



Adroit
Technologies



Adroit Report Suite

Release Notes



COPYRIGHT

Copyright © 2020 Advanced Worx 112 (Pty) Ltd. All rights reserved.

Information in this document is subject to change without notice. The software described in this document is furnished under a license agreement or nondisclosure agreement. The software may be used or copied only in accordance with the terms of those agreements. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or any means electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of Advanced Worx 112 (Pty) Ltd.

Advanced Worx 112 (Pty) Ltd
20 Waterford Office Park
189 Witkoppen Road (c/o Waterford Drive)
Fourways
South Africa

www.adroittech.co.za

Version	Date	Author	Comment	Approval
1.0	09/03.2018	G Joyce	Original	D. Wibberley
2.0	17.08.2020	J. Duncan	Update Cover and formatting	
3.0	28.08.2020	J. Duncan	Finalise	

Contents

1.	Introduction	3
2.	Introduction to SQL Server CLR Integration	3
2.1.	Enabling CLR Integration.	3
3.	Adroit Report Suite 1.3.1 Release Notes	4
3.1.	Product Version.....	4
3.2.	Release Notes.....	4
3.3.	Contents	4
4.	System Requirements.....	5
4.1.	Software	5
4.2.	Operating Systems	5
5.	Reference Documents.....	5
5.1.	New Features	6
5.1.1.	New Reports and Update Scripts.....	6
6.	New Report Packs	6
6.1.	OEE Report Pack 1.1.0.0.....	6
6.2.	EMS Report Pack 2.5.0.0.....	7
7.	Upgrade Steps	8
7.1.	Install Adroit Report Deployment Utility version 1.3.1	8
7.2.	Install new report packs	9
7.3.	Configure/Upgrade Report Suite Data Sources.....	10
7.4.	Deploy new Report Packs.....	11
7.5.	Run SQL Update Scripts.....	11
7.6.	Test Reports.....	12
7.6.1.	Delete Adroit Report Suite Folder(s) in Reporting Services Manager	12
8.	Technical Support Detail.....	13

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.

2. Introduction to SQL Server CLR Integration

The common language runtime (CLR) is the heart of the Microsoft .Net Framework and provides the execution environment for all .Net Framework code. Code that runs within the CLR is referred to as managed code. The CLR provides various functions and services required for program execution, including just-in-time (JIT) compilation, allocation and managing memory, enforcing type safety, exception handling, thread management and security

With the CLR hosted in Microsoft SQL Server (called CLR integration), you can author stored procedures, triggers, user-defined functions, user-defined types, and user-defined aggregates in managed code. Because managed code compiles to native code prior to execution, you can achieve significant performance increases in some scenarios. CLR integration is enabled or disabled on a SQL server instance.

2.1. Enabling CLR Integration.

The common language runtime (CLR) integration feature is off by default in Microsoft SQL Server and must be enabled in order to use objects that are implemented using CLR integration. To enable CLR integration using Transact-SQL, use the "clr enabled" option of the "sp_configure" stored procedure as follows:

```
sp_configure 'clr enabled', 1  
GO  
RECONFIGURE  
GO
```

You can disable CLR integration by setting the clr-enabled option to zero. When you disable CLR integration, SQL Server stops executing all CLR routines and unloads all application domains.

3. Adroit Report Suite 1.3.1 Release Notes

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.

This is an update to the Adroit Report suite 1.3.0

3.1. Product Version

- Adroit Report Suite version 1.3.1

3.2. Release Notes

- September 2018

3.3. Contents

- Adroit Deployment Utility 1.3.1
- Adroit Reports Pack 2.0.0
- Alarm Management Reports Pack 2.2.0
- SCADA Intelligence Standard reports Pack 1.2.0
- EMS Report Pack 2.1.0
- OEE Report Pack 1.1.0

4. System Requirements

4.1. Software

- Adroit version 10 or later

*Note** the report suite is in function backward compatible with Adroit version 8.4 although certain report packs has reports included based on new agents available only in Adroit version 10. It is an option on deployment to simply omit these reports.*

*Note** Adroit Reports require DBLog agent version 8.3.1 36 on Adroit version 7.0.11.0 or later.*

- Microsoft SQL 2014 Express with Advanced Services

*Note** See SCADA intelligence Requirements for SCADA intelligence pack*

- Internet Explorer 10 or later recommended.

4.2. Operating Systems

- Windows 7 Professional
- Windows Server 2008 R2 SP2
- Windows 8 or 8.1 Professional
- Windows Server 2012 R2
- Windows 10 Professional

5. Reference Documents

- Adroit Report Suite User Manual
- Adroit Report Deployment Utility User Manual
- Report Suite User Manual - Alarm Management
- Report Suite User Manual – Adroit Reports
- Report Suite User Manual – OEE Reports
- Report Suite User Manual – EMS Reports
- Report Suite User Manual - SCADA Intelligence Standard Pack

5.1. New Features

5.1.1. New Reports and Update Scripts

Adroit Report Pack 2.0.0

Adroit Report Pack Update Script 1.2.3 - Update Script enables the Historical incidents report not to depend on the Alarm Management pack.

For more information Please refer to the Adroit Report Suite – Adroit Reports User Manual.

Alarm Management 2.2.0

Alarm Management Update script 2.2.0 – combines the two update scripts of the previous versions

For more information Please refer to the Adroit Report Suite – Alarm Management User Manual

OEE Report Pack

OEE update script 1.0.0.1 – creates the resources table when it is not available on the current data source.

For more information Please refer to the Adroit Report Suite – OEE User Manual

6. New Report Packs

6.1. OEE Report Pack 1.1.0.0

Overall Equipment Effectiveness (OEE) is a measurement of how effectively a single piece of equipment, a process or even how an entire factory is being utilised.

OEE is percentage determined by the cumulative impact of the following three factors:

- **Availability:** is the percentage of the actual running time of the monitored equipment and/or factory. Therefore, this factor is decreased by the activities that cause unplanned downtime.
- **Performance:** is the percentage of how often the monitored equipment and/or factory performs at optimum speed. So this factor is decreased by the all the factors preventing the equipment and/or factory from running at optimal speed.
- **Quality:** is the percentage of good quality items produced by the monitored equipment and/or factory. Therefore, this factor is decreased by the amount of produced waste or bad quality and scrapped items.

$$\text{OEE\%} = \text{Availability\%} \times \text{Performance\%} \times \text{Quality\%}$$

This OEE percentage takes into account all losses in downtime, speed and quality and can therefore be used for analysis and benchmarking.

The OEE report pack is based on the latest OEE agent in Adroit version 8.4 or later

OEE agent Revision 8.4.2.27

For more information Please refer to the Adroit OEE help

The OEE pack consists of four reports namely:

- OEE Transaction
- OEE Dashboard
- OEE Summary
- KPI Summary

For more Information, please refer to the Adroit Report Suite – OEE User Manual.

6.2. EMS Report Pack 2.5.0.0

This serves as management information of each recorded incident for the purpose of managing device statuses, track recorded incidents and audit overall system performance.

The EMS Pack consists of ten reports namely:

- Audit Summary
- Incident Duration
- Incident Count
- Sensor Configuration
- Fire Detection Configuration
- Unauthorized Blasting
- Export Incident Duration
- Export Incident Count
- Digital Configuration
- Datalog Configuration

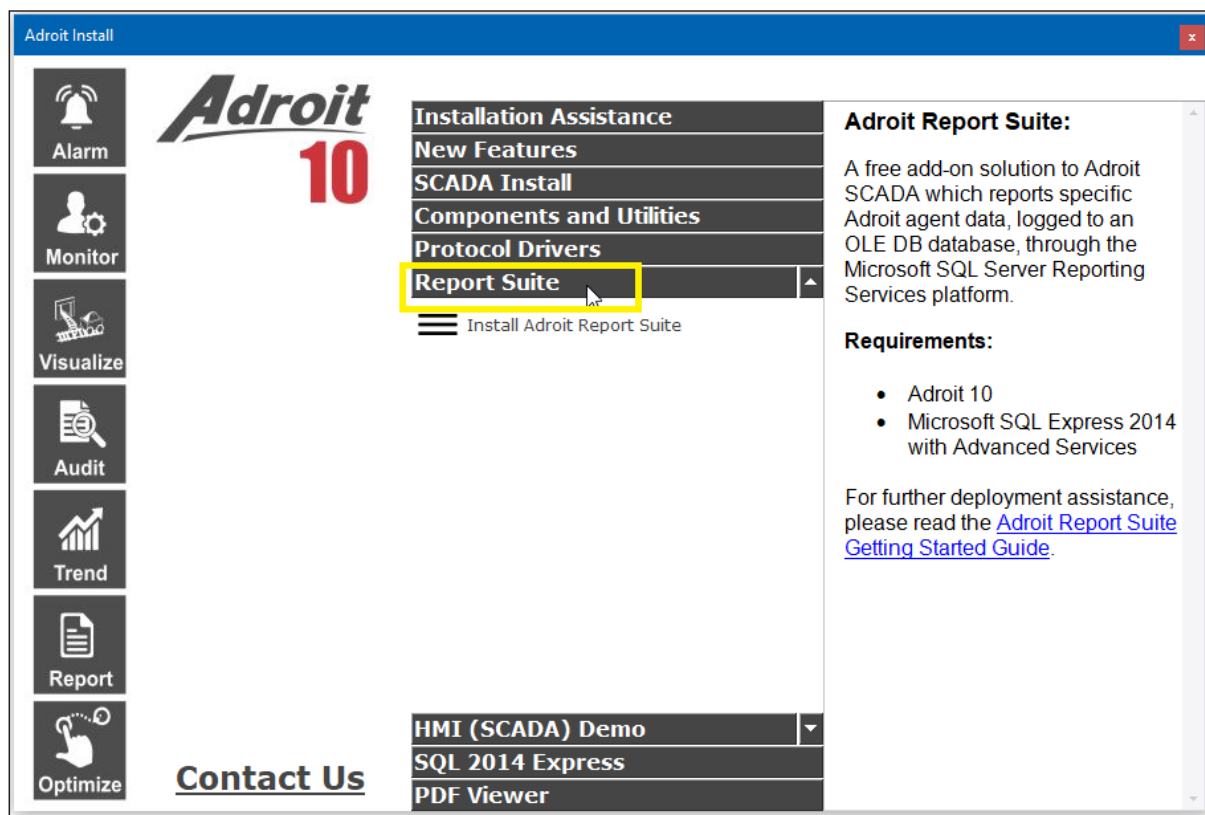
For more Information, please refer to the Adroit Report Suite – EMS User Manual

7. Upgrade Steps

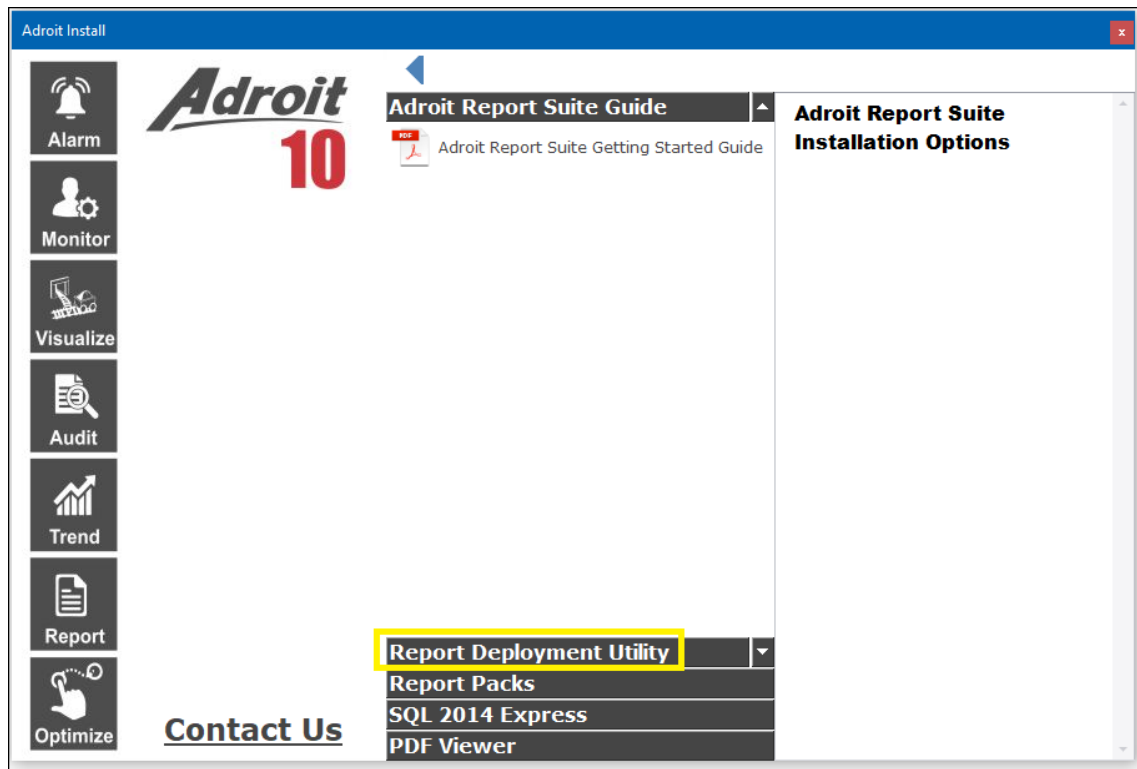
7.1. Install Adroit Report Deployment Utility version 1.3.1

The Adroit installation provides the user options to install the Report Suite.

- Run Setup.

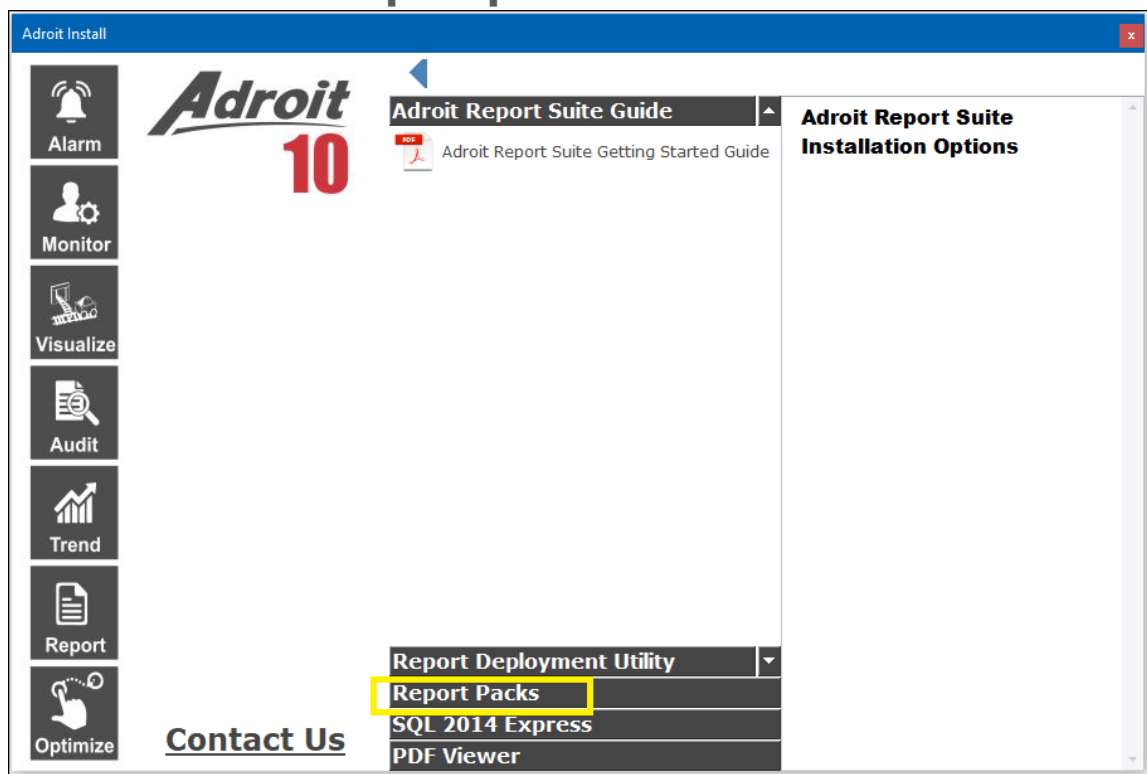


- Run Adroit Report Suite setup. Follow the install procedure prompts.



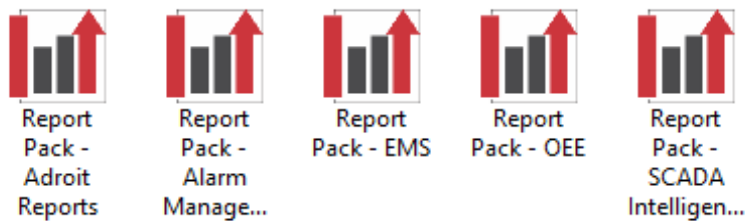
- Run Adroit Report Deployment Utility setup. Follow the install procedure prompts.

7.2. Install new report packs



- Follow the install procedure prompts.

The Adroit Report Suite installation provides the user options to install available report packs. Installing the report pack simply copies them into the *Program Files* directory. The installer opens a folder containing available report packs.



- Click on the relevant report pack to install.

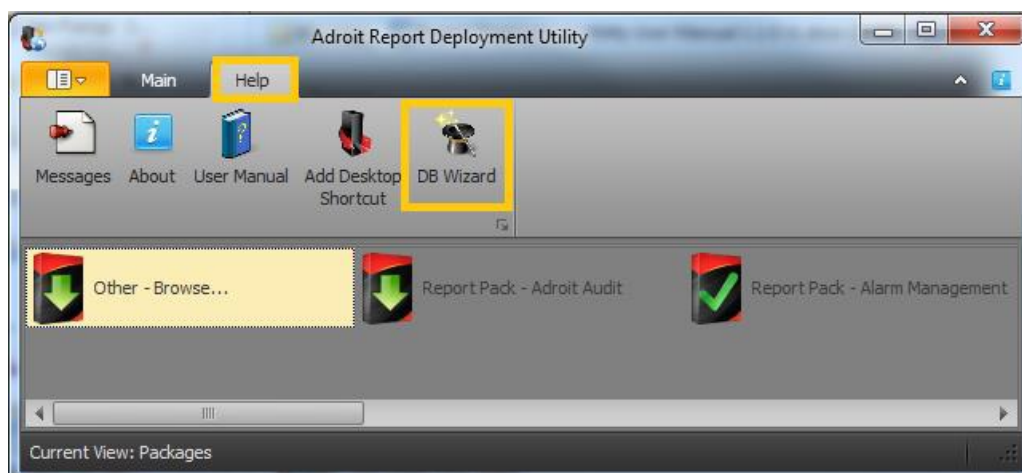
Note** - SCADA Intelligence report pack will not work on SQL Server express editions.

- Run Report Pack setup.
- Follow the install procedure prompts.

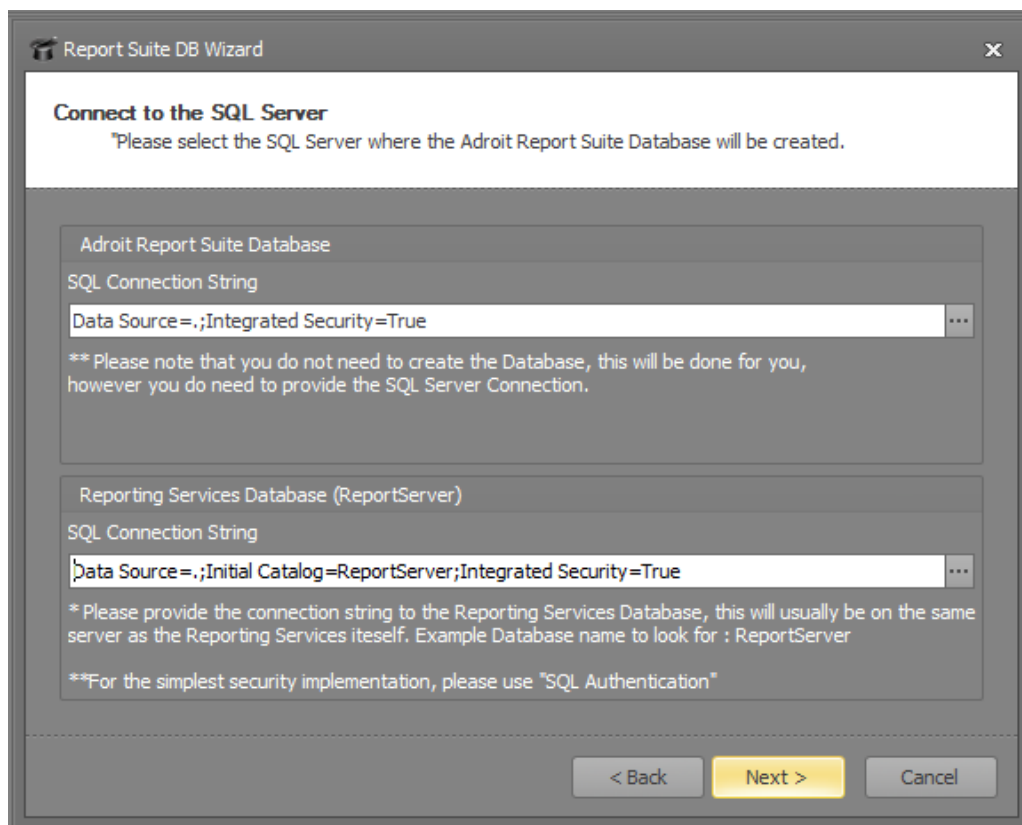
7.3. Configure/Upgrade Report Suite Data Sources

The Adroit Report Suite now has two data sources, namely the Adroit Report Suite database and the Report Server database. Please refer to the Adroit Report Deployment User Manual for more information. Follow the following steps:

- Open the Deployment Utility and connect to the Report Server Web Service URL
- Open the Help Tab and run the DB Wizard

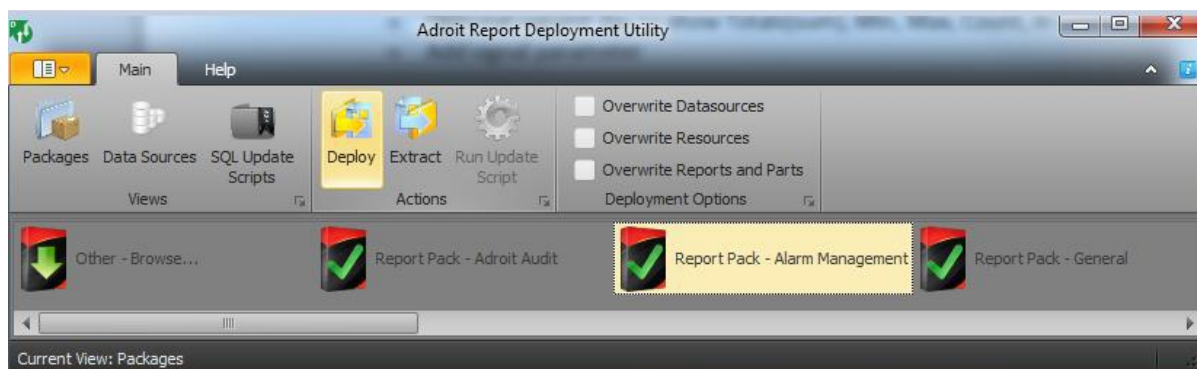


**Note: Set both data source connections



7.4. Deploy new Report Packs

1. On the Main tab go to the Packages button.
2. Select the report to deploy. Menu
3. Under "Deployment options"; set the "Overwrite Resources and Overwrite Reports".
4. Continue to Deploy and specify the data source(s) (by default the data source points to a Demo data source)

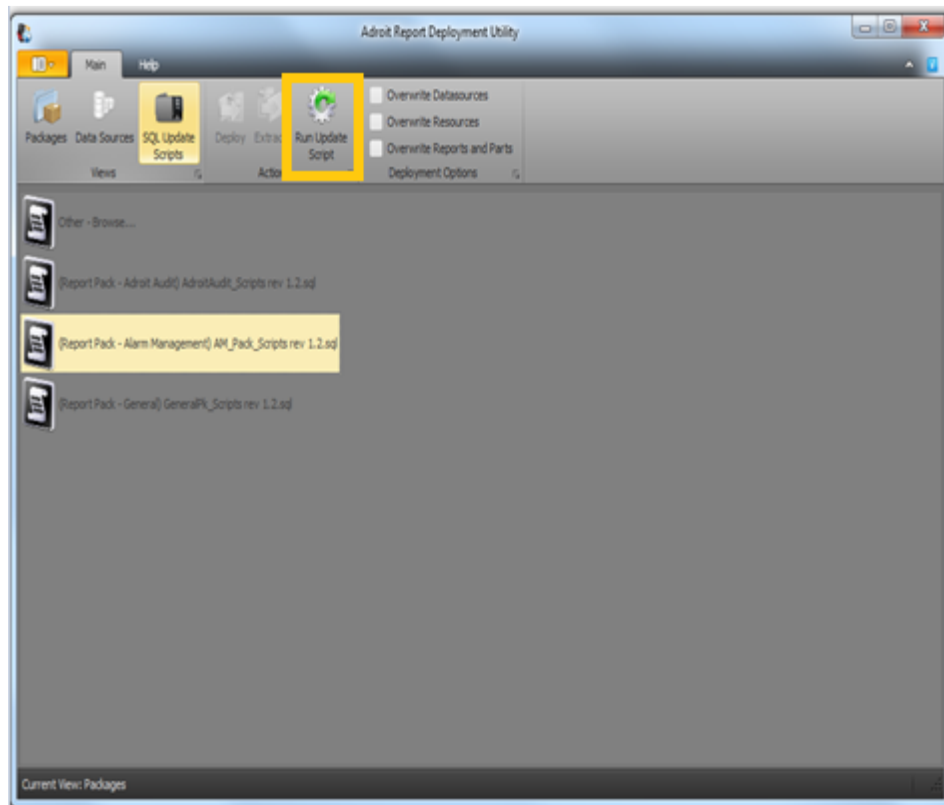


The Deployment Utility will deploy the relevant report packs.

7.5. Run SQL Update Scripts

- On the Main tab go to the SQL Update Scripts
- Select the Script and Run Update Scripts Button
- Select the database to run the scripts against

Note** - In the case of SCADA Intelligence report scripts the name gives a hint of the target database i.e. a script name containing “_DW” should be run against a Data warehouse database and “_ODS” against an ODS database.



7.6. Test Reports

Test reports starting from the Report Suite Switchboard/Menu, click each pack tab. While testing pay attention to error messages typically those pointing out missing scripts or incompatible SCADA versions in which case one may need to upgrade the SCADA or rerun scripts.

7.6.1. Delete Adroit Report Suite Folder(s) in Reporting Services Manager

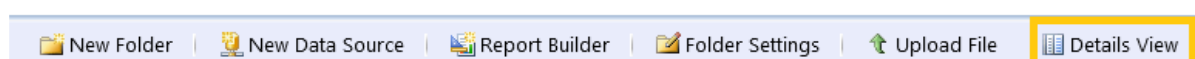
Deploying Adroit Report Suite 1.3.1 report packs leaves two redundant folders namely General and Adroit Audit, which may be deleted at the user’s discretion.

Note* - Delete only when these folder do not contain custom reports.

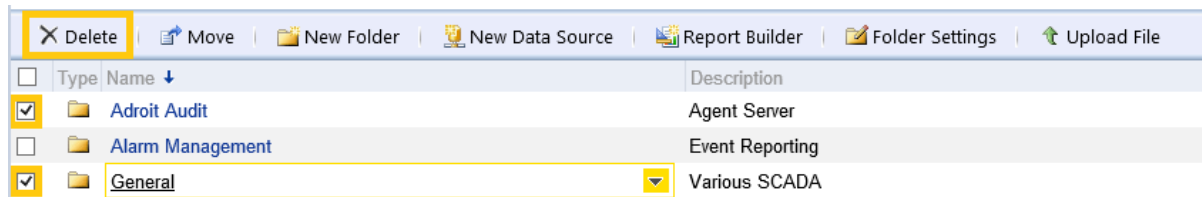
Open Internet Explorer and connect to the Reporting Services Report Manager using the following URL - (**Http://MachineName/Reports_Instance**). For information on how to find your Reporting Services URL, please refer to the Report Suite User Manual.

Once the Report Manager is open, follow the following steps:

- Click to open Adroit Report Suite folder then change the Report Manager view from Tile view to Details view by clicking on the “Details View” button.



- Tick the checkbox and click the delete button.



8. Technical Support Detail

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.

