



Adroit
Technologies



Adroit Report Suite

User Manual



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Version	Date	Author	Comment	Approval
1.0	18.12.2017	G Joyce	Original	D. Wibberley
2.0	22.05.2020	J. Duncan	Update Cover and formatting	
3.0	28.08.2020	J. Duncan	Finalise	

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1. Introduction

The Adroit Report Suite is a value-add information system based on specific Adroit agent data logged to an OLE DB database. Information is presented in the form of web based reporting through the Microsoft SQL Server Reporting Services platform. The technology is distributed as a free add-on solution to Adroit SCADA.

The suite consists of report packs and a Report Deployment Utility. Each report pack includes a set of reports specifically designed to report relevant and accurate information on the Adroit system and specific Adroit agents.

This document provides a basic introduction to Adroit Technologies and the Adroit Report Suite value-add system, with a brief overview of the Adroit SCADA software package for the purpose of convenience and reference.

1.1. Adroit Technologies

Since 1992 Adroit Technologies, a company based in South Africa, have been developing SCADA/HMI software solutions for the industrial automation and process control industries. With over 20,000 successful installations, in over 16 countries in the world, Adroit is one of the world's top selling SCADA/HMI products.

Adroit Technologies are a Microsoft Certified Gold Partner Company. This allows Adroit Technologies to stay in regular contact with Microsoft and remain up to date with the latest advancements in software development. All this ensures that Adroit remains one of the leading SCADA packages, both now and in the future.

1.2. Adroit SCADA

A·D·R·O·I·T means skilful, or dexterous, it is also an acronym for "Advanced Distributed Real-time Object-oriented Intelligent Toolkit".

Adroit is a Windows based SCADA/HMI software product that has been developed over a period of more than ten years by dedicated professionals. Robust and flexible enough for the toughest industrial application, Adroit is the ideal platform from which to meet the information needs of a modern control solution.

Adroit is a technologically advanced SCADA (Supervisory Control & Data Acquisition) system designed for process control, manufacturing systems and open automation applications.

Developed specifically for Windows operating systems, Adroit has a flexible object-oriented client server architecture that supports from a standalone implementation to an installation spanning multiple sites.

2. Report Suite Features

- **Off The Shelf Reporting** – All reports have been pre-configured. Simply enable the required Adroit logging mechanism or Adroit SCADA intelligence.
- **Web Based Reporting** – no front-end software required; just double click on your Adroit Report Suite shortcut or type in the path
- **Flexible Analysis** – analyse on different hierarchy levels with dynamic filter sets
- **Drill Through Reports** – drill through from summary reports into more detailed reports at the click of a button
- **Printer Friendly Reports** – generated reports can be printed fully with all relevant details, including page breaks
- **Export Report Data** – all reports can be easily exported to Excel, Word, MHTML (web archive) or PDF format
- **User-Defined Reports Schedule** – reporting parameters and settings can be defined by each individual user based on their reporting requirements (only with SQL standard edition and above)
- **Windows Authenticated Security** – IT administrators can give each individual user or groups access and user rights on any report or report folder
- **Easy Report Deployment** – managing report deployment and SQL update scripts made simple with the Report Suite Deployment Utility
- **Open Technology** – built-in standard Microsoft SQL Reporting Services allowing users to customise and create new reports on Adroit data
- **Demo Data** – Some sample data is included for each report pack to offer a quick reference of what to expect of each available report in the report pack.

3. Adroit Report Suite Components

3.1. Database Platform

The Adroit Report Suite is built on the Microsoft SQL Server 2008 R2 database platform with SQL Server Reporting Services (SSRS). Adroit is now shipped with SQL Server 2014 Express with Advanced Services (SSRS) and with the Adroit Report Suite. The Adroit Report Suite is a free add-on, although some of the report packs are based on data from licensed Adroit agents.

3.2. Report User Interface is Internet Explorer

The Report Suite front end is essentially a set of switchboard reports (built-in SSRS) used to navigate between report sets and to select which reports to view. Each set of reports are based on a standard Adroit logging mechanism such as the Alarm Management agent, the DB Log agent and also the Adroit Agent Server auditing.

3.3. Report Packs

The report sets are developed and distributed as report packs, which require installation and deployment to the SQL Reporting Server.

A report pack is a combination of Reporting Services Reports, Data Sources, Components and Resources all in one manageable "pack" which is made available as installation files for easy installation.

When a new version of a report set is made available it will be distributed as a new report pack which will include the updated reports as well as the scripts required to update existing databases if needed.

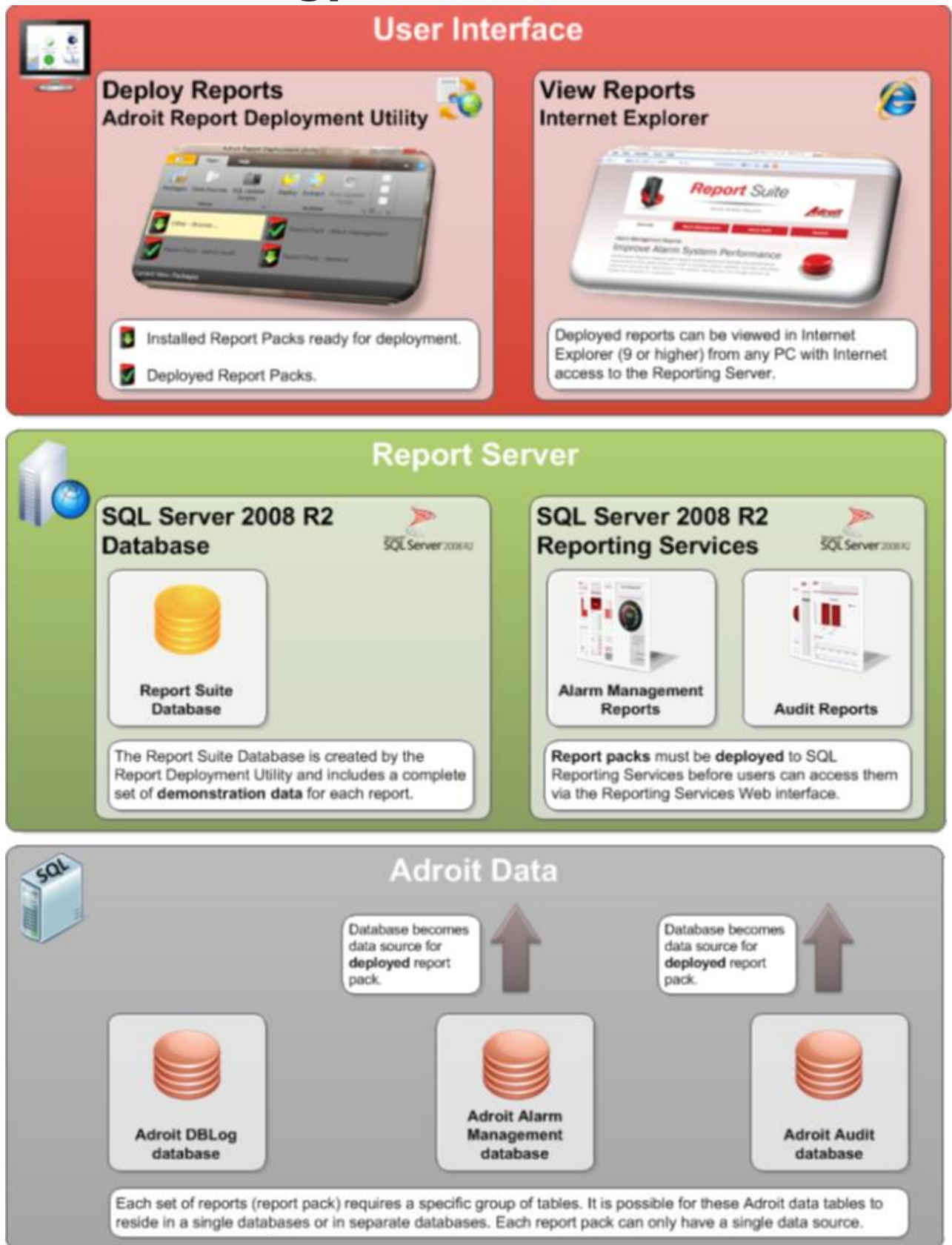
3.4. Adroit Report Deployment Utility

The Report Deployment Utility is shipped with the Adroit Report Suite and has been developed to assist with report pack deployment and also with running of the latest updates' scripts should this be required.

3.5. Data Sources

Each set of reports has a SQL Data Source. This data source is the actual database that the reports will extract data from to present to the end-user. It is possible to change the data source to another valid database at any point (i.e. alarm management reports must be linked to an alarm management database), including connecting to the demonstration dataset installed with the Report Suite. The data sources can be managed through the Adroit Report Deployment Utility.

4. The Technology Platform

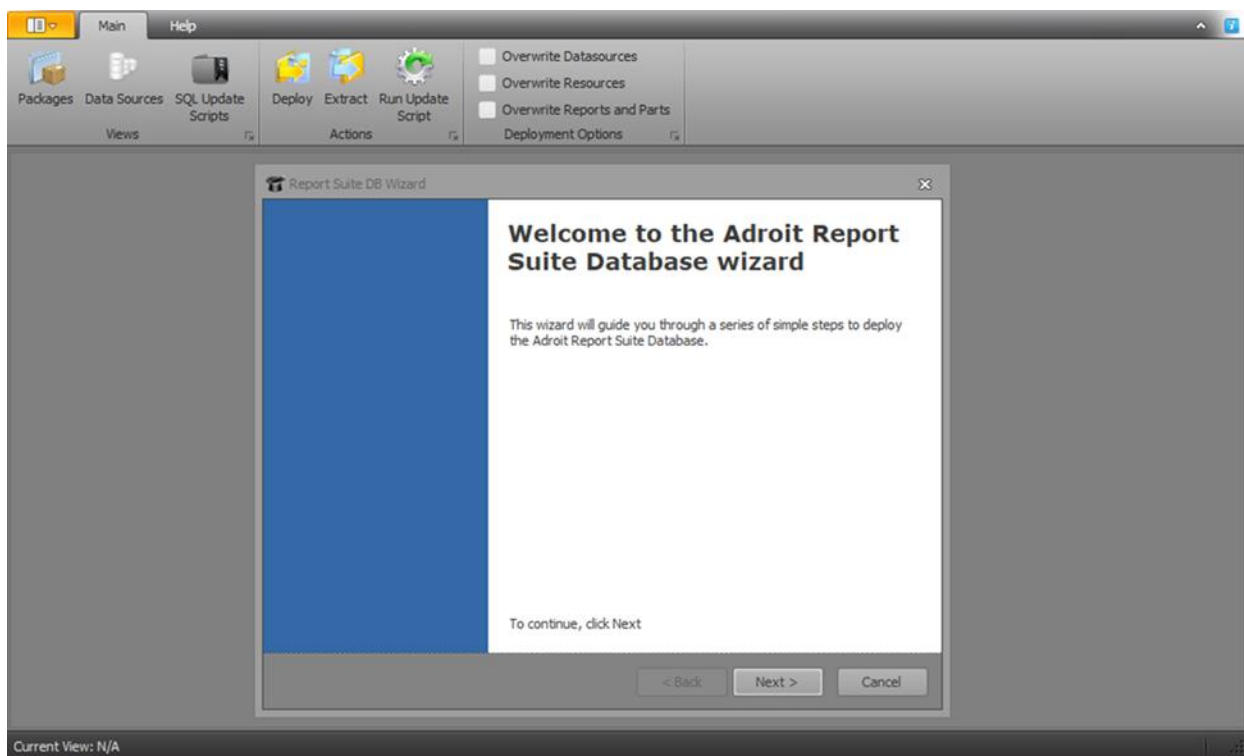


5. Report Deployment Utility

The Adroit Report Deployment Utility function is to help you create and deploy Report Packs. These report packs consists of Reporting Services' reports, data sources and components. The utility interfaces with SQL Reporting Services' web service.



The Adroit Report Deployment Utility will help you with the more complex tasks of managing your SQL Server Reporting Services.



For more detailed information, please consult the user manual document for this utility available to download from our website. (www.adroit.co.za)

6. Getting Started

6.1. Install SQL Server 2008 R2 Reporting Services

Adroit is shipped with SQL Server 2008 R2 Express with Advanced Services (Reporting). Please refer to the "SQL Server 2008 R2 Express Installation Guide" document before installing.

It is possible to use an existing SQL database (SQL 2005 and above) for the Report Suite database and for the Adroit data. It is also possible to use an existing Reporting Services server, but it must be version 2008 R2.

6.2. Install the Adroit Report Deployment Utility

The Adroit Report Deployment Utility was created to help you create and deploy report packs. The report packs consist of Reporting Services' reports, data sources and components. The Utility interacts with SQL Server Reporting Services' web service.

6.3. Install Report Packs

Each report pack is a combination of Reporting Services reports, data sources, components and resources all in a manageable set of XML files. Installing a report packs simply copies these files to the correct location in Program Files. Once installed, these packs are available for the Report Deployment Utility.

6.4. Deploy the Installed Report Packs

The Adroit Report Deployment Utility can now be used to deploy the installed report packs to the Reporting Services server. During the deployment process the data source for each report pack must be connected. The data source is the database where the appropriate Adroit data has been logged, i.e. the Alarm Management reports must be connected to a valid Alarm Management database.

6.5. Run SQL Update Scripts

The latest SQL update scripts should be run against the Adroit database using the Adroit Report Deployment Utility (see user's manual). This ensures that the database has all the required functionality to support the Report Suite reports.

6.6. Create a Report Suite Desktop Shortcut

A desktop shortcut can be added through the Adroit Report Deployment Utility (see user's manual). The Adroit Report Suite basically opens Internet Explorer to the correct SQL Report Server web page.

6.7. Open Report Suite

To start reporting, click on the Report Suite desktop shortcut. This shortcut will open the default web browser to the Adroit Report Suite navigation switchboard.

NOTE: the Adroit Report Suite must be run in Internet Explorer 9 or later as the default browser.

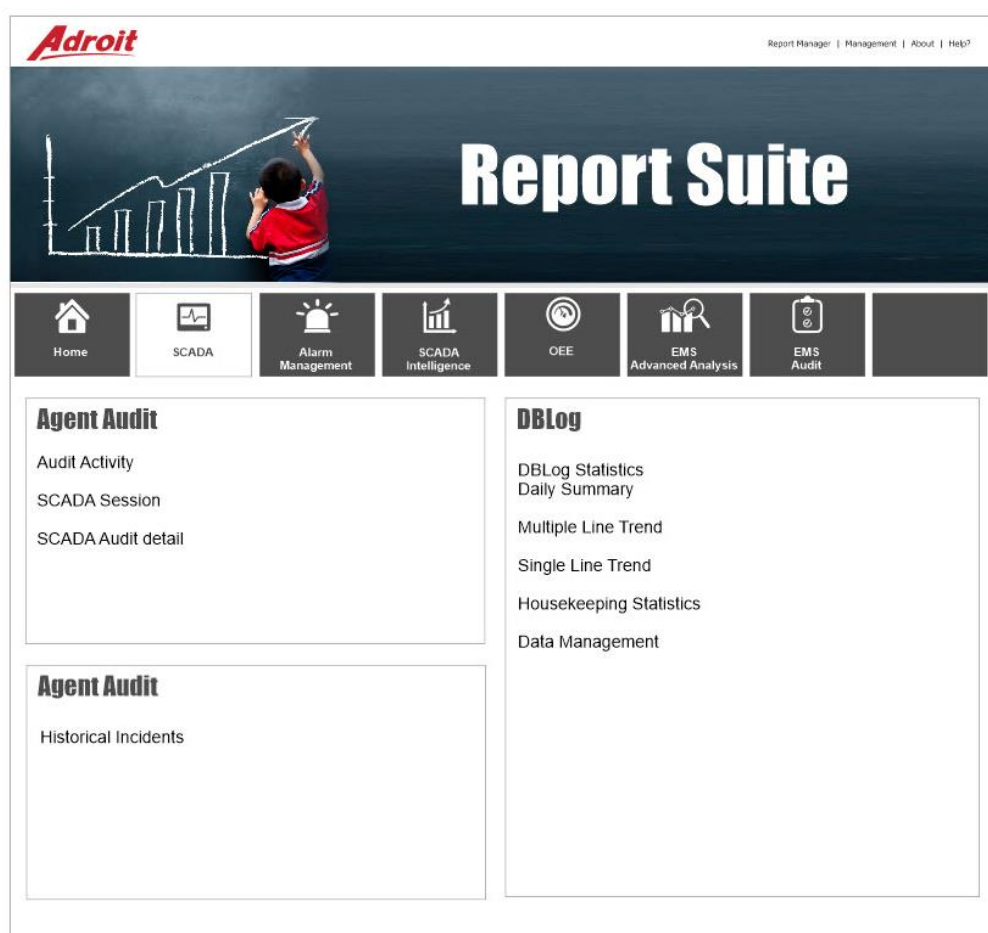
7. Start Reporting

7.1. Report Suite Icon

A desktop shortcut can be added through the Adroit Report Deployment Utility (see user's manual). Click on the desktop shortcut Icon to start reporting.

7.2. Report Suite Switchboards

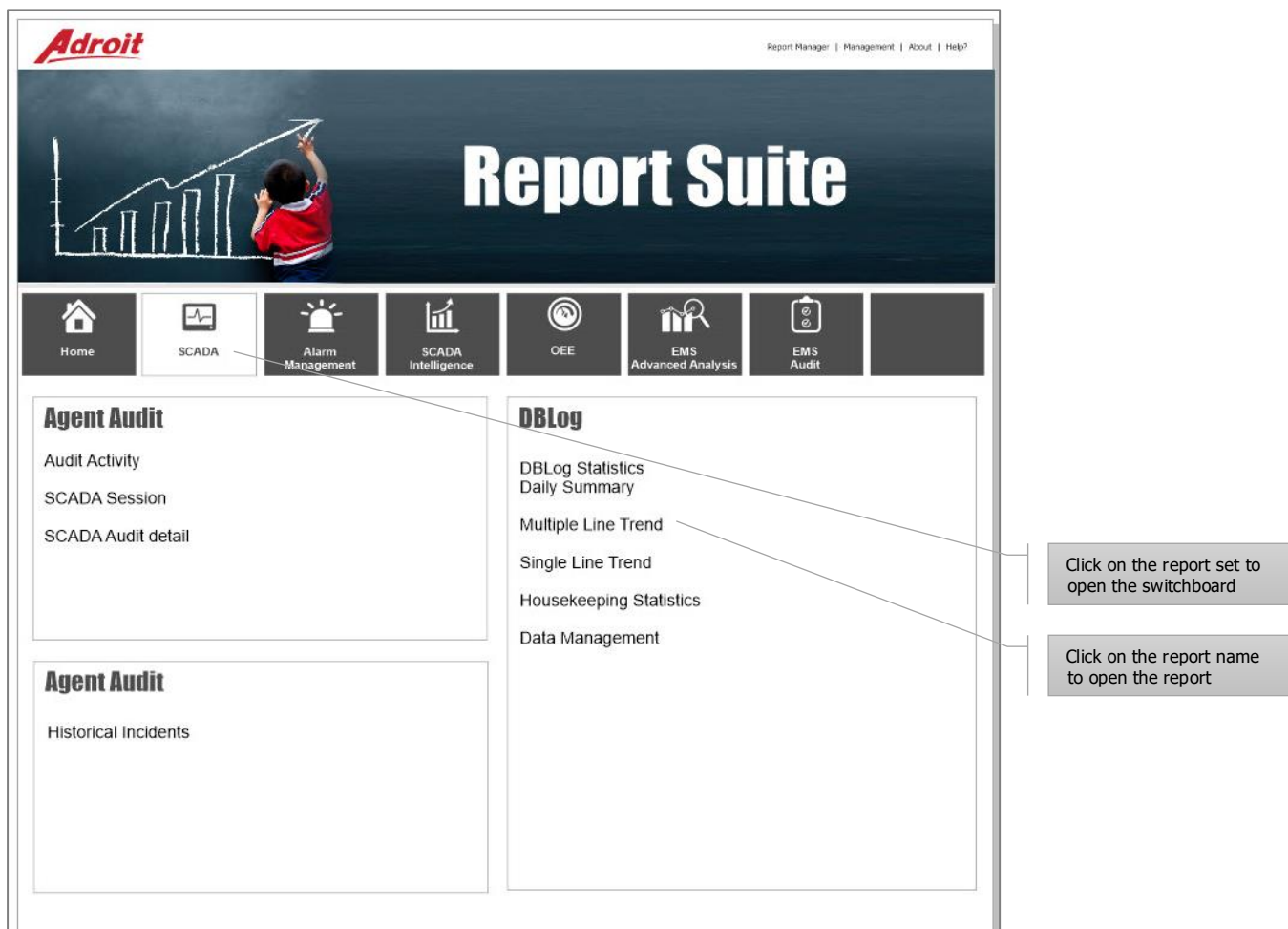
The Report Suite navigation is essentially done through a set of switchboard reports. These are accessed by the user through Internet Explorer web browser. Each tab on the switchboard opens up the switchboard for the selected set of reports.



8. Report Navigation

8.1. Report Selection

In order to run a report, the correct report set switchboard needs to be opened. This can be done by simply clicking on the correct report set tab. The available reports are listed on the switchboard report. To open a report, click on the report name. Most reports have default parameters (filters), which allow the report to run immediately when opened.



The screenshot displays the Adroit Report Suite web application. At the top, the Adroit logo is on the left, and navigation links (Report Manager, Management, About, Help?) are on the right. Below the header is a large banner image showing a person pointing at a bar chart on a chalkboard, with the text "Report Suite" in large white letters. A horizontal menu bar contains several tabs: Home, SCADA, Alarm Management, SCADA Intelligence, OEE, EMS Advanced Analysis, and EMS Audit. The SCADA tab is currently selected. Below the menu bar, the interface is divided into two main columns. The left column contains two sections, both titled "Agent Audit": the top section lists "Audit Activity", "SCADA Session", and "SCADA Audit detail"; the bottom section lists "Historical Incidents". The right column is titled "DBLog" and lists several report options: "DBLog Statistics Daily Summary", "Multiple Line Trend", "Single Line Trend", "Housekeeping Statistics", and "Data Management". Two callout boxes with arrows provide instructions: the first points to the "SCADA" tab and says "Click on the report set to open the switchboard"; the second points to the "Multiple Line Trend" report name and says "Click on the report name to open the report".

8.2. Report Layout & Navigation

In order to run a report, the correct set switchboard needs to be opened. This can be done by simply clicking on the correct report set tab.

The available reports are listed on the switchboard report. To open a report, click on the report name. The Internet Explorer back button can be used to navigate back to the previous report.

The report header for most reports is the same with information such as report title and summary, the reporting period and the date the report is actually executed.

Navigation options within the report can be used to go back to the main or current switchboard, open the manage report window or open the associated help document.

The screenshot shows the 'Adroit Audit Activity' report in a web browser. The browser's back button is highlighted with a callout: 'Use the back arrow to go to the previous report'. The report title 'Audit Activity' is highlighted with a callout: 'Report title and description'. A 'Help?' link is highlighted with a callout: 'Report help'. The report generation date 'Report generated at 2012/07/09 06:47:33 PM' is highlighted with a callout: 'Report generation date'. The report period 'Report period - from 2012/07/01 12:00:00 AM to 2012/07/09 12:00:00 AM' is highlighted with a callout: 'Report period'. The report content is a table with columns: Date Time, Computer, User Name, Object name, Object value, Category, and Remarks. The table shows incident counts for various servers.

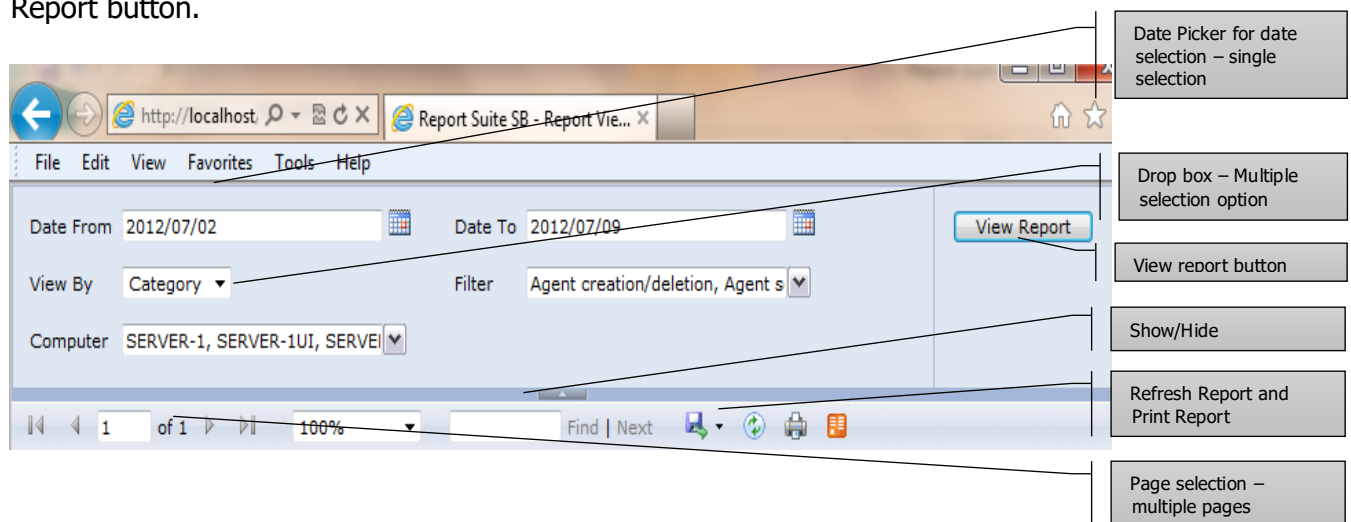
Date Time	Computer	User Name	Object name	Object value	Category	Remarks
						No Of Incidents: (27)
						No Of Incidents: (47)
						No Of Incidents: (131)
						No Of Incidents: (48)

9. Running Reports

9.1. View Report Button

Before a report will run, it must have at least one value for each of the report parameters. If a report has valid default report parameters it will run immediately when the report is opened.

In order to run a report manually, the View Report button must be pressed. This button is available in the report parameters window which can be opened by clicking on the Show/hide Parameters button (shown below). If report parameters are changed the report can be re-run by clicking on the View Report button.

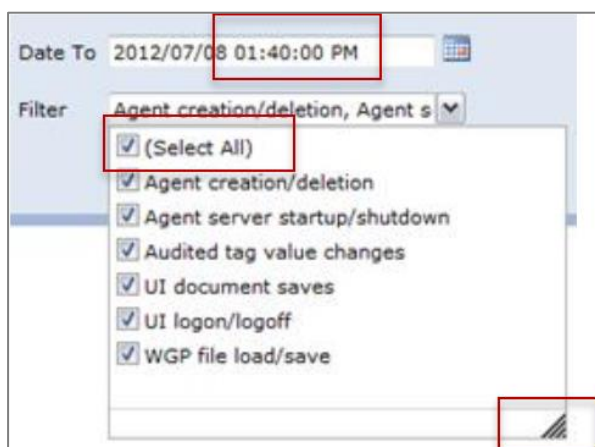


9.2. Selecting Report Parameters

Report parameters constrain the data set returned in the report. Often a parameter itself is constrained by a previously selected parameter, but it is important to select parameters in the correct order. Parameters should be selected from left to right and top to bottom to ensure that constrained parameters are properly constrained.

9.2.1. Date Time Parameters

The date time parameters determine the reporting period for the report. When the parameters are selected using the date picker the default time will be midnight (00:00 AM). It is possible to type in the hour if a specific date time range is required.



9.2.2. Multiple Select Parameters

The multiple selection parameter allows for the selection of one or many parameter values. All values can be selected or deselected by checking or unchecking the "(Select All)" option. The multiple select dropdown can be expanded by dragging the corner of the drop down list down and to the right.

9.3. Select Export Format

Once a report has been generated, it is possible to export the report in various formats.

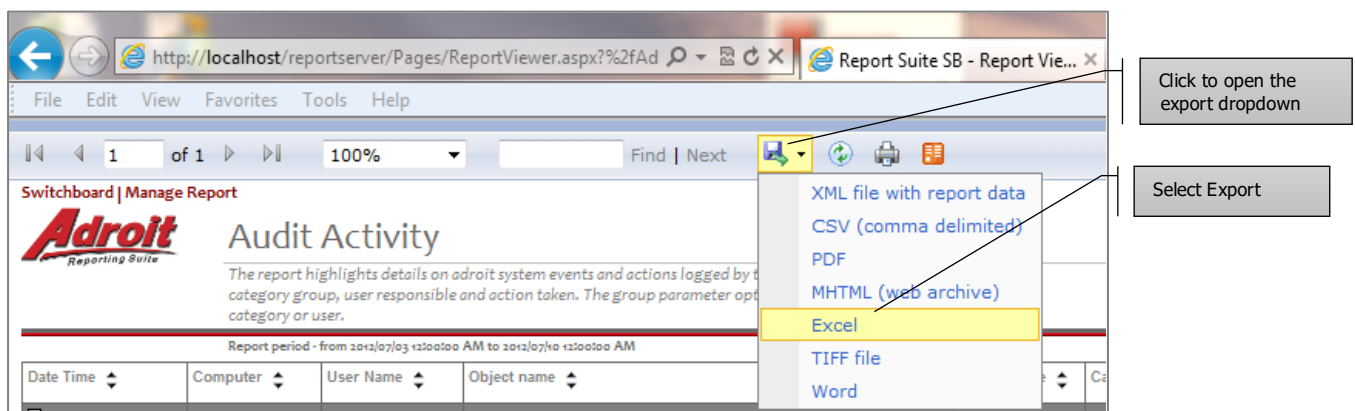
For SQL Express the formats are:

- PDF
- MHTML (web archive)
- Excel
- Word

A licensed SQL can also export to:

- CSV
- XML
- TIFF (image)

On the report options ribbon, click on the save to disc icon to open the export options drop-down list. Select the desired export format and follow the prompts to either open the export immediately or to save to disc.



10. Technical Support

For further support, contact our Technical Support Desk on 011-658-8100 or email support@adroit.co.za.

You can also visit our website, follow us on Twitter, find us on Facebook or connect with us on LinkedIn.

