



ShipWeight™

Installation Guidance

Version 12.0

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INSTALLATION OVERVIEW

ShipWeight runs on Microsoft operating systems Windows 7, Windows 8.x, and Windows 10. The databases run on Microsoft SQL Server 2008/2012/2014/2016 as well as the EXPRESS editions.

Microsoft SQL Server needs to be installed on the network and set up properly before installation of ShipWeight. If a Microsoft SQL Server installation or license is not available, ShipWeight will run fine on MS SQL Server Express version 2008/2012/2014/2016.

See <https://www.microsoft.com/en-us/sql-server/sql-server-editions-express> for download and installation instructions of the free SQL Server version.

ShipWeight will run on 512 KB RAM, however, 1 GB or more is recommended, especially if working with large databases (250.000 weight items or more). There are no other specific hardware requirements beyond what is required to run the operating systems and SQL Server.

To make a complete ShipWeight installation, 4 tasks must be executed:

1. **Installation of ShipWeight databases on the SQL server (server installation)**
2. **Installation of ShipWeight executables on client machine (client installation)**
3. **Installation of the license**
4. **Registration of ShipWeight users on the SQL server**

When installing ShipWeight the user must be logged on with administrator rights.

Please note: All necessary files will be found at www.shipweight.com/download, including an mp4 file showing a video of the installation of ShipWeight.

TO TEST IF INSTALLATION IS SUCCESSFUL

After installation, ShipWeight should be found on the Start menu of the operating system. Start ShipWeight in the ShipWeight login dialog, use the following:

User name	Administrator
Password	admin
System	Standard

*In case of problems or questions,
please contact:*

*ShipWeight Support
Email: support@shipweight.com
Tel: +47 70 15 03 60*

Login

Authentication: Windows

SQL Server: RAA-PC\SW

User Name: Administrator

Password: ●●●●

System: Standard

Open Last Project

OK Cancel

1. SETUP CONFIGURATIONS

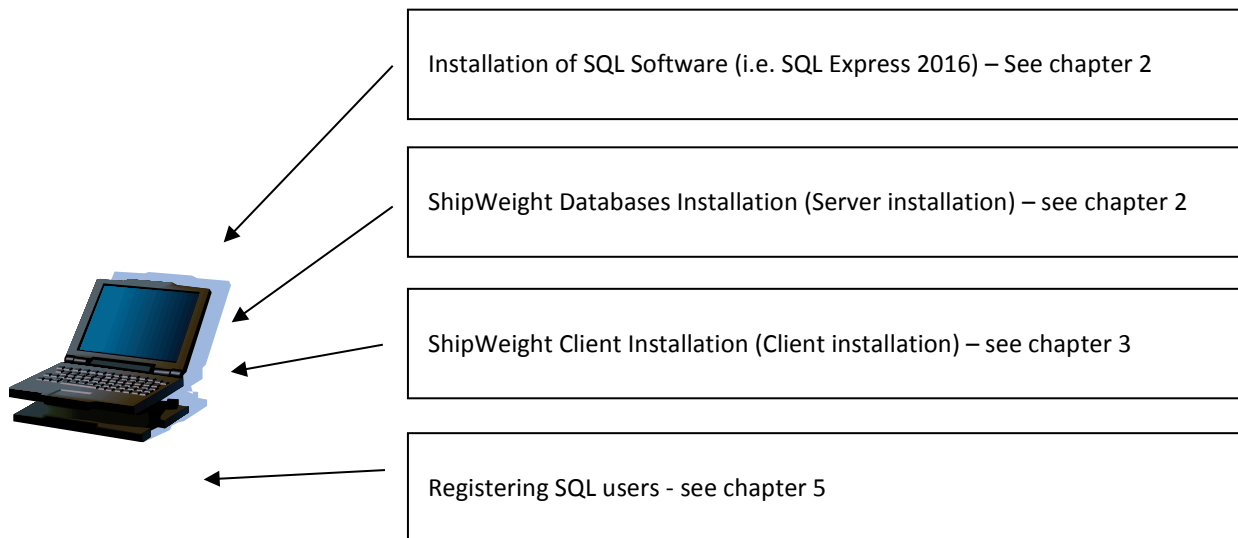
ShipWeight may be installed in the following configurations:

- Standalone installation
- Network installation
- network installation, separate database and license server

This page and the following two pages will show how these three configurations should be set up.

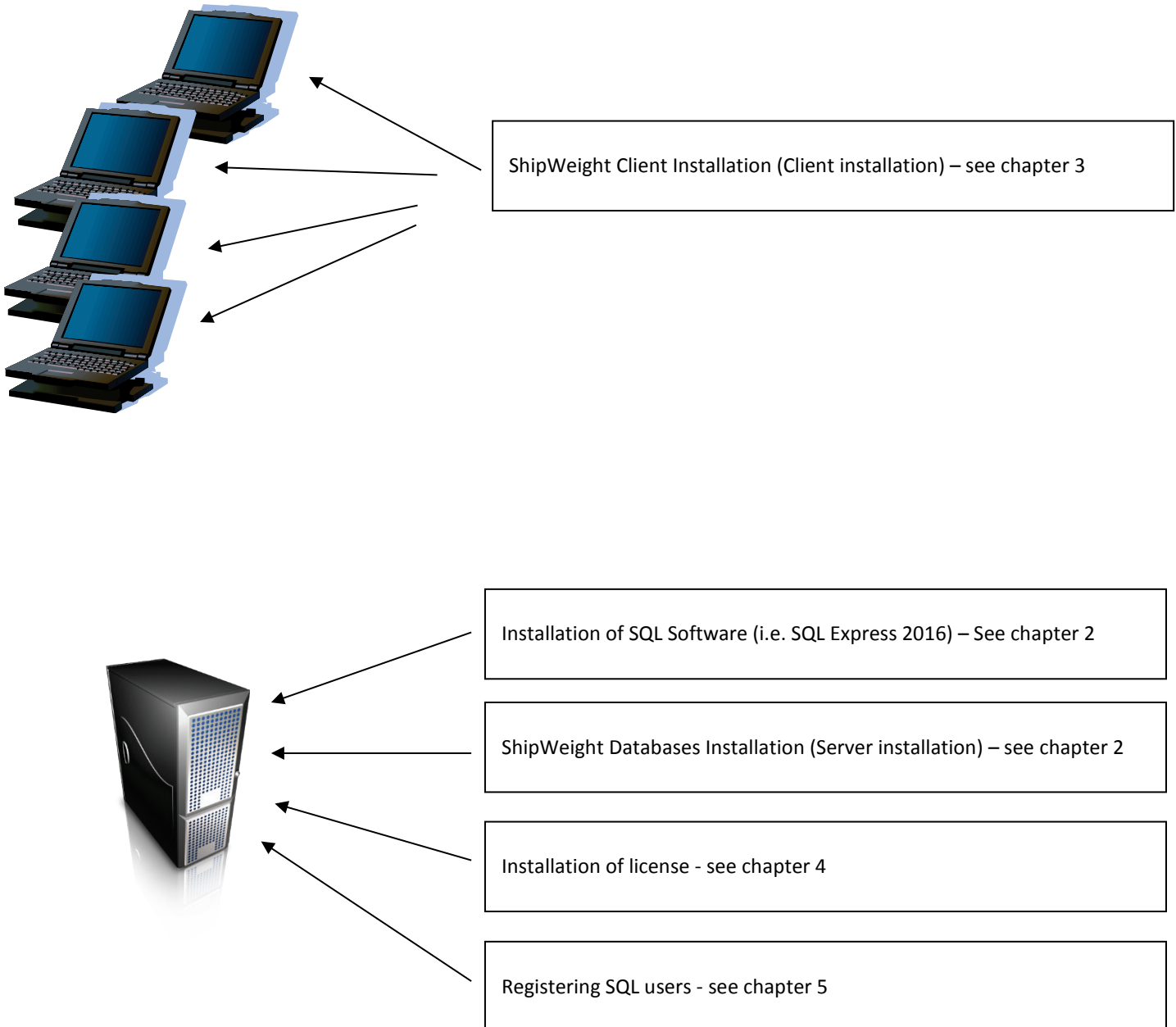
STANDALONE INSTALLATION

In this case, everything is installed on the same computer so that ShipWeight may run outside a network. The following should then be executed:



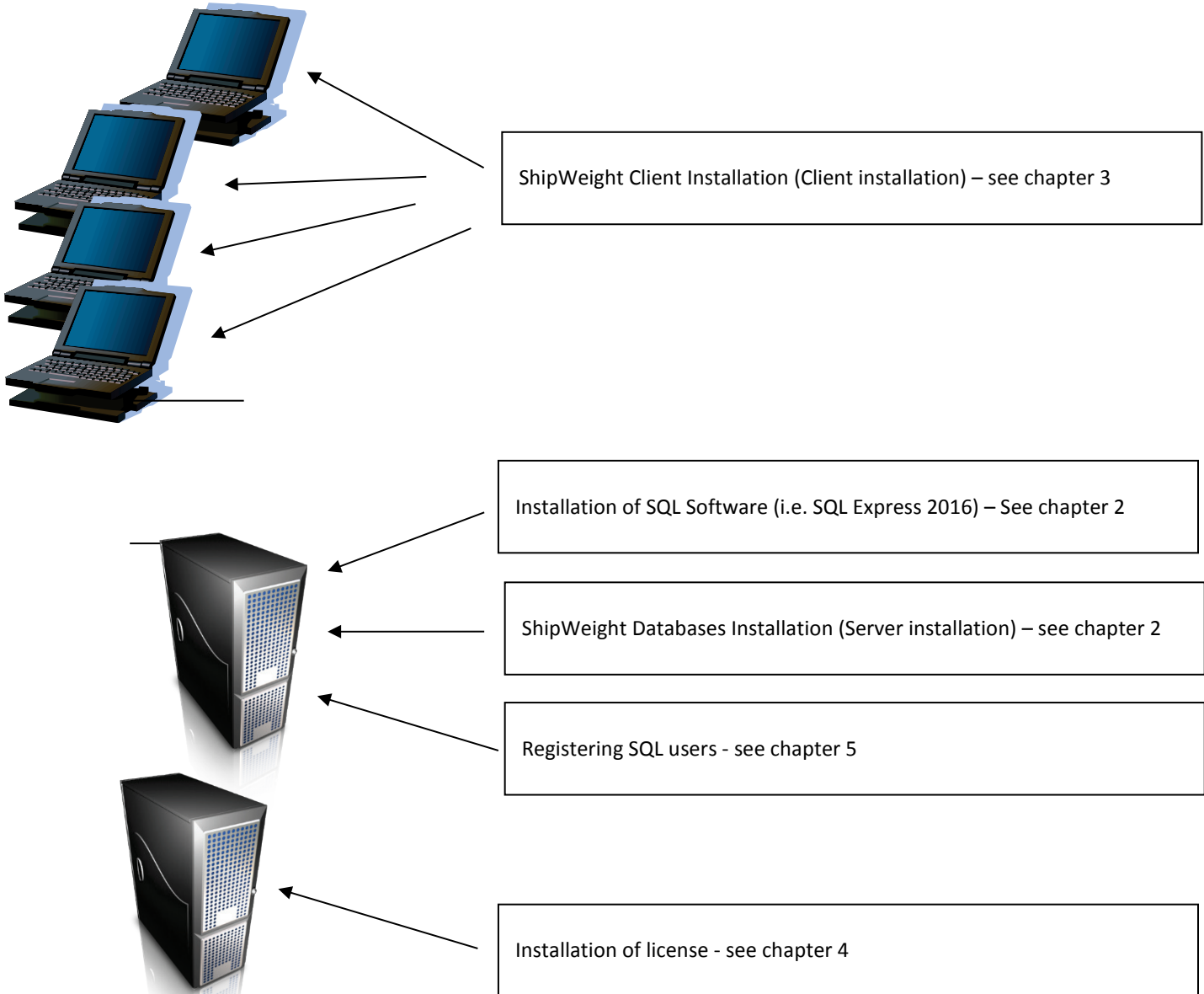
NETWORK INSTALLATION

In this case the ShipWeight executable is installed on client machines on a network, while the databases and the license lock are installed on a network server shared by the clients. This way all client machines log on to the same databases:



NETWORK INSTALLATION, SEPARATE DATABASE AND LICENSE SERVER

This is the same configuration as the previously described network configuration, only in this case the license lock resides on a separate server. All client machines must have access to both servers in this case:



2. INSTALLATION OF SHIPWEIGHT DATABASES ON THE SQL SERVER

SQL SERVER SOFTWARE

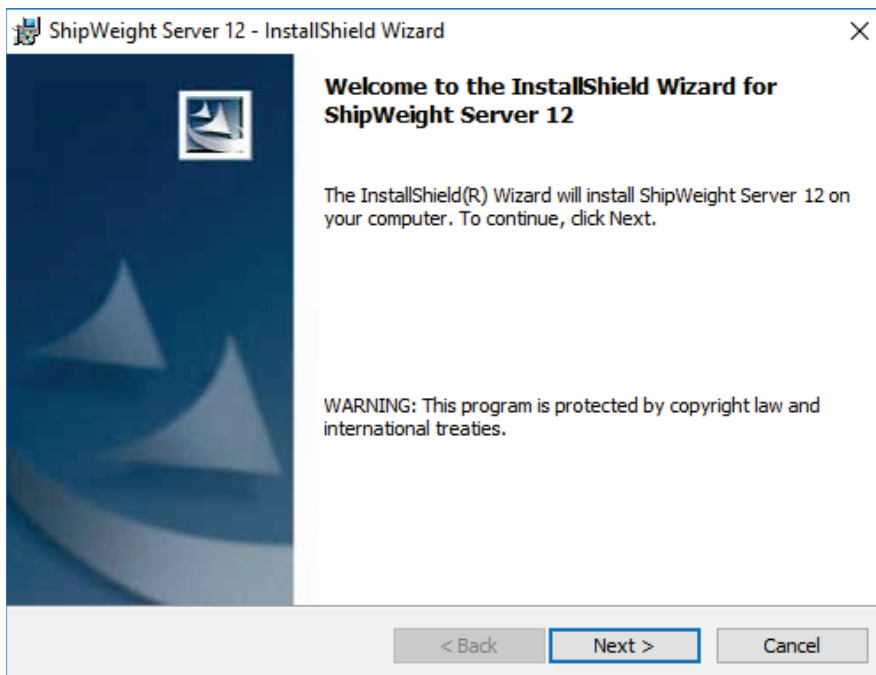
Prior to installation of the ShipWeight databases, the server must have installed an instance of Microsoft SQL Server.

See <https://www.microsoft.com/en-us/sql-server/sql-server-editions-express> for download and installation instructions of the free SQL Server version. The SQL Server must be set up using Windows Authentication for authorization of users.

After an instance of SQL Server is present on the server, the ShipWeight databases can be installed.

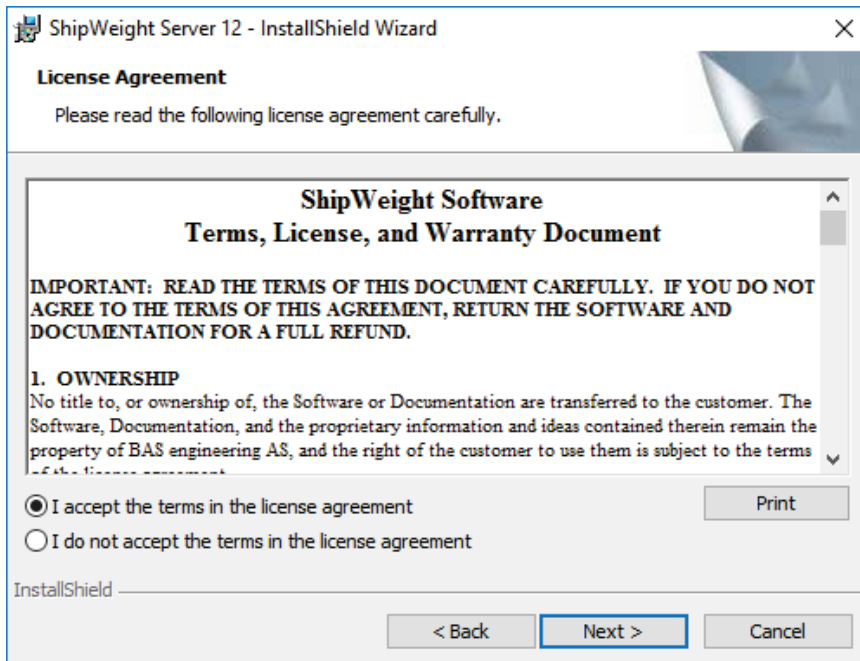
DATABASE INSTALLATION (SERVER INSTALLATION)

To start installation of the ShipWeight databases, run **shipweight_server_12_xx_xx.msi** installation file. This file can be found on the ShipWeight website www.shipweight.com/download . This should launch the following welcome dialog:

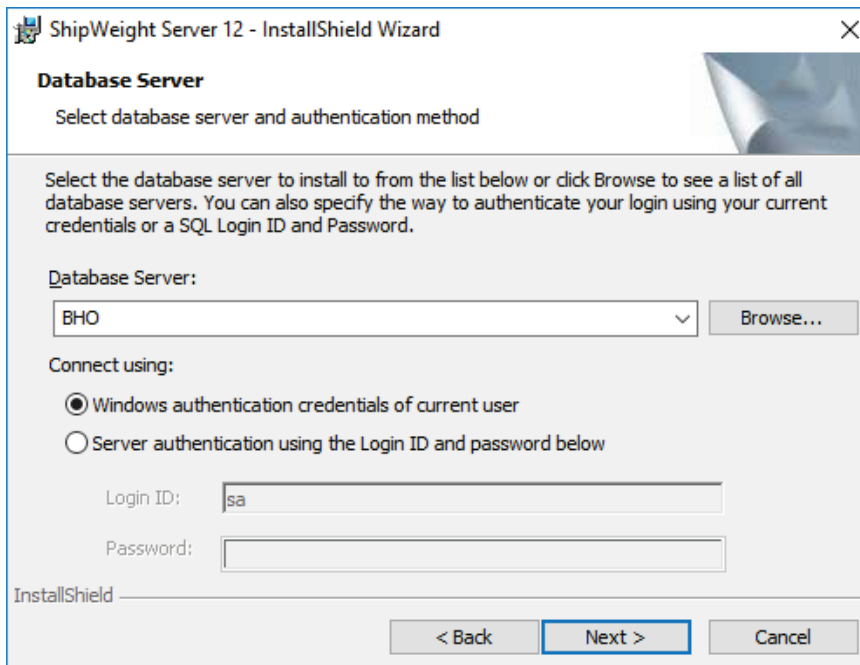


Click Next...

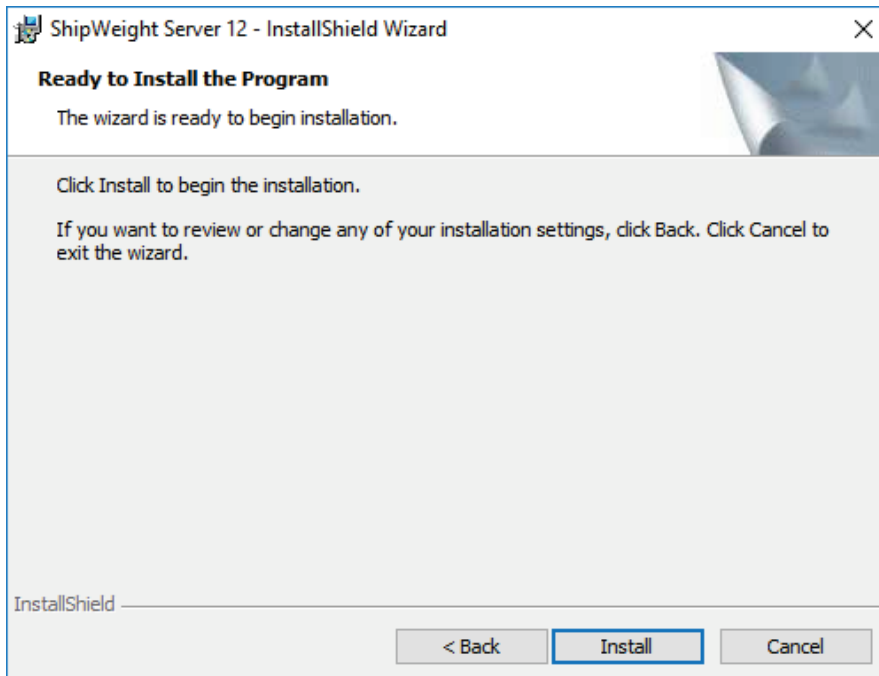
The next dialog shows the license agreement.



Select the radiobutton "I accept..." and click next...



Please click the "Browse..." button to select the appropriate server to install ShipWeight database. If "(local)" shows up as your default server name, please still browse to select the server as "(local)" to our experience sometimes causes problems even if the SQL Server indeed is a local one. Select "Windows authentication..." as connect option (default) and click next...



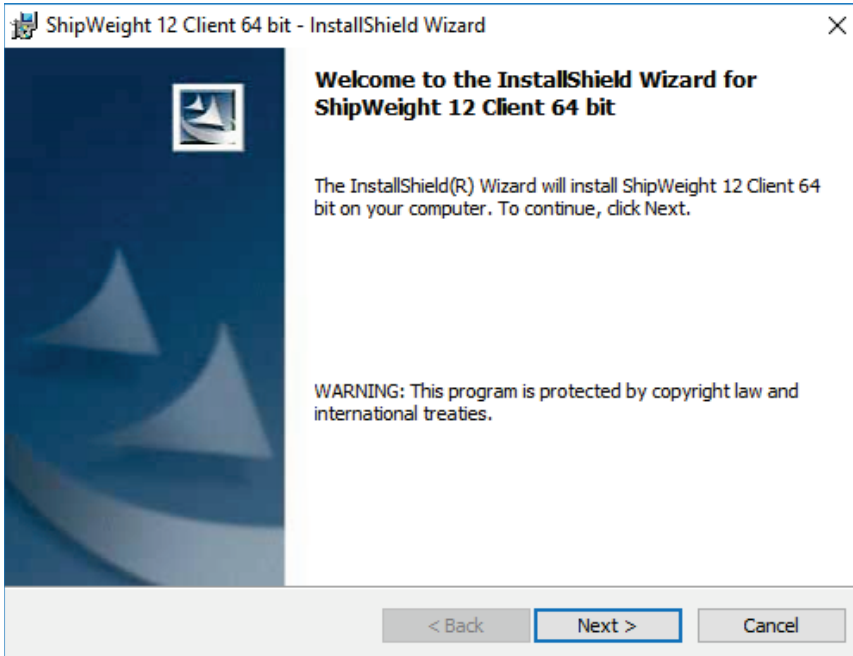
Finally click “Install” button to execute the installation of the databases.

If installation is successful at least the following databases should be present on the server:

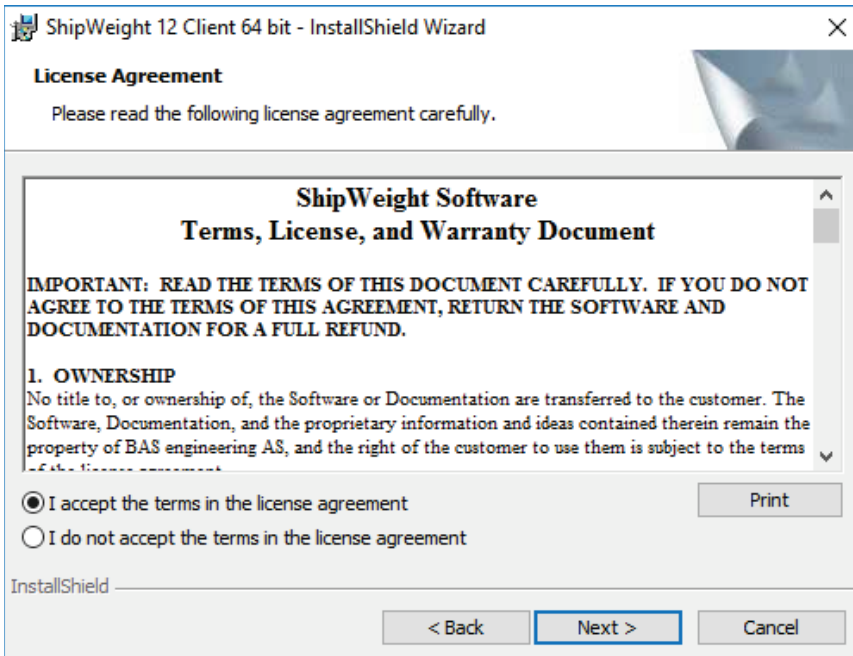
- SWLogin – ShipWeight user database
- sdb_Shipddb - Database for historical ship data
- SWSystem - Database for work breakdown structure (one or more)
- SW00_ProjectDB - Project database
- SW00_ProjectDB_Log - Project log database
- SW04_ProjectDB - SWBS Project database
- SW04_ProjectDB_Log - SWBS Project Log database

3. INSTALLATION OF SHIPWEIGHT EXECUTABLE ON CLIENT MACHINE(S)

To start installation of ShipWeight executables on the client machine(s), run **shipweight_12_xx_xx_client_64_bit.msi**. This file can be found on the ShipWeight website www.shipweight.com/download. After some initial computer checking a welcome screen should pop up:



Click next...



The license agreement is displayed. Select radio button "I accept..." and click next...

Next fill in user name and organization

ShipWeight 12 Client 64 bit - InstallShield Wizard

Customer Information
Please enter your information.

User Name:
<user name>

Organization:
<user organization>

Install this application for:

Anyone who uses this computer (all users)
 Only for me (cris)

InstallShield

< Back Next > Cancel

Click next...

ShipWeight 12 Client 64 bit - InstallShield Wizard

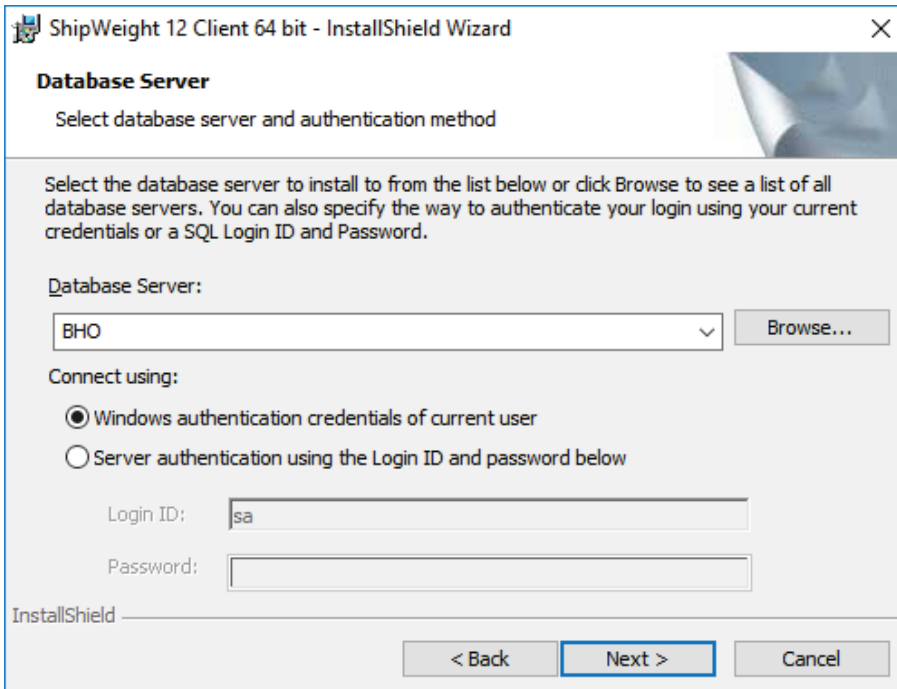
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.

Install ShipWeight 12 Client 64 bit to:
C:\Program Files (x86)\ShipWeight 12\ Change...

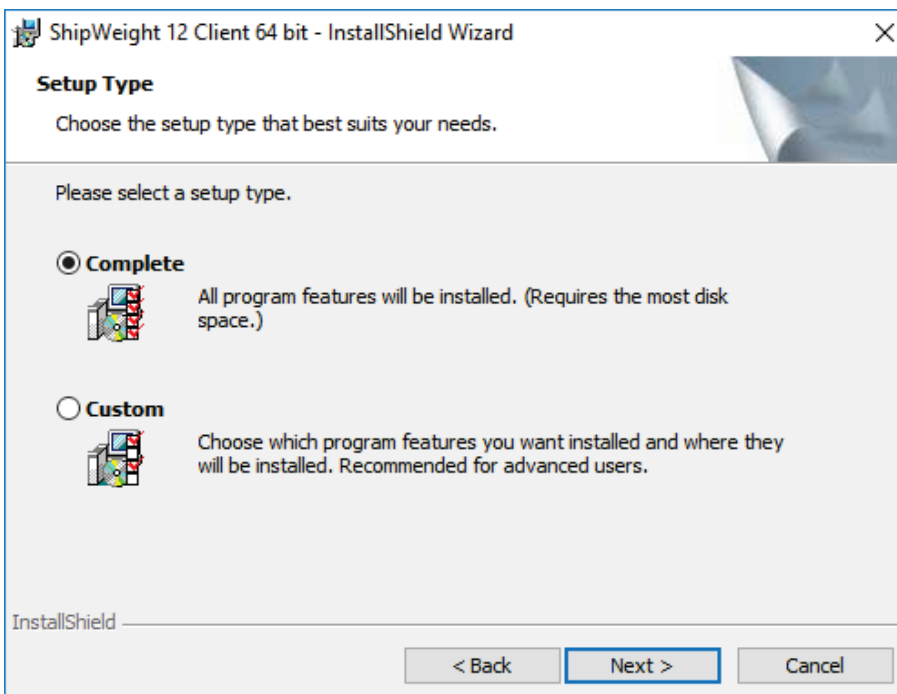
InstallShield

< Back Next > Cancel

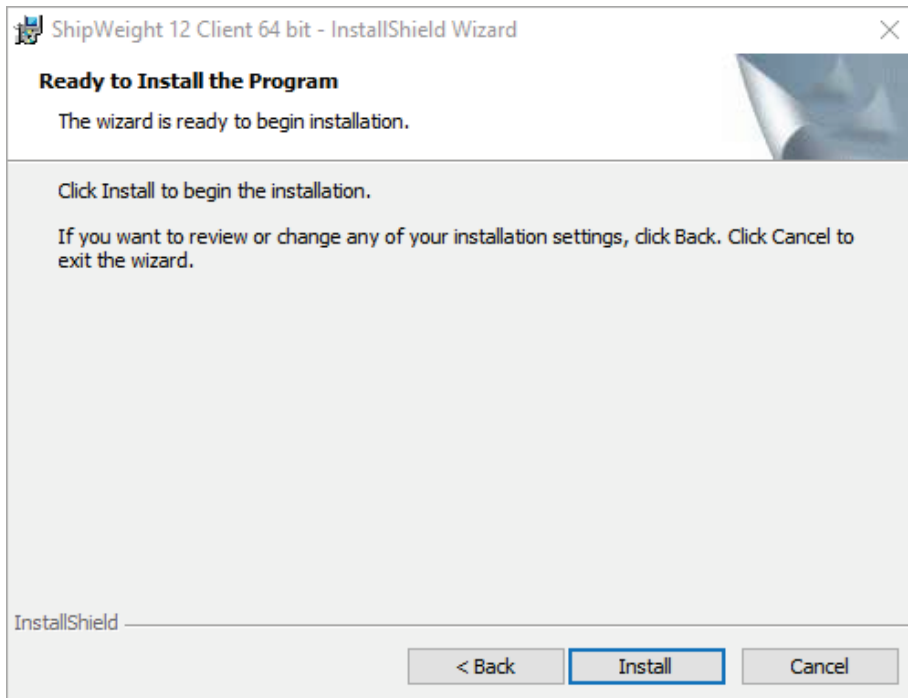
Select folder to install the executables. Click "Change..." button to select change the default location of the destination folder. Click next...



Use “Browse...” button to select the SQL Server containing the ShipWeight databases. Select connection using “Windows authentication...” (default) and click next.



For a normal installation, select “Complete” as setup type (default) and click next...



Finally click “Install” to start executing the installation.

Note:

ShipWeight is dependent on pre-installed runtime packages from Microsoft (VS C++ Runtime, SQL Client Drivers, etc) and SAP (Crystal Reports runtime).

These packages are included in the ShipWeight installation packages and if missing they will launch automatically after the ShipWeight install. In this case, finish and close the ShipWeight installation and continue installing these 3rd party packages by following their install windows.

4. INSTALLATION OF THE LICENSE

ShipWeight can be installed with a standalone license or as a network license. A network installation allows the use of your software on any number of machines on the same network, but limits the number of simultaneous users of your software.

Please follow the directions according to the type of license you have.

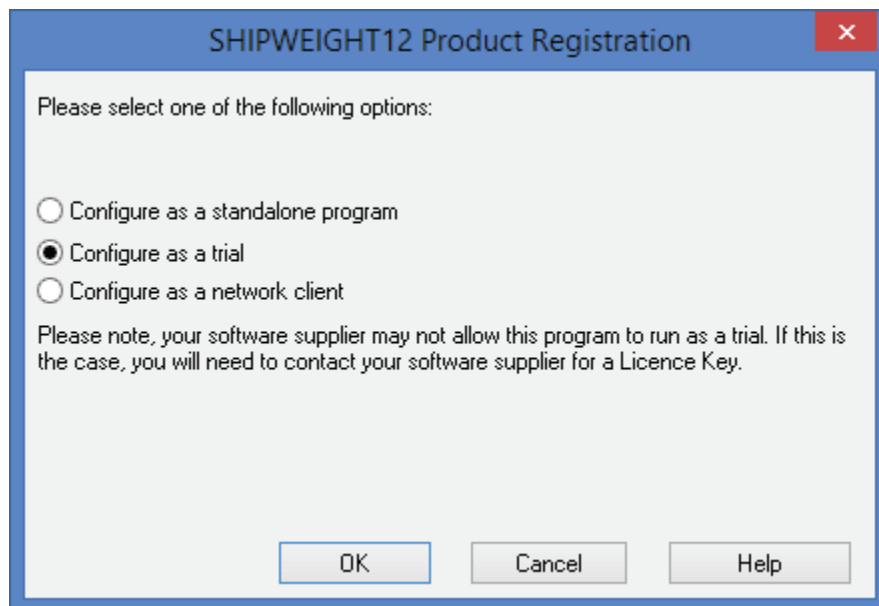
IMPORTANT:

If ShipWeight is installed in a restricted catalog folder (like the Program Files folder on newer OS), please make sure that you run CMIInstall.exe (found in the same folder as shipweight.exe) before starting ShipWeight.

INSTALLATION OF A STANDALONE LICENSE

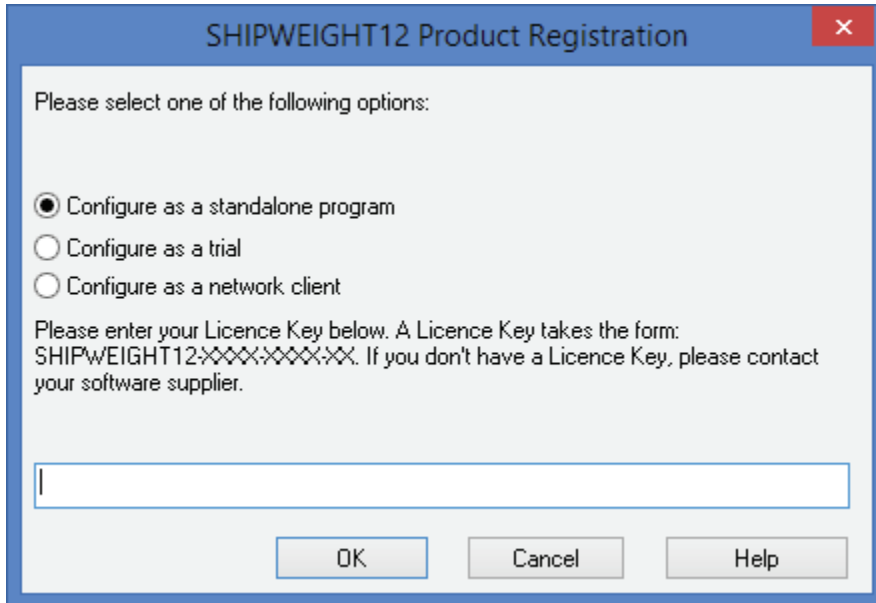
INSTALLATION OF A TRIAL LICENSE

If you want to install a trial license, select “Configure as trial” in the product registry the first time ShipWeight runs. ShipWeight will go online and automatically grant you a 30 days trial license.



INSTALLATION OF A PERMANENT STANDALONE LICENSE

If you want to install a permanent standalone license, select “Configure as standalone program” in the product registration dialog and enter in the ShipWeight Product Key (on the form SHIPWEIGHT12-XXXX-XXXX-XX). If you have not received a product key, please contact us at support@shipweight.com.

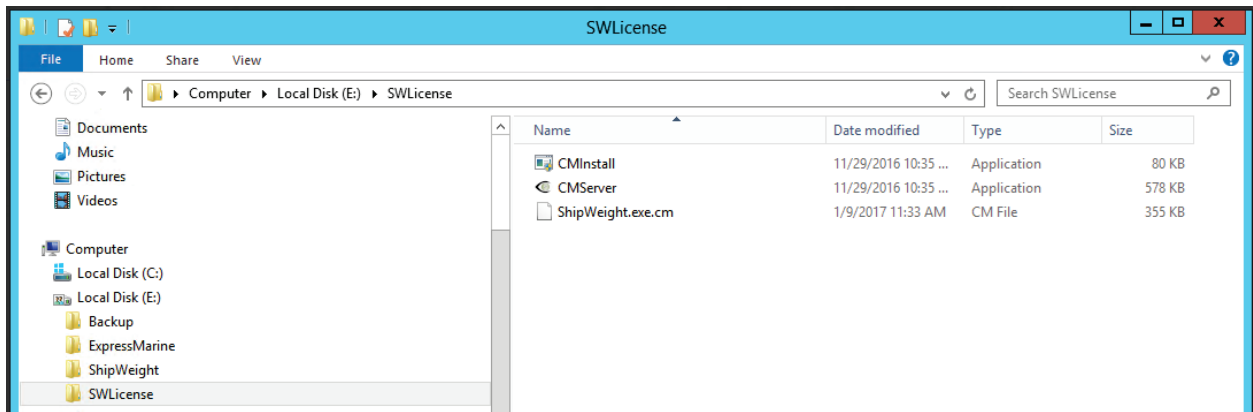


The image shows a Windows-style dialog box titled "SHIPWEIGHT12 Product Registration". The dialog has a blue title bar with a red close button in the top right corner. The main content area is light gray and contains the following text and controls:

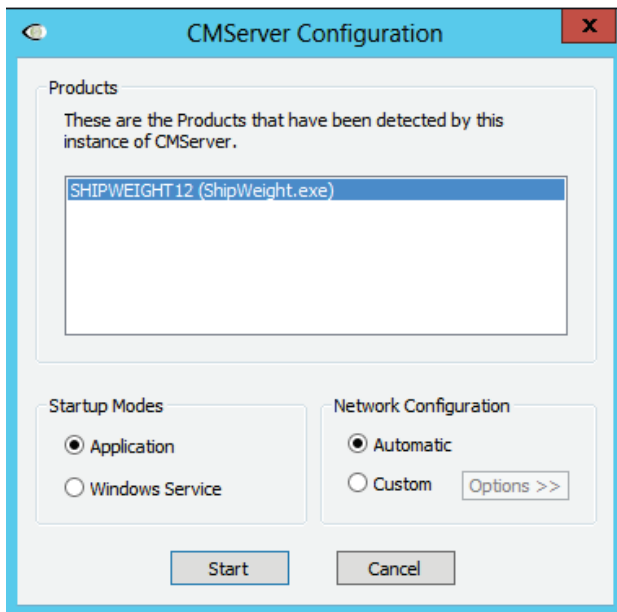
- Text: "Please select one of the following options:"
- Three radio button options:
 - Configure as a standalone program
 - Configure as a trial
 - Configure as a network client
- Text: "Please enter your Licence Key below. A Licence Key takes the form: SHIPWEIGHT12-XXXX-XXXX-XX. If you don't have a Licence Key, please contact your software supplier."
- A text input field for the license key, currently empty.
- Three buttons at the bottom: "OK", "Cancel", and "Help".

INSTALLATION PROCEDURE OF A NETWORK LICENSE

1. Put CMServer.exe, CMInstall.exe and the ShipWeight.exe.cm file in a directory on the server. Exactly where this directory is located is left up to you. CMServer must have write access to the folder the .cm file is located in. (If this folder is under a directory with limited access rights, such as the Program Files directory, you will need to run [CMInstall](#) with the /N command-line parameter for each .cm file.) **Note: These files can be found in the “ShipWeight 12” folder on the client machine or alternatively be downloaded from the ShipWeight website.**



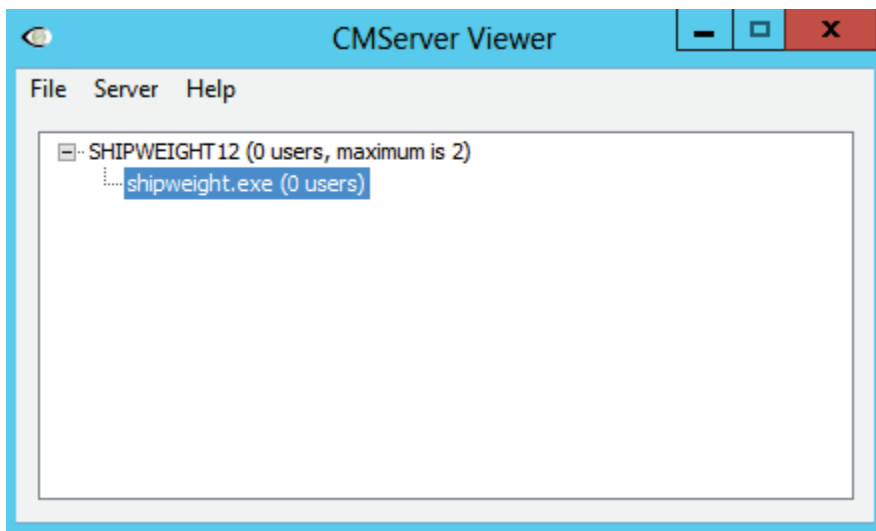
2. Run CMServer. It will display the configuration window.



3. You will now need to decide whether you want to run CMServer as an application or a service. Some things to consider regarding this choice:
 - An application requires there to be a user logged in on the machine for it to run. This may not always be the case on server machines. If you choose to run CMServer as an application and want to have it start automatically when the user logs in, then you must create a shortcut to CMServer in that user's Startup start menu folder which gives the appropriate command-line parameters to make CMServer start automatically.
 - A service starts automatically when the machine starts and does not require a user to be logged in for it to run. This is now the most common way of running a background task on Windows.
 - Which method is chosen depends on a particular user's needs and requirements. Running CMServer as an application may be the ideal choice initially, while setting up the system, switching to running it as a service when the user has everything set up correctly.

When you have decided how you want to run CMServer select the appropriate option from the Startup Modes section.

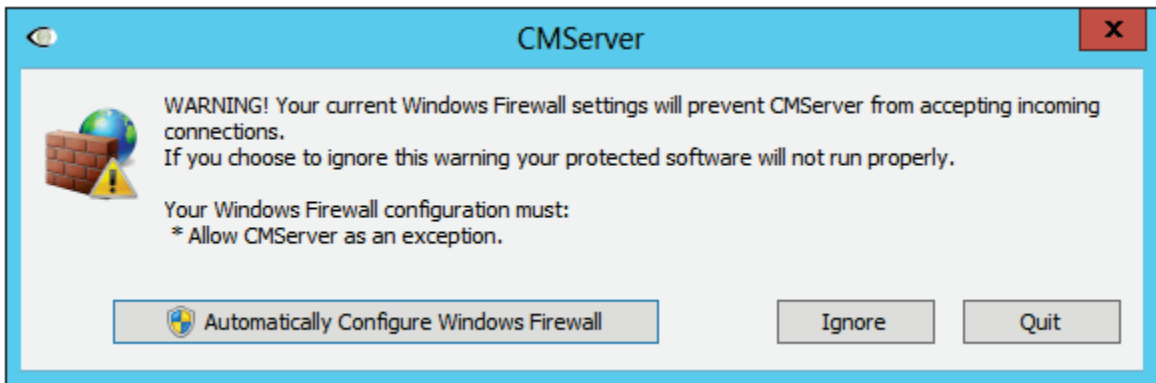
4. The Network Configuration section allows you to configure the network settings that CMServer will use. In Automatic mode, CMServer will automatically choose the settings based on the best defaults combined with any existing configuration settings. This is the recommended setting. Custom mode allows you to manually specify the IP address and port that CMServer will listen on.
5. You are now ready to hit the Start button!



6. Firewalls

Like most server software, CMServer accepts incoming connections by "listening" on a given IP address and port. If the machine running CMServer also has a firewall (including Windows firewall as well as third party firewall software), then the firewall software will need to be explicitly told to allow the incoming connections to get through to CMServer. Likewise, if a firewall exists on a machine between the server machine (the one running CMServer) and the client machines then this will need to be configured too.

CMServer will in most cases offer to automatically configure the firewall. You may accept this or alternatively manually configure the firewall.

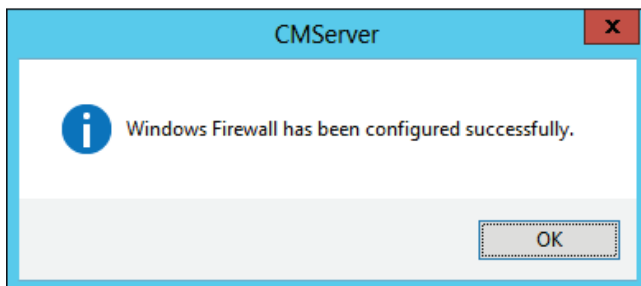


IMPORTANT

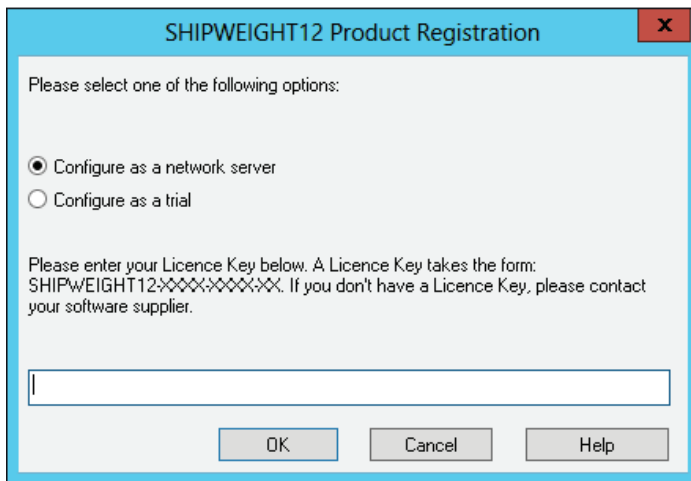
Failure to correctly configure your firewall(s) could result in the CopyMinder Server being inaccessible by client machines.

FIREWALL CHECKLIST

- Your firewall(s) must allow both TCP and UDP traffic through to CMServer.
- Your firewall(s) must allow CMServer to accept incoming connections on the IP address and port that you chose when setting up CMServer.
- Clients auto-detect CMServer by performing a **multicast 239.255.219.184** on whichever port you configured CMServer to listen on. Your firewall(s) must not block traffic destined for this address/port, or auto-detection will not work.



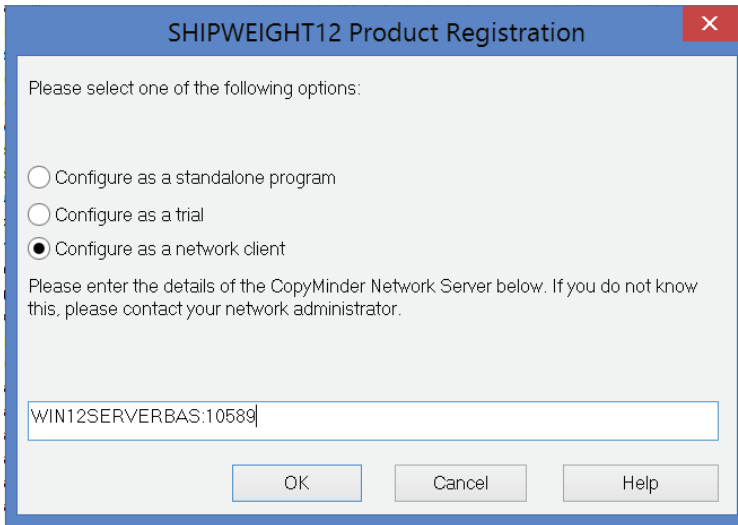
7. Select "Configure as network server" and register ShipWeight License Key



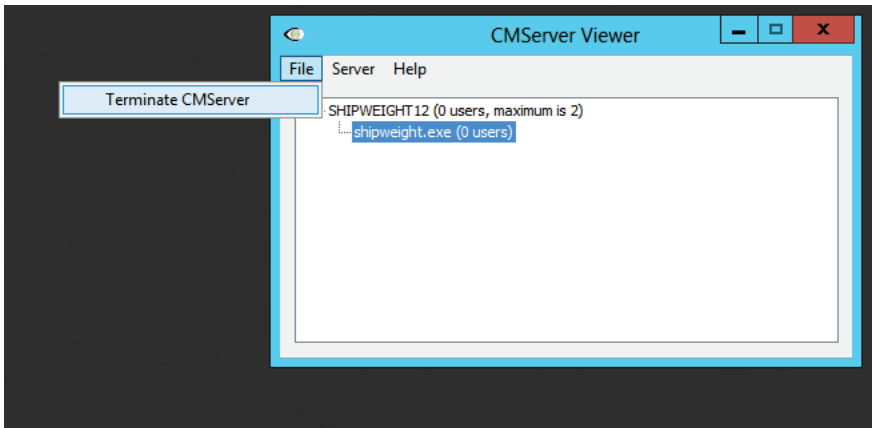
8. On the client side: If the ShipWeight client is installed under a directory with limited access rights, such as the Program Files directory, you will need to run CMIInstall – this can be found in the same place as the ShipWeight executable (usually in "Program Files (x86)\ShipWeight 12" folder).

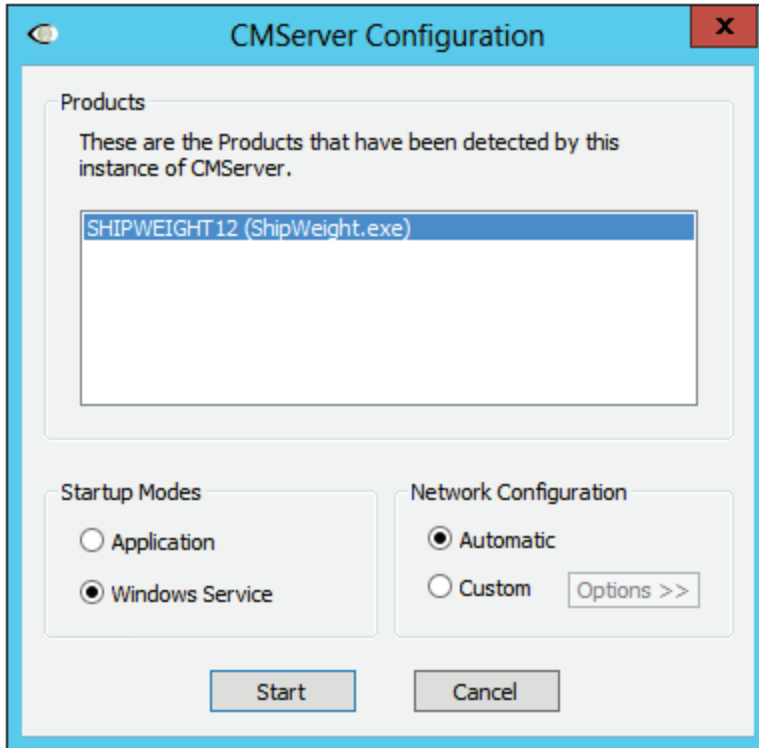
The first time each installation of your software is run, the user will be prompted to specify what type of installation they want. They should choose Configure as a Network Client. In most cases the software will automatically detect the presence of the CopyMinder Network Server and the details will be filled in for them - all they need to do is click OK.

If the server details do not appear in the text field then it may be that the server is not running or that a firewall is blocking communication between the client and server machines. It will usually be preferable to find and resolve the problem that caused the auto-detection to fail, as this problem could also affect the server and client's ability to communicate with each other during protection checks. However, it is possible to manually specify the server details to use, in the form SERVER:PORT, where the SERVER part can either be a hostname or an IP address. For example, OFFICESERVER:10589 or 192.168.1.10:10589.



9. When everything is working we recommend to terminate CMServer on the server and restart it as a Windows Service and not an application





5. REGISTRATION OF SHIPWEIGHT USERS ON THE SQL SERVER

ShipWeight logs on to the SQL Server using Windows Authentication meaning the windows user is passed on from the client machine to the SQL Server.

This document will describe the following:

- Set up users in a windows group
- Add this user group to the SQL Server
 - Adding the user group through GUI
 - Adding the user group through commands
- Check protocol enabling for the MSDE and SQL Express 2005

SET UP USERS IN A WINDOWS GROUP

The following screenshots are taken from a Windows XP environment. Different operating systems may have different views.

First, right click on the “My Computer” icon and select “Manage” to open up the console where the user group should be created.

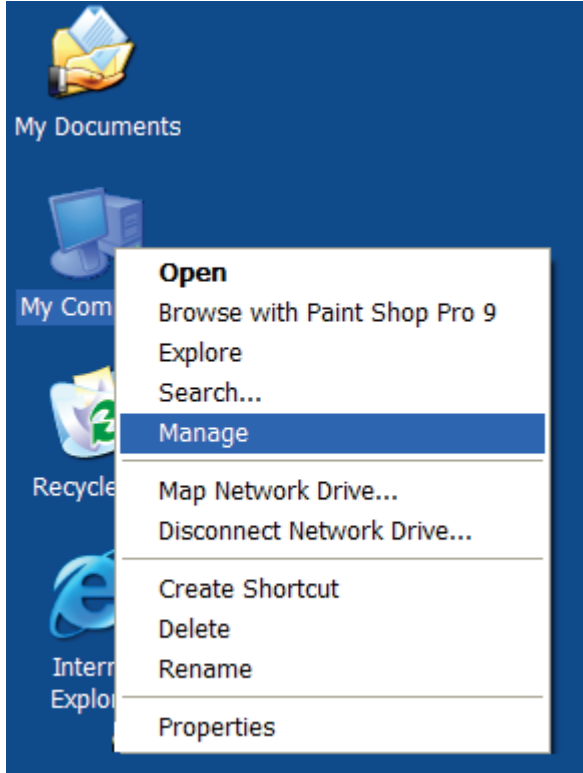


Figure 1: Open the Computer Management console

Next, in the console popping up, expand the “Users and Groups” folder, right click the subfolder called “Groups” and select “New Group...” from the submenu.

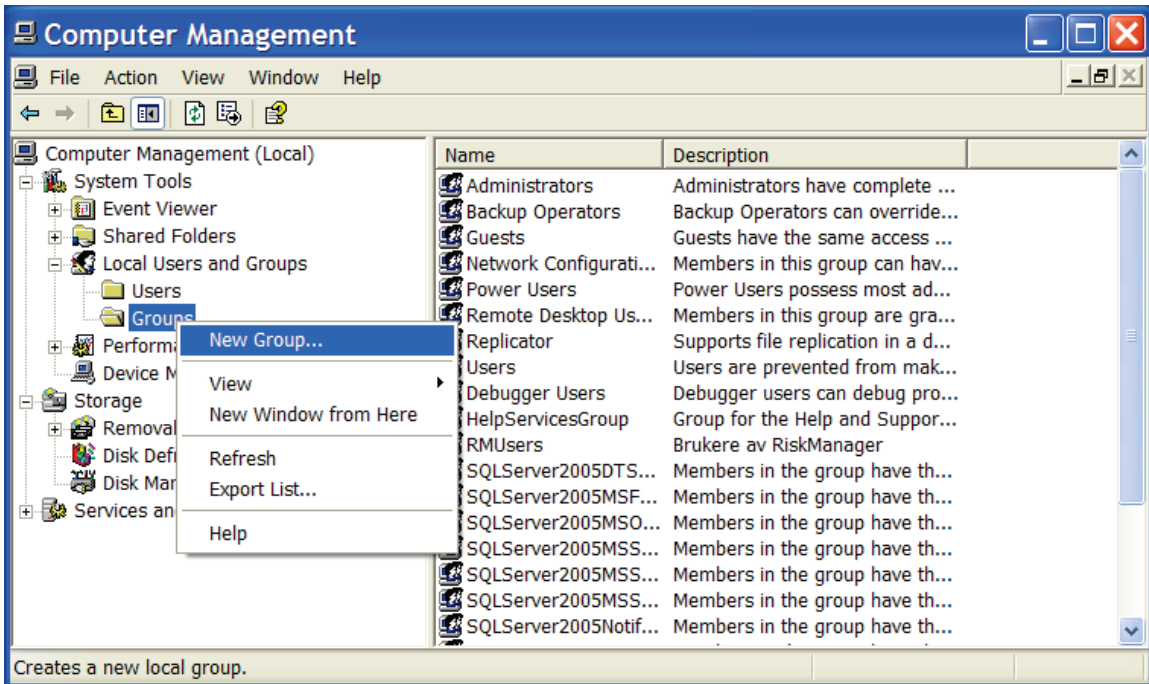


Figure 2: Select "New Group..."

In the “New Group” dialog, give a name for the user group, in example “ShipWeightUsers” (and optionally a description for this group), then use the “Add...” button to select the users which should belong to the group.

In the “Select Users” dialog, use “Advanced...” to get a dialog to search up right user names. See figure 3, 4 and 5 on the next pages.

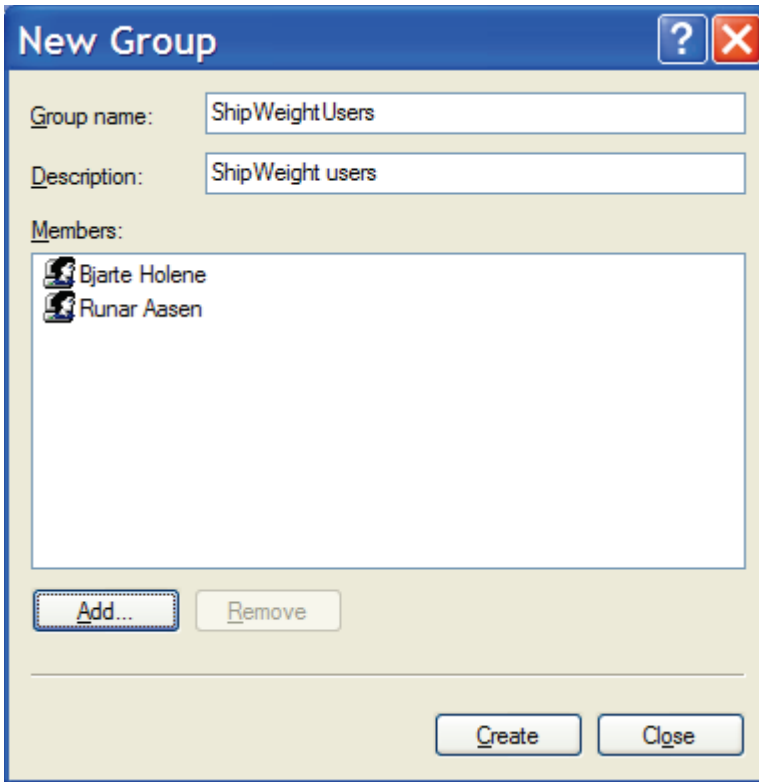


Figure 3: The "New Group" dialog

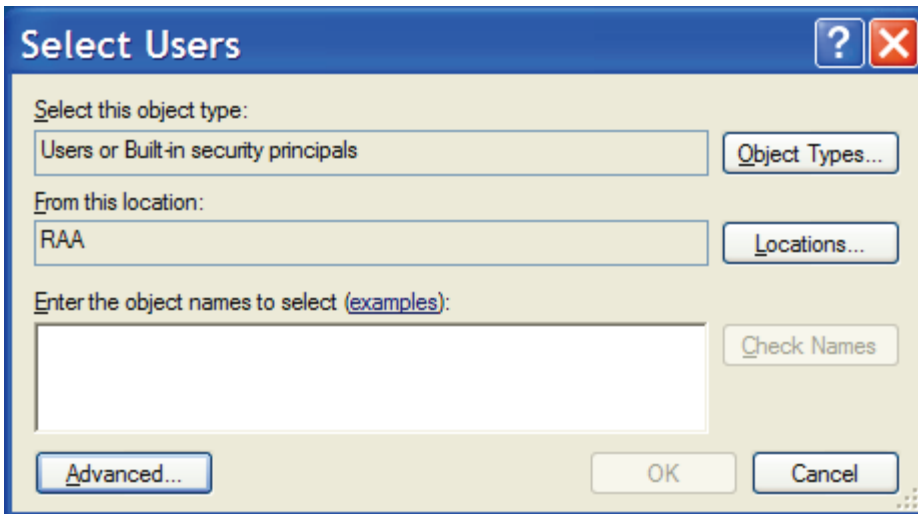


Figure 4: The "Select Users" dialog

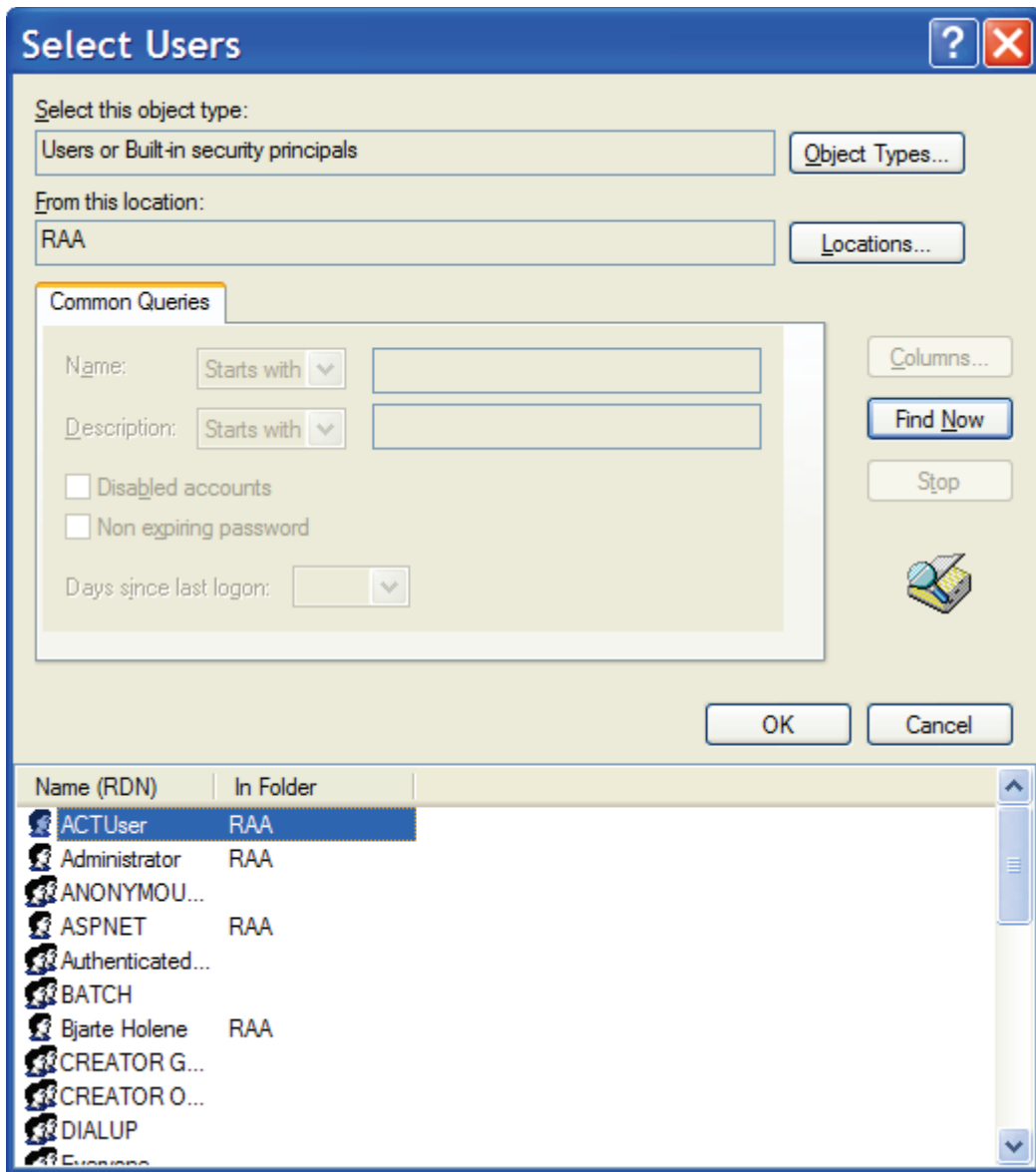


Figure 5: Searching for users ("Advanced..." button)

When you added the users to the "New Group" dialog, click the "Create" button in this dialog and you are done.

ADDING THE USER GROUP TO THE SQL SERVER

ADDING THE USER GROUP USING THE SQL SERVER 2005 MANAGEMENT STUDIO

Start “Microsoft SQL Server Management Studio”. Expand the SQL Instance and the “Security” folder so you can see the “Logins” folder. Right click the “Logins” folder and select “New Login...” from the submenu.

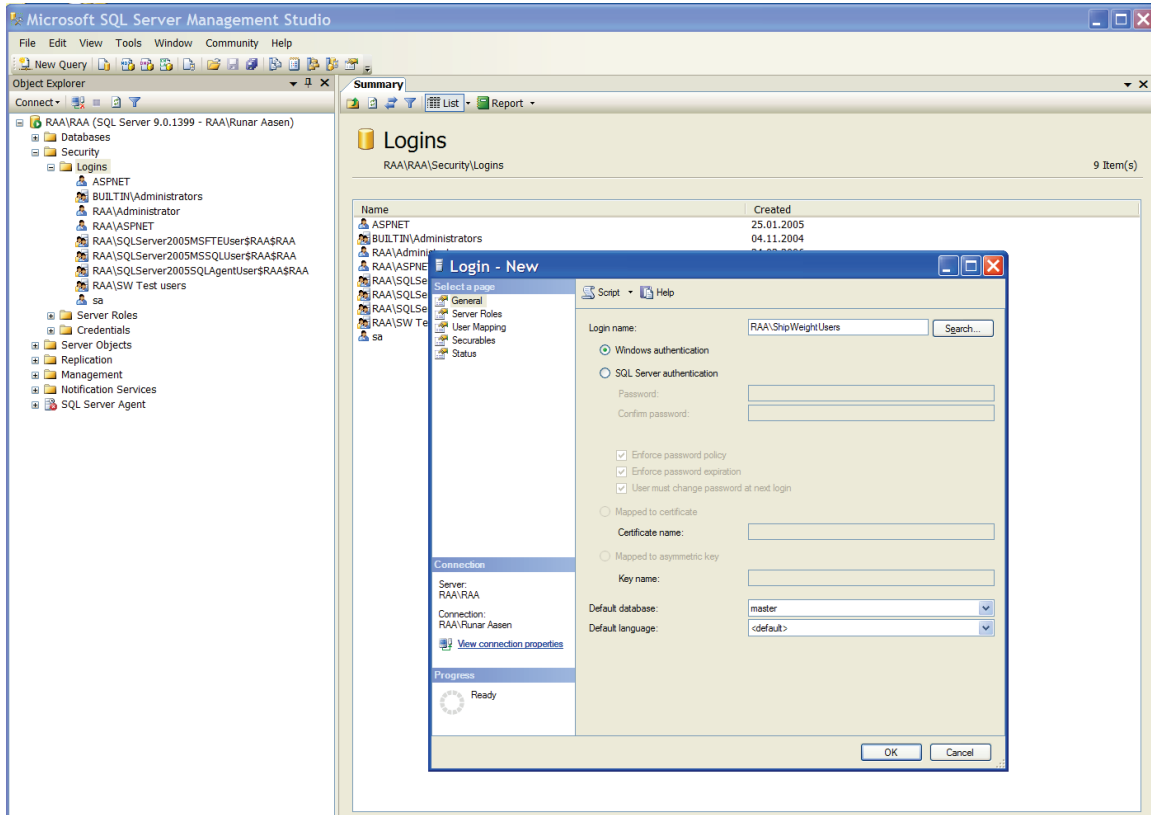


Figure 6: "Login - New" dialog

In the “Login name” editbox, write the complete domain name of the windows user group you want to give access to the ShipWeight databases. In this example, the domain name is RAA and the user group was called “ShipWeightUsers”, so the login name is RAA\ShipWeightUsers.

You can use the “Search...” button to find the user group, but remember to include “Groups” as an object you will be searching for by clicking the “Object Types...” button in the “Select User or Group” dialog. See figure 7 and 8 on next page.

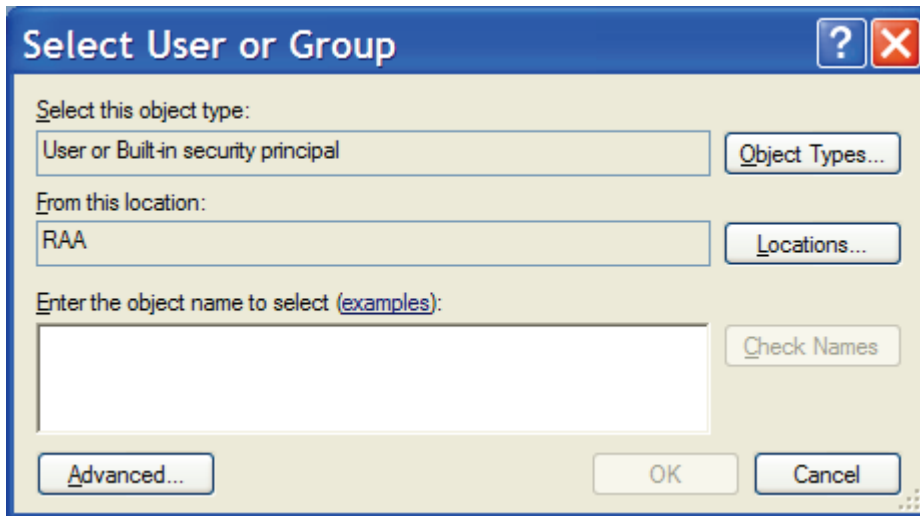


Figure 7: "Select User or Group" dialog

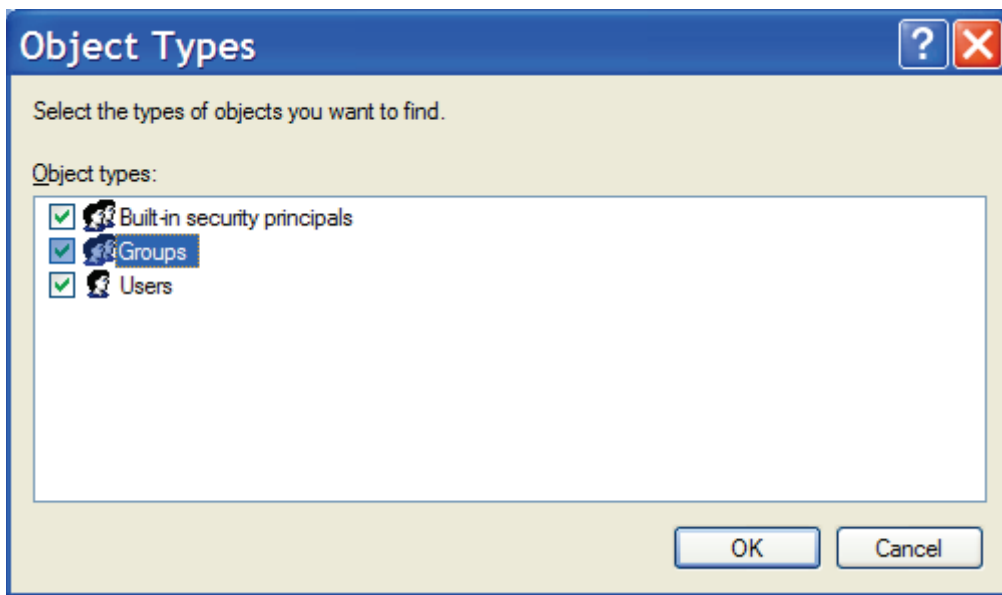


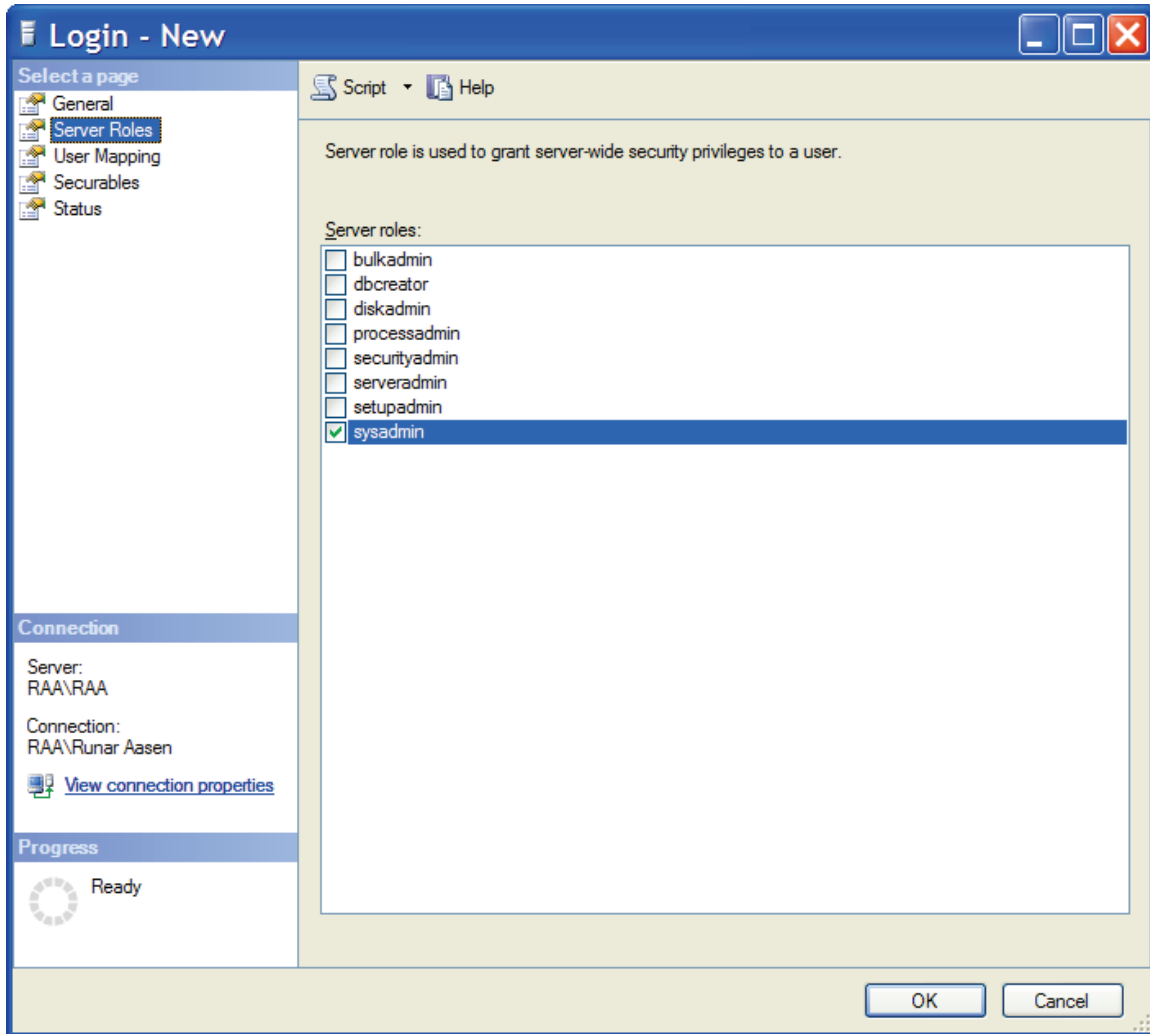
Figure 8: "Object Types" dialog - make sure to check Groups box

Then back in the "Select User or Group" dialog, click the "Advanced..." button to make a search for the user group.

When the name of the user group is in place you are ready to map up permissions for the user group.

SETTING UP THE USER GROUP WITH SYSADMIN PERMISSIONS

If the SQL Server instance is solely for the purpose of ShipWeight and it may be considered whether the user group can have a “sysadmin” server role. In this case, select “Server Roles” page in the dialog and check the “sysadmin” box.



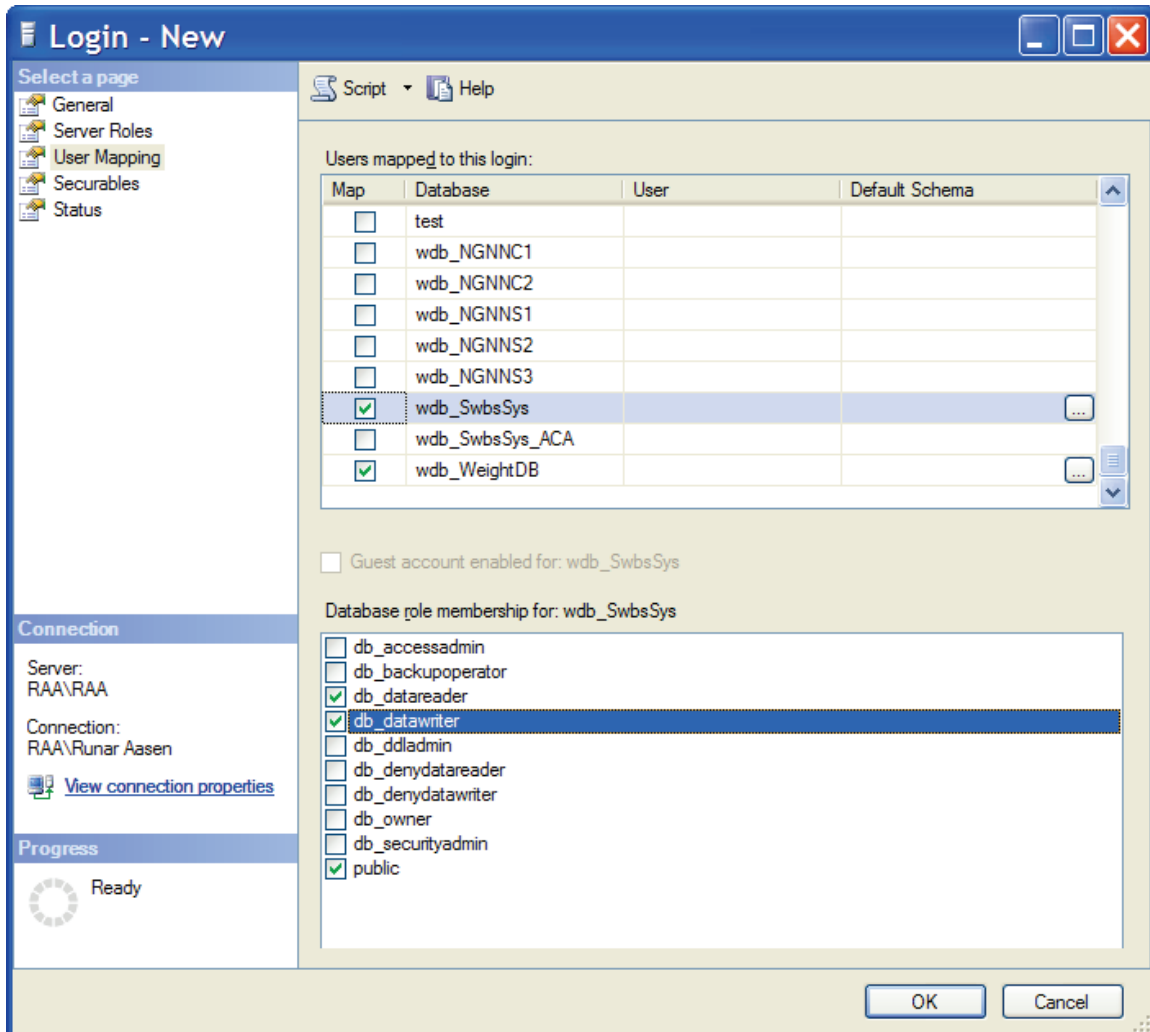
In this case you are done and can click “OK” button to create the user group. The user group is now added and ready for ShipWeight.

SETTING UP THE USER GROUP WITH MINIMUM PERMISSIONS

If it is not desired to give the user group Sysadmin permissions, the minimum server roles is “dbcreator” which will enable the users to create new ShipWeight projects and in addition the following databases must have “db_datawriter” and “db_datareader” for the following databases:

- SWLogin
- sdb_Demo
- sdb_ShipDb
- SWSsystem

Select the “User Mapping” page and check the necessary permission for each of the database.



If the minimum permission selected and a ShipWeight user is creating a new ShipWeight project database, by default only this user can access this database. To enable other ShipWeight users to access this database, permissions “db_datawriter” and “db_datareader” must be set for the user group in the “User Mapping” for this project as well as the log project (the log project is named <project>_log).

To make these permissions default for the user group for any new projects created even with minimum permission set, a few lines must be added to the files creating new ShipWeight projects.

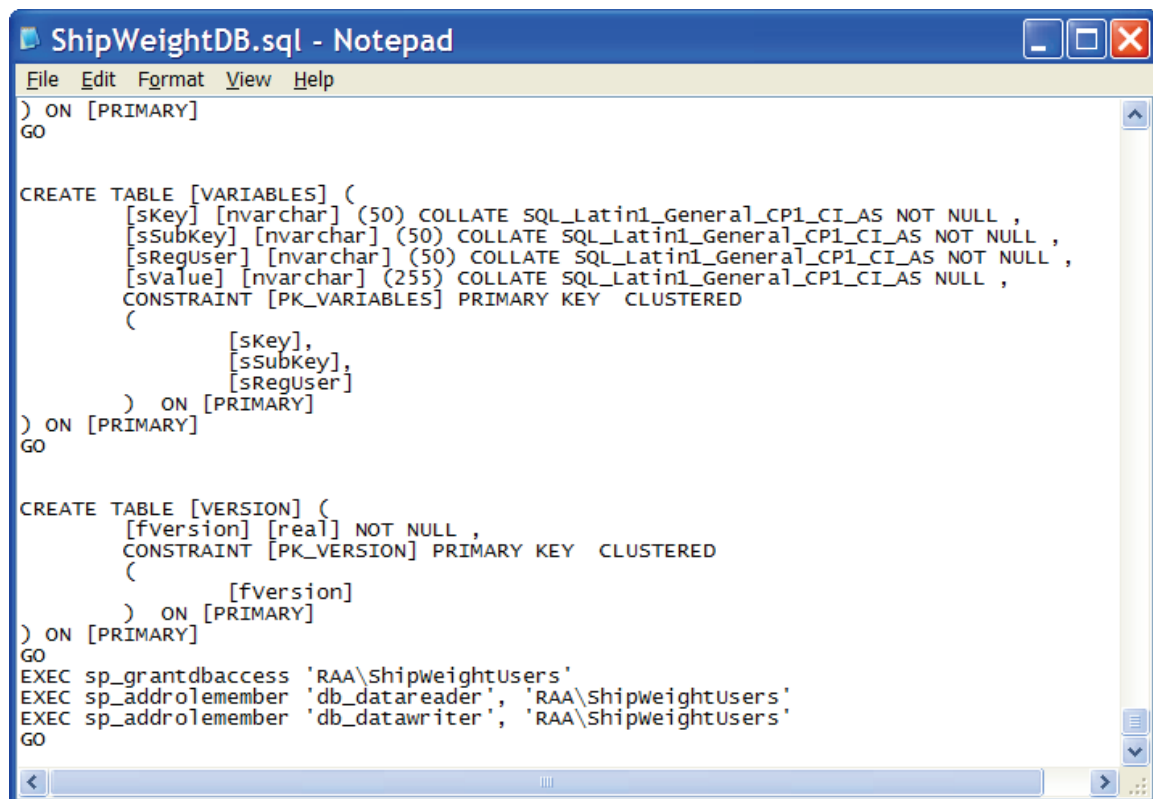
The two files to be edited are “ShipWeightDB.sql” and “ShipWeightDB_Log.sql” and is found in the ShipWeight folder at the client machine. Open the files in Notepad or similar and at the end of these files to add these lines. If the user group name is RAA\ShipWeightUsers the lines would look like this:

```
EXEC sp_grantdbaccess 'RAA\ShipWeightUsers'
```

```
EXEC sp_addrolemember 'db_datareader', 'RAA\ShipWeightUsers'
```

```
EXEC sp_addrolemember 'db_datawriter', 'RAA\ShipWeightUsers'
```

```
GO
```



```
ShipWeightDB.sql - Notepad
File Edit Format View Help
) ON [PRIMARY]
GO

CREATE TABLE [VARIABLES] (
    [skey] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [sSubKey] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [sRegUser] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [sValue] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    CONSTRAINT [PK_VARIABLES] PRIMARY KEY CLUSTERED
    (
        [skey],
        [sSubKey],
        [sRegUser]
    ) ON [PRIMARY]
) ON [PRIMARY]
GO

CREATE TABLE [VERSION] (
    [fversion] [real] NOT NULL ,
    CONSTRAINT [PK_VERSION] PRIMARY KEY CLUSTERED
    (
        [fversion]
    ) ON [PRIMARY]
) ON [PRIMARY]
GO
EXEC sp_grantdbaccess 'RAA\ShipWeightUsers'
EXEC sp_addrolemember 'db_datareader', 'RAA\ShipWeightUsers'
EXEC sp_addrolemember 'db_datawriter', 'RAA\ShipWeightUsers'
GO
```

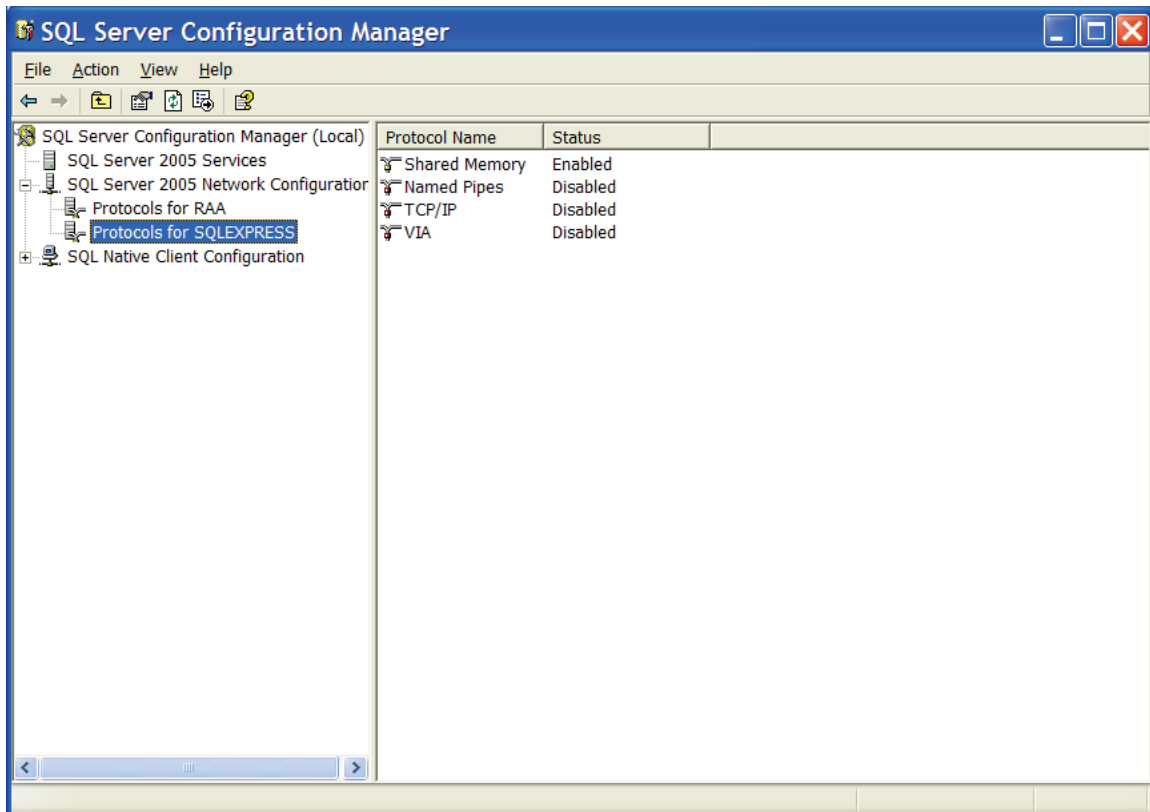
Figure 9: Showing the permission lines added to ShipWeightDB.sql

ENABLING TCP/IP PROTOCOLS FOR SQL EXPRESS

SQL SERVER CONFIGURATION MANAGER

The SQL Server Configuration Manager is a graphical tool that is automatically installed with SQL Server Express to enable you to manage many aspects of your SQL Server installation, such as services, network configuration, and more.

Start the SQL Server Configuration Manager from the Configuration Tools group of the SQL Server Express group and expand the “SQL Server Network Configuration” and select “Protocols for SQLEXPRESS”.



The default protocols for SQL Server Express edition are:

Shared Memory - Secure way for a client to access a SQL Server on the same computer. Shared Memory is enabled by default and cannot be used when accessing SQL Server from across the network.

Named Pipes - Allows a client to connect to SQL Server by using any of a number of different protocols. The actual protocol used is dictated by the client application by indicating the path, or *pipe*, needed to access the server. Because of potential security risks, only **local Named Pipes** is enabled by default. If you want to use the **Named Pipes** protocol from a remote machine, you'll have to enable this in the **SQL Server Surface Area Configuration** manager

TCP/IP - Standard Ethernet protocol that enables a client application to access a specific SQL Server instance using its IP address. Because of potential security risks, **TCP/IP** is disabled by default.

VIA - Stands for Virtual Interface Architecture and is a network protocol that is used in high-speed networks. VIA is not available in SQL Server Express.

To enable or disable any of the protocols (except VIA), simply right-click the desired protocol name and select **Enable** or **Disable** as desired. If a protocol is enabled, a client application will be able to connect to SQL Server 2005 Express by using that protocol.

For further information on setting up users, database backup or other SQL questions, please do not hesitate to contact BAS engineering – support@shipweight.com