



T7T User Guide
IGSS Version 11.0

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Chapter 1: Introduction

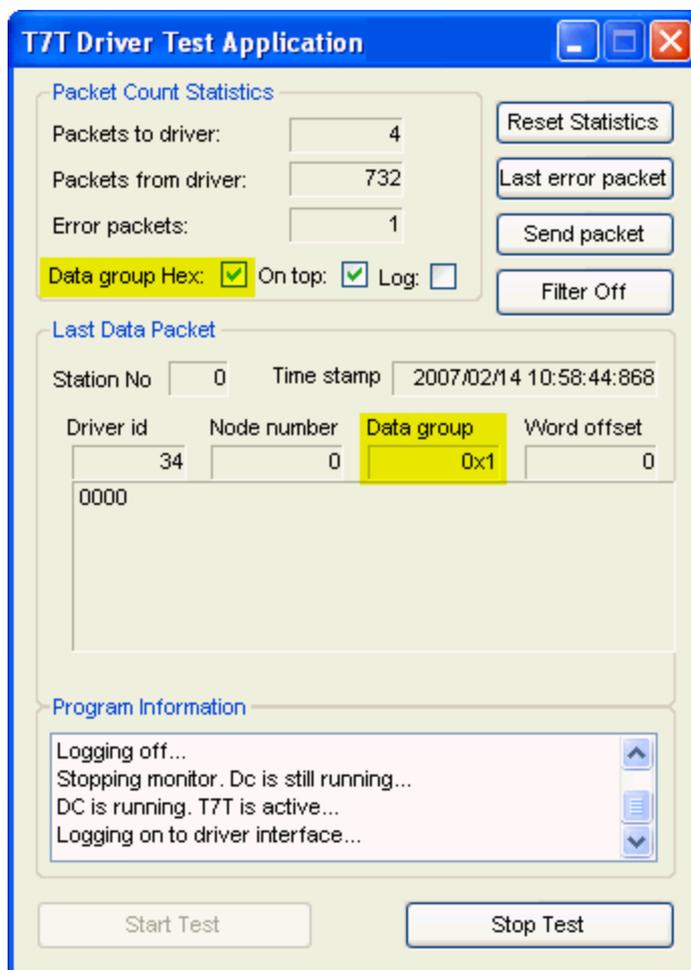
1.1 Introducing the IGSS Driver Test module, T7T

The purpose of T7T is to monitor the communication between IGSS and the PLC driver.

This is very useful for testing and troubleshooting the PLC communication.

T7T can also be used to read data from a PLC.

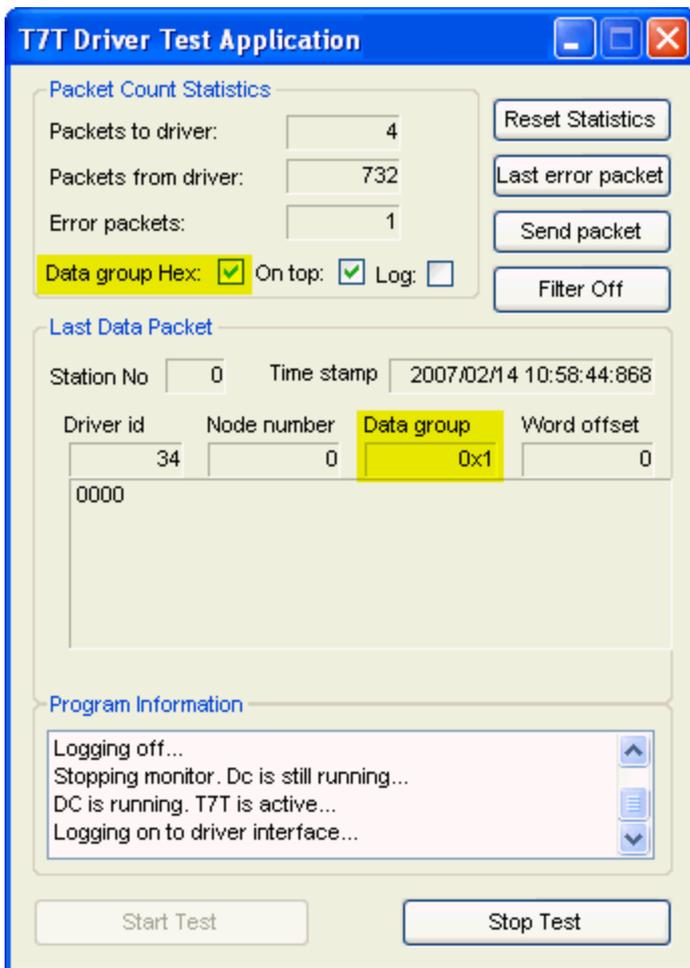
T7T has a very straightforward user interface which looks like this.



Chapter 2: Functionality

2.1 Data group Hex

In the [[Undefined variable IGSSVariables.ModuleName]] main window, choosing **Data group hex** changes the **Data group** in **Last Data Packet** to be displayed in hexadecimal.



2.2 Filter

1. If you wish to filter the shown data, click **Filter Off** in the main T7T window.
2. In the **Filter Input** dialog box, you can choose which data you want to see.
3. In this example, we are looking at data from **Driver Id 34 (Generic TCP/IP Driver)** and **Node number 0**.
4. Choose **Filter Off** to reset to default values.

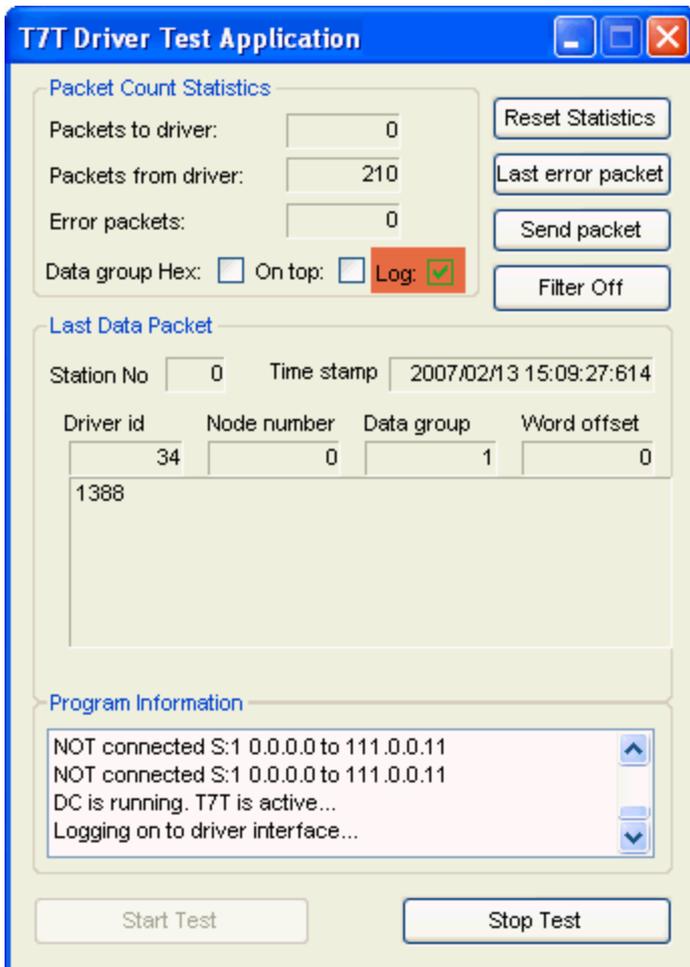
Field	Checked	Value
Station	<input type="checkbox"/>	VOID
Driver id	<input checked="" type="checkbox"/>	34
Node number / Object	<input checked="" type="checkbox"/>	0
Data group / Atom	<input type="checkbox"/>	VOID
Word offset	<input type="checkbox"/>	VOID
Word count	<input type="checkbox"/>	VOID
Data[0]	<input type="checkbox"/>	VOID
Only error and bad quality packets	<input type="checkbox"/>	SICOS

Buttons: Filter Off, OK

2.3 Log

Choose **Log** to write the monitored data to a log file. The default name of the log file is **T7T.SCN** and will reside in the configuration's **report folder**.

The log file cannot be read in a text editor, but can be read by using the IGSS utility **prscan**.



2.4 Monitoring of PLC communication

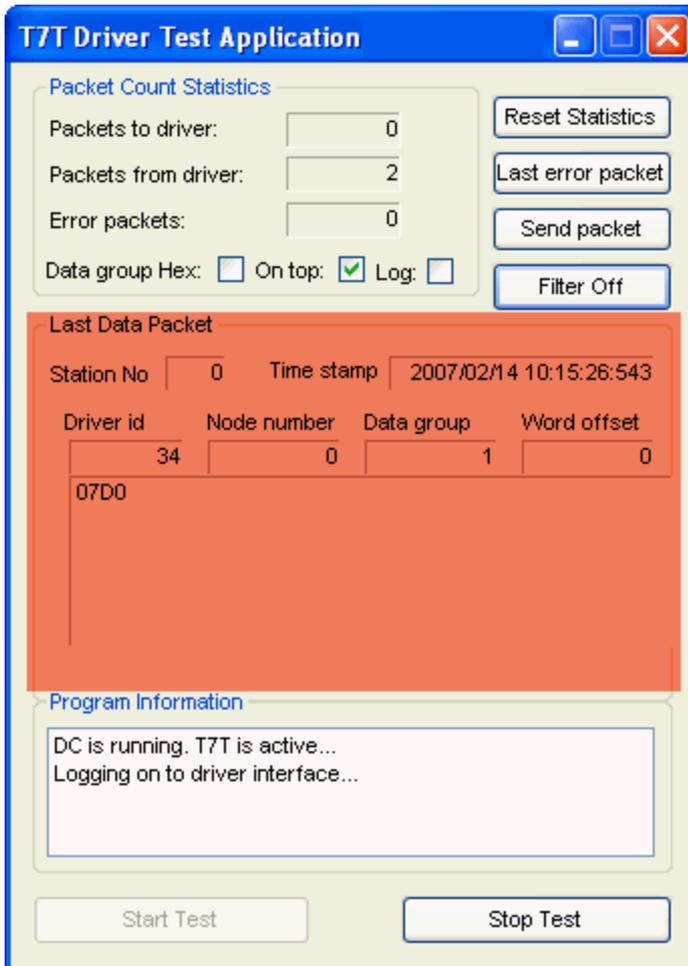
1. Click **Start Test** to start the monitoring of the PLC communication.

Result: The application will connect to the driver(s) activated in the **System Configuration** form.

In the **Last Data Packet** area, you will see the following information:

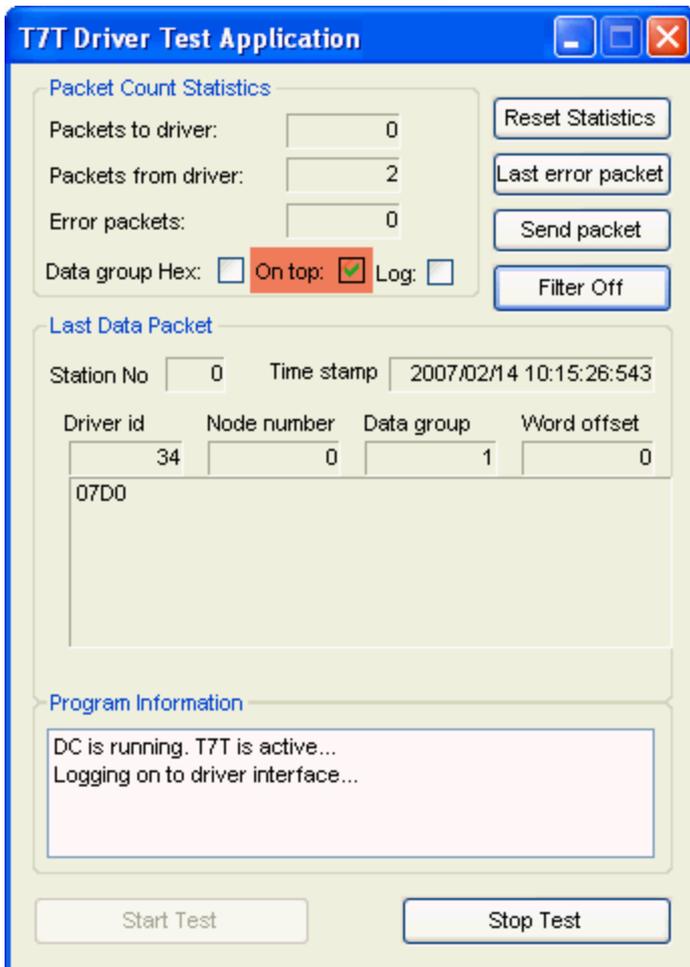
- Station number
- Time stamp
- Driver ID (found in the System Configuration program)
- Node number
- Data group
- Word offset

for the last packet sent to IGSS.



2.5 On top

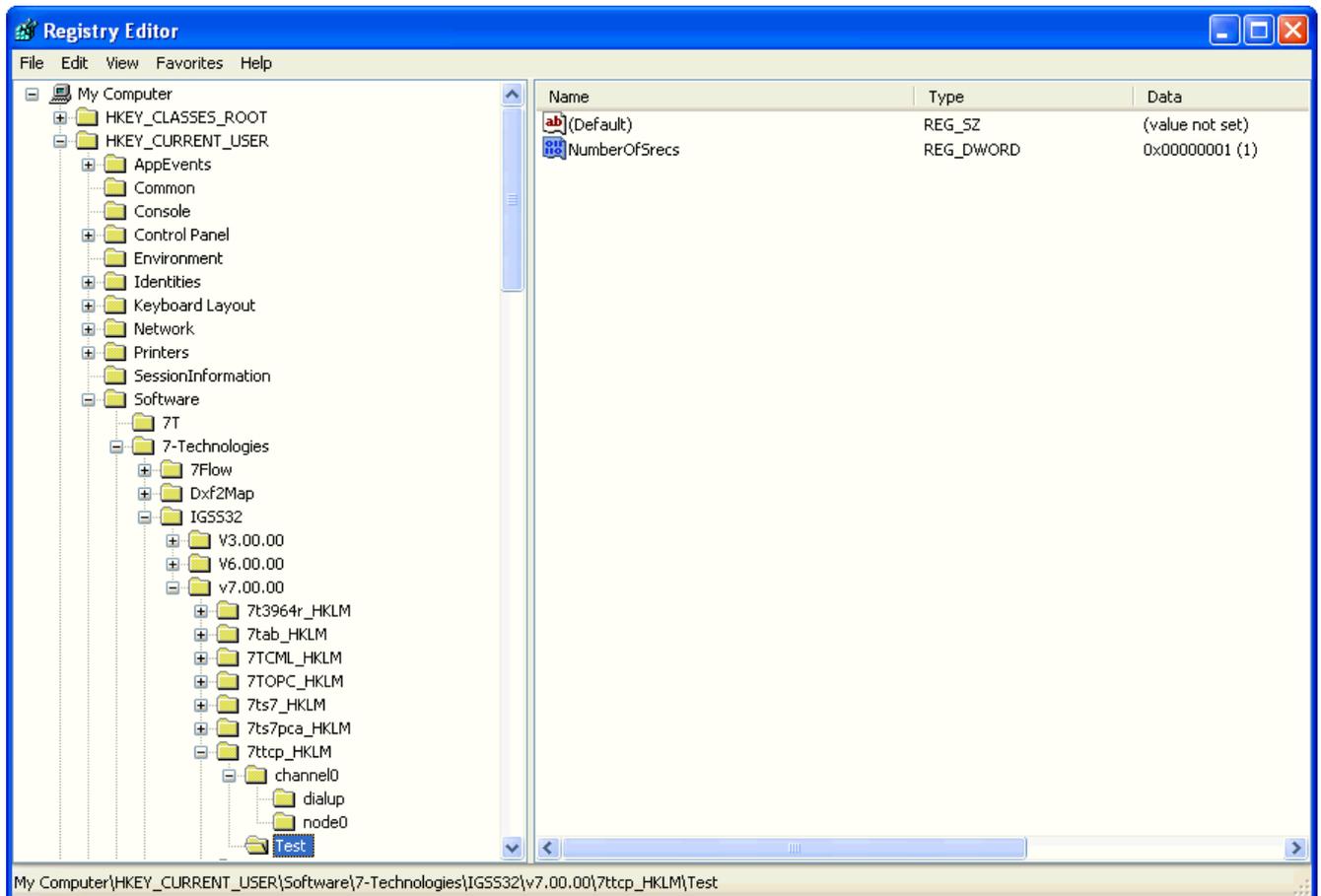
Choosing **On top** changes the T7 window behavior to stay on top of other windows.



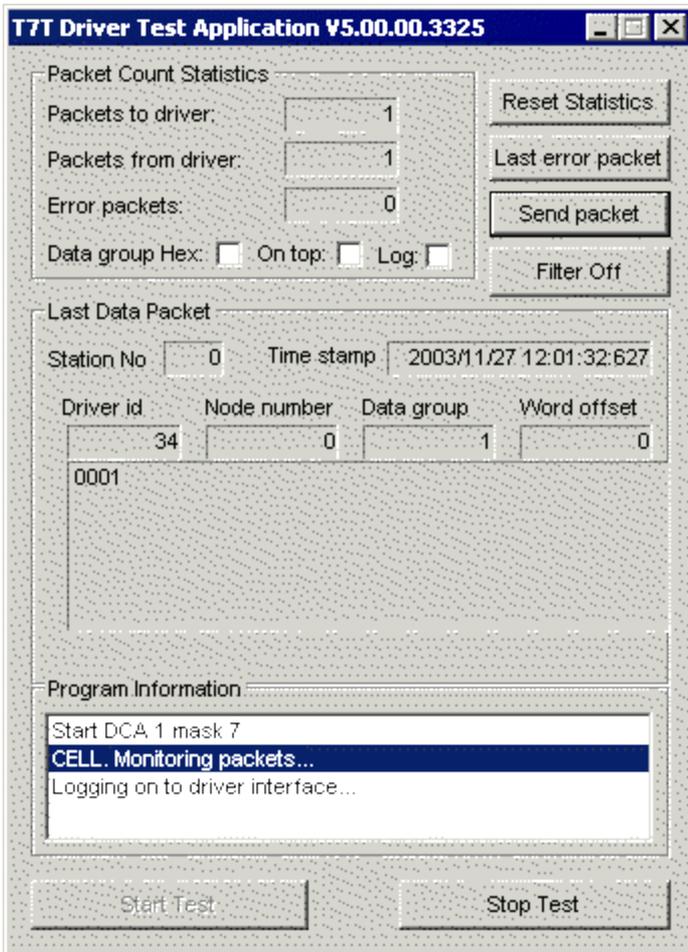
2.6 Reading data from a PLC

T7T can also be used to read part of the memory in a PLC. To be able to do that, it is required to follow the following procedure:

1. Before you can read the memory in the PLC, you must start the driver from the IGSS Master.
2. Activate T7T and click the **Start Test** button.
3. Then click **Stop Test**.
4. The registry key required for reading the memory in the PLC has now been created.
5. Open the Windows Registry Editor – regedit.exe - by selecting **Start -> Run > Regedit.exe**.
6. Choose the key **HKEY_CURRENT_USER\Software\Schneider Electric\IGSS32\V11.00.00\ 7ttcp_HKLM\Test**.
7. Double click **NumberOfSrecs** and enter 1.
8. In T7T, click the **Start Test** button to read the specified memory area in the PLC.



9. In the **Registry Editor**, press **F5** to update the window. Click the **+** sign next to **Test** and choose **Srcc0**. Double click **DataGroup** and enter the value **1**. Double-click **Interval** and enter the value **10**. Double-click **Length** and enter the value **1**.
10. Double-click **Node** and enter the value **0**. Double-click **Offset** and enter the value **1**. The data from the memory in the PLC is shown in the monitoring window of T7T.



If you have multiple drivers in your configuration, the "Test" key in the "Registry Editor" will appear for every driver activated.

2.7 Send packet

The T7T application can also be used to send data to a PLC.

1. If you want to use this functionality, start the application 7ttcpmon, which is a built-in soft PLC in IGSS. The filename is 7ttcpmon.exe and it is located in the C:\Program Files\Schneider Electric\IGSS32\V11.0\Gss folder.

Tip: You can make a shortcut to the soft PLC in the **User Programs** menu of the Supervise program.

2. Make an object in IGSS with 7TTCP as the driver, data type WORD and offset 0.

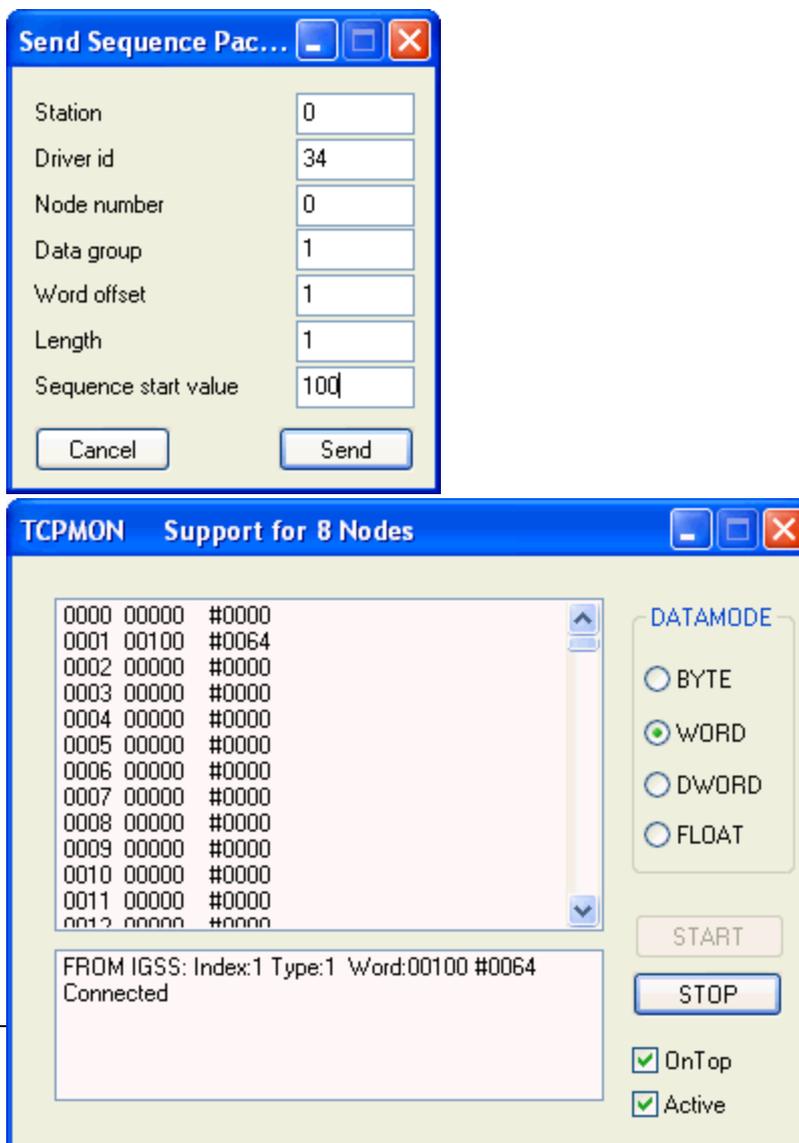
3. In T7T, click **Send Packet**.

In the **Send Sequence Packet** dialog box, enter the following:

- Station = 0
- Driver ID = 34
The ID of the 7TTC driver
- Node = 0
- Data group = 1
Means data type is Word. Data group must be specified as 0 = Byte, 1 = Word, 2 = DWORD and 3 = FLOAT
- Word Offset = 0
- Length = 1
- Sequence start value = 100

4. Click **Send** and the main window of the TCP Monitor should now show

FROM IGSS: Index:1 Type:1 Word:00100 #0064



Chapter 3: Reference and Lookup

3.1 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: Incoming flow in Tank 2
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.

3.2 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\V11.0. 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 and German. 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.

3.3 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

13 = the year 2013

305 = The 305th day of the year

Chapter 4: 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.