



Installation Guide

Applicable to 7.138 Onwards

CAPITA

Handbook



Revision History

Version	Change Description	Date
7.138	Full Release	04/04/2011

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Capita Doc Ref: DISCIG/HBK/040411/FT

Providing Feedback on Documentation

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Please ensure that you include the module name, version and aspect of documentation on which you are commenting.

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01 | Preparing to Use Discover

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Overview

Discover has been developed to enable schools to analyse their SIMS data and to display the results in a variety of graphical formats, e.g. bar graphs, progression line graphs, pie charts and Venn diagrams.

Discover draws the data from a warehouse (or database) that is an extract of the SIMS SQL database. The Discover database resides on the server and is updated by means of a scheduled task. The Discover database is designed to manage a high level of data traffic so that several graphs can be created and viewed at the same time for the purposes of data comparison. It is possible to drag and drop various data items from one graph on to another to create a brand new graph.

It is also possible to rotate a graph to view the reverse side which details a breakdown of the data results, e.g. the names, date of birth, admission numbers of the pupil/students and their memberships of the various data items that have been selected for inclusion in the graph.

Once populated, graphs can be shared amongst other members of staff, governors and members of the Senior Management Leadership Team. It is also possible to export graphs as images, or as .CSV files.

The predefined graphs are accessible from a series of Category buttons that include selections such as Student Totals by Gender and Ethnicity, Students with Additional Needs and Attendance statistics.

Prerequisites for Using Discover

Before installing Discover, it is suggested that you identify a suitable machine in your establishment with the highest possible specification and ensure that the following applications, devices and drivers are installed:

- SIMS Spring 2011 Release with a SIMS database. SIMS already contains the necessary components of Microsoft .NET Framework version 2.0 that are utilised by Discover.
- SQL Server 2008.
- Microsoft .net Framework version 4.0.

- A CPU with a Core Duo 2 or a higher specification processor.
- A dedicated graphics card with appropriate drivers installed.



NOTE: It is suggested that a CPU with an integrated chipset is not used to run Discover.

- At least 4GB of memory.
- The Discover database requires at least 50MB space on the server where it resides.
- The Discover Transaction log requires at least 100MB space on the server where it resides.



IMPORTANT NOTE: *The person carrying out the installation of SIMS Discover must have Administrator permissions over the network.*

Suggested Additional Requirements

- The ability to take and maintain regular backups of the whole system and an additional weekly backup of both the SIMS database in use and the Discover database.
- A touch screen to enable optimal graphical display.

Target Operating Systems

The following operating systems are recommended for use with Discover to ensure satisfactory performance and optimal graphical display in both 32-bit and 64-bit versions:

- Windows XP SP3 or later
- Windows Vista
- Windows 7
- Windows Server 2008 SP2 or later
- Windows Server 2008 R2.



NOTE: When using Discover with a Touch Screen, Windows 7 must be used because Windows XP does not have Touch Screen capabilities.

Additional Documentation

The *Discover Technical Guide* contains detailed information relating to hosted installations and the web services that are required to successfully run Discover.

Once Discover is installed, please refer to the *SIMS Discover User Guide* for detailed information regarding the functionality available in Discover.

02 | Installing Discover in Typical Installation Mode

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Introduction

There are a number of stages to the installation process. The initial stage requires the downloading of the discover installation files from SOLUS 3.

SOLUS 3 facilitates the update of a range of software produced by Capita SIMS. These processes can deploy updates to multiple workstations/servers at a school or a Local Authority. After the initial configuration of SOLUS 3, which in most cases can be performed remotely by the Deployment Manager, the Deployment Service retrieves the details of new updates released by Capita SIMS.

Deploying Discover using SOLUS 3

Deployment Managers can use SOLUS 3 to install Discover on both servers and workstation clients. To successfully run Discover, the Microsoft .NET 4.0 Framework must be installed on the server and every client workstation that will be accessing Discover.

SIMS Discover also requires further infrastructure components to be installed and SOLUS 3 has been designed to 'push' all the necessary components of Discover onto a SIMS workstation remotely, without the need for individual workstation visits.

For further information, please refer to the *SOLUS 3 for System Administrators Handbook* available from SupportNet as Resource Number 17724.

Additional Components Installed by Discover

In most circumstances, the Discover database is installed onto the same SQL server instance as the SIMS Database. Where this is not the case, the Discover database can be installed onto a separate SQL server instance only where Windows accounts are used exclusively for logging into SIMS. If the Discover database is installed to a separate SQL server instance, please see *Post Installation Steps for a Multi Instance Installation of Discover* on page 22.

The **Discover Server Setup** wizard installs two separate services that are integral to the successful running of Discover:

The SIMS Discover Data Transfer Service

The first of these services is the **Data Transfer Service**. This service operates the **Transfer** process that can be initiated from the **Discover SIMS Configuration** utility. The **Transfer** process copies the data from the specified SIMS database and transfers it into the Discover database to ensure that the most up-to-date data is available for use in Discover. This process can take between one minute and 30 minutes, depending on the size of the SIMS database. It is important to recognise that the Transfer process is actually undertaken by the **Data Transfer Service** and not by clicking the **Transfer** button in the **Discover SIMS Configuration** utility, this action merely requests the initiation of the **Data Transfer Service**.



More Information:

Potential Transfer Progress Messages and What they Mean on page 33

As the **Transfer** process runs, a log file is created to record any issues that might be encountered during each run. This log file can become quite large over time, so it is suggested that a maintenance plan is configured on the SQL server to minimize the log file. If the maintenance plan also updates the database statistics and indexes, this will have a positive effect on the performance of Discover. To ensure that the data transmitted across your network is secure, it is also suggested that the SQL server traffic is encrypted. The Windows account that this service runs under can be configured using the `GrantTransferAccountRights` command in the `Discover.SQLUserManager.Console.exe`. This tool can be found in the `C:\Program Files\SIMS\Discover Services` folder on the machine that the service is running on and can be run to grant appropriate rights to a new account if you have changed the service account after installation.



More Information:

Reviewing the Discover Warehouse Service Log File on page 35

The SIMS Discover Group Synchronisation Service

The second of these services is the **Group Synchronisation Service**. This service synchronises the **Discover Dynamic Groups** between the SIMS database and the Discover database. This service also enables the group alerts to be sent to group supervisors. Please refer to the *Discover User Guide* for more detailed information relating to the creation of Discover Groups. The Windows account that this service runs under must be a SIMS account with full permissions and high data access privileges because it requires read access to all data in Discover.

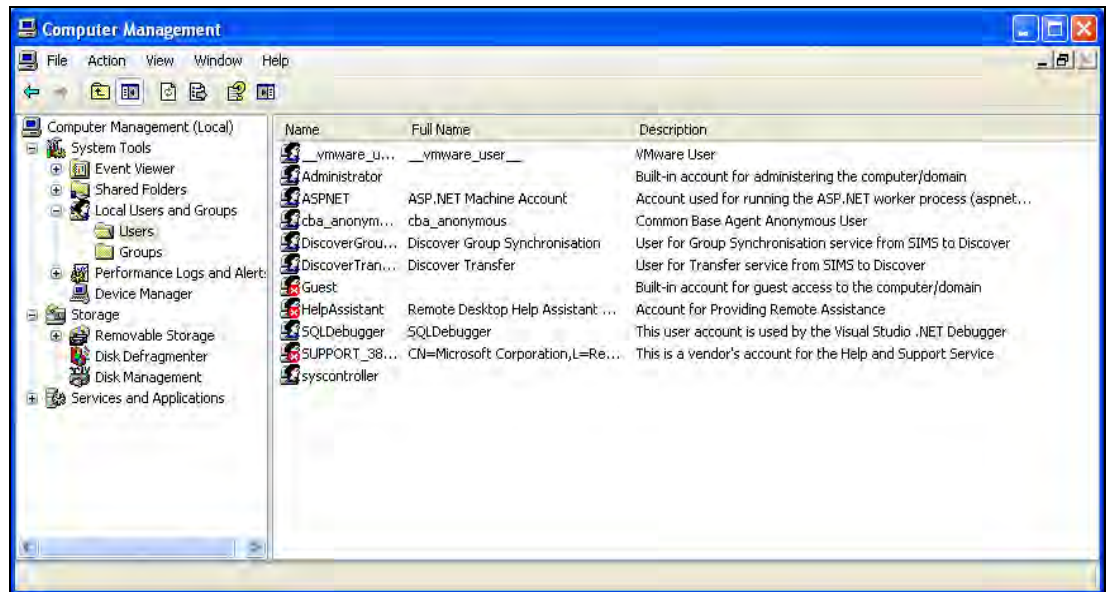
Recommendations for Creating Local Users

1. On the server where these two services will be running, select **Control Panel | Administrative Tools | Computer Management** and select **Local Users and Groups**.
2. Right-click on the **Users** folder in the **Local Users and Groups** node.

3. Create two new users with the suggested names of **DiscoverTransfer** and **DiscoverGroupSynch**.



NOTE: Please ensure that the **User must change password at next logon** check box is disabled. Please also ensure that the **Password never expires** check box is enabled.



You should make a note of the actual user names and passwords that have been created for both of these users. They will be granted the necessary permissions to run the services by the installation process.

Running Patch 15588

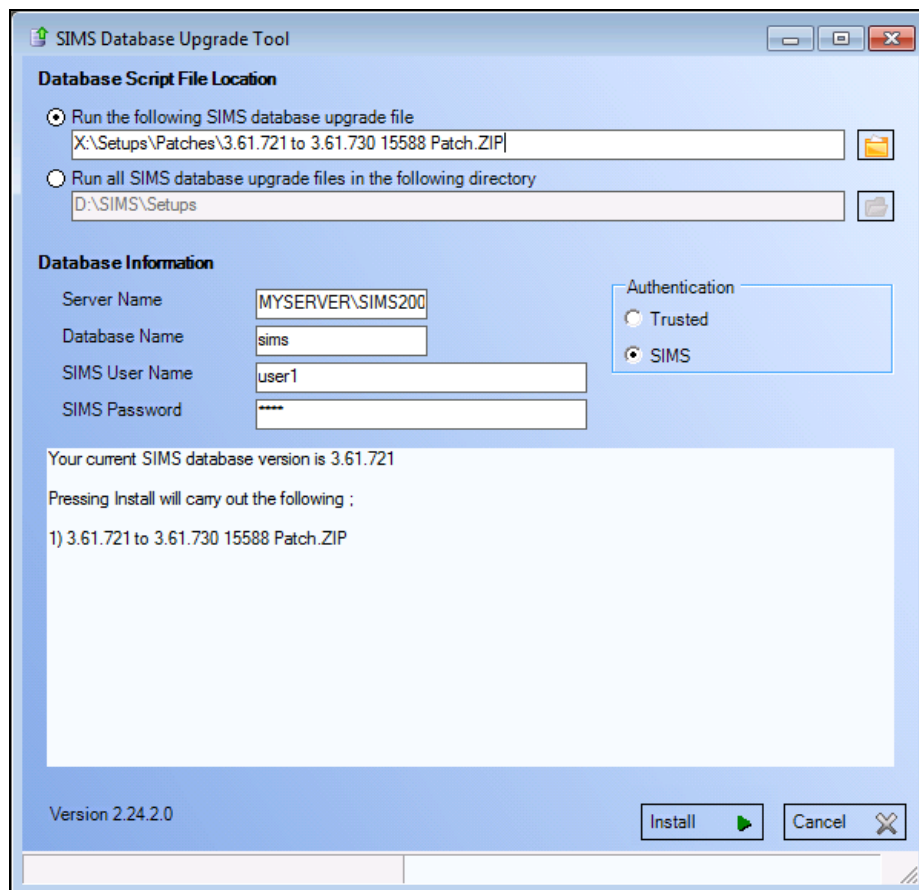
A patch has been provided for you to run on the SIMS database before you run the Discover installation. This ensures that the data extracted to the Discover database is as free from data errors as possible. This patch can be run using the SIMS Database Upgrade Tool.

i *NOTE: In order to use the SIMS Database Upgrade Tool, you must be a member of the **System Manager** group in System Manager for Windows, which grants the **Restore** permission.*

In the **Database Script File Location** panel of the **SIMS Database Upgrade Tool**, navigate to the stored location of the Discover installation files downloaded from SOLUS 3.


Select the file **3.61.721 to 3.61.730 15588.zip**.

Login to the selected database and click the **Install** button to apply the patch.

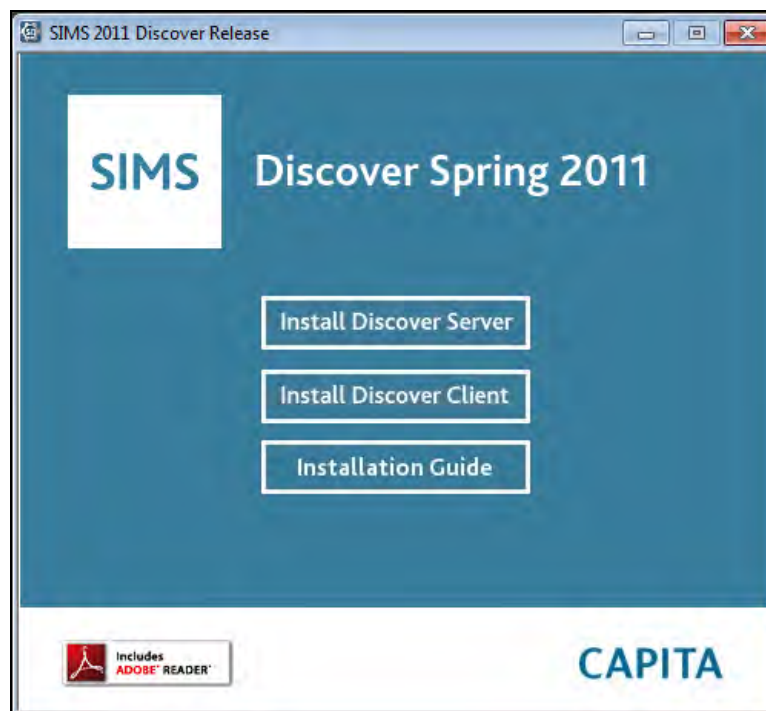


A confirmation message is displayed once the patch has been applied.

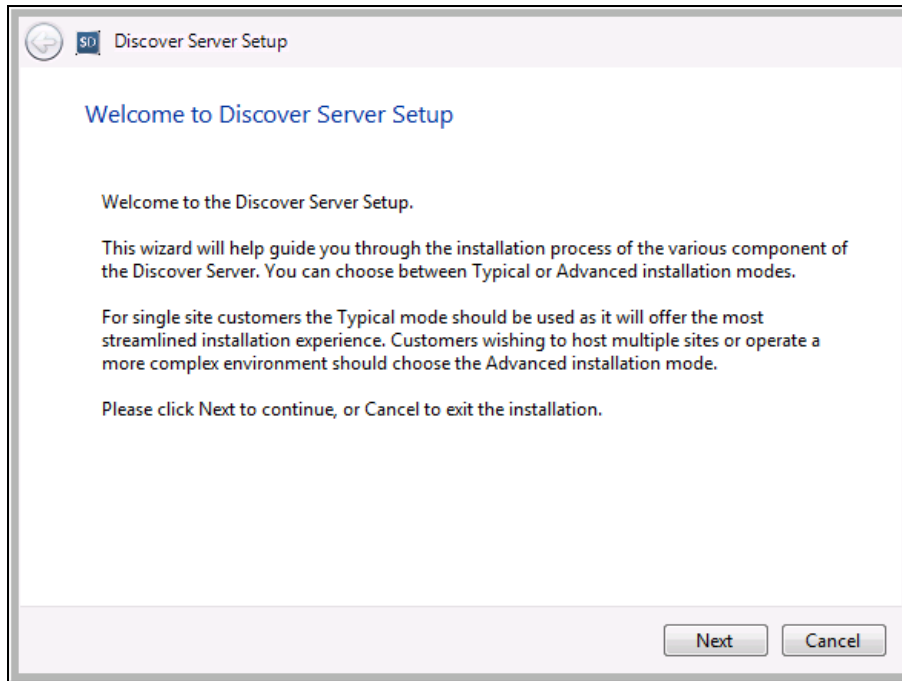
Installing the SIMS Discover Client Side Server

 **IMPORTANT NOTE:** The person carrying out the installation of SIMS Discover must have Administrator permissions across the network.

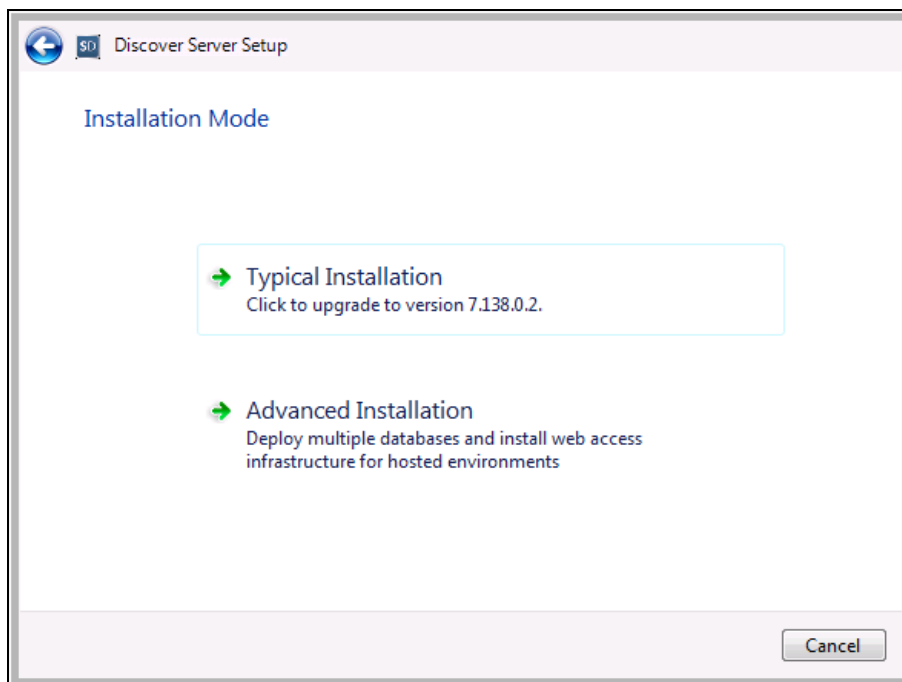
1. Navigate to the stored location of the Discover installation files downloaded from SOLUS 3.
2. If the following welcome screen is not automatically displayed, double-click the **AutoRun.exe** application through Windows Explorer to display the **SIMS Discover Spring 2011** release welcome screen.



3. Click the **Install Discover Server** button to display the initial page of the **Discover Server Setup** wizard.

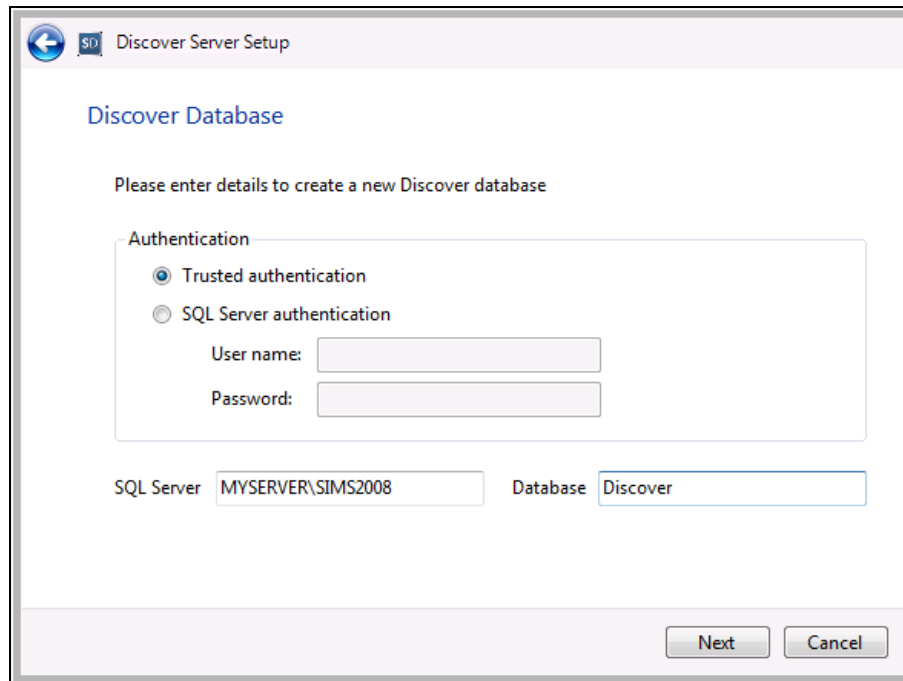


4. After reading the advice, click the **Next** button to display the **Installation Mode** page.



5. Select the **Typical Installation** option for a standard installation of Discover. The **Advanced Installation** option is detailed in the *Discover Technical Guide*.

The **Discover Database** setup page is displayed. This page enables you to specify the name and location of the SQL Server instance that will host the Discover database.



The screenshot shows the 'Discover Server Setup' wizard window. The title bar reads 'Discover Server Setup'. The main heading is 'Discover Database'. Below the heading, it says 'Please enter details to create a new Discover database'. Under the 'Authentication' section, there are two radio buttons: 'Trusted authentication' (which is selected) and 'SQL Server authentication'. Below these are two text input fields: 'User name:' and 'Password:'. At the bottom of the form, there are two text input fields: 'SQL Server' with the value 'MYSERVER\SIMS2008' and 'Database' with the value 'Discover'. At the bottom right of the window, there are two buttons: 'Next' and 'Cancel'.

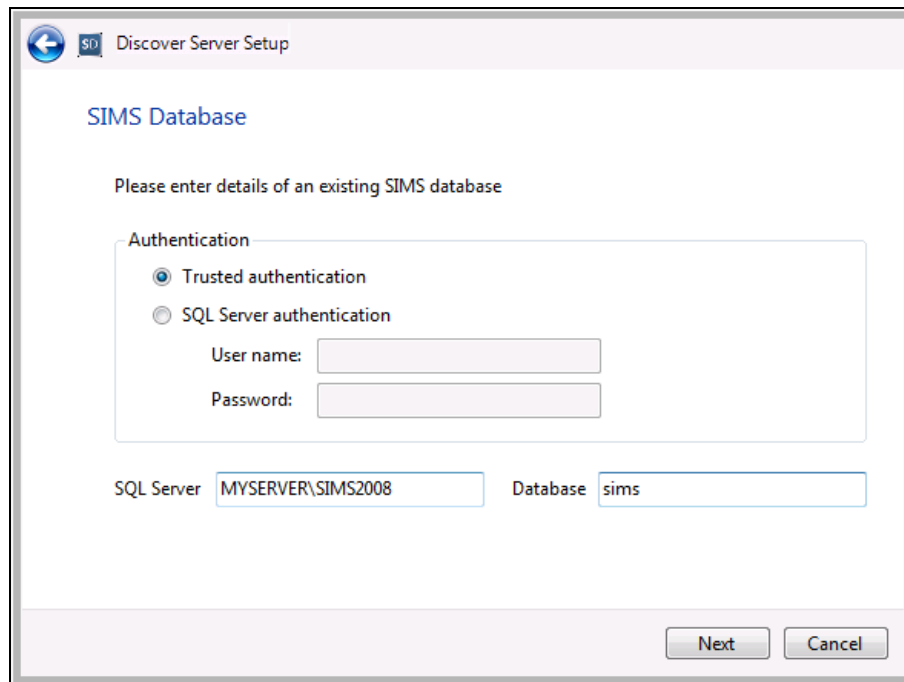
6. Select the **Trusted authentication** radio button and enter the **SQL Server** instance name, for example: MYSERVER\SIMS2008. Enter the **Database** name, e.g. Discover.



IMPORTANT NOTE: It is imperative that the instance selected to host the Discover Database is SQL Server version 2008.

Click the **Backwards** button at the top of the **Discover Server Setup** wizard at any time during the installation process to revisit the previous page of the wizard. It is possible to change your selections, locations and user information up until the final installation routine is initiated.

7. Click the **Next** button to display the **SIMS Database** page.



Discover Server Setup

SIMS Database

Please enter details of an existing SIMS database

Authentication

Trusted authentication

SQL Server authentication

User name:

Password:

SQL Server Database

Next Cancel

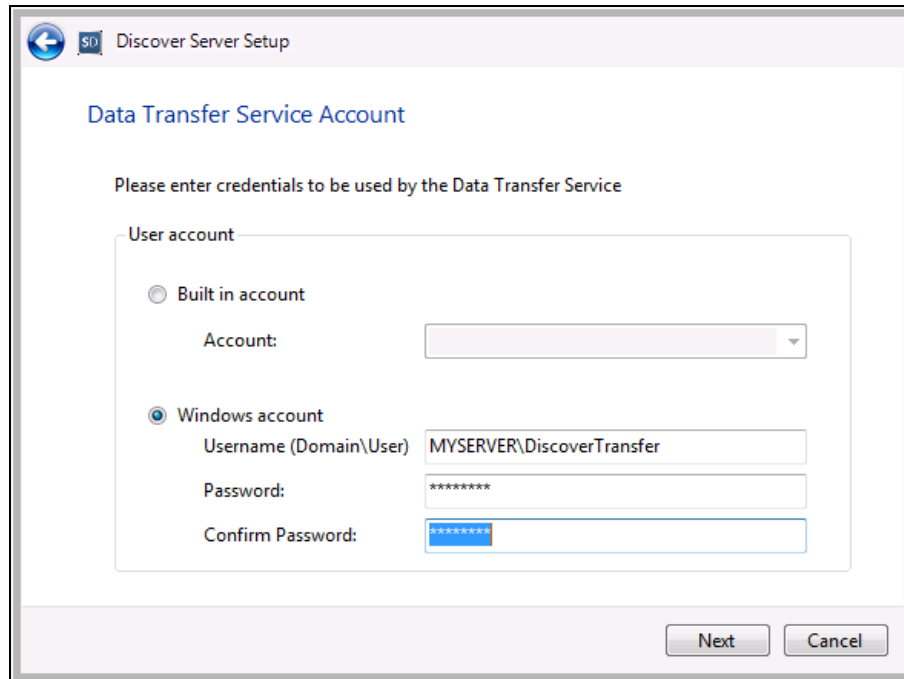
8. Select the **Trusted authentication** radio button and enter the **SQL Server** instance name, for example: MYSERVER\SIMS2008. Enter the **Database** name, e.g. sims.



IMPORTANT NOTE: It is imperative that the instance selected to host the Discover Database is SQL Server version 2008.

9. Click the **Next** button to display the **Data Transfer Service Account** page.

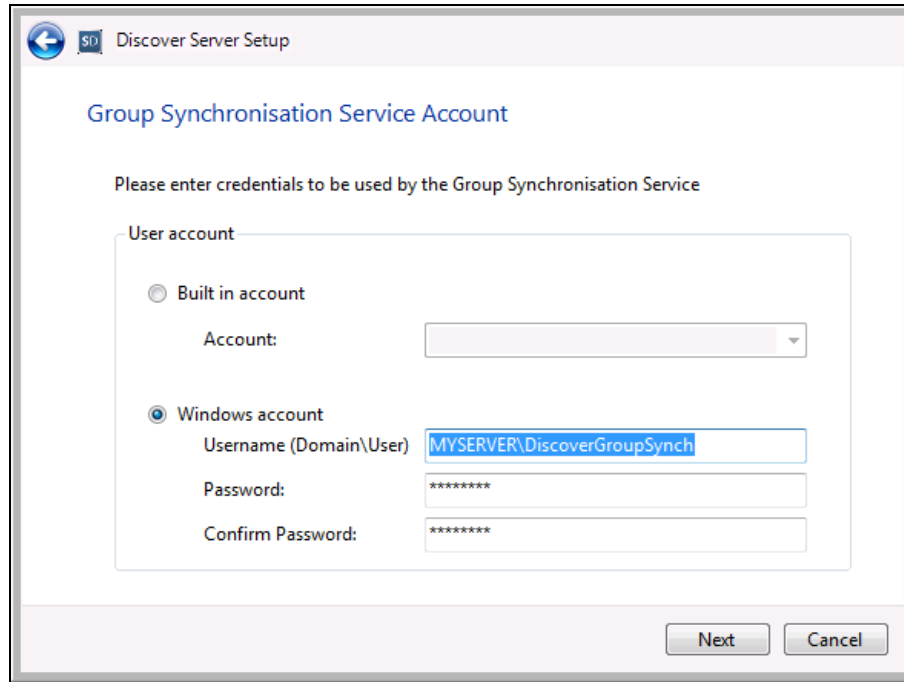
This installs the **Discover Data Transfer Service** which can be triggered manually from the **Discover SIMS Configuration** utility. Please refer to *Specifying the General Settings* on page 29 for more detailed information relating to the **Transfer** process.



The screenshot shows a Windows-style dialog box titled "Discover Server Setup" with a sub-header "Data Transfer Service Account". Below the sub-header is the instruction "Please enter credentials to be used by the Data Transfer Service". Underneath, there is a section titled "User account" containing two radio buttons: "Built in account" and "Windows account". The "Windows account" option is selected. To the right of the "Built in account" option is a dropdown menu labeled "Account:". To the right of the "Windows account" option are three text input fields: "Username (Domain\User)" containing "MYSERVER\DiscoverTransfer", "Password" containing "*****", and "Confirm Password" containing "*****". At the bottom right of the dialog box are two buttons: "Next" and "Cancel".

10. Select the **Windows account** radio button and enter the **Username** for the user that you created earlier as the **Discover Transfer user**, e.g. MYSERVER\DiscoverTransfer. Enter the **Password** and then enter it again in the **Confirm Password** field.
11. Click the **Next** button to display the **Group Synchronisation Service Account** page.

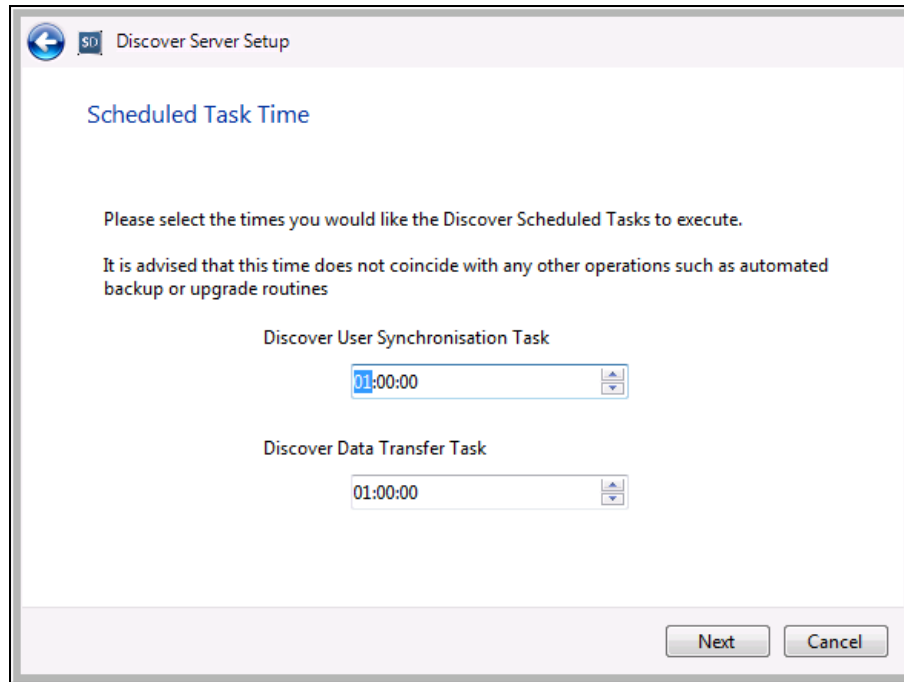
This installs the **Group Synchronisation Service** that synchronises the **Discover Dynamic Groups** between SIMS and Discover. This service also enables the group alerts to be sent to group supervisors. Please refer to the *Discover User Guide* for more detailed information relating to the creation of Discover Groups.



The screenshot shows the 'Discover Server Setup' window with the 'Group Synchronisation Service Account' step. The window title is 'Discover Server Setup' and the subtitle is 'Group Synchronisation Service Account'. Below the subtitle, it says 'Please enter credentials to be used by the Group Synchronisation Service'. There are two radio buttons: 'Built in account' (unselected) and 'Windows account' (selected). Under 'Built in account', there is an 'Account:' dropdown menu. Under 'Windows account', there are three text boxes: 'Username (Domain\User)' containing 'MYSERVER\DiscoverGroupSynch', 'Password:' containing '*****', and 'Confirm Password:' containing '*****'. At the bottom right, there are 'Next' and 'Cancel' buttons.

12. Select the **Windows account** radio button and enter the **Username** for the user that you created earlier as the **Discover Group Synchronisation user**, e.g. MYSERVER\DiscoverGroupSynch. Enter the **Password** and then enter it again in the **Confirm Password** field.

13. Click the **Next** button to display the **Scheduled Task Time** page.



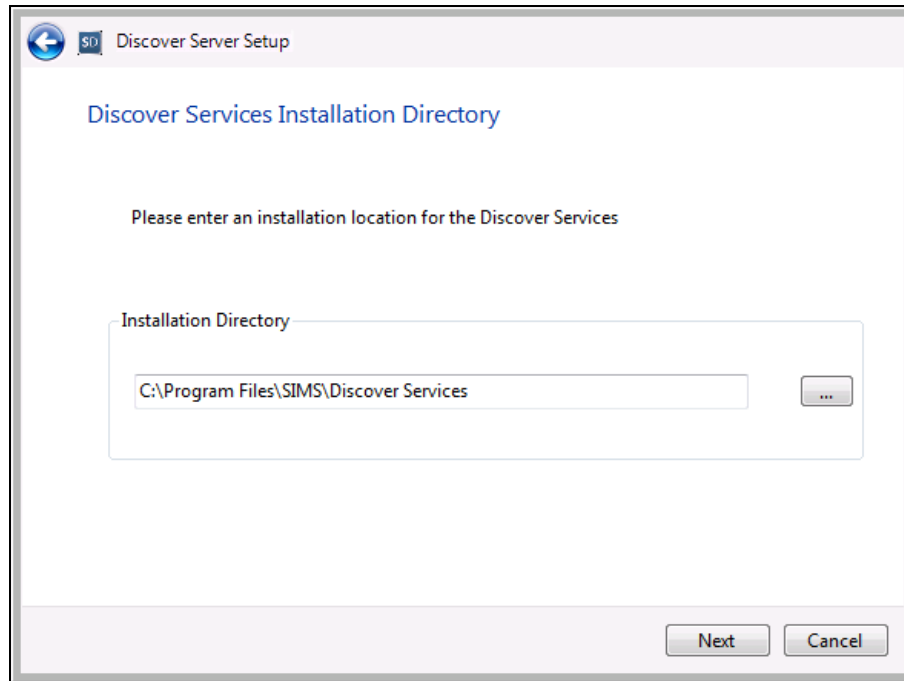
The screenshot shows a window titled "Discover Server Setup" with a sub-header "Scheduled Task Time". The main text reads: "Please select the times you would like the Discover Scheduled Tasks to execute. It is advised that this time does not coincide with any other operations such as automated backup or upgrade routines". There are two time selection fields: "Discover User Synchronisation Task" with a value of "01:00:00" and "Discover Data Transfer Task" with a value of "01:00:00". At the bottom right, there are "Next" and "Cancel" buttons.

14. Specify appropriate times for the **Discover User Synchronisation Task** and the **Discover Data Transfer Task** to run. In order to log into Discover, a user must have their SQL Server login attached as a user to the Discover database with the appropriate rights granted. The **Discover User Synchronisation Task** ensures that the users of the Discover database match those who use the SIMS database. The **Discover Data Transfer Task** instructs the service to perform a transfer of data from SIMS into Discover.

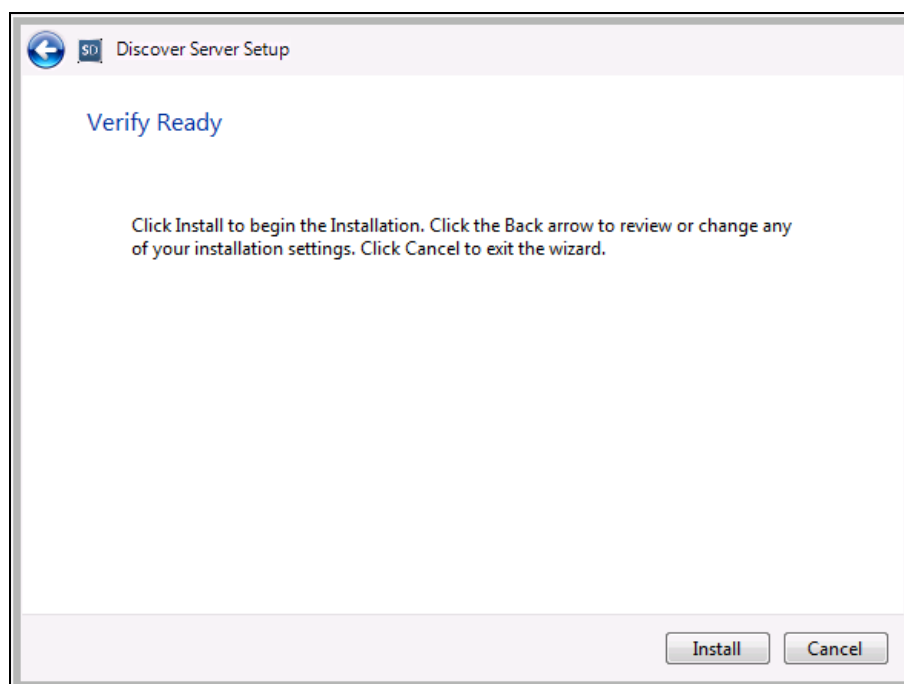


IMPORTANT NOTE: *It is strongly recommended that transfer routines are not set to run at 12 midnight as pupil/student memberships generally change at this time. The transfer routines should be staggered to run one after another with a suitable time lapse in between to ensure that each routine has sufficient time to complete successfully.*

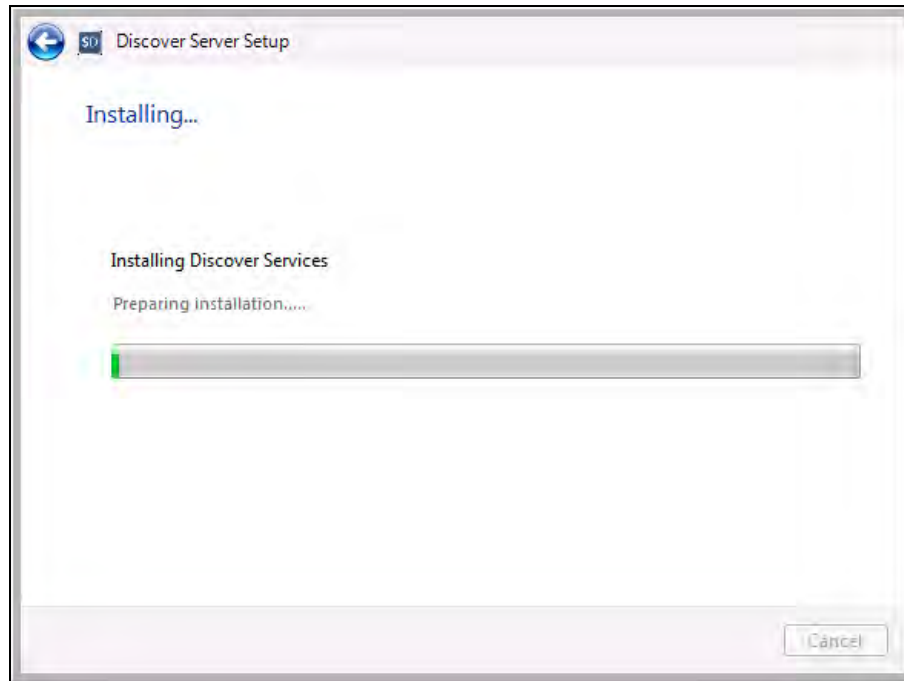
15. Click the **Next** button to display the **Discover Services Installation Directory** page.



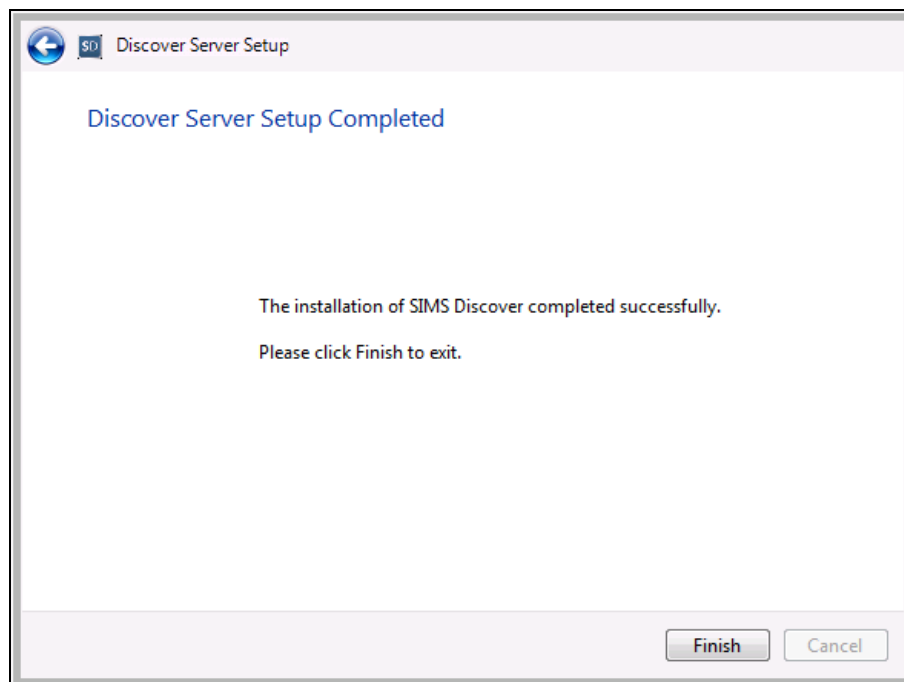
16. Check that the path displayed in the **Installation Directory** field is correct. Click the **Browse** button and select an alternative location, if required.
17. Click the **Next** button to display the **Verify Ready** page.



18. Click the **Install** button to begin the installation process. The **Installing** page is displayed.



When the installation process has finished, the **Discover Server Setup Completed** page is displayed.



19. Click the **Finish** button to close the **Discover Server Setup** wizard.

The **SIMS Discover Server Setup** wizard creates the Discover database and the catalogue entries for the predefined graphs provided. Please refer to the *SIMS Discover User Guide* for further information regarding the predefined graphs that are available in Discover.

The **SIMS Discover Server Setup** wizard does not trigger the initial Transfer process that copies the SIMS data from the selected SIMS database into the newly created Discover database. The initial Transfer process must be run manually from within the **Discover SIMS Configuration** utility. You will be unable to log into Discover until the initial Transfer process has been run.

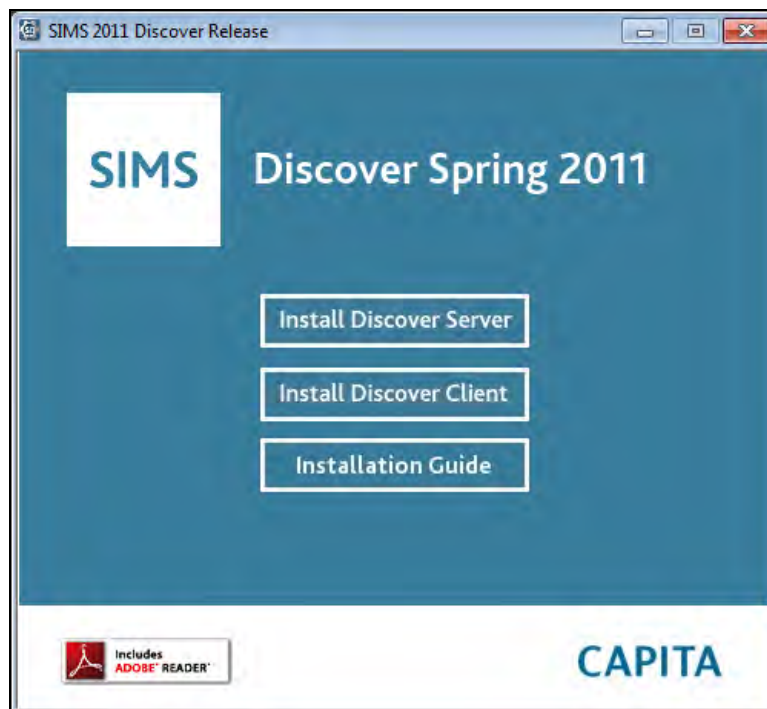


More Information:

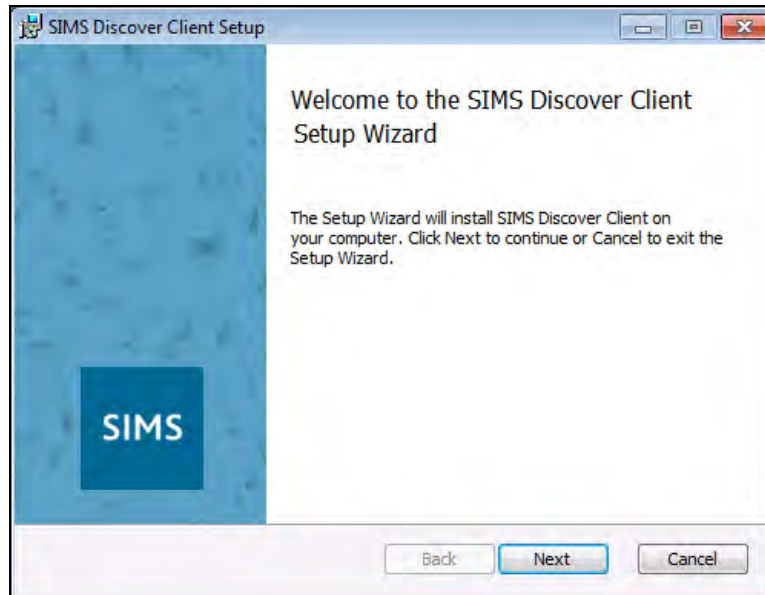
Using the Discover SIMS Configuration Utility on page 28

Running the SIMS Discover Client Setup

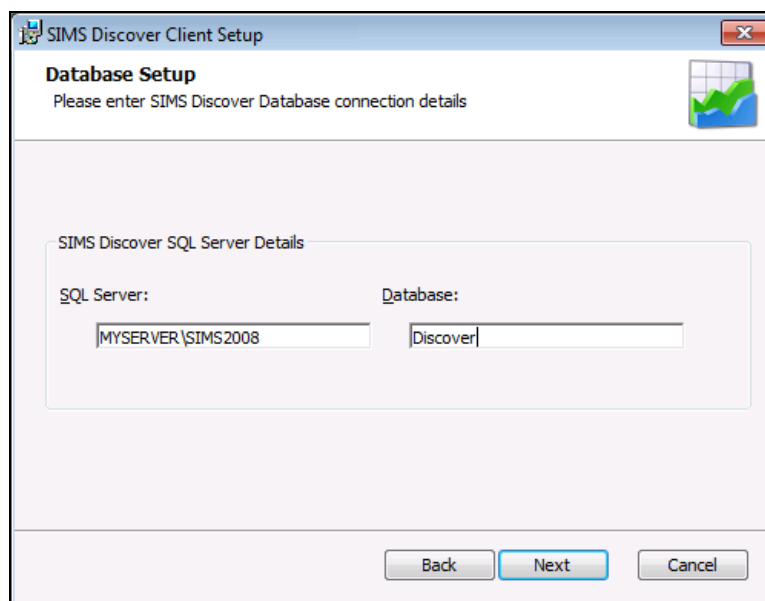
1. Navigate to the stored location of the Discover installation files downloaded from SOLUS 3.
2. If the following welcome screen is not automatically displayed, double-click the **AutoRun.exe** application through Windows Explorer to display the **SIMS Discover Spring 2011** release welcome screen.



3. Click the **Install Discover Client** button to display the initial page of the **SIMS Discover Client Setup** wizard.

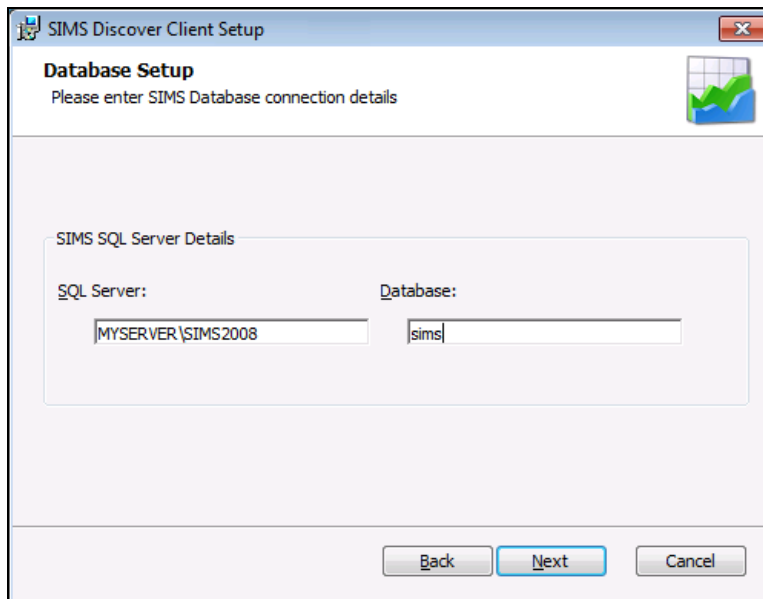


4. Click the **Next** button to display the **Discover Database Setup** page.

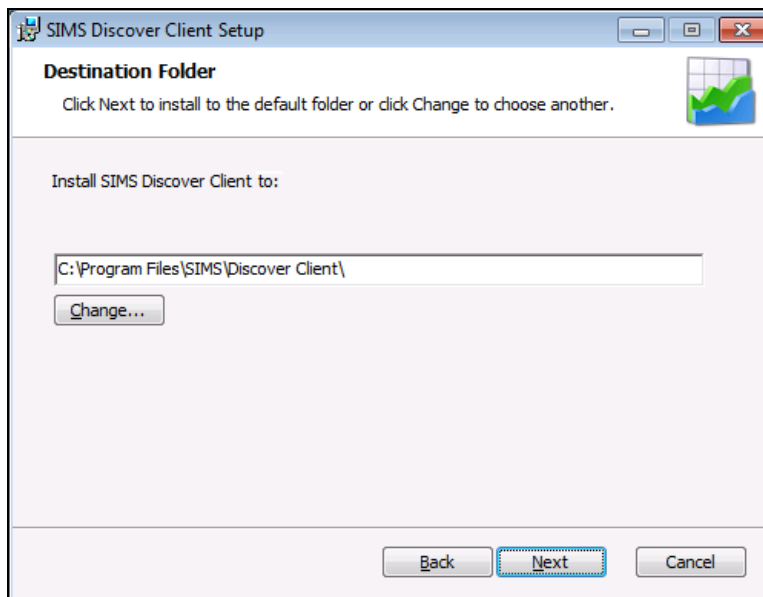


5. Enter the name of the **SQL Server** instance and the name of the Discover **Database** that you specified when installing the Discover Server.

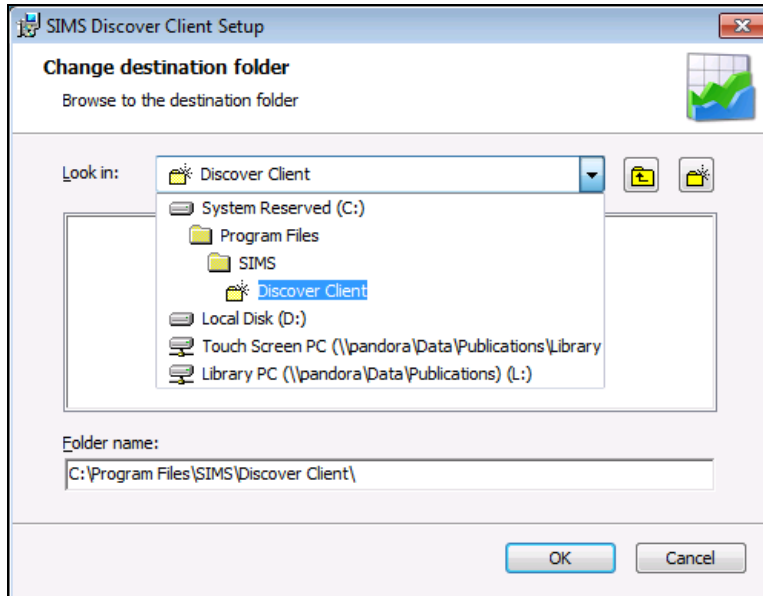
- Click the **Next** button to display the **SIMS Database Setup** page.



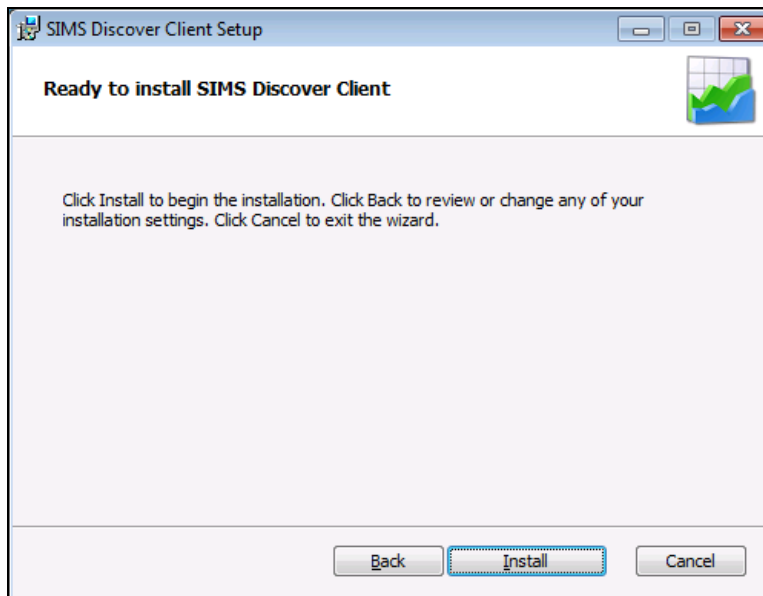
- Enter the name of the **SQL Server** instance and the name of the SIMS **Database** that you specified when installing the Discover Server.
- Click the **Next** button to display the **Destination Folder** page.



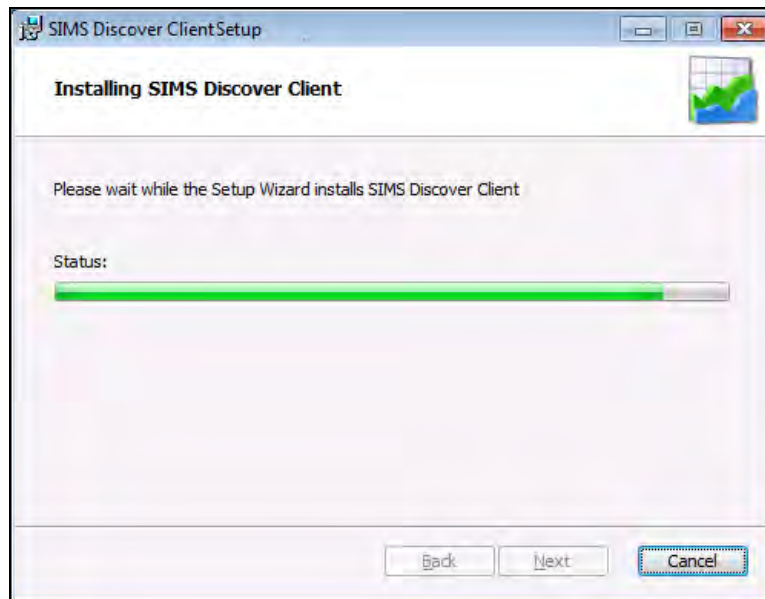
The path to **Install SIMS Discover Client to** field is populated automatically. Click the **Change** button to display the **Change destination folder** page, if required.



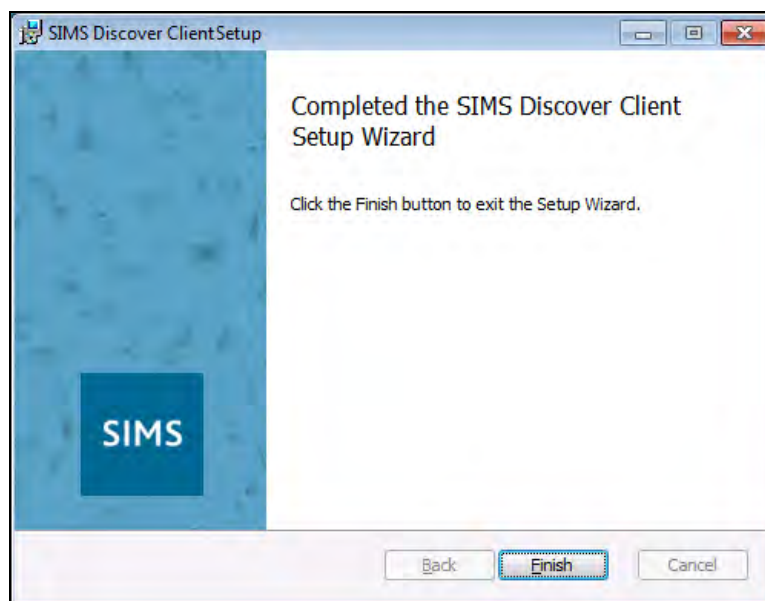
9. Navigate to an alternative location, if required and click the **OK** button to return to the **Destination Folder** page.
10. Click the **Next** button to display the **Ready to install SIMS Discover Client** page of the wizard.



11. Click the **Install** button to begin the installation process.



12. When the installation is complete, click the **Finish** button to close the **SIMS Discover Client Setup** wizard.



IMPORTANT NOTE: The initial **Transfer** process should now be initiated from the **Discover SIMS Configuration** utility. You will be unable to log into Discover until the initial **Transfer** process has been run.

Post Installation Steps for a Multi Instance Installation of Discover

The install wizards grant the appropriate access rights in both databases for the user accounts that you specify. However, changes can be made manually using the `Discover.SQLUserManager.Console.exe`, which is a command line tool. This tool is located in the `C:\Program Files\SIMS\Discover Services` folder.

In order for Discover to be able to create and synchronise the Windows users of the SIMS and Discover databases if they reside on a different SQL Server instance from one another, it is necessary to update the Discover User Synchronisation Scheduled Task.



IMPORTANT NOTE: *It is important to note that only users who use a Windows account to access SIMS will be able to access Discover if it is installed on a different SQL Server instance from the SIMS database.*

Granting Access Rights to the Data Transfer Service User

To enable the data to be transferred successfully from the SIMS database into the Discover database, it is essential that the Data Transfer Service has been set up correctly. The service must be able to access both the SIMS and the Discover databases. To grant appropriate access rights to the account that will run this service, the following command can be applied:

```
Discover.SQLUserManager.Console
/operation=GrantTransferAccountRights/AccountName=MYAD\TransferUser.
```

Additional parameters that can be applied:

Parameters	Mandatory	Description
AccountName	Yes	The name of the account to grant rights to.
Server	No	The SQL Server instance to grant rights within (defaults to local).
DiscoverDatabase	No	The SQL Server Discover database to grant rights within (defaults to Discover).
SIMSDatabase	No	The SQL Server SIMS database to grant rights within (defaults to Discover_SIMS).
UserName	No	The username of a system administrator in the SQL Server instance. If not specified, the logged on Windows user is used.
Password	No	The password of the system administrator, if specified.
DiscoverOnly	No	Access rights will only be granted to the Discover database. This defaults

		to false.
--	--	-----------

Granting Access Rights to the Data View Monitor Service

To ensure that Discover Dynamic Groups are updated whenever changes to pupil/student memberships occur and to ensure that group alerts are sent in a timely fashion, the Data View Monitor Service needs to be granted read access to the Discover database.

To grant appropriate access rights to the account that will run this service, the following command can be applied:

```
Discover.SQLUserManager.Console
/operation=GrantDataViewMonitorAccountRights/AccountName=M
YAD\DataViewMonitorUser.
```

Additional parameters that can be applied:

Parameters	Mandatory	Description
AccountName	Yes	The name of the account to grant right to.
Server	No	The SQL Server instance to grant rights within (defaults to local).
DiscoverDatabase	No	The SQL Server Discover database to grant rights within (defaults to Discover).
Username	No	The username of a system administrator in the SQL Server instance. If not specified, the logged on Windows user is used.
Password	No	The password of the system administrator, if specified.
DiscoverOnly	No	Access rights will only be granted to the Discover database. This defaults to false.
TargetServer	Yes	The SQL server instance to grant rights within (defaults to local).

To enable Discover to create and synchronise the Windows users on a different SQL Server instance, you must update the Discover User Synchronisation Scheduled Task. This task can also be configured using the `Discover.SQLUserManager.Console.exe`.

Synchronising Discover and SIMS Logins

During the installation, a scheduled task is created that synchronises the logins between the SIMS and Discover databases. It is possible to make changes manually to this service using the `Discover.SQLUserManager.Console.exe`. To synchronise the logins manually, the following command can be applied:

```
/operation=SynchroniseWithSims.
```



NOTE: It is only necessary to add this parameter if web services are not in use.

The usage of the `Discover.SQLUserManager.Console.exe` varies slightly depending on whether the SIMS and Discover databases reside on the same SQL Server instance or on different instances.

Single SQL Server Instance

When the SIMS and Discover databases both reside on the same SQL Server instance, SQL Server and Windows account logins can be used.

In addition to the `/operation=SynchroniseWithSims` command, additional parameters can be applied.

Parameters	Mandatory	Description
Server	No	The SQL Server instance to grant rights within (defaults to local).
DiscoverDatabase	No	The SQL Server Discover database to grant rights within (defaults to Discover).
SIMSDatabase	No	The SQL Server SIMS database to grant rights within (defaults to Discover_SIMS).
Username	No	The username of a system administrator in the SQL Server instance. If not specified, the logged on Windows user is used.
Password	No	The password of the system administrator, if specified.

Multiple SQL Server Instances

When the SIMS and Discover databases reside on two separate SQL Server instances, only Windows account logins can be synchronised between the two databases.



NOTE: Synchronisation is only required if web services are not in use.

In addition to the `/operation=SynchroniseWithSims` command, additional parameters can be applied.

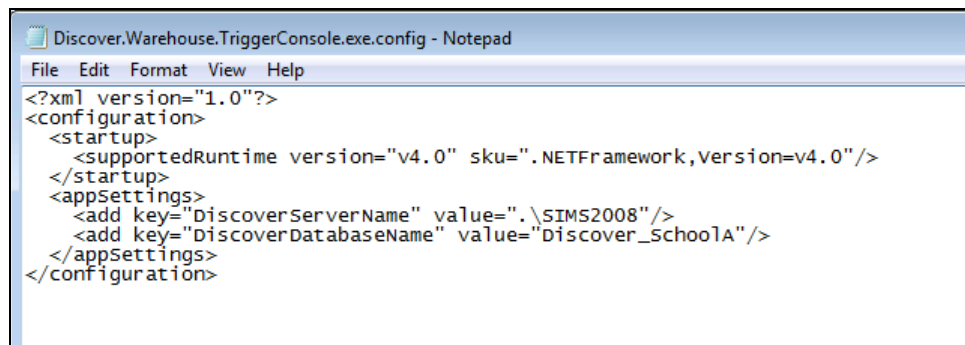
Parameters	Mandatory	Description
Server	No	The SQL Server instance to grant rights within (defaults to local).
TargetServer	Yes	The SQL Server instance to grant rights within.
DiscoverDatabase	No	The SQL Server Discover database to grant rights within (defaults to Discover).

SIMSDatabase	No	The SQL Server SIMS database to grant rights within (defaults to Discover_SIMS).
Username	No	The username of a system administrator in the SQL Server instance. If not specified, the logged on Windows user is used.
Password	No	The password of the system administrator, if specified.
RemoveLogins	No	If set to True, any Windows logins not found in SIMS are removed. If set to False, the Windows logins remain. Defaults to False.

Manually Triggering the Discover Transfer Process

It is possible to trigger the Transfer process manually by modifying the contents of the Discover.Warehouse.TriggerConsole.exe.config file. This file can be found in the C:\Program Files\SIMS\Discover Services folder.

It is possible to specify the DiscoverServerName and DiscoverDatabaseName settings.



```

Discover.Warehouse.TriggerConsole.exe.config - Notepad
File Edit Format View Help
<?xml version="1.0"?>
<configuration>
  <startup>
    <supportedRuntime version="v4.0" sku=".NETFramework,version=v4.0"/>
  </startup>
  <appSettings>
    <add key="DiscoverServerName" value=". \SIMS2008"/>
    <add key="DiscoverDatabaseName" value="Discover_SchoolA"/>
  </appSettings>
</configuration>

```


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Introduction

Predefined graphs have been provided with default values specified by Capita SIMS Ltd. However, as all schools are different, a utility has been provided to enable schools to specify some of their own values so that they can measure and analyse the data as they wish.

The Discover SIMS Configuration utility provides the ability to change or customise different areas within Discover. These areas mainly concern the display and interval ranges of specific graphs but it is also possible to specify the analysis depth for Post Code searches and the offset timeframe for the SIMS to Discover Transfer routine. Schools can also use the Discover SIMS Configuration utility to specify the information to be included in the creation of their own Assessment graphs.

The settings should be specified before initial use of Discover but they can be changed at any time if the relevant graphs are not displaying the data in the manner that you require or if the Transfer routine needs to be run immediately instead of waiting for the specified time slot.

Permissions

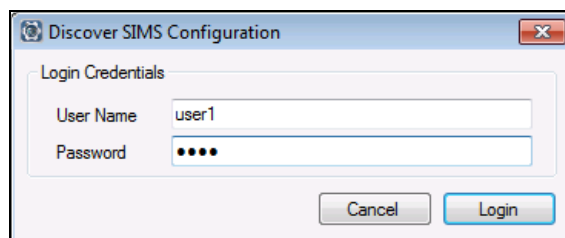
It is only possible to see data items in Discover for which you have been granted suitable permissions in SIMS.

- The following user roles can specify and amend the **General Settings** page in the **Discover SIMS Configuration** utility:
 - Senior Management Team members
 - School Administrators
 - Administration Assistants
 - System Managers.

- The following user roles can initiate the **Transfer** process from the **Discover SIMS Configuration** utility:
 - Senior Management Team members
 - School Administrators
 - Administration Assistants
 - Assessment Coordinators
 - System Managers.
- The following user roles can add and amend aspects, result sets and Assessment graph parameters in the **Selected Aspects**, **Selected Result Sets** and **Assessment Graphs** pages in the **Discover SIMS Configuration** utility:
 - Senior Management Team members
 - Assessment Coordinators

Using the Discover SIMS Configuration Utility

1. Click the **Start** button and select **All Programs | SIMS Applications | Discover Configuration**.
2. Click the **Discover Configuration** icon to display the **Discover SIMS Configuration** dialog.



- Specify the **Login Credentials** by entering the **User Name** and the **Password**, where applicable.
- Click the **Login** button to display the **General Settings** page of the **Discover SIMS Configuration** utility.

Specifying the General Settings

The screenshot shows the 'Discover SIMS Configuration' window with the 'General Settings' tab selected. The window title bar includes 'Save', 'Undo', and 'Transfer' buttons, along with a 'Transfer Progress' indicator showing 'Transfer requested - waiting for service...'. The settings are organized into several sections:

- Attendance Intervals:**
 - Percentage Attendance graph(s)*: Size (%) = 1.0, Count = 7
 - Percentage Lates graph(s)*: Size (%) = 1.0, Count = 7
- Achievement Intervals:**
 - Achievement Points graph(s)*: Size = 10, Count = 7
- Behaviour Intervals:**
 - Behaviour Points graph(s)*: Size = 10, Count = 7
 - Behaviour Incidents graph(s)*: Size = 10, Count = 7
- Exclusions Intervals:**
 - Excluded Days graph(s)*: Size = 10, Count = 7
- Postcode Analysis:**
 - UK Enquiries by Postcode graph(s)*: Level = Postcode Sector (eg "MK44 3")
- Transfer Offset:**
 - Time (h) = 0

In the **Attendance Intervals** panel, it is possible to specify the range to be used on the x-axis of the graphs.

- For the **Percentage Attendance** and **Percentage Lates graph(s)** set the **Size (%)** to an interval between 0.2 and 20.0. The default is set to 1.0.
- Set the **Count** to a figure between 4 and 10. The default is set to 7.

For example, if you select 7 data points in the **Count** field and you set the interval in the **Size (%)** field to 2.0, the x-axis of the graph shows seven bars for Attendance or Lates with an interval of 2% between them, e.g. 100%, 98%, 96%, 94%, 92%, 90% and <90%. The calculated value for a student's percentage attendance is always rounded down so, in this example, students with 98.1% or 99.9% are included in the 2nd bar of the graph.



IMPORTANT NOTE: The combination of the interval and the number of data points cannot allow the x-axis range to be less than 0% or greater than 100%.

7. In the **Achievement Intervals** panel, set the **Size** to an interval between 2 and 100. The default is set to 10 for **Achievement Points graphs(s)**.
8. Set the **Count** to a figure between 4 and 10. The default is set to 7.

For example, if you select 7 data points in the **Count** field and you set the interval in the **Size** field to 10, the x-axis of the graph shows seven bars for Achievements with an interval of 10 points between them, e.g. 0, 1-10, 11-20, 21-30, 31-40, 41-50 and 51+.

9. In the **Behaviour Intervals** panel, set the **Size** to an interval between 2 and 100. The default is set to 10 for both **Behaviour Points** and **Behaviour Incidents graph(s)**.

The screenshot shows the 'Discover SIMS Configuration' window with the 'General Settings' tab selected. The 'Achievement Intervals' section is expanded, showing the following configuration:

Graph Type	Size (%)	Count
Percentage Attendance graph(s)	1.0	7
Percentage Lates graph(s)	1.0	7
Achievement Points graph(s)	10	7

Other sections visible include Behaviour Intervals (Behaviour Points and Behaviour Incidents graphs(s) both set to Size 10 and Count 7), Exclusions Intervals (Excluded Days graph(s) set to Size 10 and Count 7), Postcode Analysis (UK Enquiries by Postcode graph(s) set to Level Postcode Sector), and Transfer Offset (Time (h) set to 0).

10. Set the **Count** to a figure between 4 and 10. The default is set to 7.

For example, if you select 7 data points in the **Count** field and you set the interval in the **Size** field to 10, the x-axis of the graph shows seven bars for **Behaviour Points** and **Behaviour Incidents** with an interval of 10 points/incidents between them, e.g. 0, 1-10, 11-20, 21-30, 31-40, 41-50 and 51+.

11. In the **Exclusions Intervals** panel, set the **Size** to an interval between 2 and 20. The default is set to 10.
12. Set the **Count** to a figure between 4 and 10. The default is set to 7.

For example, if you select 7 data points in the **Count** field and you set the interval in the **Size** field to 10, the x-axis of the graph shows seven bars for Exclusion Days with an interval of 10 days between them, e.g. 0, 1-10, 11-20, 21-30, 31-40, 41-50 and 51+.

In the **Postcode Analysis** panel, it is possible to specify the depth of the search level when analysing postcode data. Some schools may have a high proportion of international students or boarders who are not educated within their residential area, whereas, some Primary schools may have a very low number of pupils who live outside the school's catchment area. To enable both types of school to specify how the Postcode Analysis is conducted, there are four depths of search level available:

Postcode Area (e.g. "MK")

Postcode District (e.g. "MK44")

Postcode Sector (e.g. "MK44 3")

Postcode Unit (e.g. "MK44 3JZ")

13. Click the **Level** drop-down list and select the appropriate search depth for your school. The default is set to Postcode Sector (e.g. MK44 3) which is an example only.
14. In the **Transfer Offset** panel, it is possible to specify the number of hours, either before or after its preset time, when the transfer of data from SIMS to the Discover database will take place. This is only a precaution in the unlikely event that the transfer is unable to complete successfully at its preset time because it has overlapped or coincided with another backup routine, for example.

It is possible to offset the **Time (h)** by up to **+12** or **-12** hours from the original preset time.



IMPORTANT NOTE: *It is strongly recommended that transfer routines are not set to run at 12 midnight as memberships generally change at this time. The transfer routines should be staggered to run one after another with a suitable time lapse in between to ensure that each routine has sufficient time to complete successfully.*

- For example, if the transfer of data from SIMS to Discover is scheduled to run at 23.00 or 11pm every night, entering a 2 in the **Transfer Offset** field ensures that the memberships will be as of the following day.
- The transfer is always run at the time specified in the scheduled task, but the effective date for all dated queries is the current date and time at the point of execution with the offset number of hours added to that (either positive or negative).
 - For example, a scheduled task run at 01:00 (or 1.00am), with transfer offset of 0 - transfer is actually run at 01:00 (or 1.00am), and all dated queries use 01:00 (or 1.00am) the same day when viewing dated memberships.
 - For example, a scheduled task run at 23:00 (or 11.00pm), with transfer offset of 2 - transfer is actually run at 23:00 (or 11.00pm), but all dated queries use 01:00 (or 1.00am) the next day when viewing dated memberships.

If another backup routine is still running at 1am, the routine attempts to run on five consecutive occasions with an interval of one minute between each attempt. If it is still not possible for the routine to run, an error is logged in the `Discover.Warehouse.Service.log` for your information.

The log file is located in the local application data directory of the service you are running. For example, in Windows 7, when running the service as `MYCOMPUTER\DiscoverTransfer`, the log file is located in the `C:\Users\DiscoverTransfer\AppData\Local\Discover` directory on the machine that the service is running on. The log file can be viewed and opened using Microsoft Notepad or the **Discover Log Viewer** utility.

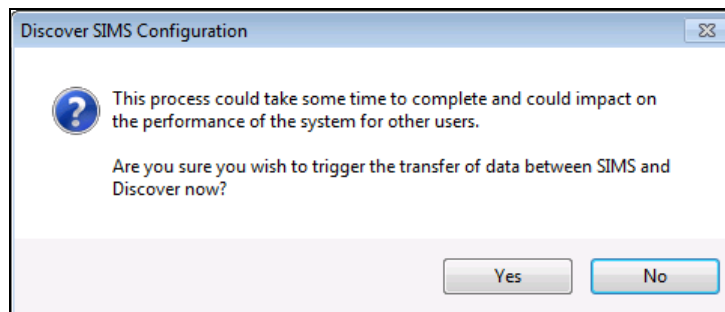
The **Undo** button can only be used to undo any unsaved changes.

15. Click the **Save** button to capture the changes.

Click the **Transfer** button at any time to initiate an immediate transfer without waiting until the preset time.



NOTE: Please ensure that no other users will be affected by the transfer process before continuing.



16. Click the **Yes** button to proceed with the Transfer process.

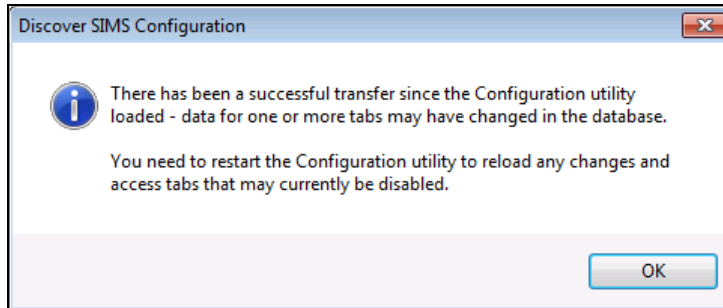
The remaining pages of the Discover SIMS Configuration Utility are instrumental in enabling you to create your own Assessment graphs. For more detailed information, please refer to *Chapter 5: Creating Your Own Assessment Graphs* in the *Discover User Guide*.

Potential Transfer Progress Messages and What they Mean

When the Transfer process is initiated by clicking the **Transfer** button on the Discover SIMS Configuration utility, a number of possible messages may be displayed for information as the routine progresses.

Message Displayed	Occurrence	Message Meaning
Transfer yet to be run	After installation of Discover but before any attempt has been made to transfer the data.	You must initiate the first Transfer process before using Discover.
Transfer requested, waiting for service	After a scheduled task or you request a Transfer manually.	The SIMS Discover Data Transfer service is pending.
Transfer started	After the SIMS Discover Data Transfer service actually picks up the request and has started a Transfer.	The Transfer process is underway.
Transfer succeeded	After a Transfer has completed successfully.	The Transfer process was successful.
Transfer failed, will try again in <i>N</i> seconds	After a Transfer has completed with an error (typically <i>N</i> is 60 seconds for default settings).	The Transfer process tries to run on five consecutive attempts.
Transfer failed, see log file for details	After final attempt (usually 5), the transfer has completed with an error.	Please see the <i>Reviewing the Discover Warehouse Log File</i> section below.

If the transfer process has completed successfully, the following message is displayed and it is strongly recommended that you close the **Discover SIMS Configuration** utility and re-open it before accessing Discover.



The status of a pending or previous **Transfer** can be viewed by hovering over the **Transfer Progress** field in the **Discover SIMS Configuration** utility. The following states are reported:

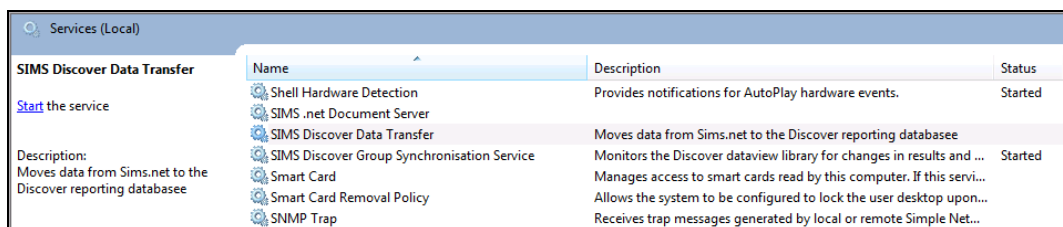
- Progress last updated on 15/02/2011 at 11.02. There has never been a successful transfer!
- Progress last updated on 15/02/2011 at 11.02. Last successful transfer on 14/02/2011 at 01.03.
- Data transfer triggered.

Investigating a Pending Transfer

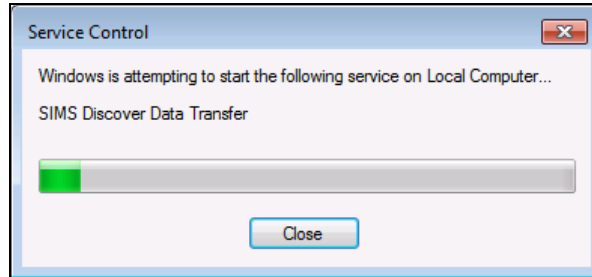
If the Transfer process fails to initiate after several minutes, you can check that the **SIMS Discover Data Transfer** service is running.

1. From the **Control Panel** on the server that is running the **SIMS Discover Data Transfer** service, select the **Administrative Tools** icon and click on **Services** to display the **Services (Local)** page.
2. Scroll down the page until you locate the details of the **SIMS Discover Data Transfer** service.

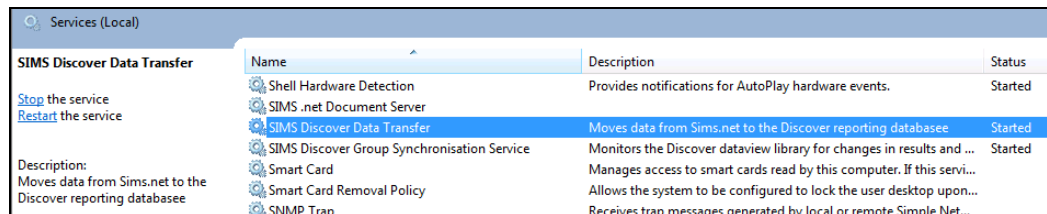
The **Status** of this service should be shown as **Started**.



- If this is not the case, highlight the name of the service and click on **Start the service** in the left-hand column of the **Services (Local)** page.



The selected service should now be started.



The **Transfer** process will initiate when the service is running and no further action is required.

If the **Transfer** process still fails to initiate, please check the `Discover.Warehouse.Service.log`.

Reviewing the Discover Warehouse Service Log File

The transfer process creates a log file called `Discover.Warehouse.Service.log`. This log file details any issues identified in the data during the transfer process and also acts as an audit log for any usage or error messages that may occur whilst using Discover.

The log file is located in the local application data directory of the service you are running. For example, in Windows 7, when running the service as `MYCOMPUTER\DiscoverTransfer`, the log file is located in the `C:\Users\DiscoverTransfer\AppData\Local\Discover` directory on the machine that the service is running on. The log file can be viewed and opened using Microsoft Notepad or an xml editor.

Logging Into Discover via SIMS

- Open SIMS in the usual way.
- Select **Focus | Assessment | Discover** to start **Discover**.

Alternatively, click the **Discover** button on the **SIMS Tool Bar**.



Discover button

Logging into Discover outside of SIMS

1. Click the **Start** button, expand the **SIMS Applications** folder and double-click the **Discover** icon.
The **Discover** login dialog is displayed.
2. Enter the **User Name** and the **Password**.
3. Click the **Log In** button to launch Discover.

04 Additional Setups and Troubleshooting

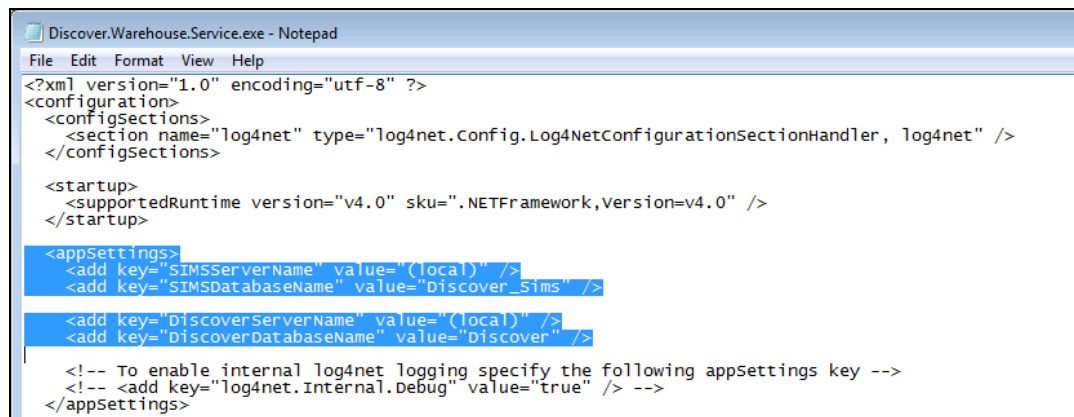
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Modifying the Service Application Settings

There are a number of application settings that can be applied to change the configuration of the service, if this is deemed necessary by the System Manager. These settings can be changed in the <appSettings> element of the Discover.Warehouse.Service.exe.config file.

This file can be found in C:\Program Files\SIMS\Discover Services.

If you want to edit the service application settings, double-click the file name to open it in Notepad® or an xml editor.



```

Discover.Warehouse.Service.exe - Notepad
File Edit Format View Help
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <configSections>
    <section name="log4net" type="log4net.Config.Log4NetConfigurationSectionHandler, log4net" />
  </configSections>

  <startup>
    <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.0" />
  </startup>

  <appSettings>
    <add key="SIMSServerName" value="(local)" />
    <add key="SIMSDatabaseName" value="Discover_Sims" />
    <add key="DiscoverServerName" value="(local)" />
    <add key="DiscoverDatabaseName" value="Discover" />

    <!-- To enable internal log4net logging specify the following appSettings key -->
    <!-- <add key="log4net.Internal.Debug" value="true" /> -->
  </appSettings>

```

In the following table, the settings shown in bold text have been pre-configured during the installation process.

The remainder of the settings can be inserted manually into the `Discover.Warehouse.Service.exe.config` file.

Key	Default Value in Units
MaxAttemptCount	5
SleepTime (ms)	60,000 i.e. (60s)
SIMSServerName	(local)
SIMSDatabaseName	SIMS
SIMSConnectTimeout (s)	15
SIMSCommandTimeout (s)	300 i.e. (5 mins)
DiscoverServerName	(local)
DiscoverDatabaseName	Discover
DiscoverConnectTimeout (s)	15
DiscoverCommandTimeout (s)	300 i.e. (5 mins)
DiscoverBulkCopyTimeout (s)	300 i.e. (5 mins)
DiscoverBatchSize	1000

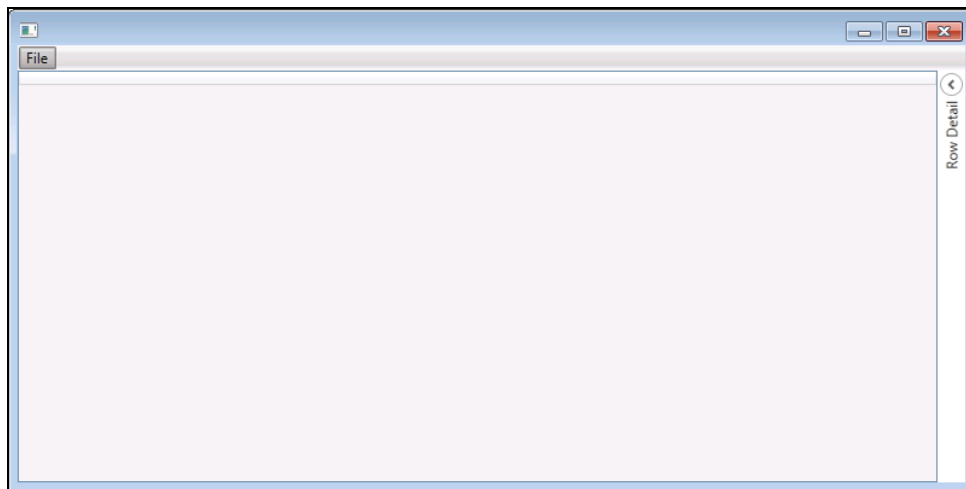
If you make any changes, please ensure that you select **Save** when closing the instance of Notepad or xml editor.

Using the Discover Log Viewer Utility

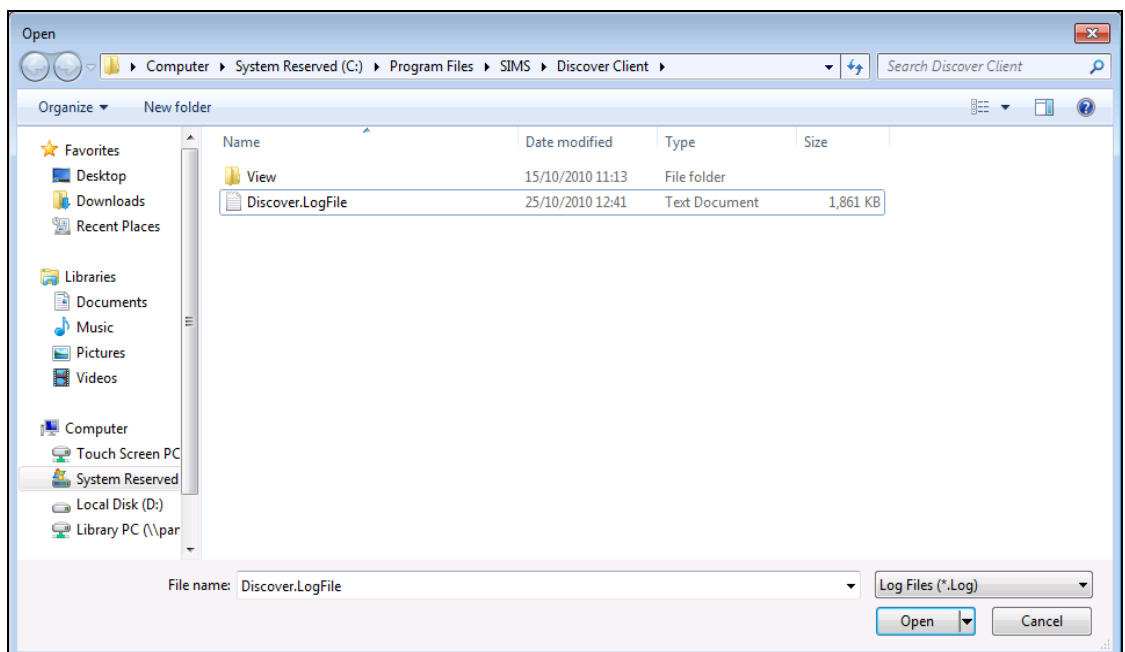
If an issue or error occurs whilst using Discover, it is suggested that you consult the `Discover.LogFile.log`. This is a text file and can be found in `C:\Users\DiscoverTransfer\AppData\Local\Discover` directory on the machine that the service is running on.

A log viewing utility can also be found in the same installation folder and this enables you to view the file in a tabular format for ease of understanding.

1. Double-click the `Discover.LogViewer.exe` to open the utility.

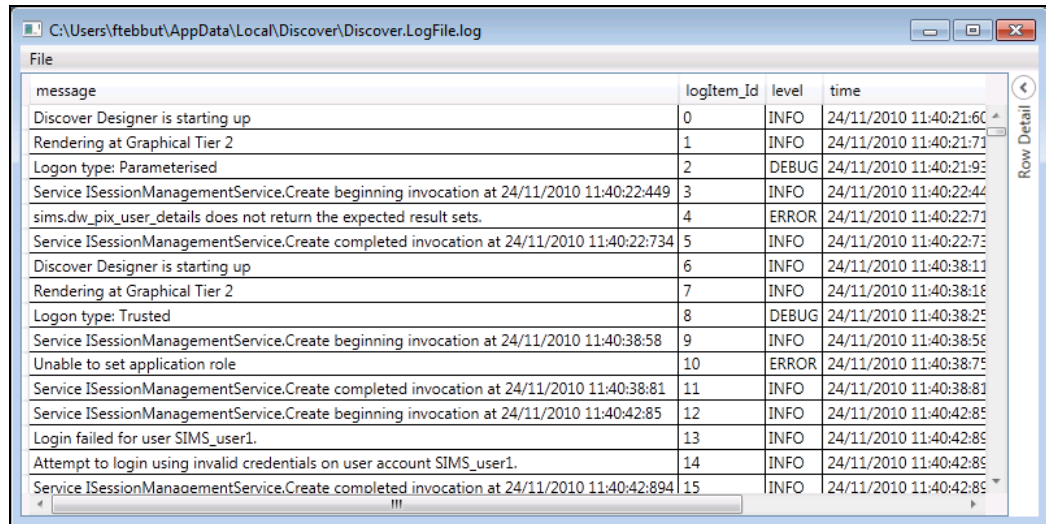


2. Click the **File** button and then click the **Load** button to display the **Open** dialog.



3. Navigate to the location of the log file. This is located in the local application data directory of the current user. For example, in Windows 7, when logged on as `MyUser`, the log file is located in the `C:\Users\MyUser\AppData\Local\Discover` directory.
4. Highlight the file name and click the **Open** button to load the file.

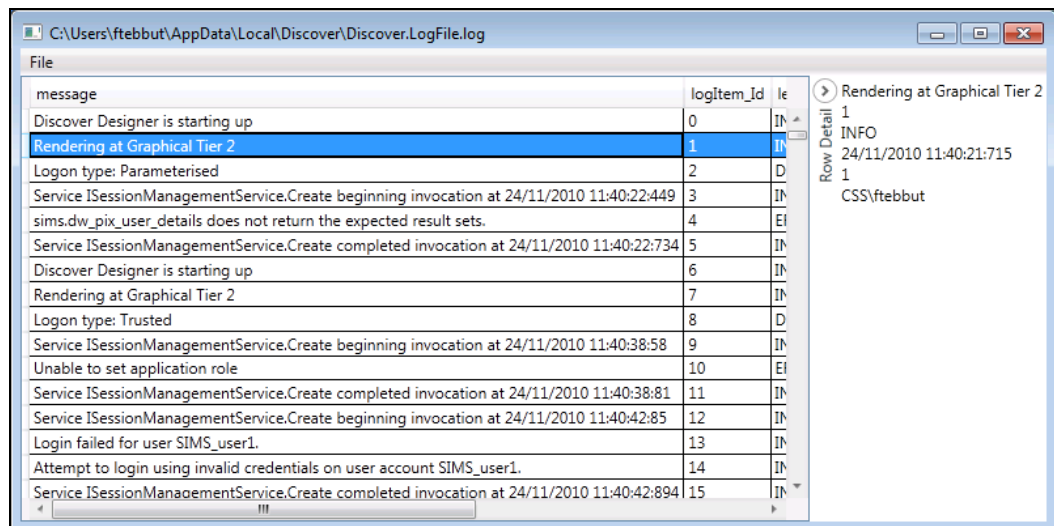
The messages and details in the text file are displayed in a tabular format for ease of viewing.



The screenshot shows a window titled "C:\Users\ftebbut\AppData\Local\Discover\Discover.LogFile.log". The window contains a table with the following columns: message, logitem_Id, level, and time. The table lists various log messages, including "Discover Designer is starting up", "Rendering at Graphical Tier 2", "Logon type: Parameterised", "Service ISessionManagementService.Create beginning invocation", "Unable to set application role", "Login failed for user SIMS_user1", and "Attempt to login using invalid credentials on user account SIMS_user1".

message	logitem_Id	level	time
Discover Designer is starting up	0	INFO	24/11/2010 11:40:21:60
Rendering at Graphical Tier 2	1	INFO	24/11/2010 11:40:21:71
Logon type: Parameterised	2	DEBUG	24/11/2010 11:40:21:93
Service ISessionManagementService.Create beginning invocation at 24/11/2010 11:40:22:449	3	INFO	24/11/2010 11:40:22:449
sims.dw_pix_user_details does not return the expected result sets.	4	ERROR	24/11/2010 11:40:22:71
Service ISessionManagementService.Create completed invocation at 24/11/2010 11:40:22:734	5	INFO	24/11/2010 11:40:22:734
Discover Designer is starting up	6	INFO	24/11/2010 11:40:38:11
Rendering at Graphical Tier 2	7	INFO	24/11/2010 11:40:38:18
Logon type: Trusted	8	DEBUG	24/11/2010 11:40:38:29
Service ISessionManagementService.Create beginning invocation at 24/11/2010 11:40:38:58	9	INFO	24/11/2010 11:40:38:58
Unable to set application role	10	ERROR	24/11/2010 11:40:38:79
Service ISessionManagementService.Create completed invocation at 24/11/2010 11:40:38:81	11	INFO	24/11/2010 11:40:38:81
Service ISessionManagementService.Create beginning invocation at 24/11/2010 11:40:42:85	12	INFO	24/11/2010 11:40:42:85
Login failed for user SIMS_user1.	13	INFO	24/11/2010 11:40:42:89
Attempt to login using invalid credentials on user account SIMS_user1.	14	INFO	24/11/2010 11:40:42:89
Service ISessionManagementService.Create completed invocation at 24/11/2010 11:40:42:894	15	INFO	24/11/2010 11:40:42:894

- Highlight a specific line of text and click the **Row Detail** chevron button on the far right-hand side to view additional information relating to the message.



The screenshot shows the same window as before, but with the row "Rendering at Graphical Tier 2" highlighted in blue. The "Row Detail" column on the right side of the table is expanded, showing the following information: "Rendering at Graphical Tier 2", "1", "INFO", "24/11/2010 11:40:21:715", "1", and "CSS\ftebbut".

message	logitem_Id	level	time	Row Detail
Discover Designer is starting up	0	INFO	24/11/2010 11:40:21:60	
Rendering at Graphical Tier 2	1	INFO	24/11/2010 11:40:21:71	Rendering at Graphical Tier 2 1 INFO 24/11/2010 11:40:21:715 1 CSS\ftebbut
Logon type: Parameterised	2	DEBUG	24/11/2010 11:40:21:93	
Service ISessionManagementService.Create beginning invocation at 24/11/2010 11:40:22:449	3	INFO	24/11/2010 11:40:22:449	
sims.dw_pix_user_details does not return the expected result sets.	4	ERROR	24/11/2010 11:40:22:71	
Service ISessionManagementService.Create completed invocation at 24/11/2010 11:40:22:734	5	INFO	24/11/2010 11:40:22:734	
Discover Designer is starting up	6	INFO	24/11/2010 11:40:38:11	
Rendering at Graphical Tier 2	7	INFO	24/11/2010 11:40:38:18	
Logon type: Trusted	8	DEBUG	24/11/2010 11:40:38:29	
Service ISessionManagementService.Create beginning invocation at 24/11/2010 11:40:38:58	9	INFO	24/11/2010 11:40:38:58	
Unable to set application role	10	ERROR	24/11/2010 11:40:38:79	
Service ISessionManagementService.Create completed invocation at 24/11/2010 11:40:38:81	11	INFO	24/11/2010 11:40:38:81	
Service ISessionManagementService.Create beginning invocation at 24/11/2010 11:40:42:85	12	INFO	24/11/2010 11:40:42:85	
Login failed for user SIMS_user1.	13	INFO	24/11/2010 11:40:42:89	
Attempt to login using invalid credentials on user account SIMS_user1.	14	INFO	24/11/2010 11:40:42:89	
Service ISessionManagementService.Create completed invocation at 24/11/2010 11:40:42:894	15	INFO	24/11/2010 11:40:42:894	

- Click the **Row Detail** chevron button again to close the **Row Detail** column when you have obtained the information required.
- Click the **Close** button to exit the **Discover Log Viewer** utility.

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