



Check and Install Module (Chelm)
User Guide
IGSS Version 13.0

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Chapter 1: Installing a Configuration

1.1 Overview: Installing configurations

Introduction

When you install a configuration, its validity and logical completeness is checked. What takes place outside IGSS and the relationships to the PLC remain the user's responsibility. A configuration must be error-free and approved, before it can be put into operation. The installation module automatically checks the whole configuration and reports on the installation result.

Many basic control functions are incorporated in the **Definition** module, such as preventing duplicate object names, unnamed objects, references to non-existent objects, etc.

Before you begin

Even though the installation module reports any errors encountered during the installation, it is recommended to go through the following checklist before installing.

- It is recommended to install the configuration regularly to check your definitions and correct possible errors. This is not achieved when you use the **Save** function.
- Is the configuration complete?
- Have you specified an external type for analog, table, digital, counter and string objects?
- Have you supplied PLC addresses for all object [atoms](#) (I/O points) which are not defined as **local**?
- Have you defined and linked an alarm text to each alarm **atom**, for example, **High Alarm** and **Low Alarm** for an analog object?

What does the Chelm installation module control?

The **Chelm** installation module primarily checks the connection to the physical process, internal deficiencies in the configuration and consistency between alarm atoms and alarm texts.

The installation module checks the following.

- Are all PLC addresses specified for object atoms defined as **in**, **out** and **in/out**?
- Are all alarm atoms linked to an alarm text?

The result of the installation is reported on-screen as soon as the installation is complete.

Typical installation errors

The most typical installation errors are:

- Missing external type for analog, table, digital, counter and string objects
- Missing PLC addresses for object atoms defined as **in**, **out** and **in/out**
- No alarm text linked to an alarm atom

Installing the configuration

Installing a configuration is very simple. Do one of the following:

- If the configuration is running, select **File** → **Online Update**
- If the configuration is not running, select **File** → **Install Configuration**.

In both cases, the [Installation Options](#) dialog box appears. _

- If the installation is successful, a message prompt appears informing you of how many objects the installed configuration holds. From the message prompt, you can access the configuration installation report ([MyConfig.prt](#)).
- If there are any errors in the configuration, the **Troubleshooter** form appears assisting you in correcting the errors. By using the information supplied in this file, you can easily correct any errors and then repeat the installation.

Installation backup files

The latest valid configuration is always backed up in the configuration backup folder, **\7TBackup**. If you are not able to install your configuration, you can always go back to the latest valid version.

1.2 To install a configuration

When you've made changes to a configuration, you must install the changes before the operator can use the modified configuration. There are two methods available.

If the configuration is running

1. Select **File** → **Online Update**.
2. Click **Yes** to save the changes. The **Installation Options** dialog box appears.
3. Change the options, if necessary and click **OK**.
 - If the installation is successful, a message prompt appears informing you how many objects the installed configuration holds. From the message prompt, you can access the installation report ([MyConfig.prt](#)) by pressing **Yes**.
 - If there are any errors in the configuration, the **Troubleshooter** form appears assisting you in correcting the errors.
4. In most cases, you will not want to see the installation report. Press **No** to allow IGSS to complete the installation of the configuration and restart the configuration.

If the configuration is not running

1. Select **File** → **Install Configuration**.
2. If you have unsaved changes, you are prompted to save them. Otherwise, the Check and Install Module (Chelm) module is automatically launched and the **Installation Options** dialog box appears.
3. Change the options as required and click **OK**.
 - If the installation is successful, a message prompt appears informing you how many objects the installed configuration holds. From the message prompt, you can access the installation report ([<MyConfig>.prt](#)) by pressing **Yes**.

- If there are any errors in the configuration, the Troubleshooter form appears assisting you in correcting the errors.
4. In most cases, you will not want to see the installation report. Press **No** to allow IGSS to complete the installation of the configuration.



For details about the properties in the **Installation Options** dialog box, click the **?**, then click the relevant item in the dialog box.



Once you have set up the appropriate options, you can check **Skip This dialog box** to bypass it when you install your configuration.

1.3 About Pre and Post Check Scripts

You can run a script prior to or after the configuration is checked and deployed (installed) by specifying a path to a script or file to be executed. Any script file capable of being executed can be run; for example batch files or executable files (BAT, CMD, PS1, EXE etc) and you can also specify document files or other files which can be opened and run by the operating system such as .pdf, .txt or .docx files.

You can only specify one script per event - one script file to be run prior to a check-and-install and one script file to be run after a check-and-deploy.

The Pre and Post check scripts can be used to copy, move or back-up configuration files, open programs and applications and other automated procedures in conjunction with a check-and-deploy.

Check-and-Deploy procedure paused

The Pre- and Posts Check scripts will be opened and executed but not closed unless specified in the script itself.

The check-and-deploy procedure will be paused while the Pre- and Posts Check scripts are open. Once the process started by the Pre- and Posts Check scripts has been closed, the procedure will continue.

Location

The **Pre check script** and **Post succeeded check script** fields on the **Application** tab on the **System Configuration** form are used to specify the path and script file to be run prior to and /or after a check-and-deploy procedure.

The specified scripts or files are specific to the station as the **Application** tab on the **System Configuration** form is available for all station types. For example, you can specify one script to run when checking and installing from an IGSS server and another script to run when checking and installing from an Operator station.

Check Script Variables

You can retrieve and insert information about the check-and-Deploy procedure by using four variables:

- \$MODE
- \$CURCONFIG
- \$CONFIGNAME
- \$INSTCONFIG

You can insert the variables into the path or script/file name and thereby select which script or file is to be executed depending on the values of the variables.

Variable Descriptions

\$MODE

Can contain the values Online or Offline.

If the Check-and-Deploy procedure is performed on a running configuration, the value Online will be stored in the \$MODE variable. If the Check-and-Deploy procedure is performed on a configuration that is not running, the value Offline will be stored.

The Mode information may be important because there is a difference in what files are involved in the installation.

- For offline deployment, configuration files in the configuration folder are directly updated.
- For online deployment, a temporary copy of the files edited in the **Definition** module is created in the **DefWork** folder, and the installation process is run on these files. When the installation process has completed the temporary files will be copied into the configuration folder during the final phases of deployment.

\$CURCONFIG

Contains the path to your configuration folder.

\$CONFIGNAME

Contains the name of your configuration.

\$INSTCONFIG

Can contain the path to your configuration folder or the path to the **DefWork** folder.

- If you are performing an offline deployment, the variable will contain the path to your configuration.
- If you are performing an online deployment, the variable will contain the path to the **DefWork** folder.

Examples

Example 1

Post succeeded check script: C:\windows\notepad.exe \$CURCONFIG\%CONFIGNAME.prt

This post Check-and-Deploy script opens the Windows notepad application and displays the installation report generated after the installation.

Example 2

Pre check script: C:\\$MODE\runme.bat

This pre Check-and-Deploy script opens a command prompt and executes the runme.bat script which includes a close command so the check-and-install procedure can continue without having to close the command prompt.

There are two runme .bat script files:

- C:\Offline\Runme.bat
- C:\Online\Runme.bat

If the configuration is checked and deployed while the configuration is shut down, the Runme.bat batch file in the Offline folder will be executed as the \$Mode variable will contain the text: Offline.

If the configuration is checked and deployed while the configuration is running (an Online Update), the Runme.bat batch file in the Online folder will be executed as the \$Mode variable will contain the text: Online.

Chapter 2: Installation Report

2.1 Installation report, MyConfig.prt

The configuration installation report, <MyConfig>.prt, contains the information you enabled in the [Installation Options](#) dialog box.

 You may need to adjust the page setup in WordPad to fit the report contents into a normal page.

The following sections can be included in the report:

This section ...	shows the following ...	Example
Report header	<ul style="list-style-type: none"> • The user-defined headline for reports defined in System Configuration • the name of the configuration file • the number of objects in the configuration and • text bytes used 	Click here for an example.
Objects sorted by name	An alphabetical list of objects divided into the areas of the configuration. The object type and description are always shown. If you want to view all details for each object, check Detailed object information in the Installation Options dialog box.	Click here for an example.
Objects sorted by type	All objects divided into the relevant object type groups (analog, digital, etc.). There is one list for each area in the configuration.	Click here for an example.
Objects sorted by PLC address	<p>All PLC addresses sorted by data group. Each line shows the precise address, its length, object name and atom, scan interval and external type.</p> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <p> If a PLC address is used more than once, Overlap is noted next to it. This will not result in an error when you install, because you may want duplicate addresses by design.</p> </div>	Click here for an example.
Objects sorted by alarms	A section for each alarm number showing the alarm text and the objects that use it.	Click here for an example.

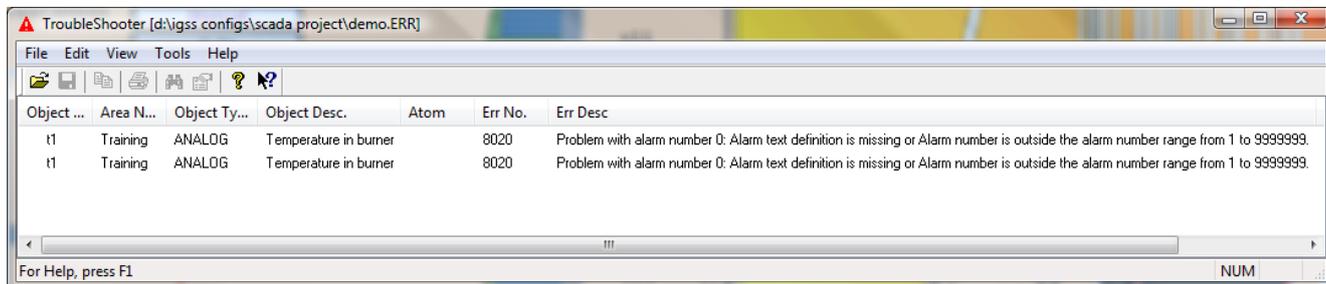
This section ...	shows the following ...	Example
Base classes	List of objects divided into the relevant base classes (defined by the Base interval on the Data Management tab) and data reduction methods (Minimum, Maximum, etc.).	Click here for an example.
Scan classes	<p>The driver ID, node number, PLC address and length for each object defined in the respective scan classes (defined by the Scan interval on the Data Management tab).</p> <div data-bbox="448 595 898 741" style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <p> The Manual section contains objects for which None was selected as scan interval.</p> </div>	Click here for an example.
Communication efficiency information	Click here for details.	
Resource usage (last section)	<p>The usage of objects, scan records, data groups, atoms, alarm texts and data reduction methods.</p> <p>The final lines tell you that the configuration is properly installed.</p>	Click here for an example.
Station and driver setup	This section of the report shows the settings defined for all stations and drivers.	Click here for an example

Chapter 3: Installation Errors

3.1 Installation log file and the Troubleshooter

The error log file, *MyConfig.err*, contains information about errors in the configuration.

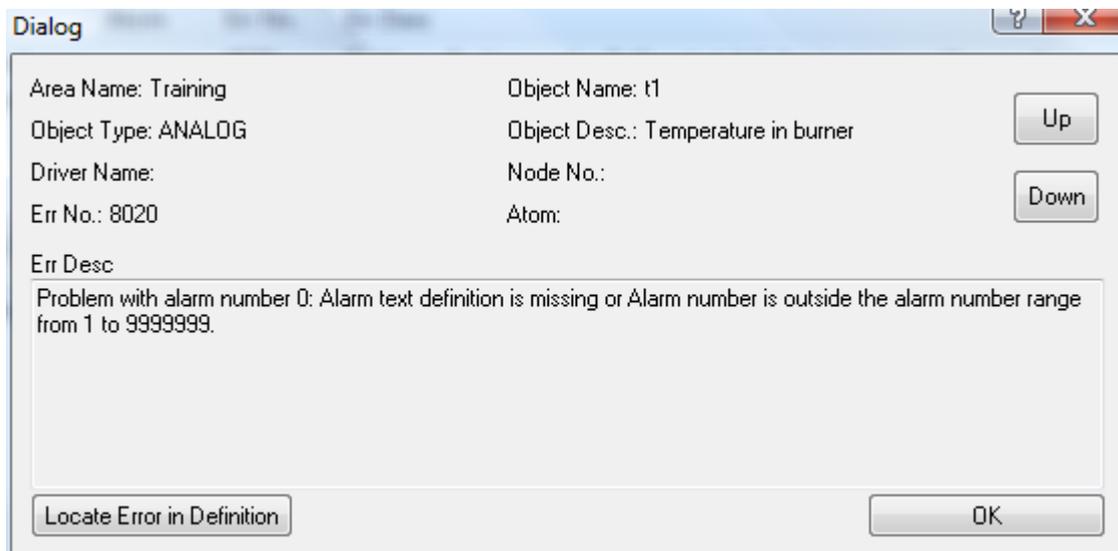
If there are errors when you install a configuration, the **Troubleshooter** form will appear.



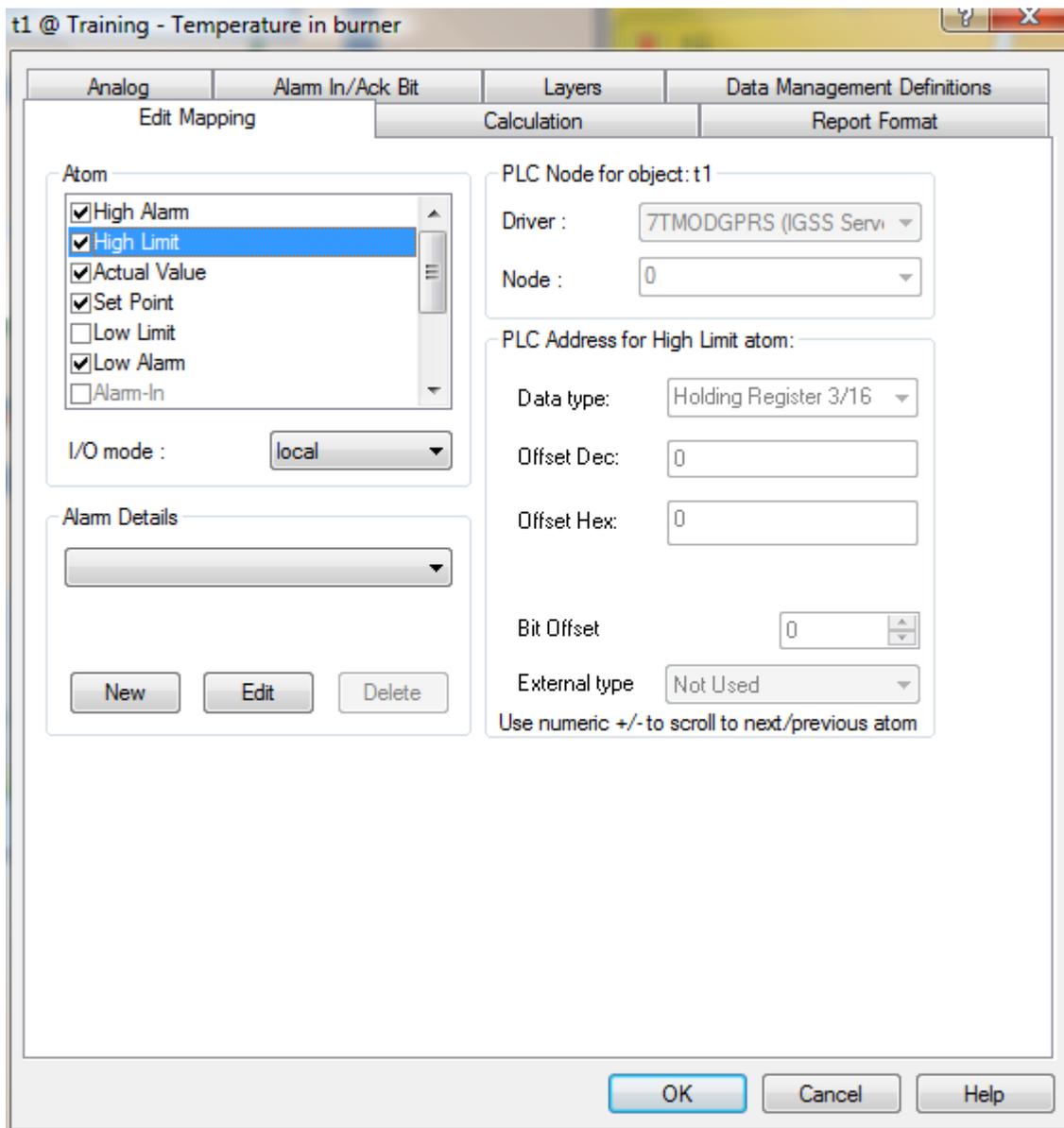
In this case, the user has forgotten to attach an alarm text to an alarm **atom** which has been enabled on the object **t1**.

To correct the error

1. Double-click the line in the **Troubleshooter** window. A dialog box appears providing further details about the error.
2. Click the **Locate Error in Definition** button. You will be taken to the affected object's dialog box where you can correct the error.



3. Correct the error in the object properties dialog box. In this case, you simply need to attach an alarm text to the **High Limit** atom. Notice that the **Alarm Details** drop-down list is empty - this caused the error.



4. Correct all errors and repeat the installation until all errors are eliminated.

 IGSS will not allow you to start the modified configuration in Supervise, until all errors have been corrected.

Chapter 4: Dialog Box Help

4.1 Installation Options

What it shows

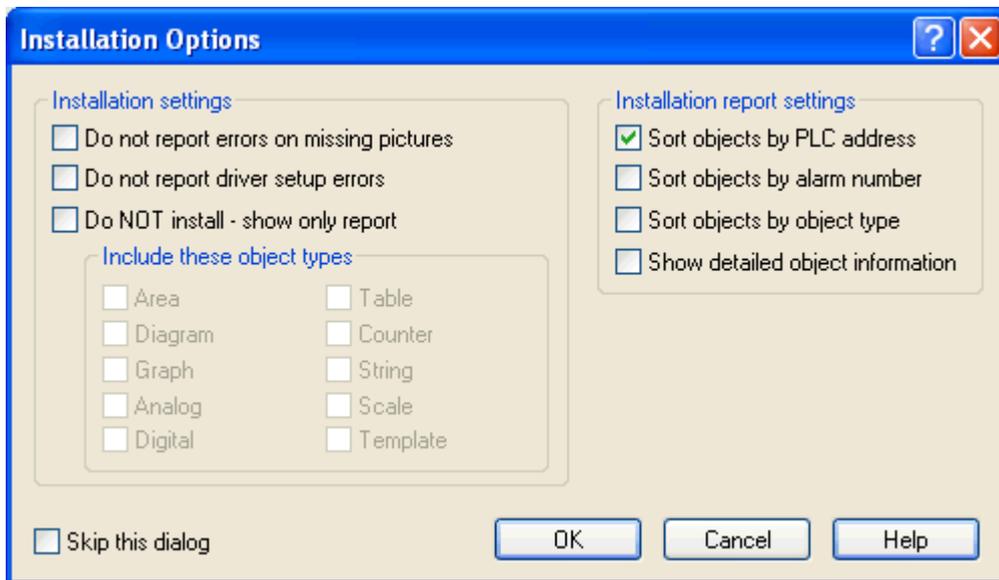
This dialog box appears when you install a configuration in the **Definition** module. It allows you to determine what you want to show in the [installation report](#), MyConfig.prt and a few other options.

 For details about a property in the dialog box, click **?**, then click the item.

 If you check **Skip This dialog box**, the installation will bypass the dialog box. To show it again, hold down SHIFT while you select **Install Configuration**.

How it looks

The figure below shows the **Installation Options** dialog box.



Correcting installation errors

Errors will be displayed in the [Troubleshooter module](#).

Chapter 5: Reference and Lookup

5.1 Conventions in this Manual

The following typographical conventions are used:

Convention	Description	Example
User interface element	When referring to labels and names in the user interface.	The Data Management tab.
User input	When the user has to type specific data in IGSS	Type the following description: <code>Incoming flow in Tank 2</code>
Module name	When referring to a module in IGSS	Open the Definition module.
Note	A note emphasizes or supplements important points of the main text. A note provides information that may apply only in special cases.	 By default, the timestamp is in universal time format, UTC ¹ . This can be changed in the Driver Log Filters dialog box.
Tip	A tip suggests alternative methods that may not be obvious in the user interface. A tip also helps the user in working more effectively with IGSS. A tip is not essential to the basic understanding of the text.	 Alternative to this simple find function, you can also filter on text in the messages in Driver Log Filters dialog box.
Warning	A warning is an important note that is essential for the completion of a task. In some cases, disregarding a warning may result in undesirable functionality or loss of data.	 If you disregard the System alarm, you may risk loss of data in the LOG and BCL files.

5.2 Getting Help in IGSS

IGSS comes with a comprehensive help system designed to help both system designers and operators to get started with IGSS as quickly as possible.

Documentation overview

The IGSS documentation includes the following items:

¹Universal Time Coordinated (formerly Greenwich Mean Time), used as the basis for calculating time in most parts of the world. IGSS uses this time format internally in the database. You can switch between UTC and local time by enabling or disabling the "UTC" field in various dialog boxes in the system.

Documentation item	Description
Getting Started	An introduction to IGSS and its most fundamental terms and features. Getting Started is intended to get you up and running as fast as possible. The manual provides a system and architecture overview followed by a number of real-life use cases you can go through before building your first real IGSS project. The manual is available in Adobe Acrobat format (.pdf).
Module help	For each module there is a help file with the same name as the module itself, for example, Def.chm for the Definition module. The help file is invoked by clicking the  in the upper right corner of the module. The Table of Contents will then allow you to browse through the topics.
Form and Dialog help	For each Form or dialog there is a help topic with the following standard information: <ul style="list-style-type: none"> • Overview • Preconditions • Where do I find it? • Field help Form help is invoked by clicking the help button  in the upper right hand corner of the dialog box or located in the Table of Contents of the individual help file.
Thematic help	IGSS also provides thematic help. When there is a special theme that requires special attention from the user, a dedicated help file is provided. Examples include "Driver-Specific Help" and "Database Administration Help".

Where are the help files located?

The IGSS help files are located in the appropriate language folder in the installation path of IGSS, by default C:\Program Files\Schneider Electric\IGSS32\V13.0. The help files are available in English at release time.

The paths to the help files are:

Language	Path
English	[IGSS InstallPath]\ENG
Danish	[IGSS InstallPath]\DAN
German	[IGSS InstallPath]\DEU

Translated help files

Selected help files have been translated into Danish. If you require help files in your language, please contact Schneider Electric.

Help updates

The help files are continuously updated and improved. Check regularly with the IGSS Update in the IGSS Master.

5.3 Version Information (IGSS Help System)

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The IGSS help files are based on software build number 10305 (initial release)

English help files

To update the help files, click the **Update IGSS Software** button on the **Information and Support** tab in the **IGSS Master**. There must be a connection from the PC to the Internet. Every time **IGSS Update** is run, IGSS help files as well as IGSS system files will automatically be updated on the PC from the web server at Schneider Electric.

You select the languages you want to update in the **Tools** menu of the **IGSS Update** form.

If you are not able to update the IGSS system directly via the Internet, the alternative is to download the updates from the Schneider Electric website as zip files. These can then be transferred onto a CD or USB memory stick, which is then the medium used to update on site.

 After updating your IGSS installation, the build numbers in various IGSS modules may change to a higher number. This signifies that the module in question has been updated with newer files. Build numbers consist of four digits, where the first digit represents the year and the last three represent the day number in the year in question. The build number can be seen in the **About** dialog box which can be activated from the **Help** menu.

An example:

Build number = 10305

18 = the year 2018

305 = The 305th day of the year

Chapter 6: Glossary

A

Application menu

The Application menu is the first ribbon in the IGSS Master module. Click the icon to drop down the menu. The menu contains items that were typically found in the File menu in previous versions of IGSS. In most modules, an "Options" item allows the user to define global module settings. The Application menu was introduced in the Microsoft Office 2010 package. It replaces the Application button (nicknamed Doughnut) which was introduced in IGSS V7 and V8.

D

descriptor

A descriptor is the graphical display of an object. IGSS includes many types of descriptors including: - Built-in standard symbols - Animated symbols (Symbol Factory library) - Graphics and animation - Drawing symbols - Windows controls - ActiveX controls An IGSS object can be represented with different descriptors on different diagrams.

R

Ribbon

The Ribbon is a new term/element in the Microsoft universe. The Ribbon replaces the well-known toolbars in applications. The Ribbon provides quick access to the most commonly used functions in the application. The Ribbon is divided into logical groups (the tabs) and each tab is divided into sections (the blocks in the tab). The Ribbon is context-sensitive which means that only relevant functions are accessible dependent on the current user action.

S

SCADA

Supervisory Control & Data Acquisition

U

UTC

Universal Time Coordinated (formerly Greenwich Mean Time), used as the basis for calculating time in most parts of the world. IGSS uses this time format internally in the database. You can switch between UTC and local time by enabling or disabling the "UTC" field in various dialog boxes in the system.