acQuire

Automation

Quick Start Guide

Document information

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1   Overview

The automation component of acQuire GIM Suite lets you schedule key operations to run unattended at specified times. There are currently two types of automation that are supported:

- **Data Caching:** This involves storing a snapshot of the current live data set in a dedicated cache table, providing fast read access for large or complex form definitions that might otherwise run very slowly.

- **Task Automation:** This lets you schedule jobs to execute common acQuire 4 tasks, such as importing and exporting data sets, and transforming coordinates.

1.1   Prerequisites

To use the automation functionality, the acQuire Neo meta system must be installed on your acQuire 4 database. However, you do not need to use acQuire Neo to use the automation feature - acQuire 4 will prompt you to install it when you access any of the **Automation** menu options in the main **Manage** menu.

There are also some preliminary setup steps that must be performed on the server:

- acQuire Information Manager must be installed.

- The acQuire configuration database must have been deployed (this is done as part of the server installation, at the same time that acQuire Information Manager is installed).

- The login used by the Information Manager to connect to the configuration database and to the target acQuire 4 database must have been created on the SQL Server instance that the database resides on. It must also be mapped to the appropriate roles on each database.

- To run task automation jobs, the Information Manager's service account (or the machine that Information Manager is installed on) must have access to an acQuireClient licence. This is not required when executing data caching jobs, however.

This Quick Start Guide gives a very high-level overview of all the steps required to get up and running with the automation feature - refer to the *Automation User Guide* for more information on each of the steps.

The steps in this guide assume the example setup described in the following table:

Machine	Type	Details
AppServer01	Application server	Application server used for acQuire GIM Suite Server components. In this example: ● **acQuire Neo Web** already exists on the server and will be upgraded. ● **acQuire Information Manager** will be installed for the first time. The Information Manager service will use a domain account called 'DOMAIN\acQInfoManager'.
DBServer01	Database server	Database server used to host all acQuire GIM Suite databases for a suite. For the example in this guide, the databases used are: ● **acQuireConfiguration:** The configuration database used by acQuire GIM Suite Server components, such as Information Manager and acQuire Neo Web. ● **Banksia01:** An ADM data source on which automation jobs will be configured. ● **Banksia02:** An ADM data source which will *not* be used for automation. An 'acQuireGIMService' login (using SQL Server authentication) has been created on the server, but not yet mapped to any databases.
Client01	Client machine	Client machine used by the acQuire manager user to configure automation jobs.

Step 1: Installation
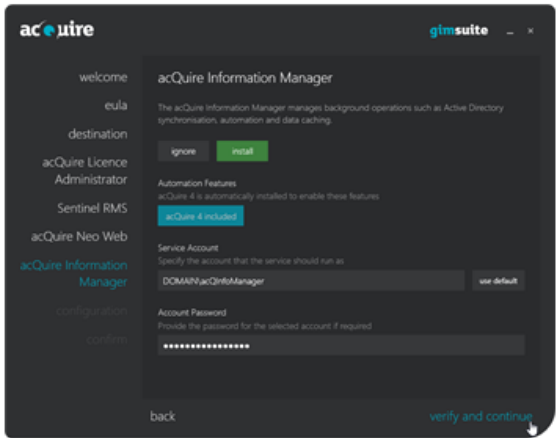
1 Select the **Install** option for the acQuire Information Manager and set the service account that it will use.
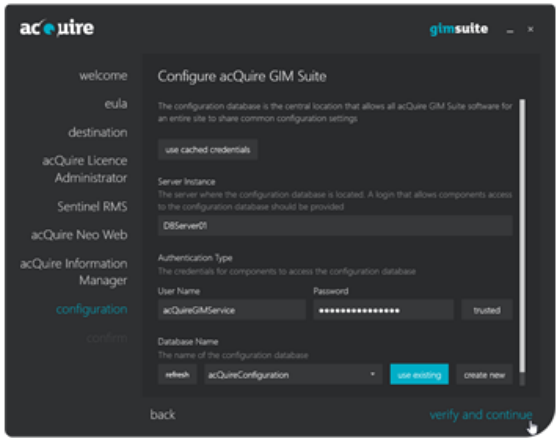
2 Define the location of the acQuireConfiguration database.
- If it does not exist, select the **create new** option to deploy a new one.
- If you have previously used the AcqSecurity database for acQuire Neo Web, simply select this as your existing configuration database.

After clicking **verify and continue**, the encrypted connection details will be written to the system.config file.

Application Server: AppServer01

Required for automation

⚙ **acQuire Information Manager**

👤 DOMAIN\acQInfoManager
User

acQuire 4

Optional – not required for automation

🌐 **acQuire Neo Web**

👤 IIS APPPOOL\acQuire
User

System.config (cached credentials)

Server: DBServer01
Database: acQuireConfiguration 🔒
Login: acQuireGIMService
Password: **********
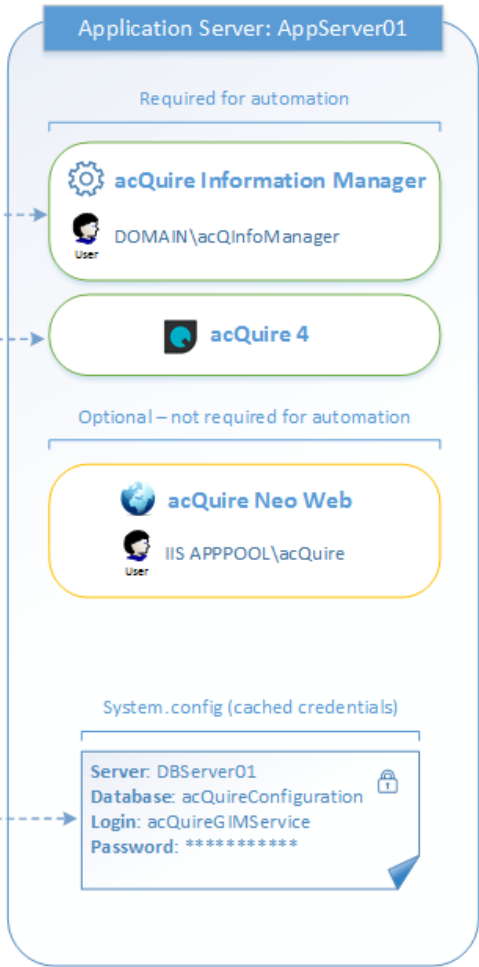
Refer to Section 2 of the Automation User Guide for details.

Step 2: Configuring the Database Logins

Application Server: AppServer01

Required for automation

⚙ **acQuire Information Manager**

👤 DOMAIN\acQInfoManager
User

◉ **acQuire 4**

Optional – not required for automation

🌐 **acQuire Neo Web**

👤 IIS APPPOOL\acQuire
User

System.config (cached credentials)

Server: DBServer01 🔒
Database: acQuireConfiguration
Login: acQuireGIMService
Password: **********

① Add the login specified in the config file ('acQuireGIMService' in this example) to the **acQuireConfiguration** database and map it to the **Acq_Security** database role.

Note: This may already have been done during installation.

② Add the login specified in the config file to any ADM data sources the Information Manager will need to run automation jobs for (in this example, **Banksia01**) and map it to the **ACQ_ADMIN** database role.

Database Server: DBServer01

acQuireConfiguration

👤 acQuireGIMService
⇩
👥 Acq_Security

ADM data sources

Banksia01

👤 acQuireGIMService
⇩
👥 ACQ_ADMIN

Banksia02

(not used for automation)

Refer to Section 3 of the Automation User Guide for detailed steps.

Step 3a: Client Side Setup – Configuration and Licence Server

1 On the acQuire Manager's client machine, open the **Manage>Automation>Automation Setup** dialog and define the location of your acQuireConfiguration database and the credentials to use when connecting to it. **Note**: Your workspace must be connected to the database that you want to configure automation jobs for.

2 Also within the **Automation Setup** dialog, enter the licence server the Information Manager will use when running task automation jobs and click **Apply**. **Note**: This is not required if you are only running data caching jobs.

Client Machine: Client01

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Read from config file when dialog is opened (if file already exists, otherwise a new one will be created once setup is complete).

Write to config file when dialog is closed (if any changes made).

System.config (cached credentials)

Server: DBServer01
Database: acQuireConfiguration
Login: acQuireGIMService
Password: **********

Client Machine: Client01

acQuire 4


System.config (cached credentials)

Server: DBServer01
Database: acQuireConfiguration
Login: acQuireGIMService
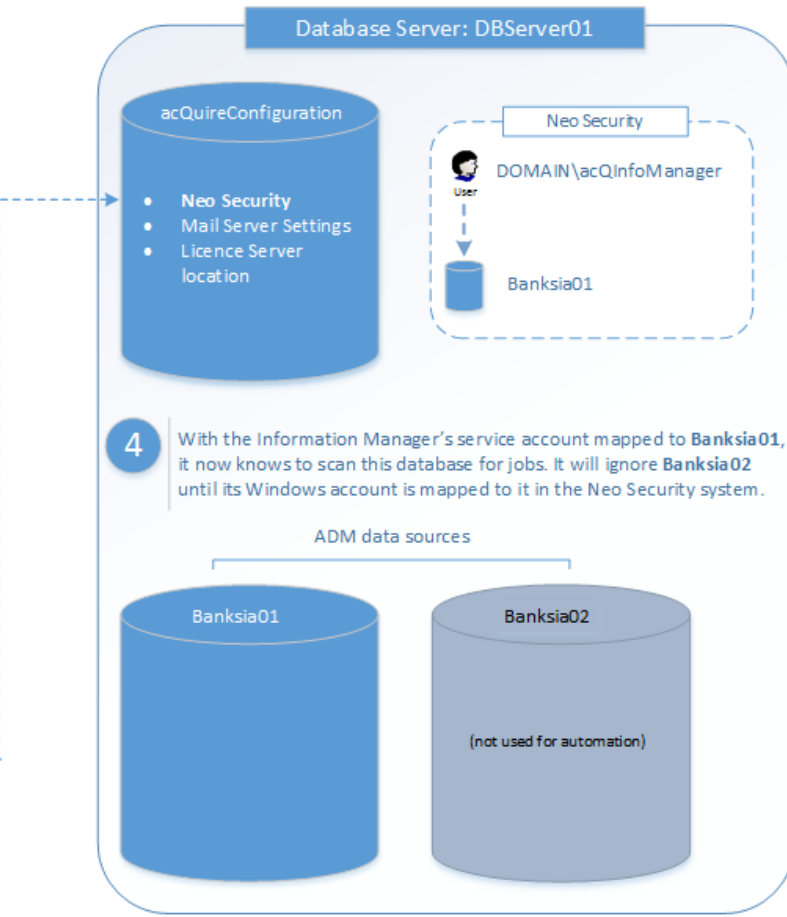**Password**: **********

Refer to Section 3.2.1 of the Automation User Guide for details.

Step 3b: Client Side Setup – Adding Data Sources

1 Click the **Add** button above the **Databases to connect to** grid and select the **Use current database** checkbox in the **Add database to Automation** dialog that opens.
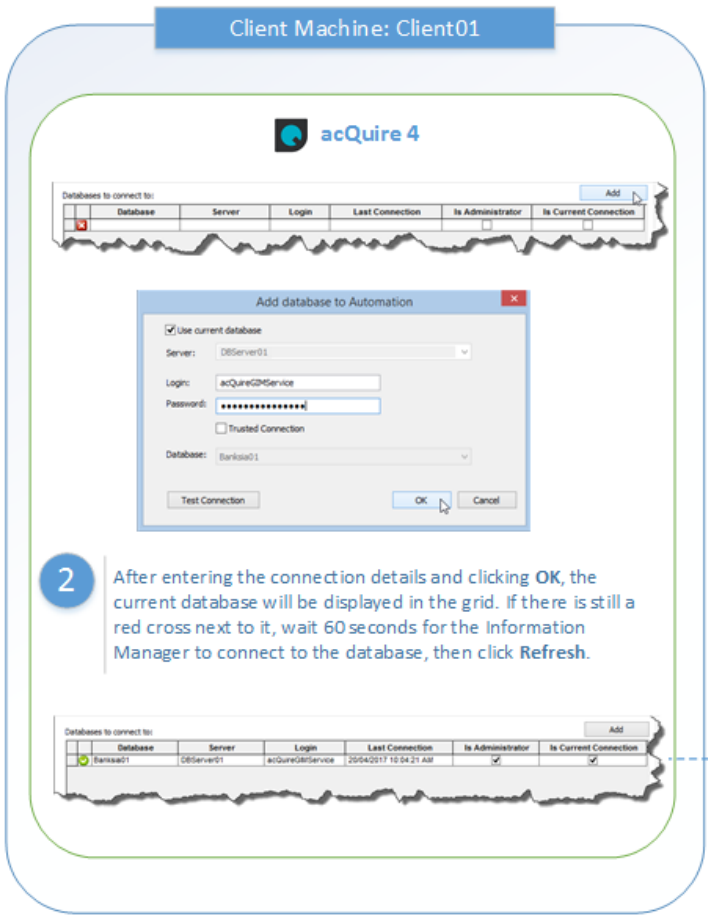
3 acQuire 4 automatically adds the data source to the **Neo Security** section of the Configuration database (if it does not already exist). It also adds the service account used by the Information Manager as a **Neo Security** user and maps it to the data source.

Client Machine: Client01

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Database Server: DBServer01

acQuireConfiguration

- **Neo Security**
- Mail Server Settings
- Licence Server location

Neo Security

DOMAIN\acQInfoManager
User

Banksia01

4 With the Information Manager's service account mapped to **Banksia01**, it now knows to scan this database for jobs. It will ignore **Banksia02** until its Windows account is mapped to it in the Neo Security system.

ADM data sources

Banksia01

Banksia02

(not used for automation)

2 After entering the connection details and clicking **OK**, the current database will be displayed in the grid. If there is still a red cross next to it, wait 60 seconds for the Information Manager to connect to the database, then click **Refresh**.

Refer to Section 3.2.1.1 of the Automation User Guide for details.

Step 4: Task Automation Setup

1 Select **Manage>Automation>Task Automation Wizard** to set up a task automation job. Define whether any notifications should be sent when the job completes, then click **Add Task** to start configuring the tasks you want to automate.

3 When you click **Finish** to complete the setup of the job, the details will be written to the Neo meta system within the current database (in this example, **Banksia01**).

Client Machine: Client01

acQuire 4

2 After configuring all the tasks for the job, click **Next** to define the schedule for the job.

Database Server: DBServer01

ADM data source

Banksia01

- Email Templates
- **Task Automation Jobs**
- Data Caching Jobs

Task Automation Jobs

Job	Task	Schedule
Load Assay Data	Import Analytical Data	Every hour (6 am to 6 pm)
Collar Coordinates Update	Import Collar Surveys	
	Transform Coordinates	Once a day at 6 pm
	Export to GIS	

Refer to Section 4 of the Automation User Guide for details.

![acQuire logo]

Step 5: Data Caching Setup

1 Select **Manage>Automation>Data Caching Wizard** to set up a data caching job. Define a name for the group and add the form definitions you want to cache.

3 When you click **Finish** to complete the setup of the caching group, the details will be written to the Neo meta system within the current database (in this example, **Banksia01**).

Client Machine: Client01

acQuire 4

Cache Group

| Name | Nightly Geophysics Update | | New | | Delete Group |

Category	Name	Date Last Cached
Exports,Geophysics	Best Geophysics - Acacia	
	Best Geophysics - Hakea	

2 After defining which form definitions you want to cache, click **Next** to set up the schedule for the cache group.

Schedule

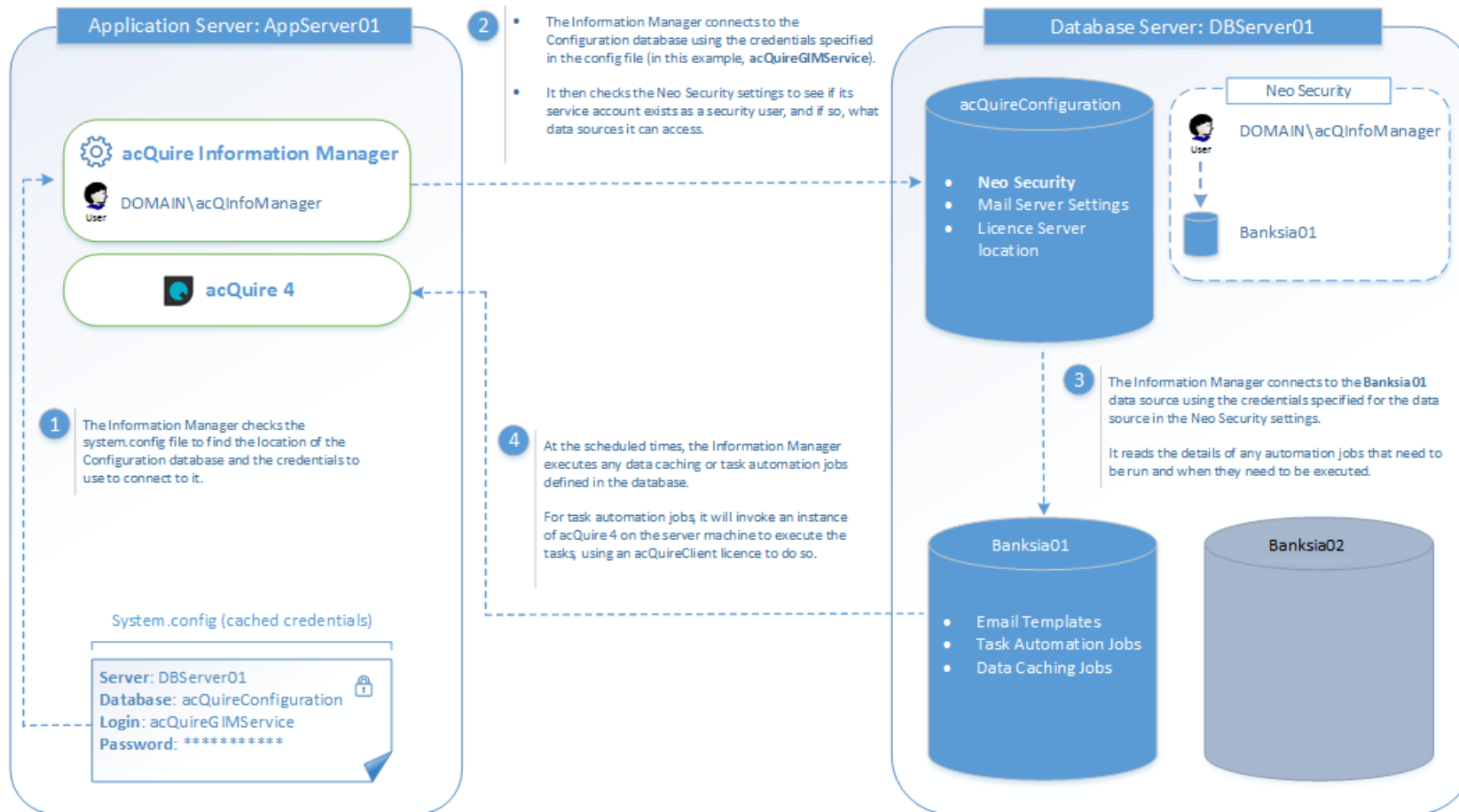Schedule Name: Schedule for the group: Nightly Geophysics Update

Schedule Type: Recurring ☑ Enabled

One Time Occurence

Date: 20/04/2017   Time: 6:18:08 PM

Frequency

Occurs: Daily

Recurs every: 1   Day(s)

Database Server: DBServer01

ADM data source

Banksia01

- Email Templates
- Task Automation jobs
- **Data Caching jobs**

Data Caching Jobs

Caching Group	Form Definition	Schedule
Nightly Geophysics Update	Best Geophysics - Hakea	Once a day at 6 pm
	Best Geophysics - Acacia	
Best Assays Update	Best Assays – Drillholes	Every hour (6 am to 6 pm)
	Best Assays – Geochem	

Refer to Section 5 of the Automation User Guide for details.

How it Works: Automation in Action

Application Server: AppServer01

⚙️ **acQuire Information Manager**

👤 DOMAIN\acQInfoManager

🔵 **acQuire 4**

1 The Information Manager checks the system.config file to find the location of the Configuration database and the credentials to use to connect to it.

System.config (cached credentials)

Server: DBServer01
Database: acQuireConfiguration
Login: acQuireGIMService
Password: ***********

2 The Information Manager connects to the Configuration database using the credentials specified in the config file (in this example, **acQuireGIMService**).

It then checks the Neo Security settings to see if its service account exists as a security user, and if so, what data sources it can access.

4 At the scheduled times, the Information Manager executes any data caching or task automation jobs defined in the database.

For task automation jobs, it will invoke an instance of acQuire 4 on the server machine to execute the tasks, using an acQuireClient licence to do so.

Database Server: DBServer01

acQuireConfiguration

- **Neo Security**
- Mail Server Settings
- Licence Server location

Neo Security

👤 DOMAIN\acQInfoManager

Banksia01

3 The Information Manager connects to the **Banksia01** data source using the credentials specified for the data source in the Neo Security settings.

It reads the details of any automation jobs that need to be run and when they need to be executed.

Banksia01

Banksia02

- Email Templates
- Task Automation Jobs
- Data Caching Jobs

The Information Manager will repeat this cycle approximately once per minute.

Contact

Official information

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