CLIPSAL

by Schneider Electric

DALIBuildings Installation

DALI programming guide

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Contents

1.0 Requirements for DALIBuildings

DALIBuildings is a Microsoft Windows based DALI commissioning software. It requires a Microsoft SQL Server to store project and DALI system operation details.

1.1 Hardware Requirements

- CPU Speed
- Minimum: 1.0GHz
- Recommended: 2.0GHz or faster
- RAM
- Minimum: 512MB
- Recommended: 1G or above
- Hard drive space: 2GB
- Installation File Download Size
- Standalone: 5.4 MB
- Full (with Microsoft SQL Server 2008 R2 Express)
- DALIBuildings Installation
- Microsoft SQL Server 2008 R2 Express

(ID 21262.1)

1.2 Software Requirements

- Operating Systems
- Microsoft® Windows XP®
- Microsoft® Windows® 7
- Microsoft® Windows® 8
- Database
- Microsoft SQL Server 2008 R2 Express

(ID 21263.1)

1.3 Installation File Versions

There are two versions of the installation files for new versions with an existing database and completely new installation, which requires a SQL Server installation.

Software only installation

- [2.0.5] DCBMDALIBuildings.exe

Software with Microsoft SQL Server 2008 R2 Express installation bundle

- [2.0.5] DCBMDALIBuildings with SQL Server.exe

1.4 Licencing

The licencing of DALIBuildings is based on the number of Line Controllers which the software is controlling.

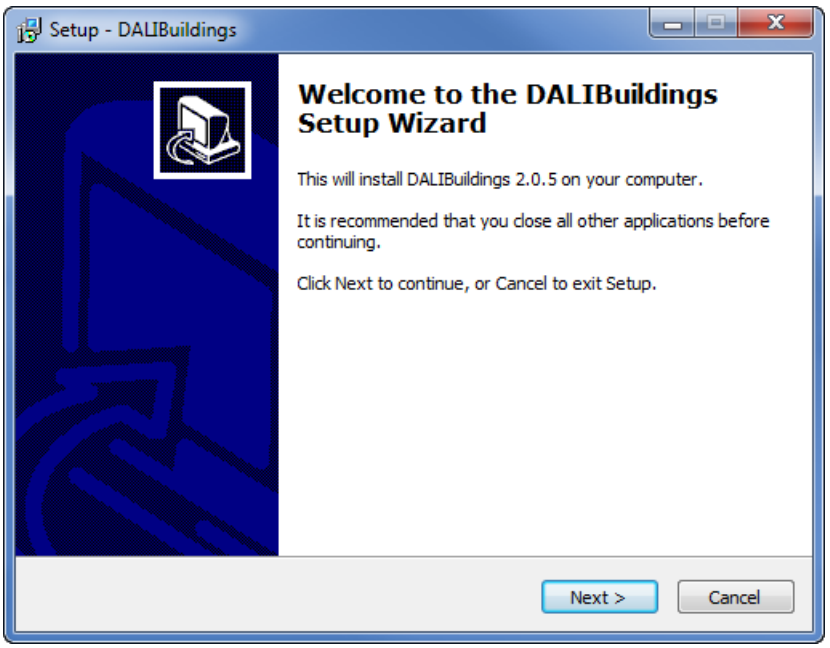
The *DALIcontrol http://www.dalicontrol.com/home* website contains general information about DALI products. For information on dongles and licensing related to DALIBuildings, see following web page: *DALIcontrol products page http://www.dalicontrol.com/dali_control_products*.

2.0 DALIBuildings installation procedure

The installation instructions below are based on the full installation of DALIBuildings with the Microsoft SQL Server 2008 R2 Express bundle.

1. Launch the DALIBUILDINGS WITH SQL SERVER.EXE file
2. You may be prompted with a security warning as shown below. Click the RUN button.
3. Once the setup wizard has been launched, click the NEXT button.

Figure 1: Setup Installation Wizard welcome page



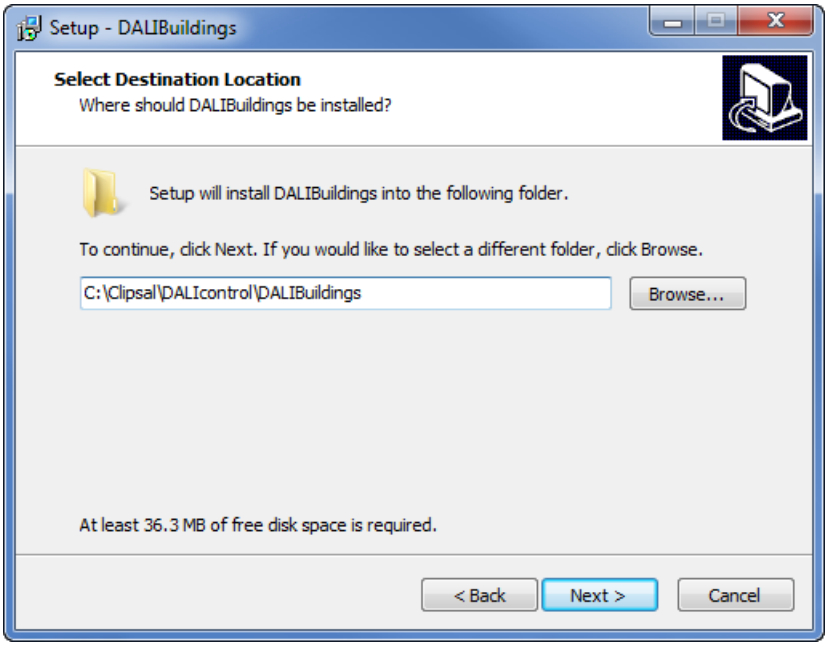
Important: Please save all your work and close all other applications as you may be required to restart your computer at the end of the installation.

4. Read the Licence Agreement and click the I ACCEPT THE AGREEMENT radio button and then click the NEXT button.

Figure 2: Software licence agreement

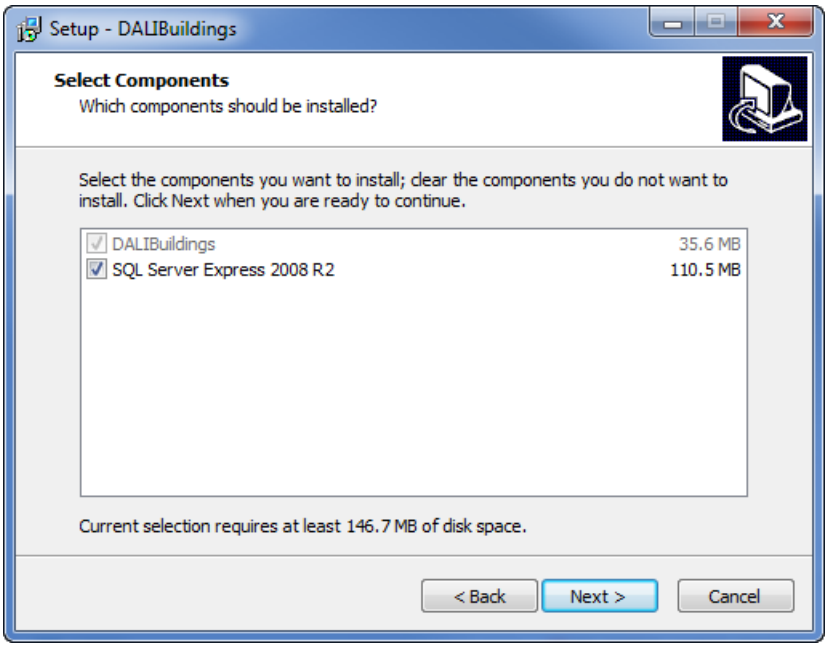
5 Specify the destination folder to install DALIBUILDINGS Application. You may use the default installation folder or click the BROWSE button to specify your desired installation folder. Click the NEXT button when ready.

Figure 3: Software installation destination folder



6 Next you will be given an option to install the full version with Microsoft SQL Server or just the standalone version. By default the full version is selected. Click the NEXT button when ready.

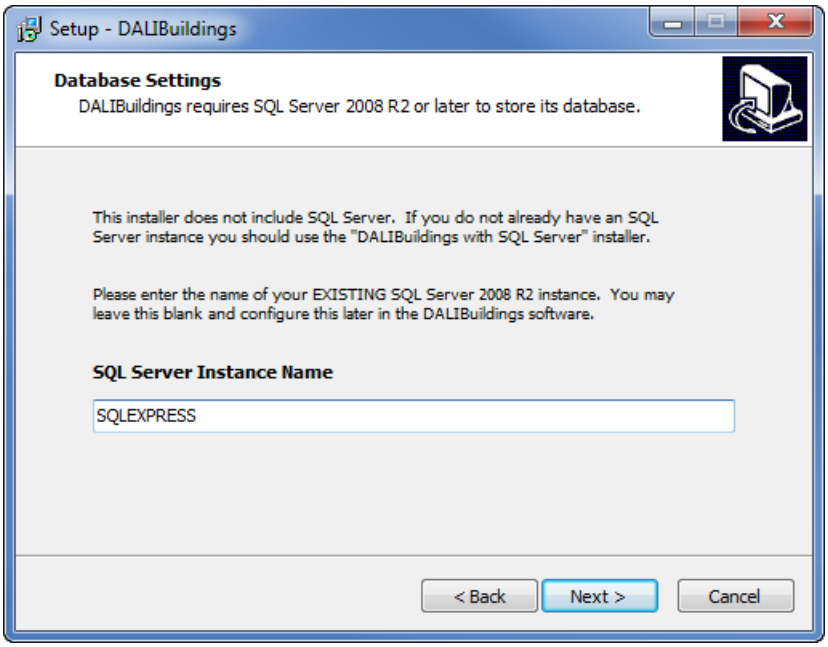
Figure 4: Select Components



Note: Should you have an existing Microsoft SQL Server 2008 R2 Express installation on your computer you may select the standalone version.

7 Next you will be prompted to specify the SQL Server Instance Name. By default it is set to SQLEXPRESS. However you can change it to your desired name. Click the NEXT button when ready.

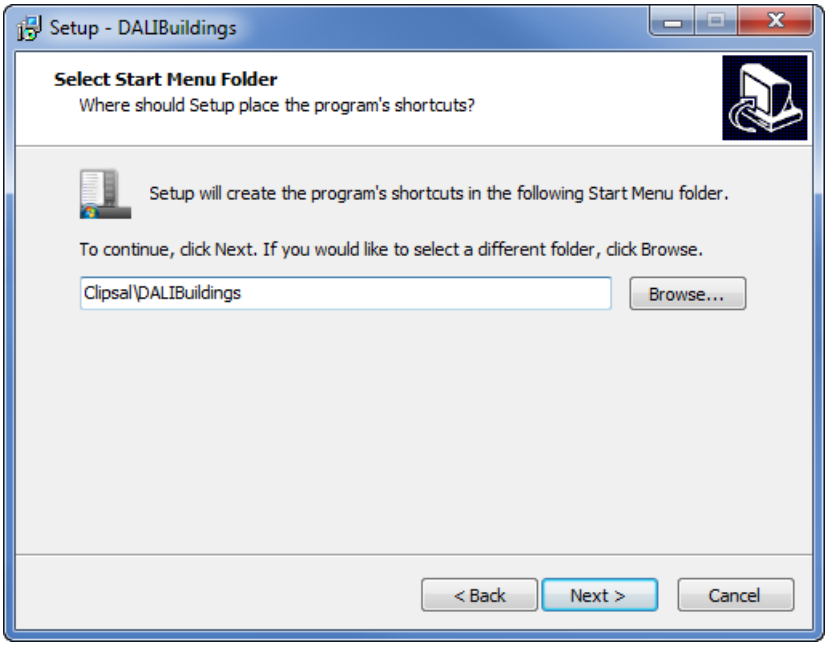
Figure 5: SQL Server instance name



8 Next you will be prompted to specify the START MENU path for the DALIcontrol shortcut. By default it is set to: `Clipsal\DALIcontrol`.

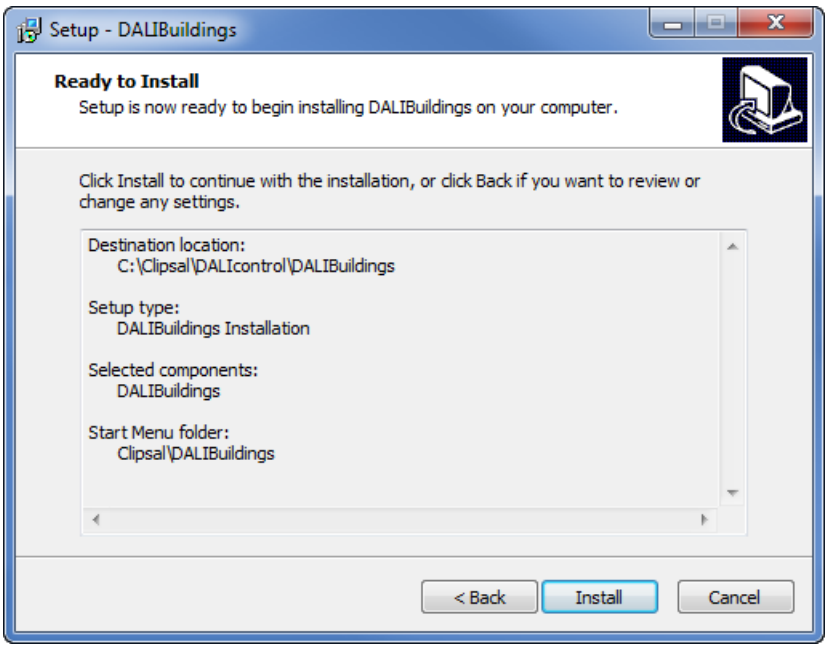
You may click the BROWSE button to specify your desired start menu path. Click the NEXT button when ready.

Figure 6: Select start menu folder



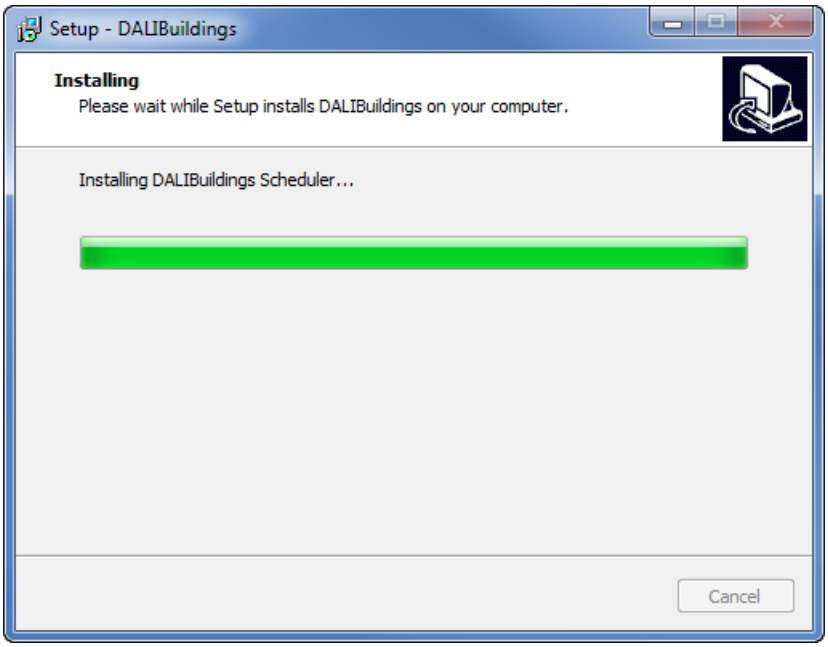
9 Review your installation option and click the INSTALL button when ready.

Figure 7: Review installation options



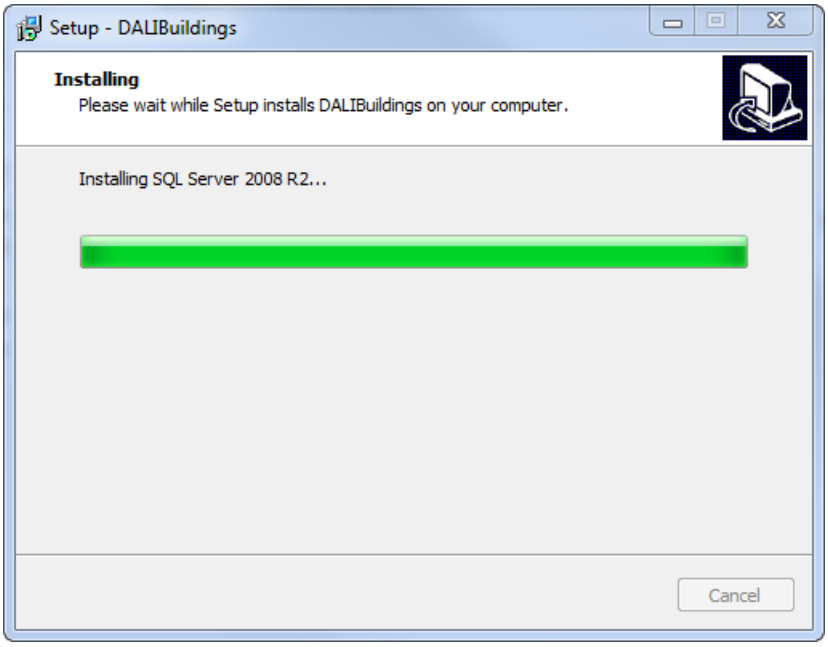
10 Click the OK button when ready and installation will commence.

Figure 8: Software Installing



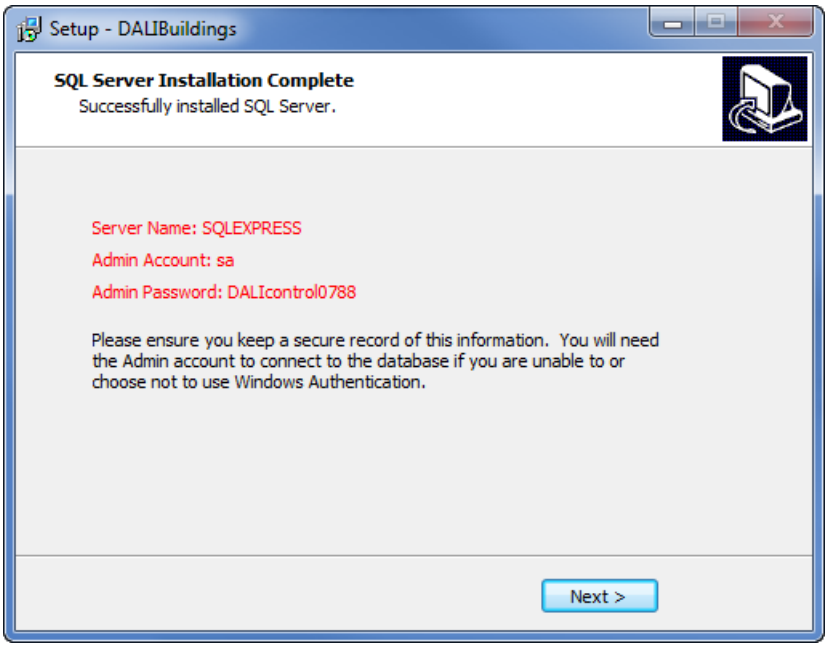
11 During the installation, you will see a few prompts related to the Microsoft SQL Server installation. Do not interrupt the installation.

Figure 9: Installation of SQL Server



12 The Microsoft SQL Server installation is an automated process. Depending on your computer capability, the installation may take between 15 to 30 minutes to complete.

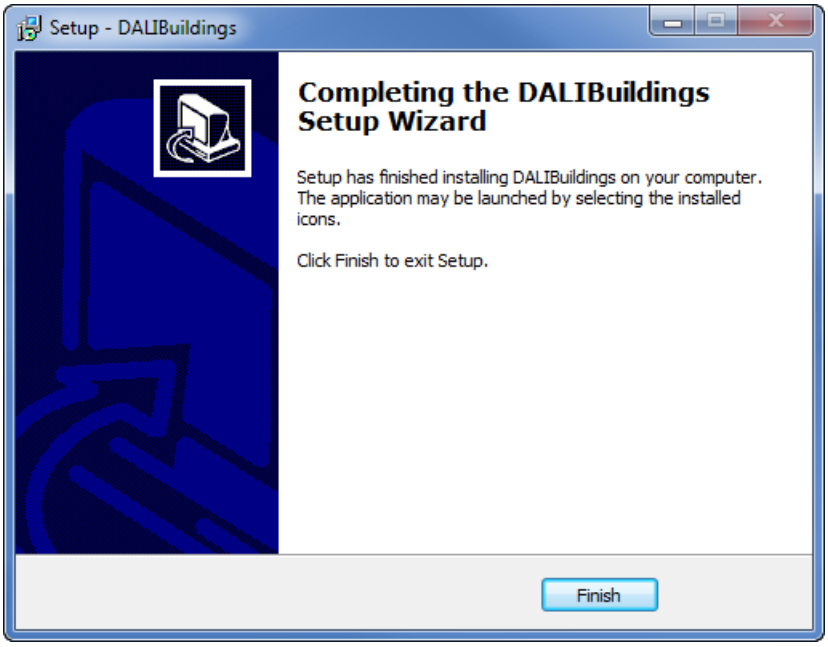
Figure 10: SQL Server installation complete



Tip: Now may be a good time to make yourself a cup of tea or coffee and sit back, relax and wait for the completion of the installation.

13 Once the installation is completed you may be prompted to restart your computer. You may choose to restart your computer later if you needed. Click the desired radio button option and click the FINISH button when ready.

Figure 11: Installation complete



14 Congratulations you have successfully installed DALIBuildings on your computer.

3.0 Running DALIBuildings for the first time

DALIBuildings is designed to be used *straight out of the box*. What this means is that you can set up DALIBuildings without either a specific DALI network, without a prior DALIcontrol database or projects.

Creating a database for DALIcontrol projects

DALIBuildings requires an SQL database into which DALI project configuration and programming are stored. The *Creating a New Database* (on page 11) procedure provides steps to build an database on the SQL Server.

Reusing existing projects from the DCBM suite

If you want to migrate from the previous DCBM suite, DALIBuildings consolidates the SQL databases which were stored to retain DALI configuration and programming details. The *Importing Data* (on page 15) procedure provides steps for importing DALIcontrol databases.

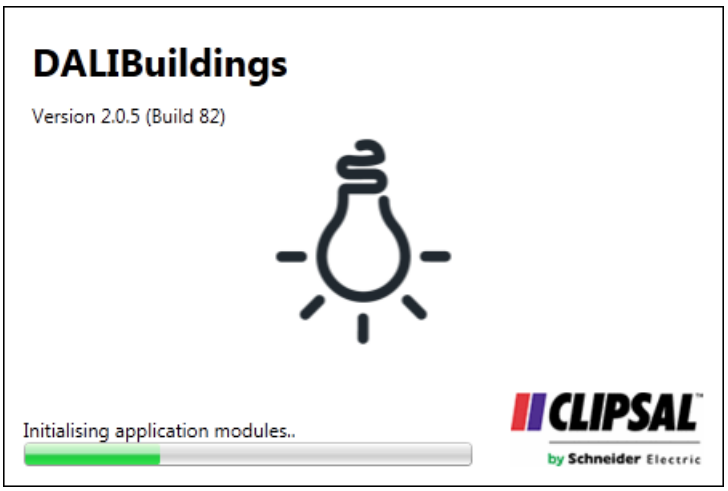
Discovering Line Controllers on DALI systems

After setting up the DALIBuildings databases, it is now possible to query a DALI system to find (*discover*) Line Controllers. DALIBuildings uses DALI queries to locate and import Line Controller details into the database. The *Discovering a DALIBuildings* (on page 18) procedure duplicates any controller data from an existing Line Controller to DALIBuildings.

3.1 Creating a New Database

1 To launch DALIBuildings, go to your START MENU CLIPSAL > DALIcontrol > DALIBuildings. You will then see a splash screen as shown below.

Figure 12: DALIBuildings splash screen

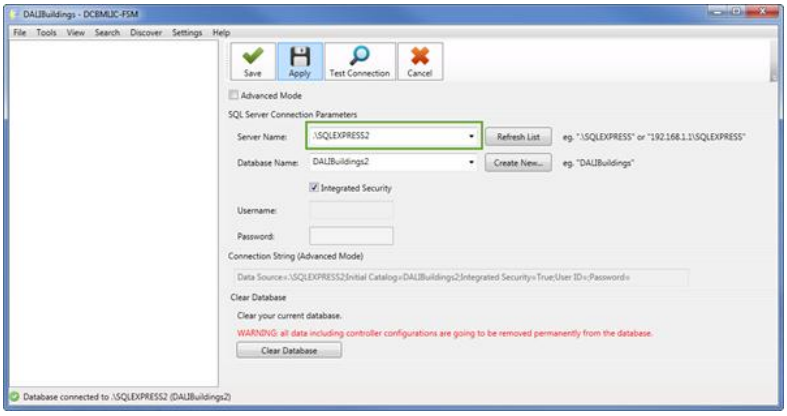


2 Once the application has been loaded, you will be prompted with an error message *Failed to load database. Please test your connection*. as shown below. Click the OK button when ready.

Note: You are getting this error message when launching DALIBuildings for the first time as there is no database created yet.

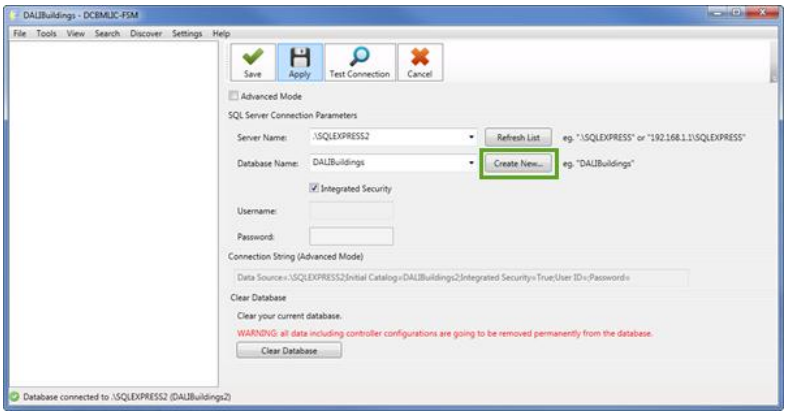
3 If you have more than 1 SQL Server Instance Name on your computer and the current server name displayed is not the SQL Server Instance Name that you have specified during the installation, click the drop down list and select the correct SQL Server Instance Name.

Figure 13: Selecting SQL Server name



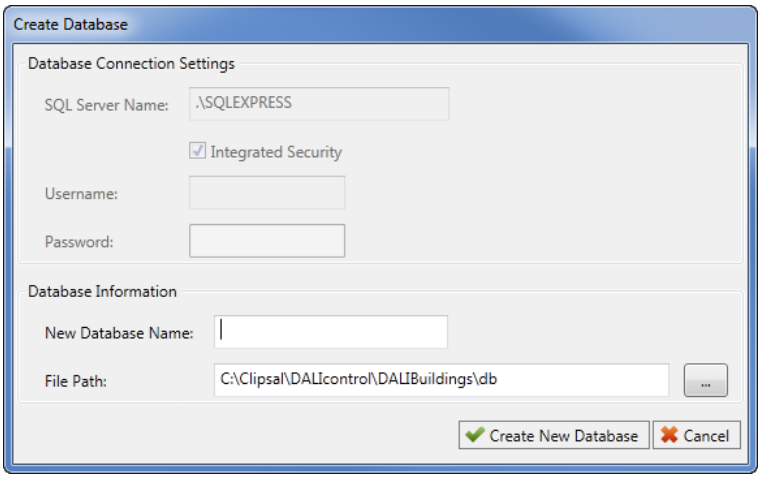
4 Next click the CREATE NEW DATABASE button

Figure 14: Create new database



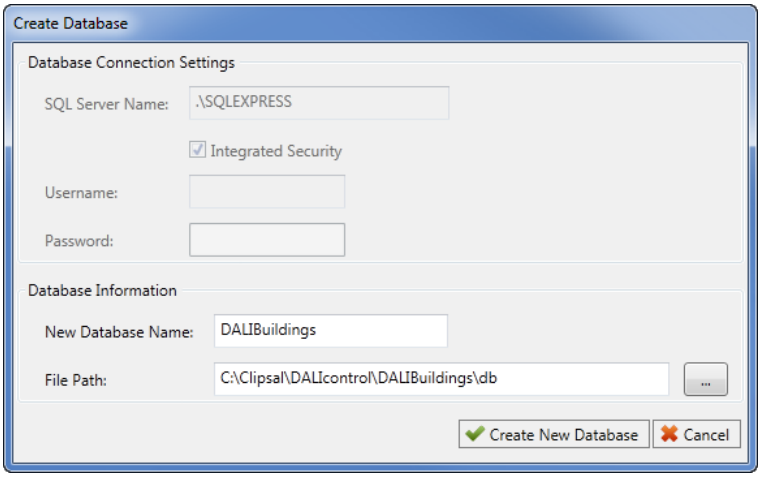
5 Enter the desired name for the new database. This could be the name for your project. You may have multiple projects databases created on the same SQL Server.

Figure 15: Specify new database



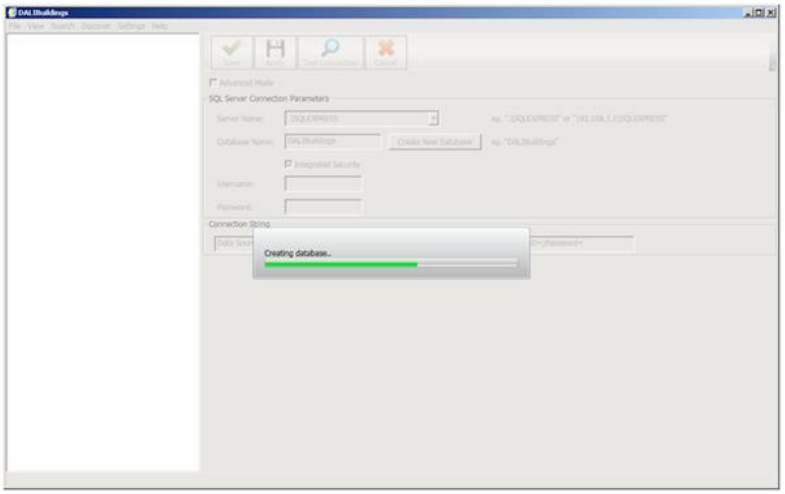
6 The example below uses the DALIBuildings database name. Click CREATE NEW DATABASE button when ready.

Figure 16: Execute Create New Database

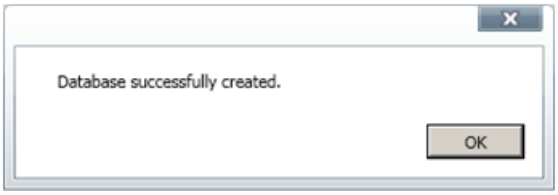


7 Your new database will now be created.

Figure 17: Creating New Database

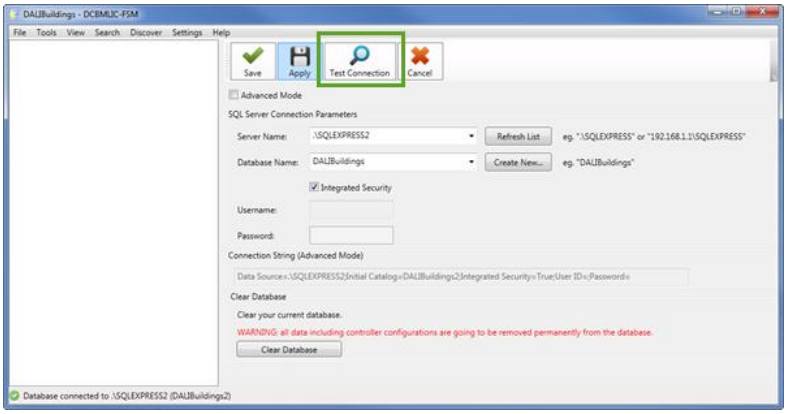


8 When the database creation is complete, you will be prompted with a message as shown below.

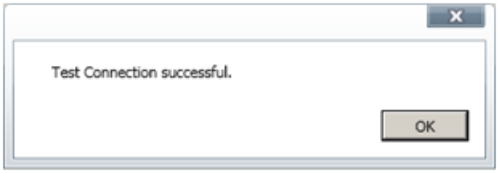


9 After the database has been created, you can verify the connection by clicking the TEST CONNECTION button as shown below.

Figure 18: Test database connection

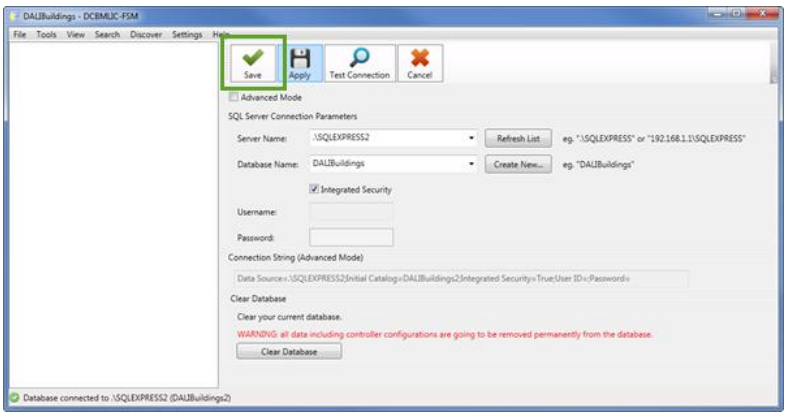


10 If the connection verification is successful you will see a TEST CONNECTION SUCCESSFUL message. Click the OK button when ready.



11 Finally you can save the database connection settings by clicking on the SAVE button.

Figure 19: Save database connection settings



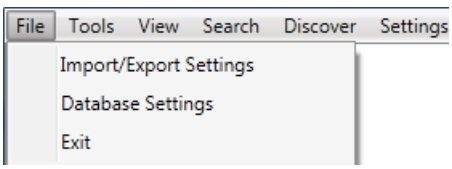
3.2 Importing Data

You may import your existing project data files (*.mdb files) into DALIBuildings or you can use a sample data file provided in the `<Installation Folder>\Sample Data` folder.

The procedure below provides an an example for importing data into DALIBuildings.

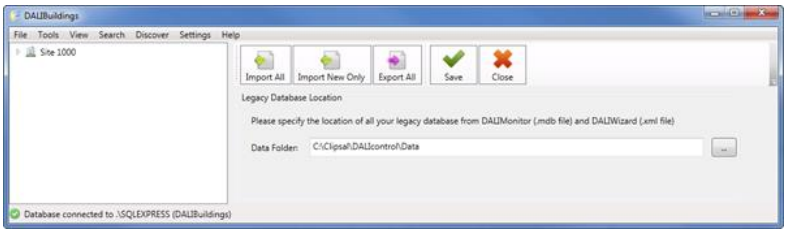
1 Click FILE menu > IMPORT/EXPORT SETTINGS option as shown in the graphic below.

Figure 20: Import/export details menu

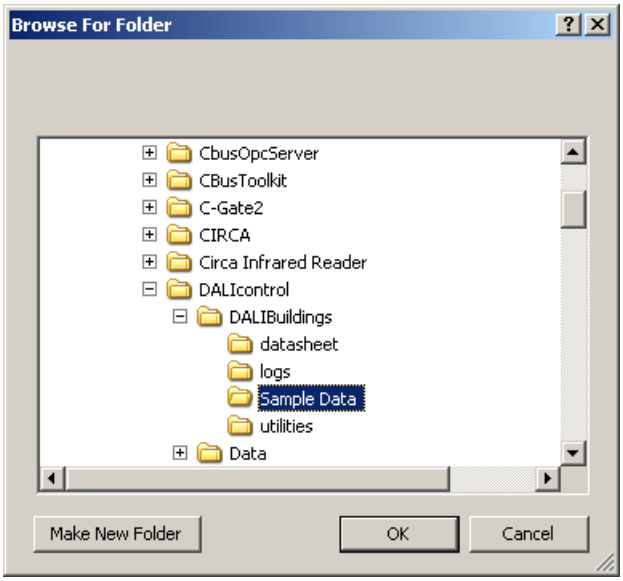


2 Click the LEGACY DATABASE LOCATION FILE BROWSE button in the dialog box below.

Figure 21: Import/Export All dialog box

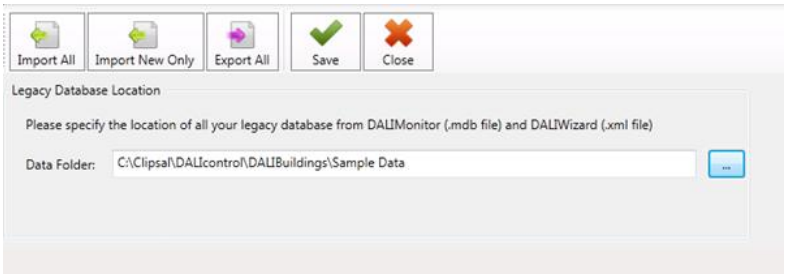


3 Browse to the `<Installation Folder>\Sample Data` folder as shown below and click the OK button.



4 Click the IMPORT ALL button.

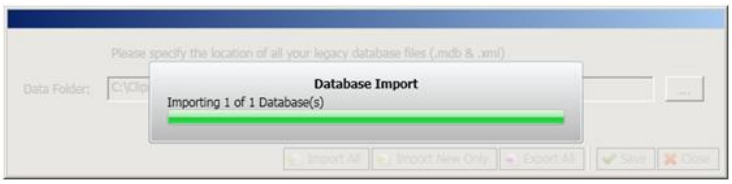
Figure 22: Import all button



Important: The IMPORT ALL option will erase all data from existing database and a warning message will be prompted to user for confirmation. Should you just need to append new data to the existing folder, please use the IMPORT NEW ONLY option.

5 Next you will see the progress of the data import with the number of databases imported.

Figure 23: Importing data

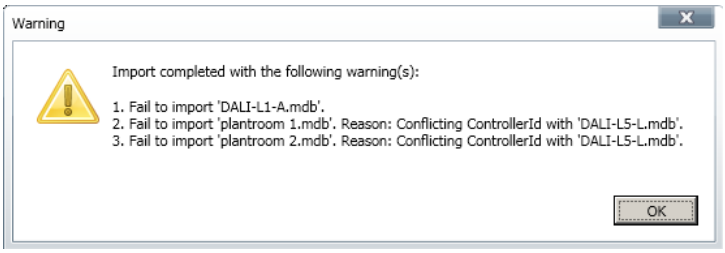


Important: Importing from large amount of database may take a while to complete. Please do not terminate the application while import is in progress.

6 A message box with the number of controller data imported will be displayed once the import is completed successfully. Click the OK button when ready.

Note: If the import process encounters any problem importing any data files, an error message will be displayed at the end of the import process as shown below.

Figure 24: Sample import warning message



3.3 Discovering Line Controllers

Should you have a Line Controllers connected to you computer network, you may use DALIBuildings to discover your Line Controllers. The DISCOVER menu has a list of options for carry out discovery operations. Below is a list of the Discover menu options:

- **All controllers:** This will query for all available Line Controllers on the network
- **Controllers in alarm**: This will only query for Line Controllers with alarm on the network.
- **Controllers without alarms:** This will only query for Line Controllers which is in good working condition / without alarms on the network.
- **Controllers on level:** This will allow user to query for Line Controllers with specific level information on the network. Selecting this option will result in a dialog window open allowing user to specify the levels to query (Level -20 to 235 inclusive of ground level).
- **Target Address:** On large sites it is sometimes difficult to *find* all the Line Controllers, if user knows the address of the Line Controllers that needs editing, this type of search is much more reliable. This search method will also work where network broadcasts are blocked. The DALIBuildings sends a Unicast message to each Line Controllers in the search IP address range, the Line Controllers records the source address and replies back to the host computer via Unicast communication. If the end address is less than the start address then only the start address is polled.

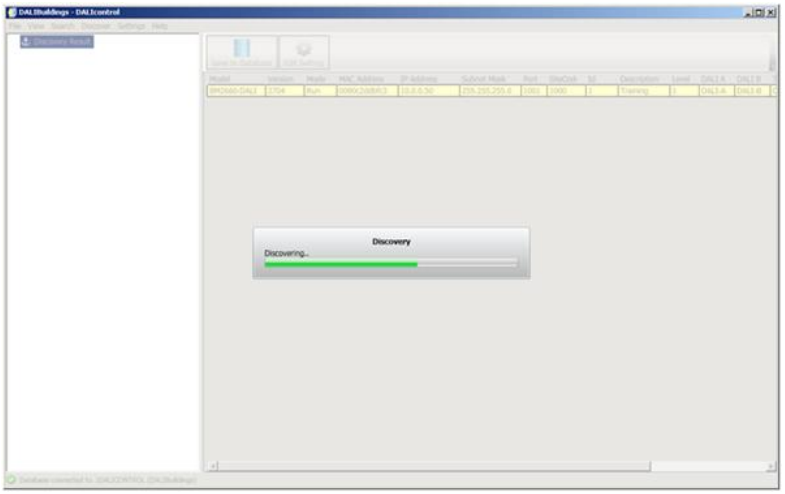
To discover the ECG, follow the procedure below:

1 Click the DISCOVER menu and you can select from the multiple discovery options. See below for discover options explanations.

Figure 25: DALIcontrol Line Controller Discovery menu options

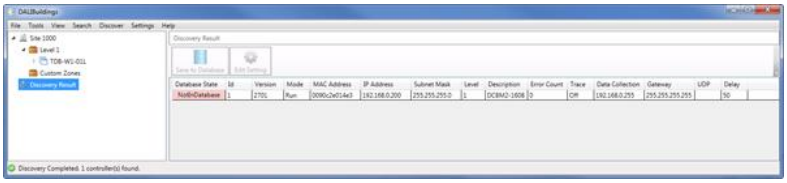
2 Select the ALL CONTROLLERS option and the discovery process will commence.

Figure 26: DALIcontrol Controller discovery progress



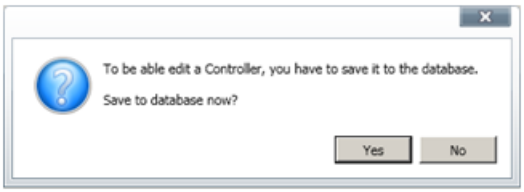
3 Once the discovery is completed, Line Controllers found will be displayed in the result window.

Figure 27: Controller discovery result



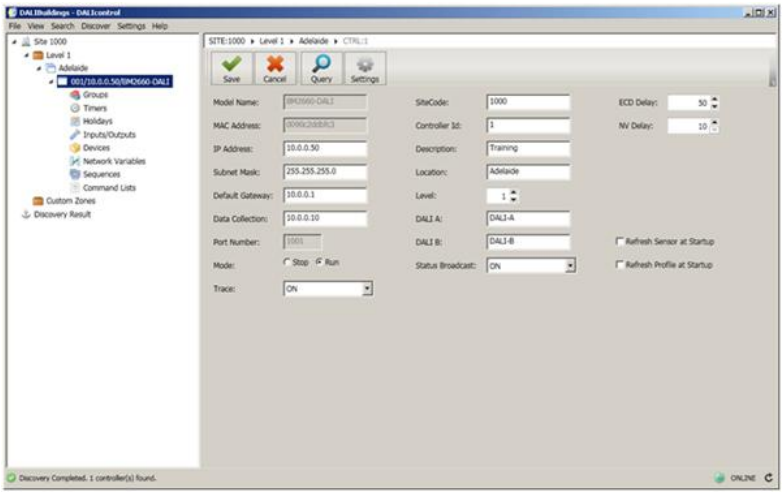
4 Should you click the EDIT SETTING button for a new Line Controller that has not been saved into the database, you will receive a message requiring you to save the data to database prior to editing the Line Controller setting. Click the YES button when ready.

Figure 28: Save new controller setting into database



5 Once the entry is saved into the database, you will be presented with the Line Controller setting page.

Figure 29: Controller setting page

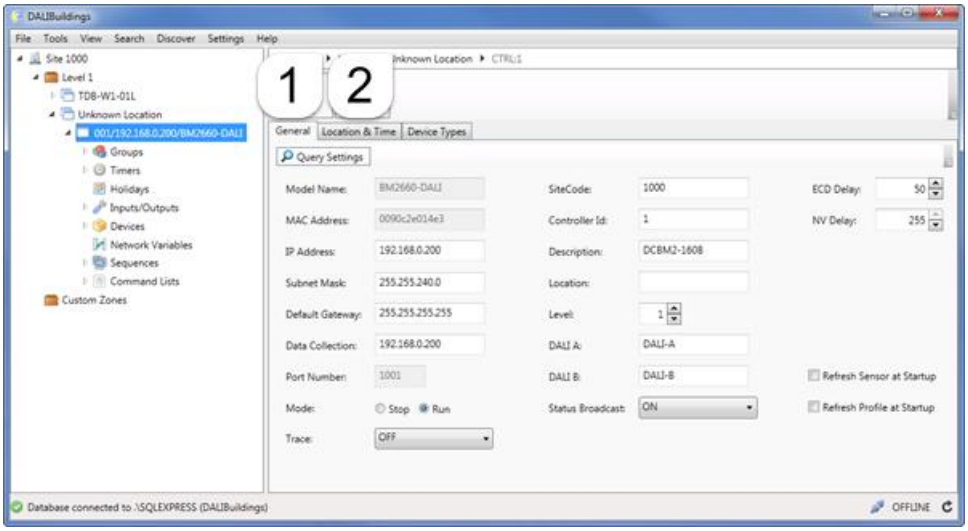


Note: Depending on the firmware version of the Line Controller detected, only the applicable parameters will be loaded.

3.4 Setting up the Line Controller

Each controller must be defined in terms of its Ethernet connection. In addition, the Line Controller can be configured for location and time zone as well as the device type descriptions which reside on its DALI network. The graphic below displays the LINE CONTROLLER NODE. It contains important parameters for defining its position within an Ethernet network within the GENERAL tab (1) as well as location and temporal (2) details within the LOCATION AND TIME tab.

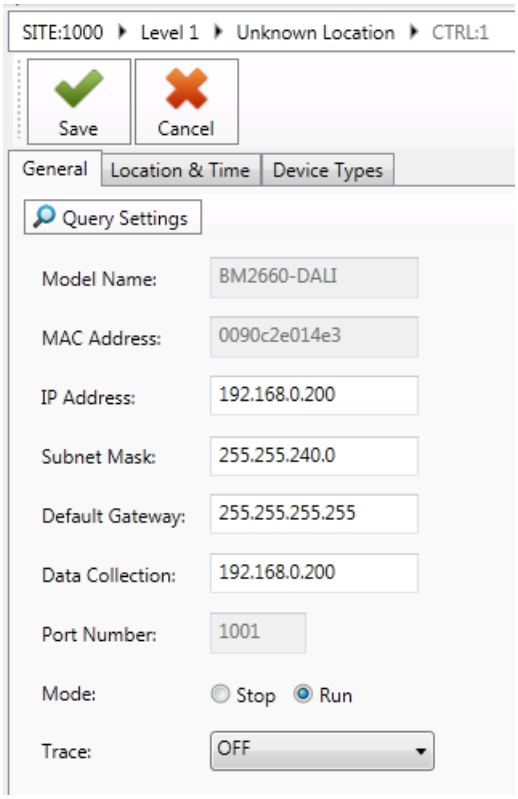
Figure 30: Controller node General tab



Defining the Line Controller Ethernet address

The location of the Line Controller is determined by the IP address and the port number. This combination provides the Ethernet socket which allows DALIBuildings to connect to the Line Controller. The allocation of Ethernet IP addresses is usually the domain of your IT support personnel. The GENERAL tab contains the main Ethernet configuration parameters for the Line Controller. The IP address in combination with the port number produces the socket connection, the unique address where the Line Controller can be located.

Figure 31: Ethernet address parameters



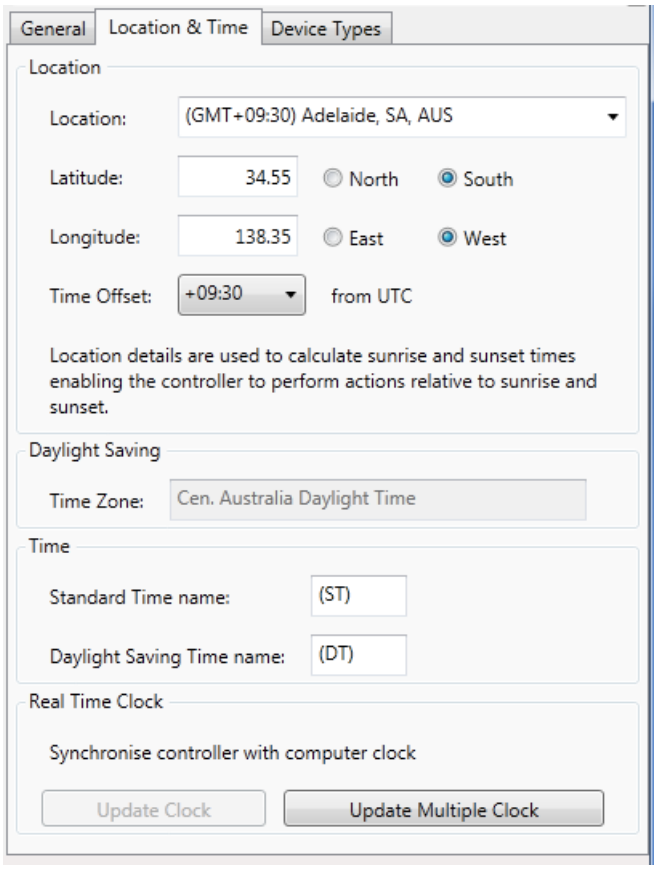
Contacting IT for Ethernet configuration details

The IP address and other details such as the gateway address is supplied by the Building Management System Administrator. Contact them for the unique IP address, etd.

Setting up location and timing information details for the Line Controller

The Line Controller can be configured to operate within a specific location and time zone. It is important to set these parameters because time and date data from the Line Controller is incorporated into system logs and reports. The graphic below displays the location and time configuration details within the LOCATION AND TIME tab.

Figure 32: Controller node > Location and time tab



Setting the location and time for the Line Controller

To set the location, date and time for a Line Controller, follow the procedure below:

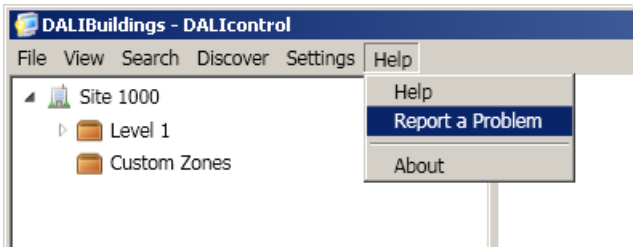
1. Locate Line Controller node in the tree view. The window and toolbar for this node appears
2. Click the LOCATION & TIME tab in the Line Controller node
3. Use the LOCATION drop down list to find a city within the world which best fits the location of the Line Controller
4. Use the LATITUDE and LATITUDE fields to adjust the geographical coordinates of the Line Controller more precisely
5. Use the TIME OFFSET drop down list to apply any time offset by a half hour or more.

3.5 Reporting a Problem

Should you encounter any problem with the DALIBuildings, the software may trigger a PROBLEM REPORTING module or you can manually initiate the process. To report a problem, please follow the steps below:

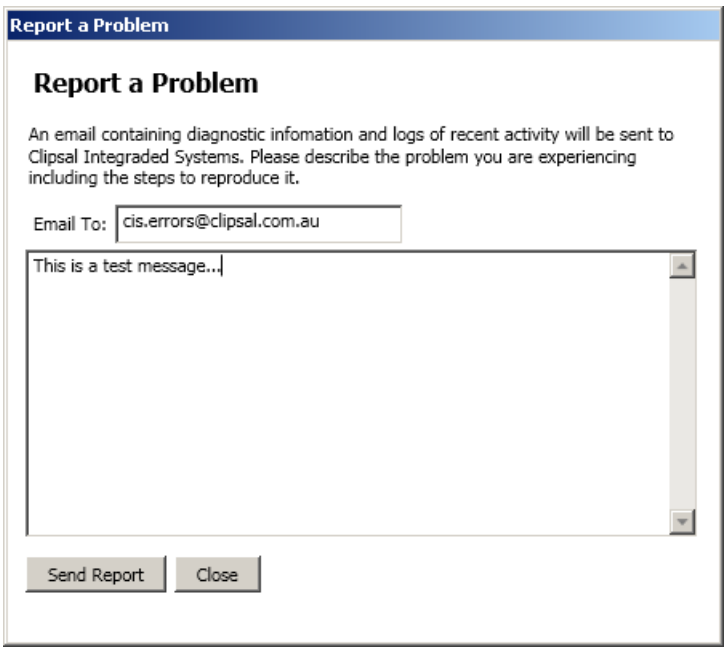
1 In the Help menu, click the REPORT A PROBLEM option

Figure 33: Reporting a problem menu option



2 A dialog window appears for the user to enter additional information. After entering your information, click the SEND REPORT button.

Figure 34: Reporting a problem dialog box



Your default email client will be launched. An e-mail is generated which includes the exception information and a attached log file.

3 Please send the email once you have reviewed the information. We thank you for your participation in the ongoing development of the DALIBuildings.

Figure 35: Sample e-mail generated from reporting a problem