten your report layout when delivered in Microsoft Excel.

5. **Clear All** buttons will clear all the Row fields from the Row area.
1. **Columns Area**: you can add fields by selecting the **Columns Tab** and clicking on the required fields. For example, Actual Jan, Actual Feb, Actual March. Or you can add standard calculated fields, such as Actual Quarter 1, Actual Quarter 2.
2. You can add further grouping in the Column section if required. For example Company Name, Segments, Branch, Department. There is one level of grouping available across the top of the report.

3. **Add Spacer** button simply adds a space between fields in the column area. Spacers can be dragged and moved to neaten your report layout. **Clear all** buttons will clear all the Column fields from the column area.

4. Another option for adding fields to the Column area is to use the **Auto** or **Quarters** buttons.
Column Area
The auto selection button allows you to quickly create a layout, without having to drag individual fields into the column area.

**Actual** button will automatically add 12 months current figures to the column area, and bring in the spacers.

For example: If you tick **Actual** and **Budget**, then click on **Actual**, then set your Primary Row Grouping field which is the highest level that you would like to group accounts by. (Often the Account Category Description field) the following layout in the column area and Microsoft Excel worksheet will be displayed. Select the Rows and Text Fields you would like then you will very quickly have the Actual Figures interlaced with the Budget figures for 12 months of the year.

**Layout in the Report Designer Layout Designer**

**Layout in the Microsoft Excel Workbook**
Column Area
The **Quarters** Selection allows you to add quarters and half year figures automatically.

For example if you want to see your 1st half actual/ current figures versus what you have budgeted for the 2nd half of the year. You simply click the **1st half** button in the **Actual** section and then click the **2nd half** button in the **Budget** section, then set your Primary Row Grouping field which is the highest level that you would like to group accounts by. (Often the Account Category Description field) Finally select your rows and text columns you would like to view.
Calculated Fields

Standard calculated fields will ship with the standard Report Designer report layouts, but calculated fields can be added, edited or deleted. Simply select a calculated field and right-click. The option to add New Formula, Edit Formula or Delete Formula will
come up.

- If you choose **New Formula** or **Edit Formula** the formula builder will open.
- You can go ahead and create your own calculated fields using the standard and function items that exist in the formula builder.
Formula Builder

If you need to edit, add or delete calculated fields, you need to open the formula builder.

- **Clear All** button – clears all fields from the My Formula area.
- **Standard Items** – these are standard items that have been created and any new items you create will appear here.
- **Function Items** – includes your addition, subtraction, multiply, divide and other functions.
- **Scroll bar** – scrolls between all the saved standard items.
- **Add Value** button – allows you to add a value in the formula you create. For example calculating GP%. You would need to include a value to build this formula (GP/Sales)*100
- **Save** – will save the formula you create. You will then need to name this formula? The formula will be saved and will appear as a button in the calculated field’s area of your Report Designer Layout Interface.
- The **IS Percentage** check box will convert to a % if required.
- The **IS Variance** Check box will change signs of variances figures as per accounting practices. (see below for more detail)
- **Cancel** - will close the formula builder.

**See example below:** Actual Mar + Actual April + Actual May = Actual Quarter 1

**How does the variance button work in the formula builder?**

- The variance button caters for standard accounting calculations. The Variance calculation is based on the Account Type.

**Variance Button Explained**

- If you did $100 worth of Sales and your budget is $50 then the
Variance is $50 and is a positive value.

- If your Cost of sales is $100 and your budget is $50 then the Variance is $50 and is calculated as positive, but should in fact be negative as you are $50 over budget.

- The IS Variance calculation button caters for this. The variance calculation is based on account type

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>100</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Cost of Sales</td>
<td>100</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

When **IS Variance** is checked. The sign control is taken care of and delivers the correct result

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>100</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Cost of Sales</td>
<td>100</td>
<td>50</td>
<td><strong>-50</strong></td>
</tr>
</tbody>
</table>
Report Filter

The **Report Filter** is like a Page Field on a pivot table. It creates a drop down on the layout that allows one to view different filters on the data. The report filter allows you to select a field from the source data that you assign to a page (or filter) orientation in the layout designer. For example, **Year** could be used for a report filter. You can use the Year field to display summarized data for only 2010, only 2011, and so on. Another example of a Report Filter could be **Company Name**.

![Image of Excel spreadsheet showing income statement with report filter]

**Note**: If you select a Report Filter, for example: Company Name. When you generate the report into Microsoft Excel the default report will include all the Companies information, (Company ABC, Company DEF and Company MNO), You can then select to view 1 company at a time. The functionality at this stage does not allow to Select Multiple Items.
Summary

If you designed a layout using the following criteria, it would yield the below layout in Microsoft Excel. The data and fields will differ depending on the accounting application you are using.

Report Filter
• Company Name

Text Columns:
• GLAccNo
• GLCatDescription

Primary Row Group
• Financial Category

Rows
• Sales
• Cost of Sales
• Gross Profit, Gross Profit %, Other Income, Expenses and Tax

Columns
• Actual Mar, Actual April, Actual May
<table>
<thead>
<tr>
<th>Item</th>
<th>Mar 09</th>
<th>Apr 09</th>
<th>May 09</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td>Actual</td>
<td>Actual</td>
<td>Actual</td>
</tr>
<tr>
<td>000001 Sales</td>
<td>2,354,446.72</td>
<td>2,568,127.22</td>
<td>7,088,403.48</td>
</tr>
<tr>
<td>000002 Sales - Preliminary Payment</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>000003 Sales - Other</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Cost of Sales</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>000001 Cost of sales - Material</td>
<td>1,105,409.60</td>
<td>1,719,772.60</td>
<td>2,084,204.60</td>
</tr>
<tr>
<td>000002 Cost of sales - Labour</td>
<td>40,012.50</td>
<td>123,747.50</td>
<td>-</td>
</tr>
<tr>
<td>000003 Cost of sales - Travel &amp; Acc</td>
<td>38,216.49</td>
<td>15,410.60</td>
<td>131,353.23</td>
</tr>
<tr>
<td>000004 Cost of sales - Inventory</td>
<td>38,131.35</td>
<td>44,546.40</td>
<td>22,815.60</td>
</tr>
<tr>
<td>000005 Living out allowance</td>
<td>-</td>
<td>-</td>
<td>16,340.00</td>
</tr>
<tr>
<td>000000 Inventory Adjustments</td>
<td>-</td>
<td>9,051.63</td>
<td>26,505.90</td>
</tr>
<tr>
<td>000000 Inventory count variance</td>
<td>-</td>
<td>450.67</td>
<td>435.50</td>
</tr>
<tr>
<td>000000 Inventory purchase variance</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>000000 Non Residence tax</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>000000 Contact Labour Hire</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>000000 NECI Company Contribution</td>
<td>-</td>
<td>14,874.12</td>
<td>26,111.92</td>
</tr>
<tr>
<td>000000 Salaries</td>
<td>944,376.46</td>
<td>1,016,951.34</td>
<td>1,888,931.56</td>
</tr>
<tr>
<td>000000 Wages</td>
<td>23,696.86</td>
<td>-</td>
<td>(23,410.60)</td>
</tr>
<tr>
<td>000000 UF - Company contribution</td>
<td>6,317.80</td>
<td>6,454.40</td>
<td>11,772.18</td>
</tr>
<tr>
<td><strong>BROKER PROFIT</strong></td>
<td>40,047.71</td>
<td>(273,171.90)</td>
<td>2,229,715.06</td>
</tr>
<tr>
<td><strong>BROKER PROFIT %</strong></td>
<td>4.73</td>
<td>(44.63)</td>
<td>32.44</td>
</tr>
<tr>
<td><strong>Other Income</strong></td>
<td>9,514.89</td>
<td>4,691.51</td>
<td>22,496.73</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td>375,262.13</td>
<td>329,988.43</td>
<td>368,395.69</td>
</tr>
<tr>
<td><strong>Tax</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Generating your Layout

Once you have designed your new layout as per your specific requirements, you can now generate your layout.

To generate your Report layout into Microsoft Excel select the **Generate Layout** button. The report will be delivered as per your desired layout or you could generate your saved layout from the Load Layout interface.
Report Designer Search Function

This function will allow you to search the rows and columns area for specific buttons. For example if you search for **actual** only the buttons containing the actual figures will appear in the columns tab. See below.
1. **Main Menu** – this option will take you to the Report Designer Start up screen where you will be able to choose:

   - New Layout
   - Load Layout
   - Exit
2. **Back** - will take you to the Load Layout Screen where you can choose to:
   - **Edit**
   - **Copy**
   - **Delete**
   - **Generate a report**
The Microsoft Excel Workbook

Once you have generated your layout, your report layout is delivered as
per your designed layout in Microsoft Excel. You can begin your analysis immediately.
You can now create and link this Microsoft Excel template to the report in the Report Manager. If you wish to edit the layout before creating and linking, you can simply select the **Quick Edit** button. This will take you back to the Report and Layout Designer.
Make your changes and then generate your report again.
**BI Tools Tab**

Launch – opens the Sage Intelligence Reporting Report Designer

Refresh Data – refreshes the data in your workbook when the workbook has been created and linked to a report. For example, when new accounts have been added in the accounting package and upon rerunning the created and linked report, Refresh Data can be used to bring through all new accounts or remove deleted accounts. **NOTE:** You do not need to select the Refresh Data button if you have generated a new layout, as this will automatically include the latest information from the sheet1 data.

Change month – allows you to change the month and bring through the data for the specified months. The report pulls through 2 years of financial data so you will be able to pan through the 2 years of information

What if Analyzer – opens the What If Analyzer screen which allows you to dynamically change figures in your spreadsheet and thus assist you when forecasting/budgeting or creating projections.

Quick Generate – this is a drop down menu of all the report layouts you have previously saved. Instead of opening up the Report Designer to run your layouts, you can simply run them from the Quick Generate menu. See the diagram below

Quick Edit - this allows you to quickly edit a report without having to launch the Report Designer from the main menu
**What If Analyzer**

When you have your report open in Microsoft Excel you may like to use the *What If Analyzer*. The *What If Analyzer* allows you to dynamically change figures in your spreadsheet and thus assist you when forecasting/ budgeting or creating projections.

You can open the *What If Analyzer* from the BI Tools Tab or from the wizard once the report is generated.

In the following example, the *What If Analyzer* is used to forecast a 25% increase in Sales for a particular month. As you drag the slider up or down the % will increase or decrease.

You can select individual columns/ rows or you can adjust an entire row. For example instead of only increasing a months sales by 25%, you could go to the Sales Row and increase the entire row by 25%. 
Company ABC

INCOME STATEMENT
for the period ending February 2010

<table>
<thead>
<tr>
<th></th>
<th>Mar 09</th>
<th>Apr 09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td>3627.946</td>
<td>2505.967</td>
</tr>
<tr>
<td>Budget</td>
<td>3885.842</td>
<td>3853.764</td>
</tr>
<tr>
<td>Var ActBl</td>
<td>542.064</td>
<td>106.825</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mar 09 Budget</th>
<th>Mar 09 Var ActBl</th>
<th>Apr 09 Budget</th>
<th>Apr 09 Var ActBl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>142,068</td>
<td>114,268</td>
<td>142,068</td>
<td>114,268</td>
</tr>
<tr>
<td>Cost of Sales</td>
<td>41,612</td>
<td>40,000</td>
<td>4161.060</td>
<td>2495.967</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>98.08%</td>
<td>96.52%</td>
<td>.98%</td>
<td>.96%</td>
</tr>
<tr>
<td>Gross Profit %</td>
<td>98.30%</td>
<td>.97.20%</td>
<td>98.30%</td>
<td>.97.20%</td>
</tr>
<tr>
<td>Other Income</td>
<td>9,559</td>
<td>17,700</td>
<td>4,175,419</td>
<td>2,513,647</td>
</tr>
<tr>
<td>Total Income</td>
<td>.33.83%</td>
<td>.21.36%</td>
<td>.33.83%</td>
<td>.21.36%</td>
</tr>
<tr>
<td>Total Income %</td>
<td>2484.821</td>
<td>2264.643</td>
<td>2484.821</td>
<td>2264.643</td>
</tr>
<tr>
<td>Expenses</td>
<td>1630,598</td>
<td>249,054</td>
<td>1630,598</td>
<td>249,054</td>
</tr>
<tr>
<td>Tax</td>
<td>.38.09%</td>
<td>.8.63%</td>
<td>.38.09%</td>
<td>.8.63%</td>
</tr>
</tbody>
</table>
Quick Generate

This is a drop down menu of all the report layouts you have previously saved. Instead of opening up the Report Designer to run your layouts, you can simply run them from the **Quick Generate** menu. See the diagram below.
Quick Edit
This allows you to quickly edit a report without having to launch the Report Designer from the main menu.
Mapping Tool Process

The Mapping Tool allows you to map Categories into predefined Reporting Groups that are used by the default financial layouts.

The mappings and groupings performed here are saved within a grouping field in the first worksheet of your Microsoft Excel Workbook, named PrimaryGrouping, which can be used within Report Designer layouts. If you do not require the default report designer layouts to work correctly and intend to group your report's rows using other grouping fields relevant to your company, this step can be skipped (cancelled) but will require you to build some Row Groupings manually.

Depending on how you plan to group your row reporting groups, the following procedures can be followed:
I plan to group my GL Accounts on my reports differently to how they are grouped within my ERP system

Use the Mapping Tool to check if the Group From field is set to use the ERP system’s Account Number

If you would like to change the Group From field to a different field, change the source of the categories

Now using the Mapping Tool, map your account numbers to the custom row reporting groups

In the Report Designer, in the Rows area, ensure that the rows Group by... field is PrimaryGrouping

I plan to group by a field which comes directly from my ERP system

If the Mapping Tool appears asking you to map your categories, click Cancel.

In the Report Designer, in the Rows area, click Select in the Group by... field and select the GL account which contains your row reporting groups

To prevent the Mapping Tool from appearing every time the report is run, you can disable it

I plan to use my ERP system’s sub-grouping fields, but would like to group them under custom master groupings

Use the Mapping Tool to check if the Group From field is set to use the ERP system’s sub groupings account

If you would like to change the Group From field to a different field, change the source of the categories

Now using the Mapping Tool, map your sub accounts to the correct row reporting groups.

In the Report Designer, in the Rows area, ensure that the rows Group by... field is PrimaryGrouping
Mapping Tool

Accessing the Mapping Tool

In the event that the Reporting Group that a category has been mapped to, needs to be changed, use the **Mapping Tool** Icon on the Microsoft Excel BI Tools ribbon to access the Mapping Tool.
Using the Mapping Tool

In most instances when you are running a standard report from the Report Designer your Categories will automatically be mapped to Reporting Groups.

If you have added any new Categories, these will appear as Unmapped Categories when the report is run again, and you will need to map these to Reporting Groups.

To understand the Mapping Tool window please be aware of the following definitions:

**Categories** : These are extracted as you have created them in your source system.

**Unmapped Categories** : These are Categories from your source system that must be mapped to designated Reporting Groups in order to be used in report layouts.
**Mapped Categories**: These are Categories that have been mapped to designated Reporting Groups and can be used in report layouts.

**Row Reporting Groups**: These Reporting Groups can be used to generate multiple report layouts.

If your accounts need to be mapped please use the following process:

1. Select the **Row Reporting Groups** on the right.

2. On the left, in the **Unmapped Categories** section, select the category to map to the Reporting Category selected in step 1. Multiple categories may be selected by holding down the **CTRL** key and clicking on the category.

3. Click **Add**.
4. Once completed, click **OK**.

5. You should create and link the workbook as a template file back to the Report Designer report in the Report Manager. This will ensure that your mappings are saved for the next time you run out the report.

6. Run Report Designer again and generate new layouts with the new Mapping now in place.
Mapping Tool Glossary

**Dividends** are payments made by a corporation to its shareholder members. It is the portion of corporate profits paid out to stockholders. When a corporation earns a profit or surplus, that money can be put to two uses: it can either be re-invested in the business (called retained earnings), or it can be paid to the shareholders as a dividend. Many corporations retain a portion of their earnings and pay the remainder as a dividend.

**Long term borrowing**, in economics, is the period of time required for economic agents to reallocate resources, and generally re-establish equilibrium. The actual length of this period, usually numbered in years or decades, varies widely depending on circumstantial context. During the long term, all factors are variable.

A **sale** is the pinnacle activity involved in selling products or services in return for money or other compensation. It is an act of completion of a commercial activity.

**Cost of Sales** includes the direct costs attributable to the production of the goods sold by a company. This amount includes the materials cost used in creating the goods along with the direct labor costs used to produce the good. It excludes indirect expenses such as distribution costs and sales force costs. COS appears on the income statement and can be deducted from revenue to calculate a company's gross margin.

**Expense** has a very specific meaning. It is an outflow of cash or other valuable assets from a person or company to another person or company. This outflow of cash is generally one side of a trade for products or services that have equal or better current or future value to the buyer than to the seller.

To **tax** is to impose a financial charge or other levy upon a **taxpayer** (an individual or legal entity) by a state or the functional equivalent of a state such that failure to pay is punishable by law.

**Fixed asset**, also known as **property, plant, and equipment** (PP&E), is a term used in accounting for assets and property which cannot easily be converted into cash. This can be compared with current assets such as cash or bank accounts, which are described as liquid assets. In most cases, only tangible assets are referred to as fixed.
**Current asset** is an asset on the balance sheet which is expected to be sold or otherwise used up in the near future, usually within one year, or one business cycle - whichever is longer. Typical current assets include cash, cash equivalents, accounts receivable, inventory, the portion of prepaid accounts which will be used within a year, and short-term investments. On the balance sheet, assets will typically be classified into current assets and long-term assets.

**Accounts receivable (A/R)** is one of a series of accounting transactions dealing with the billing of customers who owe money to a person, company or organization for goods and services that have been provided to the customer. In most business entities this is typically done by generating an invoice and mailing or electronically delivering it to the customer, who in turn must pay it within an established time frame called credit or payment terms.

**Inventory** is a list for goods and materials, or those goods and materials themselves, held available in stock by a business.

**Investment** is the active redirection of resources/assets to creating benefits in the future; the use of resources/assets to earn income or profit in the future. It is related to saving or deferring consumption.

**Share capital** or **issued capital** (UK English) or **capital stock** (US English) refers to the portion of a company's equity that has been obtained (or will be obtained) by trading stock to a shareholder for cash or an equivalent item of capital value. For example, a company can set aside share capital to exchange for computer servers instead of directly purchasing the servers from existing equity.

**Retained earnings** refer to the portion of net income which is retained by the corporation rather than distributed to its owners as dividends. Similarly, if the corporation makes a loss, then that loss is retained and called variously **retained losses**, **accumulated losses** or **accumulated deficit**. Retained earnings and losses are cumulative from year to year with losses offsetting earnings.

**Shareholder loan** is a debt-like form of financing provided by shareholders. Usually, it is the most junior debt in the company's debt portfolio, and since this loan belongs to shareholders it should be treated as equity. Maturity of shareholder loans is long with low or deferred interest payments. Sometimes, shareholder loan is confused with a loan
from company to shareholders. A liability is defined as an obligation of an entity arising from past transactions or events, the settlement of which may result in the transfer or use of assets, provision of services or other yielding of economic benefits in the future.

Accounts payable is a file or account that contains money that a person or company owes to suppliers, but has not paid yet (a form of debt). When you receive an invoice you add it to the file, and then you remove it when you pay. Thus, the A/P is a form of credit that suppliers offer to their purchasers by allowing them to pay for a product or service after it has already been received.

Equity, in finance and accounting, is the residual claim or interest of the most junior class of investors in an asset, after all liabilities are paid. If valuations placed on assets do not exceed liabilities, negative equity exists. In an accounting context, Shareholders' equity (or stockholders' equity, shareholders' funds, shareholders' capital or similar terms) represents the remaining interest in assets of a company, spread among individual shareholders of common or preferred stock.

RETINC (Retained Income / (Accumulated Loss)) – is a pseudonym given for the calculation of the monthly profit or loss. The total each month is derived by summing the income statement accounts for that period. This total is then used in the balance sheet, under the Equity section, to bring through the current year profit or loss and to enable the balance sheet to balance.
Understanding Reporting Groups

The **PrimaryGrouping** field has been populated with predefined values based on IFRS or GAAP to provide a starting point for grouping GL accounts. The **Group into** field refers to the **PrimaryGrouping** field by default. To customize this list, Row Reporting groups can be added or deleted by clicking the **Add** or **Delete** button on the right of the Row Reporting Groups.

In the mapping tool window, the **Group from** field refers to the column field in the report which contains values which a user will map to either one of the predefined or custom Row Reporting Groups. The **Group from field can be changed** to either use a GL account’s account number or linked account group.

In the example below, the **Group from** account has been changed to
**GLAccountNo**, and the account numbers have been mapped to the correct row reporting groups.

The above example will result in the rows being listed in your reports as follows:
<table>
<thead>
<tr>
<th>Revenue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>40000000000</td>
<td>Sales</td>
</tr>
<tr>
<td>40000000000E</td>
<td>Sales-NE</td>
</tr>
<tr>
<td>40000000000W</td>
<td>Sales-NAV</td>
</tr>
<tr>
<td>40000000000SE</td>
<td>Sales-Corp-Corp-SE</td>
</tr>
<tr>
<td>40000000000SW</td>
<td>Sales-SW</td>
</tr>
<tr>
<td>40000100000</td>
<td>Sales-Hw-Corp-Corp</td>
</tr>
<tr>
<td>40000400000</td>
<td>Sales-Toy-Corp-Corp</td>
</tr>
<tr>
<td>41000000000</td>
<td>Rev Hardware-Corp-Corp-Corp</td>
</tr>
<tr>
<td>41000100000</td>
<td>Revenue Hardware</td>
</tr>
<tr>
<td>41000100000E</td>
<td>Revenue - Hardware</td>
</tr>
<tr>
<td>41000100000W</td>
<td>Revenue - Hardware</td>
</tr>
<tr>
<td>41000100000SE</td>
<td>Revenue - Hardware</td>
</tr>
<tr>
<td>41000100000SW</td>
<td>Revenue - Hardware</td>
</tr>
<tr>
<td>41000200000</td>
<td>Revenue Software</td>
</tr>
<tr>
<td>41000200000E</td>
<td>Revenue - Software</td>
</tr>
<tr>
<td>41000200000W</td>
<td>Revenue - Software</td>
</tr>
<tr>
<td>41000200000SE</td>
<td>Revenue Software</td>
</tr>
<tr>
<td>41000200000SW</td>
<td>Revenue - Software</td>
</tr>
<tr>
<td>41000300000</td>
<td>Service Sales</td>
</tr>
<tr>
<td>41000300000E</td>
<td>Service Sales</td>
</tr>
<tr>
<td>41000300000W</td>
<td>Service Sales</td>
</tr>
<tr>
<td>41000300000SE</td>
<td>Service Sales</td>
</tr>
</tbody>
</table>
Changing the Source of the Categories

It is possible to change both the categories and the reporting groups to change the report row layout to suit your GL structure. To do this, do the following:

1. Open the Report Manager.
2. Click on a Report Designer report.
3. In the Properties window, ensure **Show Advanced** is selected.
4. Scroll down to the **Run Add-Ins** field and select the ellipses button.
5. Select `ExcelGenieAlchemexAddin,Custom,MapAccount`
6. Select **OK**.
7. You can now change the **Group from** field and click **OK**.
The **Group from** field can be set to any column in the hidden **Sheet1** of your report, which is derived from the column fields loaded on the report in the report manager, example below:

8. Always remember to Create and Link the report in the Report Manager in order to save your settings for the next time you run your report.
Disabling the Mapping Tool

If you intend to group your report’s rows using a field which comes directly from your ERP system, the mapping tool can be disabled in order to prevent it from appearing every time your report is run.

To disable the mapping tool, do the following:

1. In the Report Manager, click on your financial reports designer report in the object window, and select **Show Advanced** in the properties window.

2. In the **Run Add-Ins field**, highlight the following text:
   
   ExcelGenieAlchemexAddin.Custom.MapAccountCategories
   (AccountGroupDescription,PrimaryGrouping,1)

3. Press **Delete** on your keyboard.

4. Click **Apply**.

You will now need to build your row groupings manually.
Report Tools

Report Tools is a drop down menu found in the Add-Ins tab in Microsoft Excel. This includes the standard Sage Intelligence Reporting add-ins.

- **Drill-Down** - allows Sage Intelligence Reporting to interrogate data directly from within your Microsoft Excel reports. A common scenario might be where one high level report needs to drill down to line level transactional data in other reports. As a fast interrogation method the Drill-Down tool allows individual reports to be executed with parameters based on Microsoft Excel cell values.

- **Hide Zero Rows** - is an add-in which can aid in the analysis of data. Specifically the tool allows rows within a selection to be hidden based on a Zero value in a specified column. This can be particularly useful when viewing financial type reports.

- **Quick Pivot** – is a fast tracking reporting wizard which you can use to very quickly create a Pivot Table from your raw data.

- **Format Pivot** – allows you to format your Pivot Table.
What are Reporting Trees?

Although you can create financial reports without the aid of a reporting tree, the reporting tree allows you to model a very sophisticated reporting structure and view your organization in many different ways with the click of a button. Some companies may have very complex corporate hierarchies that require hundreds of tree units, as well as other hierarchies that require much fewer tree units.

Most organizations have a hierarchical structure in which departments (or other business units) report to one or more higher-level units. In a traditional organizational chart, the lower units on the chart typically report to increasingly higher units.

Sage Intelligence Reporting uses the term reporting unit for each box in an organizational chart. A reporting unit can be an individual department from the general ledger, or it can be a higher-level, summary unit that combines information from other reporting units. For a Report Designer layout that includes a reporting tree, one report is generated for each reporting unit and at the summary level. All of these reports use the text columns, row and column layouts that are specified in the Report Designer.

Each reporting tree contains a group of reporting units. Sage Intelligence Reporting allows you to easily add or change reporting units without requiring a change to your financial data.
Reporting Unit Structures

Sage Intelligence Reporting uses the following kinds of reporting units:

- A detail unit draws information directly from the financial data or from a Microsoft Excel spreadsheet file.
- A summary unit summarizes data from lower-level units.

A reporting tree consists of parent reporting units and child reporting units:

- A parent reporting unit is a summary unit that pulls summarized information from a detail unit. A summary unit can be both a detail unit and a summary unit; that is, a summary unit can draw information from a lower unit, the financial data, or an Excel spreadsheet. Thus, a parent unit can, in turn, be the child unit of a higher parent unit.
- A child reporting unit can be either a detail unit that pulls information directly from the financial data or a spreadsheet, or it can be an intermediate summary unit (that is, the parent unit to a lower unit, but also the child unit to a higher-level summary unit).

The following diagram shows the parent and child reporting units, and their hierarchical relationship, for the organization **Worldwide Enterprises inc.**
The lowest-level detail reporting units (Retail Sales, Wholesale Sales, Lab and Studio) represent departments in the financial data. The higher-level summary units simply summarize information from the detail units.

In Sage Intelligence Reporting, you can create an unlimited number of reporting trees to view your organization in different ways. Each reporting tree can contain any combination of departments and summary units. By rearranging the structure among the reporting units, you can create different reporting trees. You can then use the same Report Designer Layout with each reporting tree, enabling you to create different financial report layouts very quickly.

For example, the diagram below shows a reporting tree that is essentially the same as the reporting tree that is shown above. The difference is that the reporting structure displays an organizational structure that is divided by business function instead of by location. These two reporting trees demonstrate different perspectives on entity operations.
If you create several different reporting trees, you can print a series of financial statements each month that analyze and present your entity's operations in various ways.
Parent Child Relationships

The most common type of reporting tree is composed of parent units that pull summarized information from the detail units and child units that contain detail units of account information. However, many detail/summary hierarchy combinations can be created. A child unit can be both a child to the higher unit as well as a parent to a lower unit. See topic Reporting Unit Structures.

You can create this parent/child hierarchy structure by moving individual reporting units or an entire branch (parent unit and all child units) to higher or lower levels on the graphical tree. This is called promoting and demoting units. Promoting a unit moves it to a higher level in the tree. Demoting a unit moves a unit to a lower level. When you build a reporting tree, you can promote and demote reporting units using a drag-and-drop operation.
Account Filters

Most organizations use an account structure that separates business entities into different categories. A fully qualified account contains a value for the natural segment eg. Cash or Sales, as well as values for additional segments, eg. Location, Division and Department. The following figure demonstrates how the natural segment and the Identifying segments combine to form a fully qualified account number.

The distinction between the natural and identifying segment is critical to the successful use of the Report Designer. Typically users specify the natural segment in a row definition and the identifying segment in a reporting tree definition. When reports are generated, these values combine to pull specific financial records from the source.

Reporting Trees support the use of special characters as a way to identify multiple segment values without specifically naming each one.

<table>
<thead>
<tr>
<th>Character</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td>Question Mark A placeholder for a single character in a segment. In the above example, the value &quot;1100-2??-100&quot; will return all data with a segment range between &quot;1100-2000-100&quot; to &quot;1100-2999-100&quot; which will be all retail sales cash transactions from all branches with codes between 2000 and 2999.</td>
</tr>
<tr>
<td></td>
<td>A placeholder for one or more characters.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>*</td>
<td>Asterisk</td>
</tr>
<tr>
<td>OR</td>
<td>Used to describe multiple segments. In the above example, the value &quot;<strong>1100-2000-100 OR 1100-2000-200</strong>&quot; will return all data with a segment of either 1100-2000-100 or a segment range of 1100-2000-200 which will be all retail sales cash transactions from New York branch or wholesale sales cash transactions from New York (if 200 represented wholesale sales).</td>
</tr>
<tr>
<td>TO</td>
<td>Used to describe a range of segments. In the above example, the value &quot;<strong>1100-1??-100 TO 1100-8??-100</strong>&quot; will return all data with a segment range from 1100-2000-100 to 1100-8999-100 which will be all cash retail sales from all branches whose branch segments range from 1000 to 8999.</td>
</tr>
</tbody>
</table>
Account Filter Examples

Depending on the size of the organization, fully qualified account number segments can have different representations for different companies. Example below:

In the above example to include all cash transactions, an account filter rule of 1100-????-??? would be used.

An extra digit may even be added to further identify a segment:

In this example to include all cash transactions, an account filter rule of 1100-????-???? would be used.
Accessing Reporting Trees

**Method**

1. Run a Report Designer enabled report from the Sage Intelligence Reporting Report Manager.

2. In Microsoft Excel, select the **BI Tools** Tab.

3. Select the **Reporting Trees** button.

4. From the **Manage Reporting Trees** window, you can now **Add**, **Edit**, **Delete**, **Rename** or **Duplicate** your trees.
Creating a New Reporting Tree

Before you build any reporting trees, you will first need to determine the various reporting structures your company will require. The best approach is to draw an organizational chart of your company. Refer to the topic, Reporting Unit Structures. Use your current general ledger departments as the lowest detail level. Add to these as many boxes as you need to show higher-level divisions or regions. Remember that each box represents a potential reporting unit in any of your reporting trees.

1. From the Manage Reporting Trees window, select Add.

2. Enter a name for your Reporting Tree.
3. In the right window each reporting unit will need to be added in a separate row with its relevant account filter rule.
4. The graphical tree on the left side of the Reporting Tree Manager allows you to visualise the relationship of parent/child unit hierarchy while the right side displays each reporting unit in a separate row with its relevant account filter. The Preview Pane will change dynamically to display the results of the account filter for each reporting unit. Example below:
5. An optional Company filter may be applied. This will further filter the reporting unit to apply only to a specified company.

6. An optional distribution instruction may be added to each reporting unit. The distribution instruction entered here will automatically be linked to the generated worksheet. This prevents instructions from having to be selected and linked to each individual report.

7. Using drag and drop functionality, you can arrange your reporting
units into parent/child hierarchies.

8. Click **Apply** to save and continue. Click **OK** to save and exit.
Editing Reporting Trees

Method

1. From the Manage Reporting Trees window, select the Reporting Tree you wish to edit and select the **Edit** button.

![Manage Reporting Trees window](image)

2. Make the necessary changes. Click **Apply** to save and continue. Click **OK** to save and exit.
Deleting a Reporting Tree

**Method**

1. From the **Manage Reporting Trees** window, select the Reporting Tree you wish to delete and select the **Delete** button.

   ![Manage Reporting Trees window](image)

2. A confirmation window will open. Select **Yes** to permanently delete the reporting tree.

   ![Delete Reporting Tree window](image)
Renaming a Reporting Tree

1. From the Manage Reporting Trees window, select the Reporting Tree you wish to rename and select the Rename button.

2. Enter the new name for the reporting tree.

3. Select OK to save your change. Selecting Cancel will exit without saving.
Duplicating a Reporting Tree

1. From the **Manage Reporting Trees** window, select the Reporting Tree you wish to duplicate and select the **Duplicate** button.

![Manage Reporting Trees Window]

2. Enter a name for the copy of the reporting tree.

![Enter a Value Window]

3. Select **OK** to save.
Toggle Switch Sign

When you generate a pre-defined layout, you will notice that certain fields in the row groupings have their signs switched, in particular, revenue accounts which are stored as negative values in the underlying data. It does not make sense to present these in a statement as negative figured which is why the sign is switched to a positive.

In the situation where you delete the primary row grouping and replace it with a new one of your choice, the Designer has no way of telling what fields you are going to include within the newly selected row primary row grouping, so by default the field’s sign status will be the same as that in the underlying data – for revenue accounts this will be negative values. You have the option to switch the sign of any of these fields that you include in the primary row grouping. You do this by right-clicking on the button of the field that you want to change the sign of...

And clicking on the **Toggle Switch Sign** popup. This will then switch the sign of this field from its default value in the underlying data. If it is negative, it will become positive, and vice versa.
Home > Report Designer > Troubleshooting > Enabling the BI Tools Tab
Enabling the BI Tools Tab

If the BI Tools tab is missing in Microsoft Excel it could be due to the following:

- BI Generator could be inactive
- BI Generator could be disabled
- BI Generator Installer files may need to be run

Method

Open the Add-ins Manager in Microsoft Excel Options

1. In Microsoft Excel 2007, select the Office Logo in the top left of the window, and go to Excel Options. (In Excel 2010, select File > Options.)

2. Select Add-Ins.

3. Locate the BI Generator Add-in.
4. If it is listed in Inactive Application Add-ins, then it must be enabled. At the bottom of the window, select Manage COM Add-ins, then select Go.

5. If it is listed in Disabled Application Add-ins, then it must be enabled. At the bottom of the window, select Disabled Items, then select Go.
6. If Inactive, select the **BI Generator** Add-in and click **OK**.

7. If Disabled, select the **BI Generator** Add-in and click **Enable**.

8. Typically, the BI Tools tab immediately appears. If it does not, close down all instances of Microsoft Excel that you have open, and re-do these steps. To ensure all instances of Microsoft Excel are closed, complete the following steps:

9. Open Task Manager. (Right-click on your Task bar and select **Start Task Manager**)

10. Select the **Processes** Tab and locate any **EXCEL.EXE** items and (for each one) right-click on the item and select **End Process**.

If the BI Tools tab is still not available, follow the process below:

1. Navigate to **C:\Program Files (x86)\Common Files\BIGenerator\Installers**
2. Install **o2007pia.msi**
3. Install `VSTORInstaller.exe`

4. Repeat the Process as detailed previously for activating and enabling the BI Generator using the Excel Options. The BI Tools will now be available in Excel.
Understanding RETINC
(Retained Income / (Accumulated Loss))

What is RETINC?
RETINC (Retained Income / (Accumulated Loss)) – is a pseudonym given for the calculation of the monthly profit or loss.

How is it calculated?
The total each month is derived by summing the income statement accounts for that period.

Where is it used?
This total is then used in the balance sheet, under the Equity section, to bring through the current year profit or loss and to enable the balance sheet to balance.
Security Manager

The Security Manager is an Administration tool that lets an Administrator manage Roles (User Groups) and assign users and reports to each Role. When security is enabled the User will be required to login and then will only have access to the reports selected for the Role that the user belongs to.
The following rules apply:

- Report level security will by default be switched off at installation and must be switched on within Security Manager to take effect.
- Only users added to the Administrators role will be allowed to Add/Edit/Delete reports within the Report Manager.
- The list of users within Sage 300 ERP will be synchronised with the list of users in the Security Manager.
The Security Manager allows you to:

Set Security On or Off:

1. Check or Un-check the **Security On** checkbox

Manage Roles (Add, Delete, Rename):

1. Click the **Add** button (under the Roles window) to Add a new Role
2. Click the **Delete** button (under the Roles window) to Delete a Role
3. Right-click on a Role (in the Roles window) and select the **Rename** menu option to rename a Role.

Manage Users (Manager Users > Add, Delete, Rename, Change Password)

1. Click the Manager Users button to reveal the User options window
2. Click the Add button (in the Users window) to Add a new User, you will be prompted for a Username and Password
3. Click the Delete button (in the Users window) to Delete a User
4. Click the Rename button (in the Users window) to Rename a User
5. Click the Change Password link (in the Users windows) to change a password

Select which Users belong to which Roles.
1. Select the relevant Role.

2. Select the User’s names (in the Users tab on the right) that belong to the selected Role.

Select which Reports belong to which Roles.

1. Select the relevant Role.

2. Select the Reports’ names (in the Reports tab on the right) that belong to the selected Role.
Security Manager Access

Method

1. Open your Security Manager.

2. In the Security Manager window, it is highly recommended that the Security On checkbox be enabled. Click the button to enable it.

3. You will be prompted for a password. Type in a password and click Set.
4. Confirm your password. This password will be required in future to gain access to the Security Manager.

5. Click **OK**. A confirmation dialog box will appear.

6. Click **Ok**.

7. Proceed to **Add Roles**
Adding Roles

1. From the Users tab, click the Add button under the Roles section to add a new role.

![Security Manager](image)

2. Enter a name for the Role.

![Enter Role Name](image)

3. Your role will now be added. Repeat steps 1-4 for each additional role you would like to add.

4. Select the users that should belong to each role.
5. Passwords for users are by default, blank. For each user, click **Change Password** to set the password.

6. Proceed to **Add Reports to Roles**.
Adding Reports to Roles

1. Click on the **Reports** tab to assign access to specific reports for each role.

2. For each role, select the role in the left pane, and select the reports in the right pane which that role must have access to.

   - **Note**: Union/sub reports are automatically added when the main report is added.
The users now assigned to that role, have access to the reports that the system administrator has assigned to the role.
Home > OLAP Module > Introduction
Introduction

Sage Intelligence Reporting is a business intelligence reporting tool that incorporates a number of modules including many innovative features. Sage Intelligence Reporting enables you to connect to any supported ODBC compliant database and extract the data into Microsoft Excel where the data can be summarized and analyzed using Microsoft Excel's extensive data analysis tools. The Microsoft Excel workbook and its workings are then linked to Sage Intelligence Reporting to create a permanently linked Microsoft Excel template. This enables you to extract the data to a Microsoft Excel workbook in the way you want it to be presented.

The *OLAP Module* (OLAP) works with, and is dependent on, the Connector, Report Manager and Microsoft Excel being licensed to a user’s machine.
On-Line Analytical Processing (OLAP)

OLAP is more than an acronym that means Online Analytical Processing. OLAP is a category of software tools that provides analysis of data stored in a database. With OLAP, analysts, managers, and executives can gain insight into data through fast, consistent, interactive access to a wide variety of possible views. Stated another way, OLAP is a category of applications and technologies for collecting, managing, processing, and presenting multidimensional data for analysis and management purposes. A widely adopted definition for OLAP used today in five key words is: Fast Analysis of Shared Multidimensional Information (FASMI).

- **Fast** refers to the speed that an OLAP system is able to deliver most responses to the end user
- **Analysis** refers to the ability of an OLAP system to manage any business logic and statistical analysis relevant for the application and user. In addition, the system must allow users to define new ad hoc calculations as part of the analysis and report without having to program them
- **Shared** refers to the ability of an OLAP system being able to implement all security requirements necessary for confidentiality and the concurrent update locking at an appropriate level when multiple write access is required
- **Multidimensional** refers to a concept that is the primary requirement to OLAP. An OLAP system must provide a multidimensional view of data. This includes supporting hierarchies and multiple hierarchies
- **Information** refers to all of the data and derived data needed, wherever the data resides and however much of the data is relevant for the application
Types of Reporting

Organizations generally require two types of information. One is fixed format reporting (Sage Intelligence Reporting Standard Report Templates), and the other is analysis (OLAP Module). The former requires information to be presented neatly, formatted and presentable. This is applicable for financial reporting, board packs, management dashboards, or similar fixed format intelligence. The latter is less presentable, but contains rich information that can be analyzed in various ways to establish trends and statistics which may not become instantly apparent in the fixed format reporting.

As the diagram above illustrates, the best approach for BI for SMME’s lies somewhere between OLAP and Reporting. OLAP should most commonly deal with greater volumes of data than a fixed format report. An OLAP tool should be able to trump its closely related fixed format reporting cousin in its ability to deliver multi-dimensional (as opposed to a single “flat sheet” dimension), analysis graphing, charting and more.
What is OLAP?

OLAP stands for On Line Analytical Processing, and supports multi-dimensional analysis of information. It is the process of extracting information from a data source (this could be a transactional system, or a data warehouse), and compressing it into a format that is optimized for multi-dimensional analysis.

An OLAP database allows business decision makers to analyse data that has been sorted into hierarchical structures. The data is static so all mathematical aggregations can be built into the database query, thereby providing a more efficient and resource friendly means of reporting. This data warehouse can then be pulled into a pivot table within Microsoft Excel, where the user is able to drill down into the report, using the hierarchical dimensions built into the query.

The *OLAP Module* allows the user to define the dimensions and measures required and then create the .cub file, which will then become a data source for reporting within the Sage Intelligence Reporting Report Manager. As the data remains static, the .cub file should be rebuilt daily, to ensure that the data remains relevant.

**OLAP Cubes**

OLAP cubes can be considered an extension to the two-dimensional array of a Microsoft Excel spreadsheet. A company might wish to analyze some financial data by product, by time-period, by city, by type of revenue and cost, and by comparing actual data with a budget. These additional methods of analyzing the data are known as dimensions and an OLAP cube allows for the presence of be more than three dimensions for more powerful information analysis.

**Functionality**

An OLAP cube consists of numeric facts called Cube Measures (or measures) which are categorized hierarchically by Cube Dimensions (or dimensions).

**OLAP Views**

A business owner may want to view or "pivot" the data in various ways, such as displaying all the cities down the page and all the products
across a page. This could be for a specified period, version and type of expenditure. Having seen the data in this particular way the business owner may then wish to view the data in another way. The view could effectively be re-oriented so that the data displayed now has periods across the page and type of cost down the page. OLAP allows users to pivot data very fast and very efficiently.

**OLAP Hierarchy**

Each of the elements of a dimension could be summarized using a hierarchy. The hierarchy is a series of parent-child relationships, typically where a parent member represents the consolidation of the members which are its children. Parent members can be further aggregated as the children of another parent. For example May 2005 could be summarized into Second Quarter 2005 which in turn would be summarized in the Year 2005. Similarly, cities could be summarized into regions, countries and then global regions; products could be summarized into larger categories; and cost headings could be grouped into types of expenditure.

**OLAP Terminology**

The user driven process of creating different views, is sometimes called "slice and dice". Common OLAP functions include slice and dice, drill down, roll up, and pivot.

- **Slice**: A slice is a subset of a multi-dimensional array corresponding to a single value for one or more members of the dimensions not in the subset.

- **Dice**: The dice operation is a slice on more than two dimensions of a data cube (or more than two consecutive slices).

- **Drill Down/Up**: Drilling down or up is a specific analytical technique whereby the user navigates among levels of data ranging from the most summarized (up) to the most detailed (down).

- **Roll-up**: A roll-up involves computing all of the data relationships for one or more dimensions. To do this, a computational relationship or formula might be defined.
• **Pivot:** This operation is also called rotate operation that rotates the data in order to provide an alternative presentation of data.
Home > OLAP Module > When would you use it?
When would you use the OLAP Module?

You would use it:

- If you wanted to analyze transactional data to establish trends over a period of time.
- The data in your database is not stored in a suitable format to achieve the type of analysis that you require.
- You are being challenged by the row limitations presented by Microsoft Excel as a reporting front end.
- You want to be able to view the same information in a variety of ways.
- Analysis is a priority over fixed format reporting.
Sage Intelligence Reporting has several modules available but it is important to understand the relationship between the following three Sage Intelligence Reporting modules to understand how the OLAP Module functions in being able to deliver analysis on your data:

- The Connector
- The OLAP Module (OLAP)
- The Report Manager
Home > OLAP Module > Modules > The Connector Module
The Connector

Main Functionalities
This module provides a skilled IT user with a powerful and cost effective report writing solution, capable of delivering Microsoft Excel reports from any ODBC compliant data source:

- Create links to databases
- Create containers (tables) and expressions (fields) for reporting
- Is the gateway to databases to create relevant meta data for all reports
Key Components

- Connect to various available data sources using the existing ODBC connections
- Create and maintain Containers
- Create additional Expressions using either MSSQL or Microsoft Excel as the Expression source
- Access the Report Download Community to download additional pre-formatted reports
The OLAP Module

An OLAP (On Line Analytical Processing) database allows business decision makers to analyze data that has been sorted into hierarchical structures. The data is static so all mathematical aggregations can be built into the database query, thereby providing a more efficient and resource friendly means of reporting. This data can then be pulled into a pivot table within Microsoft Excel, where the user is able to drill down into the report, using the hierarchical dimensions built into the query.
Main Functionalities

The OLAP Module allows the user to define the dimensions and measures required and then create the .cub file, which will then become a data source within the Report Manager, as the data remains static, the .cub file should be rebuilt daily, to ensure that the data remains relevant.

- Define date Dimension Table
- Define dimensions and measures
Key Components

- Creates a .cub file
- Data remains static
The Sage Intelligence Reporting Report Manager

This module provides you with a pre-formatted, intelligent Microsoft Excel reporting tool for your data. You can use the base of reports to create new reports or even write your own reports in Microsoft Excel.
Main Functionalities

Selections of pre-formatted standard Sage Intelligence Reporting reports are provided. In addition to these reports the following main functionalities are also available:

- Creating new reports using existing Containers
- Customisation of existing pre-formatted reports
Key Components

- Organise your reports into folders
- Create new reports
- Select additional reporting Fields
- Add Filters, Parameters or Aggregates to your report
- Manage report templates
How to Set Up a Report in the OLAP Module?

1. Open the Connector.

2. Right-click and **Add Connection**. (Connects to the data you wish to interrogate).

3. Add the connection details.

4. **Add Data Container/s**. (Published through your Data Connection describing what information you are going to have access to, when building your cube).
5. **A Data Expression/s** – the fields within your data container. **Note: In many instances, particularly where Sage Intelligence Reporting ships solution sets for specific install bases, the first steps would already be in place. If this is the case, then start here at the next step.**

6. Generate the Cube report you have created in your OLAP Module and this will create a new instance (or refresh an existing instance) of your .cub file.
7. Using the Sage Intelligence Reporting Report Manager, create a new Cube Report and use the cube you created in your OLAP Module as the data source for the report.
8. Select Cube report.

9. Enter a name for the cube report.
10. Once the report is set up you would run this report which would render the data for your cube into Microsoft Excel just as a standard Sage Intelligence Reporting report would be run.

11. Finally, using Microsoft Excel as your cube browser allows you to use a Pivot Table to drag and drop the fields defined in your cube to view the same data in various ways. If you get to a point where a specific layout that you have created serves a specific need in your business and you want to keep this layout, you can do this by creating and linking your Microsoft Excel layout with the report in the Sage Intelligence Reporting Report Manager. Each time you run this report after doing a create and link process, your most recent layout will automatically be displayed when you re-run the report.
To build a report, choose fields from the PivotTable Field List.
The OLAP Module Defined

A cube is a data structure that aggregates data by the levels and hierarchies of each of the dimensions that you wish to analyse. Cubes combine several dimensions, such as time, geography, and product lines with summarised data, such as sales or inventory figures. Cubes are not “cubes” in the strictly mathematical sense because they do not necessarily have equal sides.

The OLAP Module is an additional module that functions between the Sage Intelligence Reporting Connector Module and the Sage Intelligence Reporting Report Manager module. The purpose of the OLAP Module is to use an existing connection to a database provided by the Sage Intelligence Reporting Connector to access data and create an offline .cub file. This .cub file is then in turn used by the Sage Intelligence Reporting Report Manager module to create reports and finally Microsoft Excel is used to browse this cube data and create an output that can be linked to Sage Intelligence Reporting and refreshed as and when required.

In short, the use of the Sage Intelligence Reporting modules for data analysis purposes is summarised in sequential order as follows:

1. **Databases**
   - Sage Business Intelligence
   - Sage CRM

2. **Connector**
   - Build connections to databases
   - Define database included (data containers)
   - Multiple drivers available
   - Predefined containers for Sage Accpac

3. **Analysis**
   - Requires additional license if new containers are defined.

4. **Report Manager**
   - Design reports with data containers
   - Include sort, filter and parameter options
   - Include summation options
   - Manage and run reports to output to Excel workbooks

Excel Workbooks
<table>
<thead>
<tr>
<th><strong>Reporting Connector Module</strong></th>
<th>Connects to the underlying database and publishes metadata from source data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OLAP Module</strong></td>
<td>Creates a .cub file off the metadata made available by the Sage 300 ERP Connector Module</td>
</tr>
<tr>
<td><strong>Sage Intelligence Reporting Report Manager Module</strong></td>
<td>Creates a report of the .cub file established by the OLAP Module</td>
</tr>
<tr>
<td><strong>Microsoft Excel</strong></td>
<td>Used as the browser interface to analyse the data in the report created by the OLAP Module</td>
</tr>
<tr>
<td><strong>Create and Link Template</strong></td>
<td>When a final layout is concluded the normal “Create and link” function within Sage Intelligence Reporting Report Manager is used to create a template of the final analysis output in Microsoft Excel</td>
</tr>
</tbody>
</table>
Cube Components

The *OLAP Module* uses already created data connections, containers and expressions from the Sage Intelligence Reporting Connector. When creating the .cub file you are required to specify the following:

1. **Database Date Dimension Table (using the Date Dimension Tool)**
   The Date Dimension tool allows you to specify the dates that are applicable to your dataset. You specify your financial year start date as well as the number of years of data that you have in your dataset. The date dimension table should go back as far as is required to analyze prior year’s data. The Date Dimension Tool then generates a “date dimension table” for you to use when creating reports. This table includes the following fields:
   - **Date**
   - **Financial Year**
   - **Financial Quarter**
   - **Financial Period**

   The *Date Dimension tool allows you to set fiscal year parameters, account for specific holidays and non-working days that are applicable to your dataset.*

   You can launch the Date Dimension tool from the Sage Intelligence Reporting Connector or the *OLAP Module*. 
2. **Cube Dimensions**

A dimension is a set of one or more organised hierarchies of levels in a cube that the user understands and uses for data analysis purposes. These dimensions facilitate the drill down functionality. Dimensions represent the variables by which measurement is performed, such as date, location, product code, etc. Dimensions can be arranged in hierarchies, allowing users to drill down through the data.

*For example, a “service date” dimension which could contain the hierarchy of YEARS drilling down to QUARTERS, and then to MONTHS.*

*Another example would be a “region” dimension which could contain the hierarchy of COUNTRY, drilling down to STATE, and then to CITY.*

Careful design of the hierarchy in a dimension facilitates drill-down reporting by designing the hierarchies to be intuitive and to follow the thought process of the analyst.

3. **Cube Measures**

Measures are a set of values in a cube that are based on a column in the cubes dimensions. Measures include a variety of key performance indicators, and may include "simple" measures (amounts paid to suppliers, stock days, etc.) as well as computed measures or ratios, such as cost per member per month. Measures can be presented at various levels of summarization or drilldown, depending on how the dimensions of the analysis are displayed. The numbers in the OLAP spreadsheet are called measures. When setting up OLAP cubes, these values are also often called facts. Typical measures or facts would be:

- Sales Dollars
- Sales Count
- Profit
- Hours of Work

4. **The location of the .cub file**
When the OLAP cube is generated it is generated to a file with the .cub extension, you need to specify the location of this file. This local cube file (.cub file) is stored in a single, portable file that can be stored on both server and non-server environments. End users can browse local cubes without the need for a connection to a Microsoft Analysis server. Local cubes are the only variety of cube that provides this capability. After a local cube is created, if its source data changes, the local cube can be refreshed to incorporate the new version of the source data.
More on OLAP Cubes

The OLAP cube provides the multidimensional way to look at the data. The cube is comparable to a table in a relational database. The specific design of an OLAP cube ensures report optimization. The design of many databases is for online transaction processing and efficiency in data storage, whereas OLAP cube design is for efficiency in data retrieval. In other words, the storage of OLAP cube data is in such a way as to make easy and efficient reporting. A traditional relational database treats all the data in a similar manner. However, OLAP cubes have categories of data called dimensions and measures.

In the figure below; time, product and location represent the dimensions of the cube, while 80 represents the measure. Note: A dimension is a category of data and a measure is a fact or value.
Dimensions

Dimensions are broad groupings of descriptive data about a major aspect of a business, such as dates, markets and products. Each dimension includes different levels of categories. For example, you OLAP cube could have a time dimension. This time dimension could be further categorized into year, quarter, and month. These levels of categories, (hierarchies) are what provide the ability to drill-up or drill-down on data in an OLAP cube.
Measures

Measures are actual data values that occupy the cells as defined by the dimensions. Measures are typically stored as numerical fields. For example you are a manufacturer of calculators. The question you want answered is how many of ABC model calculators (product dimension) a particular plant (location dimension) produce did during the month of April 2009 (time dimension). Using the OLAP Module, you find out that a plant produced 4500 ABC cell phones in April 2009. The measure on this example is the 4500.
The Date Dimension Tool

The Date Dimension tool allows you to specify the dates that are applicable to your dataset. You specify your financial year start date as well as the number of years of data that you have in your dataset. The Date Dimension Tool then generates a “date dimension table” for you to use when creating reports. This table includes the following fields:

- Date
- Financial Year
- Financial Quarter
- Financial Period

The Date Dimension tool also allows you to specify holidays and non-working days that are applicable to your dataset.

Method

1. Select Date Dimension Creation Tool.

2. Select the database that you would like to create the dimensions for,
3. Enter your financial information on the first screen and select generate to create the date dimension table

4. If you have already created the Date Dimension table and would like to recreate it, you can select the tick box **Drop and Recreate Dimension Table** to overwrite the previously created dates

5. Select the **Set Holidays** tab to enter any applicable holidays or non working days
6. You can edit your dates on the **Edit Date Dimension Table** tab.
Layout of the Interface

To effectively use the OLAP Module, you need an understanding of the Sage Intelligence Reporting interface and how to perform actions.

The software layout is divided into 2 main areas:

- The Object Window
- The Properties Window

1. **Object Window:**
   You are able to select objects using your mouse from the Object window in order to either view the objects' properties or perform a task with the object. For example, you are able to select an object in the Object window and rename the object just as you would rename a file in Windows Explorer.

   **Method:** From the Object window, double click on the desired object to expand to show details or collapse the objects.
2. Properties Window:
   You are able to view and update the properties of a selected object using the Properties window. For example, you are able to add your own custom description of the object in the object's properties window.
   **Method:** From the Object window, select the desired object, then from the Properties window, view the desired properties.
Show Advanced

Method: By clicking the check box next to Show Advanced, additional options will become available in the Properties window.

- **Default Cube File Path**: The file location of the saved cube file. The file has the extension .cub
- **Cube File Name**: The name of the cube file
- **Last Refreshed**: Shows the time and date that the cube was rebuilt
- **Cube Definition Locked**: Lock the cube definition so that it cannot be edited
Functionality Navigation

In addition to using the **Object** and **Properties** windows you can also use the **Menu Bar**, **Toolbar** and **Shortcut menu** to navigate around the **OLAP Module**.

Most functionality is generally shared between the OLAP Module’s **Menu Bar**, **Toolbar** and **Shortcut menu**. However, this section focuses on the **Toolbar** and **Shortcut menu** functionality options as most options on the **Menu Bar** items are also included in them.

Option availability is dependent on where the current focus is.
Menu Commands

There are three ways to access menu commands within the OLAP Module interface:

1. Using the **Menu bar** - Use your mouse or keyboard shortcut to select a task from the menu bar.

2. Using the **Toolbar** - Use your mouse to select a task from the toolbar.

3. Using the **Shortcut menu** - Right-click on an object in the Object window and you will be able to select a command from the shortcut menu.

To view an object’s associated elements, double click on the object. This action is called **drilling down**. To drill down is to show additional information. To hide an object’s associated elements, double click an open object again. This action is called **drilling up**, thereby hiding the additional information.
### Toolbar Menu

All of the Toolbar icons below have their own Tool Tip that is displayed when you hold your mouse over:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Tool Tip</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Add" /></td>
<td>Enables the user to add a Data Connection, Data Container or a Data Expression</td>
</tr>
<tr>
<td><img src="image" alt="Delete" /></td>
<td>Enables the user to delete their selection</td>
</tr>
<tr>
<td><img src="image" alt="Properties" /></td>
<td>Displays context specific field properties</td>
</tr>
<tr>
<td><img src="image" alt="Refresh" /></td>
<td>Refreshes on screen properties of the selected object</td>
</tr>
<tr>
<td><img src="image" alt="Copy" /></td>
<td>Copies the selected object to the clipboard</td>
</tr>
<tr>
<td><img src="image" alt="Paste" /></td>
<td>Paste an object from the clipboard into the selected object</td>
</tr>
<tr>
<td><img src="image" alt="Move to" /></td>
<td>Moves a connection or a container</td>
</tr>
<tr>
<td><img src="image" alt="Check / Test" /></td>
<td>Checks that the object will function correctly</td>
</tr>
<tr>
<td><img src="image" alt="Run" /></td>
<td>This is the play or generate button, it generates the .cub file as well as runs the reports into Microsoft Excel</td>
</tr>
<tr>
<td><img src="image" alt="Create PR0 file" /></td>
<td>Creates a report viewer instance go be run off the computer desktop</td>
</tr>
<tr>
<td><img src="image" alt="History" /></td>
<td>This keeps track of the run instance history</td>
</tr>
<tr>
<td><img src="image" alt="Help" /></td>
<td>Launches the Sage Intelligence Reporting Help file</td>
</tr>
<tr>
<td><img src="image" alt="Export Cube Definition" /></td>
<td>This allows you to generate cube definition file</td>
</tr>
<tr>
<td><img src="image" alt="Generate Scheduler Command" /></td>
<td>This allows the generation of the cube file to be linked to a scheduler command</td>
</tr>
</tbody>
</table>
Sage Intelligence Reporting Standard Report Creation Structure

The following diagram provides a step-by-step explanation of the standard report creation process i.e. creating a report that extracts directly from the source database and renders directly to a pre-configured Microsoft Excel Template. The component steps include:

- Database Connection
- Creation of a Container based on database Tables and Fields
- Creation of BI reports
- Saving the report output into Microsoft Excel Templates

Sage Accpac Intelligence Basic Report Design
Standard Reports available

The following standard analysis reports are available when purchasing the Sage Intelligence Reporting OLAP Module:

Financial Analysis Cube

This report allows you to analyze G/L accounts by Account Group and segment over multiple fiscal years.

Financial Analysis Cube Trend
Inventory Analysis Cube

This report allows you to analyze year-to-date stock-on-hand quantities, purchase and sales order quantities, and actual stock values by inventory group.
## Inventory Analysis Cube Trend

### Top 10 Stocked Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A40500 - Highlighter</td>
<td>350.00</td>
<td></td>
</tr>
<tr>
<td>A40000 - Pen</td>
<td>250.00</td>
<td></td>
</tr>
<tr>
<td>A44000 - Dry erase White Board Markers</td>
<td>350.00</td>
<td></td>
</tr>
<tr>
<td>A40050 - Bulletin Board</td>
<td>250.00</td>
<td></td>
</tr>
<tr>
<td>A40060 - Fluorescent Desk Lamp</td>
<td>850.00</td>
<td></td>
</tr>
<tr>
<td>A41010 - Desk Calendar Pad</td>
<td>575.00</td>
<td></td>
</tr>
<tr>
<td>A40090 - Pencil</td>
<td>560.00</td>
<td></td>
</tr>
<tr>
<td>A43000 - Halogen Desk Lamp</td>
<td>440.00</td>
<td></td>
</tr>
<tr>
<td>A41050 - 175W Mini Fluorescent Bulb</td>
<td>175.00</td>
<td></td>
</tr>
</tbody>
</table>

Grand Total: 9,165.00
Sales Analysis Cube

This report allows you to analyze sales quantities, gross profits, and amounts by customer, product, and salesperson over multiple fiscal/calendar years.

Sales Analysis Cube Trend
OLAP Module Report Creation Structure

The following diagram provides a step-by-step explanation of the OLAP Module report creation i.e. creating a report that extracts from a local cube (.cub file) as opposed to directly from the source database and renders directly to a pre-configured Microsoft Excel Template. The component steps include:

- Database Connection
- Creation of a Container based on database Tables and Fields
- Create a Date Dimension table
- Creation of Dimensions and Measures
- Creation of the .cub file
- Creation of BI reports
- Saving the report output into Microsoft Excel Templates

Sage Accpac Intelligence Basic Report Design
Home > OLAP Module > Using a Pivot Table in Excel to Browse an OLAP Cube
Using a Pivot Table in Microsoft Excel to Browse an OLAP Module cube

Use Microsoft Excel to create a link to your OLAP Module cube report, by using a Microsoft Excel Pivot Table to browse the cube and define the layout as you would like to see it in a Microsoft Excel Pivot Table. The dimensions and measures that you used to create your .cub file are available on the Pivot Table field list when you have run your report into Microsoft Excel.

Using Microsoft Excel as your cube browser allows you to drag and drop the fields defined in your cube to view the same data in various ways. If you get to a point where a specific layout that you have created serves a specific need in your business and you want to keep this layout, you can do this by creating and linking your Microsoft Excel layout with the cube report you created in the Sage Intelligence Reporting Report Manager. Consequently, each subsequent time you run your cube report after doing a create and link process, your most recent Microsoft Excel layout will automatically be displayed.
You are now able to perform data analysis on the data in the .cub file.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
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<tr>
<td>8</td>
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<td>3954.5.</td>
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<td>9</td>
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<td>153.7</td>
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<td>4532132.</td>
<td>202691.4</td>
<td>12771614.9</td>
<td>2372321.7</td>
</tr>
</tbody>
</table>

Note: The table above shows the data from the .cub file with columns for different years and rows for various categories.
Home > OLAP Module > How Does The OLAP Module Fit In > How does Sage Intelligence Reporting OLAP Module fit in?
How does Sage Intelligence Reporting OLAP Module fit in with other OLAP solutions?

Microsoft Analysis Services cubes may have already been created. Sage Intelligence Reporting allows you to connect to these cubes so you can use the rest of the Sage Intelligence Reporting interface to create a report off this cube, and browse it using Microsoft Excel. The advantage of this is that you now have one common interface for all your organizations reporting, whether it is fixed format reporting or analysis.
The Advantages of Sage Intelligence Reporting OLAP Module over other OLAP solutions?

Business Intelligence tools like Sage Intelligence Reporting transform data into knowledge. It is worth considering what local cube technology offers an organization as an extension to Microsoft Analysis Services as an OLAP tool. Sage Intelligence Reporting OLAP Module offers functionality to build and maintain Local cubes. So why would an organization want to do this?

- A local cube file can be loaded on a laptop, so that a user can browse multidimensional data while disconnected from the network
- A local cube can be e-mailed to a remote user who does not have access to the Analysis Server
- Local cubes can be downloaded from web sites, so that remote users can be given access to multidimensional data
- Different local cubes can be created and distributed to different users, with each cube containing only the information the person is authorized to see
- Local cubes can be created that have a subset of the Analysis Server cube's data. This can greatly increase convenience and browsing speed for the user
- When a cube only contains the subset of information that the user wants to use, they can browse more quickly and more efficiently
OLAP Browser Options

Microsoft Excel is one of the many cube browsers that exist. Sage Intelligence Reporting supports this strategy because most data users in the world use Microsoft Excel every day to present and share information, so it makes sense to use this as not only a browsing platform for cubes, but also for delivery of fixed format reporting.

Pivot table and chart functionality is the basis for cube browsing using Microsoft Excel. It is a very powerful facility, and many users don’t get the opportunity to really understand it. Sage Intelligence Reporting supports better and smarter use of Microsoft Excel to create operational efficiencies within organizations.
## Terms and Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLAP</td>
<td>OLAP stands for On Line Analytical Processing, and supports multi-dimensional analysis of information. It is the process of extracting information from a data source (this could be a transactional system, or a data warehouse), and compressing it into a format that is optimized for multi-dimensional analysis.</td>
</tr>
<tr>
<td>DSN</td>
<td>File used by various database client programs to connect to a database; describes properties, such as the data source name and directory, the connection driver, the server address, user ID, and a password; used by ODBC drivers to connect to a specified database, such as a SQL Server or Microsoft Access database.</td>
</tr>
<tr>
<td>Connector</td>
<td>The Connector provides the facility to connect to all ODBC compliant data sources for example,, SQL Server, Oracle, Access, and Pervasive using a windows explorer look and feel for simple administration of all data connections. All data containers are created in the Sage Intelligence Reporting Connector.</td>
</tr>
<tr>
<td>Report Manager</td>
<td>The Report Manager provides access to the data as defined in the Sage Intelligence Reporting Connector, and empowers the user to customize their reports for Microsoft Excel. Filters, Parameters and Aggregates can be added to your report, new reports can be created and reports can be organised in folders.</td>
</tr>
<tr>
<td>OLAP Module</td>
<td>The OLAP Module allows the user to define dimensions and measures required and then create the .cub files, which will then become a data source within the Report Manager. As the data remains static, the .cub file should be rebuilt daily to ensure that the data remains relevant.</td>
</tr>
<tr>
<td>Data</td>
<td>A Data Connection holds the relevant connection information to connect to a supported ODBC or OLEDB compliant Data Source. This Data Connection object is</td>
</tr>
<tr>
<td><strong>Connection</strong></td>
<td>then used for all connections to this Data Source. By Adding a Data Connection the Administrator can make data available from this Data Source</td>
</tr>
<tr>
<td><strong>Data Container</strong></td>
<td>A Data Container is a set of data which is made available (published) by the Connector and allows users access to the data using the Report Manager. The source of this data can be a Database Table, View or Stored Procedure, or a custom Join based on two or more Tables/Views. Once you have configured data connections you will need to select your data containers which contain your source data</td>
</tr>
<tr>
<td><strong>Data Expression</strong></td>
<td>A Data Expression the administrator to choose the data fields (publish) from the Data Container(s) which are available through the Report Manager</td>
</tr>
<tr>
<td><strong>OLAP Cube</strong></td>
<td>An OLAP cube is a data structure that allows fast analysis of data providing the capability of manipulating and analyzing data from multiple perspectives</td>
</tr>
<tr>
<td><strong>Cube Dimensions</strong></td>
<td>The organized hierarchy of categories, known as levels, that is used to define the structure of a cube or data warehouse</td>
</tr>
<tr>
<td><strong>Cube Measures</strong></td>
<td>The raw data summarized and totaled. For example: On our Sales cube we would like to show the total sales value for our chosen dimension Sales</td>
</tr>
<tr>
<td><strong>.cub File</strong></td>
<td>Local Cubes (.cub file) A local cube is stored in a single, portable file that can be stored on both server and non-server computers. End users can browse local cubes without a connection to an Analysis server. Local cubes are the only variety of cube that provides this functionality</td>
</tr>
<tr>
<td><strong>Cube Browser</strong></td>
<td>A Cube Browser is any application that allows users to query an OLAP cube. Sage Intelligence Reporting uses Microsoft Excel as its cube browser</td>
</tr>
</tbody>
</table>
Creating a New Cube Definition

Method:

1. Open the *OLAP Module*.
2. Right-click on *Home* and select *Add Folder*.
3. Create a *Demonstration* Folder.
4. Right-click on the Demonstration Folder and select *Add Cube Definition*.
5. Name this Cube *Sales Demo Cube*.

6. Select the *Sales Details 2.0* Container on the *RKL* Parent Connection.

7. Enter a name for your new Cube Dimension and click *OK*. eg, customer.

8. You will be prompted to drag and drop your chosen Source expressions (highlighted below on the left) to your Dimension
What is a Cube Dimension?
A cube dimension is a set of one or more organized hierarchies of levels in a cube that a user understands and uses as the base for data analysis. By using this drag and drop option to create your source expressions as dimension levels you are building a logical drill down data set. A dimension can also be understood as the columns and rows of a Pivot Table.

Examples:
A **Geography dimension** might include hierarchical levels for:
  - Country/Region, State/Province and City.
A **Time dimension** might include hierarchical levels for:
  - Year, Quarter, Month and Day.

1. On this Customer Dimension, you wish to aggregate sales up to Customer Category Level but still are able to drill down to individual customer’s accounts.
   Drag the following Source Expressions to the Dimension Levels in the following hierarchical order:
   - CustomerCategory
   - CustomerName
2. Click **Apply**.

3. You will be prompted to select your Cube Measures (or measure fields).

What is a Cube Measure?
A Measure is a set of values in a cube based on a column in the Cube's Dimensions.
A Measure allows you to select the data you would like to be available for analysis.
A Measure can also be understood as the data area of a pivot table.

4. On this Customer Dimension, you wish to use **Total Sales** as your measure.
5. Select the field **TotalSale** and click on **OK**.

6. You will be prompted to select a Function to perform on your Measure. This allows you to select which aggregate function you would like applied to your data. On this Customer Dimension, you wish to Sum the Total Sales measure. Select the **Sum** option.

7. Click **OK**.

---

Proceed to **Adding a Dimension**.
Adding a Dimension

1. Add a dimension called Date (not to be confused with the Date Dimension Tool).

   It will add value to a cube report on customer sales to be able to show on which days sales were made. To provide the relevant information we need to add another dimension to the cube. By creating a date dimension we will be able to summarise YTD figures while still retaining drill down functionality to the lowest level, daily sales.

2. On the Sales Demo Cube in your Demonstration Folder, select the Dimensions Tab.

3. Click on the Add button.

4. Enter a name for the Cube Definition and click on OK.
5. Add the **Date** Source Expression to create a Date Dimension Level. **Note:** Once you have selected the Date field, the OLAP Module will automatically recognizes it as a date field and displays various predefined date levels. Select the date levels you will wish to display in your report.

6. Select date levels as **Year, Quarter, Month, Week** and **Day** and then click on **Apply**.

Proceed to [Generate the New Cube](#)
Generate the New Cube

You have now created the new Cube Definition including Cube Dimensions and Cube Measures that will populate the Cube (.cub file).

1. In your OLAP Module, select the OLAP Sales Cube in the Demonstration folder.

2. Right-click and select Generate Cube.

A connection to your cube will automatically be created in the Sage Intelligence Reporting Connector module once you have loaded your data into a cube (.cub file).

**Note 1:** If a cube already exists you will be prompted with a message to overwrite the old cube.

**Note 2:** If you have used scheduling to refresh your cube, the cube will be generated and will automatically override this message and refresh the cube.

**Note 3:** If you are using a scheduling routine for a Cube Report in the Sage Intelligence Reporting Report Manager module in conjunction with a separate scheduling routine for the underlying Cube in the OLAP Module, you must ensure there is sufficient time lag in the scheduling of the Report Manager to allow for the Cube to be refreshed in the OLAP Module.

Proceed to Create a New Cube Report
Create a New Cube Report

Using the Sage Intelligence Reporting Report Manager module, create a new Cube Report by linking it to your own .cub file which you have just created.

1. Within the Sage Intelligence Reporting Report Manager right-click on the folder chosen to hold your cube reports, select **Add Report**.

![Image of Report Manager](image)

2. You will be prompted to select a type of report, select **Cube Report**.

![Image of report type selection](image)

3. Click on **OK**.

4. Enter a name of the report and then click **OK**.
5. You will be prompted to select a data container (Cube) for your report, select the container named **Sales Demo Cube** which you created earlier and click on **OK**

6. You will notice the Customer Report is now created in your **OLAP Cube Reports** folder and you will also see new tabs in the Report Manager referring to the properties of your Cube Reports.

7. Select the **Cube Page** tab. Click **Add** on the right hand side of the screen.
8. The **Customer** dimension defined within the OLAP Module will now be available for selection.

9. Click on **OK**

10. Select the **Cube Row** tab.

11. Click **Add** on the right hand side of the screen. This will define the information shown horizontally.

12. The **Date** Dimension defined within the OLAP Module will now be available for selection.

13. Click on **OK**.

14. Select the **Cube Column** tab. Click **Add** on the right hand side of the screen. This will define what information will be shown vertically. For this example we have no data as we are totalling the sales values within the report. Click **OK**.

15. Select the **Cube Measure** tab. Click **Add** on the right hand side of the screen. This will define which measures to report on based on the measures set up within the OLAP Module.
16. The **TotalSale** measure defined within the OLAP Module will now be available for selection.

17. Click on **OK**.

18. Right-click on the report name click on the **Run button**, or right click and select **Run**.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Customer</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Year</td>
<td>[TotalSale]</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2002</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2003</td>
<td>1 057 848.23</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>2004</td>
<td>16 133.02</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Grand Total</td>
<td>1 073 981.26</td>
<td></td>
</tr>
</tbody>
</table>

19. The user is able to drill down to interrogate the data by double clicking the year fields. A specific customer can also be selected by using the drop down menu at the top of the report.
Report Troubleshooting

The following are common reasons that a Report is not functioning:

- The underlying Data Source is unavailable or inaccessible. Check with your System Administrator.

- The Report is using a Template which is conflicting with the way in which Sage Intelligence Reporting works. Sage Intelligence Reporting always expects the first sheet in a workbook to be the sheet that is available for the report data to be placed in. If the Report has the option "Parameters on Second Sheet" set, then Sage Intelligence Reporting expects that the second sheet of the workbook is available.

- You may also receive an error: There is no data for this report.

This may not be a problem but may just reflect that the combination of filters and parameters that are being used result in no data being returned.

- When running a report with parameters you may receive the following error: The Lookup retrieval returned no data.
This will occur when using the lookup to search for a selection at run time and the parameter used results in no data.
Connector Troubleshooting

Data Connection Troubleshooting

The following are common reasons that a Data Connection is not functioning.

- The server storing the data is down - check connectivity can be established to the server
- Network problems are occurring - check that the network is functioning normally
- Network security is preventing the data from being accessed - check with your System Administrator that you have the necessary privileges on the network
- Connection Timeouts are occurring - click here for more details on dealing with connection [Timeouts](#)
Data Container Troubleshooting

The following are common reasons that a Data Container is not functioning:

- The Data Containers parent Data Connection is not functioning. See Data Connection Troubleshooting

- The Data Container is based on a SQL Join and the syntax for the join is incorrect. Valid join syntax is usually of the form:
  
  
  \[
  \text{[TABLE}_A\text{], [TABLE}_B\text{ WHERE [TABLE}_A\text{].[KEYFIELD}_1 = [TABLE}_B\text{].[KEYFIELD}_1 \text{ AND [TABLE}_A\text{].[KEYFIELD}_2 = [TABLE}_B\text{].[KEYFIELD}_2}
  \]

  Note: this may vary depending on the SQL standards of the underlying data System). For more information on using joins see Joining Tables

- The Data Container is based on a SQL Join but the Container Type property is set to TABLE or VIEW. You will need to set the Data Container Type to JOIN
## Glossary of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Function</td>
<td>Functions (often mathematical) that can be used across sets of data</td>
</tr>
<tr>
<td>Columns</td>
<td>The Expressions selected to be displayed in a report</td>
</tr>
<tr>
<td>Comparison Method</td>
<td>The operator used by a Filter or Parameter for comparison for example, Equal To, Greater Than, Like</td>
</tr>
<tr>
<td>Comparison Value</td>
<td>A value that is used by a Filter or Parameter to refine the rows of data returned to a report</td>
</tr>
<tr>
<td>Data Connection</td>
<td>A set of information sufficient for establishing database connectivity to a chosen data source</td>
</tr>
<tr>
<td>Data Container</td>
<td>A published Table, View, Stored Procedure or Dataset (based on a join) that can be used to source data for a report</td>
</tr>
<tr>
<td>Data Expressions</td>
<td>A Field or Expression (derived from one or more fields) in a Data container</td>
</tr>
<tr>
<td>EUQR</td>
<td>End User Query and Reporting, a niche category of the Business Intelligence market</td>
</tr>
<tr>
<td>Filters</td>
<td>Static criteria used to limit the data that is returned by a report</td>
</tr>
<tr>
<td>Filter Field</td>
<td>The Expression on which a Filter is defined</td>
</tr>
<tr>
<td>Join</td>
<td>A way of relating the data in one or more tables so that the data can be viewed as a single set</td>
</tr>
<tr>
<td>Metadata</td>
<td>A set of data that describes another</td>
</tr>
<tr>
<td><strong>Set</strong></td>
<td>underlying set of data for the purpose of simplifying access to the underlying data</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Object Window</strong></td>
<td>The explorer style interface used to access Sage Intelligence Reporting Objects</td>
</tr>
<tr>
<td><strong>ODBC</strong></td>
<td>Open Database Connectivity. A universal standard for database access</td>
</tr>
<tr>
<td><strong>Optional Defaults</strong></td>
<td>Used as default parameter values at actual report runtime</td>
</tr>
<tr>
<td><strong>Parameter</strong></td>
<td>User specified (at runtime) criteria used to limit the data that is returned by a report</td>
</tr>
<tr>
<td><strong>Data Screen</strong></td>
<td>A screen that provides a read only view on sample data</td>
</tr>
<tr>
<td><strong>Process Monitor</strong></td>
<td>Tool that displays all running reports and that allows reports to be cancelled</td>
</tr>
<tr>
<td><strong>Progress Status</strong></td>
<td>Window that shows the running state of a report</td>
</tr>
<tr>
<td><strong>Source Container Type</strong></td>
<td>The source of the data needed to generate reports</td>
</tr>
<tr>
<td><strong>Table</strong></td>
<td>A structure for storing data</td>
</tr>
<tr>
<td><strong>View</strong></td>
<td>A view is a virtual table whose contents are defined by a query</td>
</tr>
<tr>
<td><strong>Stored Procedure</strong></td>
<td>A pre-compiled selection of SQL statements and optional control-of-flow statements stored under a name and processed as a unit</td>
</tr>
</tbody>
</table>
## Getting Support

The Sage Intelligence Reporting Help Files have been written to provide maximum information and assistance to all Sage Intelligence Reporting users. Every effort has been made to make Sage Intelligence Reporting easy to understand and use. The comprehensive help files can be accessed by pressing the F1 button in your Sage Intelligence Reporting software. For further assistance, please contact:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information Phone</td>
<td>604-207-9480</td>
</tr>
<tr>
<td>Address</td>
<td>13888 Wireless Way, Suite 120, Richmond, BC V6V 0A3</td>
</tr>
<tr>
<td>Sales Phone</td>
<td>800 945 8007</td>
</tr>
<tr>
<td>Sales e-mail</td>
<td><a href="mailto:sales.accpac@sage.com">sales.accpac@sage.com</a></td>
</tr>
<tr>
<td>Technical Support Phone</td>
<td>800 253 1372</td>
</tr>
<tr>
<td>International Technical Support Phone</td>
<td>+1 604 207 3601</td>
</tr>
</tbody>
</table>
**TbSync Add In**

The TbSync2 function was specifically written for the Financial Pack design but can be used in other scenarios.

It synchronizes a column (Source Column Range Name) of values in one sheet (Source sheet) with a column (Target Column Name Range) in another sheet (Target Sheet) and will bring formulas down with the synchronised column based on a range that is specified to be copied down (Formula Range to Extend). The target sheet synchronisation needs to be told what row to start synchronizing from (Target Sheet Start Row).

**Optional Parameters:**

- **Run interactive:** Set to 1 for the TBSync box showing new accounts to show. Set to 0 for synchronisation to happen without prompts.

- **Only Handle Numerics:** Set to 1 to ignore non-numeric values.

- **Support for Stored Procedures** - The Sage Intelligence Reporting Application has been extended to allow developers to use Sage Intelligence Reporting to access data returned by database Stored Procedures.

- **System Variables** - System Variables have been introduced for use with filtering and Parameterization.

- **Pass Through Variables** - Pass Through Variables increase the options available for and power of report Parameterization.
Distinct Sort Conflict

Cause: You are using the Show Distinct Rows option on the Report and you have chosen a Sort Field which is not selected as a display Column. It is possible to have Sort Fields which are not also Display columns but most Data Access Drivers will not support this if the Show Distinct Rows option is being used.

Resolution: There are three options here to resolve the problem:

- Do not use the Show Distinct Rows option
- Remove the offending Sort Fields (i.e. Sort fields which are not also selected as Display Columns)
- Add Display Columns to correspond with all selected Sort Fields.
Distinct Sort Conflict

Cause: You are using an Aggregate Function on one or more display Columns and there is a Sort Field which is not selected as a display Column. It is possible to have Sort Fields which are not also Display columns but some Data Access Drivers will not support this if the an Aggregate Function is being used.

Resolution: Remove the offending Sort Fields (i.e. Sort fields which are not also selected as Display Columns).
Average or Sum on Invalid Data Type

**Cause:** You are using a **Sum** or **Average Aggregate Function** on a Display Column which is of a data type that cannot be Averaged or Summed. Usually this will be when attempting to use the aggregate against a Character or Date data type.

**Resolution:** Do not use the Aggregate function against the data type in your chosen Display Column.
Aggregate Asynchronous Conflict

**Cause:** You are using an *Aggregate Function* in a report and the underlying Connection Type for the report has been configured in the Connector to perform queries asynchronously (property *Supports Asynchronous Execution* has been checked).

**Resolution:** Either do not use the Aggregate Function or configure the Connection Type in the Connector to not perform queries asynchronously (uncheck the property *Supports Asynchronous Execution*).
## Comparator and Aggregate Function Compatibility Matrix

**Matrix Legend**

- **Supported**
- **Not Supported**
- **Problematic**
- **Not Relevant**

<table>
<thead>
<tr>
<th>Comparator/Aggregate Function</th>
<th>Pervasive</th>
<th>DBase</th>
<th>SQL Server</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal To</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Greater Than</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Greater Than or Equal To</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Less Than</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Less Than or Equal To</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Is Like</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Not Equal To</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Begins With</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Ends With</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Contains</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Does Not Begin With</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Does Not End With</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
<td>Char, Num, Date</td>
</tr>
<tr>
<td>Does Not Contain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Is Null</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is Not Null</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is Not Like</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like [A-B]%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like A%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like %Z%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like _a%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like [SZ]%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIKE [^A-W]%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>