
**User's
Manual**

DTAP3000D
DTSX3000 Data Conversion Software
WITSML1.3.1.1 Guide



IM 39J02B40-03E

vigilantplant.

Introduction

■ About this Manual

Thank you for purchasing the DTSX3000 Data Conversion Software WITSML 1.3.1.1 (DTAP3000D).

This document describes the functions, operation and usage precautions of the DTAP3000D software. Read it carefully before using the software to ensure proper use. After reading, save this document in an accessible location for easy reference during software use.

Besides this manual, the table below lists three other manuals related to the DTSX3000 Distributed Temperature Sensor. Read these manuals as well.

Manual name	Document No.	Description
DTSX3000 Distributed Temperature Sensor Guide	IM39J06B40-01E	This document describes the functions, operation and usage precautions of the DTSX3000 Distributed Temperature Sensor.
DTSX3000 Communications (Modbus) Guide	IM39J06B40-02E	This manual describes commands for controlling the DTSX3000 Distributed Temperature Sensor.
DTAP3000 DTSX3000 Control Visualization Software Guide	IM39J02B40-01E	This document describes the functions, operation and usage precautions of the DTSX3000 Control Visualization Software, which can be used to configure the DTSX Series Distributed Temperature Sensor and display its measurement result.
DTAP3000 DTSX3000 Control Visualization Software LAS 2.0 Data Conversion Guide	IM39J02B40-02E	This document describes the functions, operation and usage precautions of the software for converting and transmitting measurement data of the DTSX Series Distributed Temperature Sensor in LAS format.

■ Caution

- This document describes the DTAP3000D Software R1.01.01. You can check your software version by selecting [Help] from the software menu bar.
- YOKOGAWA reserves the right to make improvements in the manuals and product at any time, without notice or obligation. Moreover, actual screen display in the software may differ somewhat from the screen display contained in this document.
- If you have any questions, or you find mistakes or omissions in the manuals, please contact our sales representative or your local distributor.
- The use and operation of Windows is not described in this document.
- No part of the manual may be transferred or reproduced without prior written consent from YOKOGAWA.

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DTAP3000D
DTSX3000 Data Conversion Software
WITSML1.3.1.1 Guide

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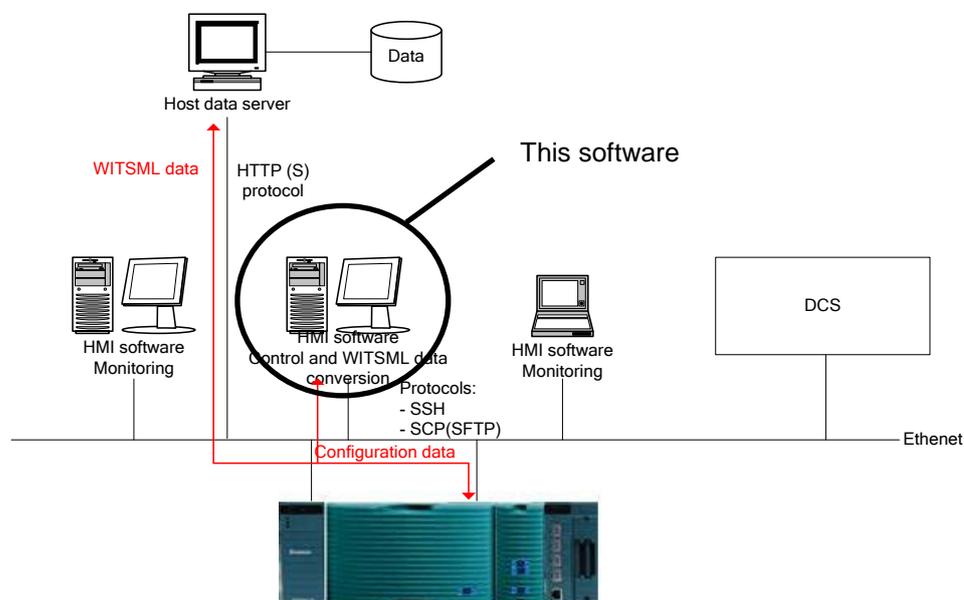
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1. Before Using the Software

1.1 DTSX3000 Data Conversion Software WITSML 1.3.1.1 Function Description



DTSX3000 Data Conversion Software WITSML 1.3.1.1 runs on a PC connected to a DTSX Series via Ethernet. It is used for converting measurement data of the DTSX Series to WITSML version 1.3.1.1 formatted files (hereafter called WITSML files).

It provides functions for editing the following settings:

- (1) Settings for data output to WITSML files
- (2) Setting for WITSML output file configuration
- (3) Settings for WITSML file transmission to a host data server

In addition, it provides the following DTSX Series control functions:

- (4) Starting and stopping WITSML file conversion

DTSX Series supports SFTP/SCP server functions and settings (1) to (3) above are synchronized between the DTSX Series and this software. These settings are downloaded to this software when it is connected to DTSX Series and uploaded to DTSX Series when conversion is started using (4).

Moreover, DTSX Series settings are downloaded to this software at the beginning of conversion. Doing so allows each instance of this software to be synchronized with the DTSX Series settings even when multiple users are controlling the same DTSX Series.

When conversion is started, the DTSX Series converts measurement result data of each subsequent measurement into a WITSML file according to uploaded settings (2) and (3) and stores the converted WITSML files in its internal memory.

WITSML files stored in the DTSX Series can be transmitted to a host data server using HTTP and HTTPS client functions, which are supported by the DTSX Series.

SEE ALSO

For more information, read the DTSX3000 Guide (IM39J06B40-01E) and the DTAP200 Guide (IM39J02B45-01E).



IMPORTANT

- Up to eight instances of the DTAP3000, DTAP3000LAS and DTAP3000D (this software) software applications combined can be run concurrently on a PC.
- However, running multiple instances of the applications on a PC may slow down response time significantly due to heavy processing load so the use of a powerful PC is recommended if concurrent execution is required.
- Up to four users of the DTAP3000, DTAP3000LAS and DTAP3000D (this software) software applications combined can be connected to the DTSX3000 concurrently.
- Up to four users of the DTAP3000, DTAP3000LAS and DTAP3000D, DTAP200, DTAP200LAS and DTAP200D (this software) software applications combined can be connected to the DTSX200 concurrently.
- Uploaded settings are saved even if the DTSX Series is shutdown or rebooted. However, for a DTSX200 installed with conversion functions for multiple formats, only the settings of the last conversion executed are saved while the settings of the other conversions are initialized when the DTSX200 is shutdown or rebooted. For instance, for the sample sequence operations given below, the WITSML1.3.1.1 conversion settings are saved but the LAS2.0 conversion settings are initialized:
 - (1) Start LAS2.0 conversion
 - (2) Stop LAS2.0 conversion
 - (3) Start WITSML1.3.1.1. conversion
 - (4) Stop WITSML1.3.1.1. conversion
 - (5) Reboot DTSX200

1.2 System Requirements

• Operating system (OS)

The software runs on the following operating systems:

- Windows7 Home Premium SP1 English/Japanese (x86 / x64)
- Windows7 Ultimate SP1 English/Japanese (x86 / x64)
- Windows7 Professional SP1 English/Japanese (x86 / x64)
- Windows7 Enterprise SP1 English/Japanese (x86 / x64)

(.NET Framework 4.0 is required)

- Windows8.1 English/Japanese (x86 / x64)
- Windows8.1 Pro English/Japanese (x86 / x64)
- Windows8.1 Enterprise English/Japanese (x86 / x64)

The software is not guaranteed to run properly on other operating systems not listed above.

- **Personal computer (PC)**

The PC must be installed with any of the above operating systems, as well as a CPU and memory meeting the following requirements:

Dual-core 32-bit processor 2 GHz or better

2 GB or more memory

- **Hard disk**

2 GB or more free space

- **Optical disk drive**

An optical disk drive compatible with the operating system and capable of reading CD-ROMs is required for software installation.

- **Mouse, keyboard and other input devices**

Input devices supported by the operating system

- **Display**

A video card recommended for use with the operating system and display device supporting 1024X768 dpi resolution or higher and 65536 colors or more, and supported by the operating system

- **Printer**

Printer and printer driver compatible with the operating system

- **Ethernet adaptor**

Ethernet adaptor (100BASE-TX or 10BASE-T) supported by the operating system

- **Baud rate (throughput)**

Baud rate between PC and DTSX Series: 500 kbps or higher

Module operation may be unstable if baud rate (throughput) is below 500 kbps.

- **PDF Reader**

Adobe Reader X is required for reading this guide.

TIP

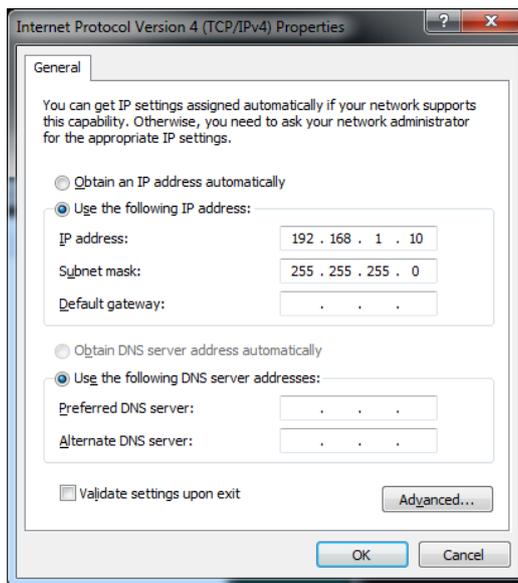
- To install the software in Windows7/8.1, you must log in as a user with Administrator authority.

1.3 Installation Procedure

SEE ALSO

Read the DTAP3000D installation manual (IM39J02B40-07E) bundled with the software.

1.4 Network Setup



Set the IP address of the PC to a fixed IP address on the same segment as the IP address of the DTSX Series.

As shown in the figure above, select the Use the following IP address option, and enter the IP address and subnet mask. For details on the network settings, consult your system administrator.

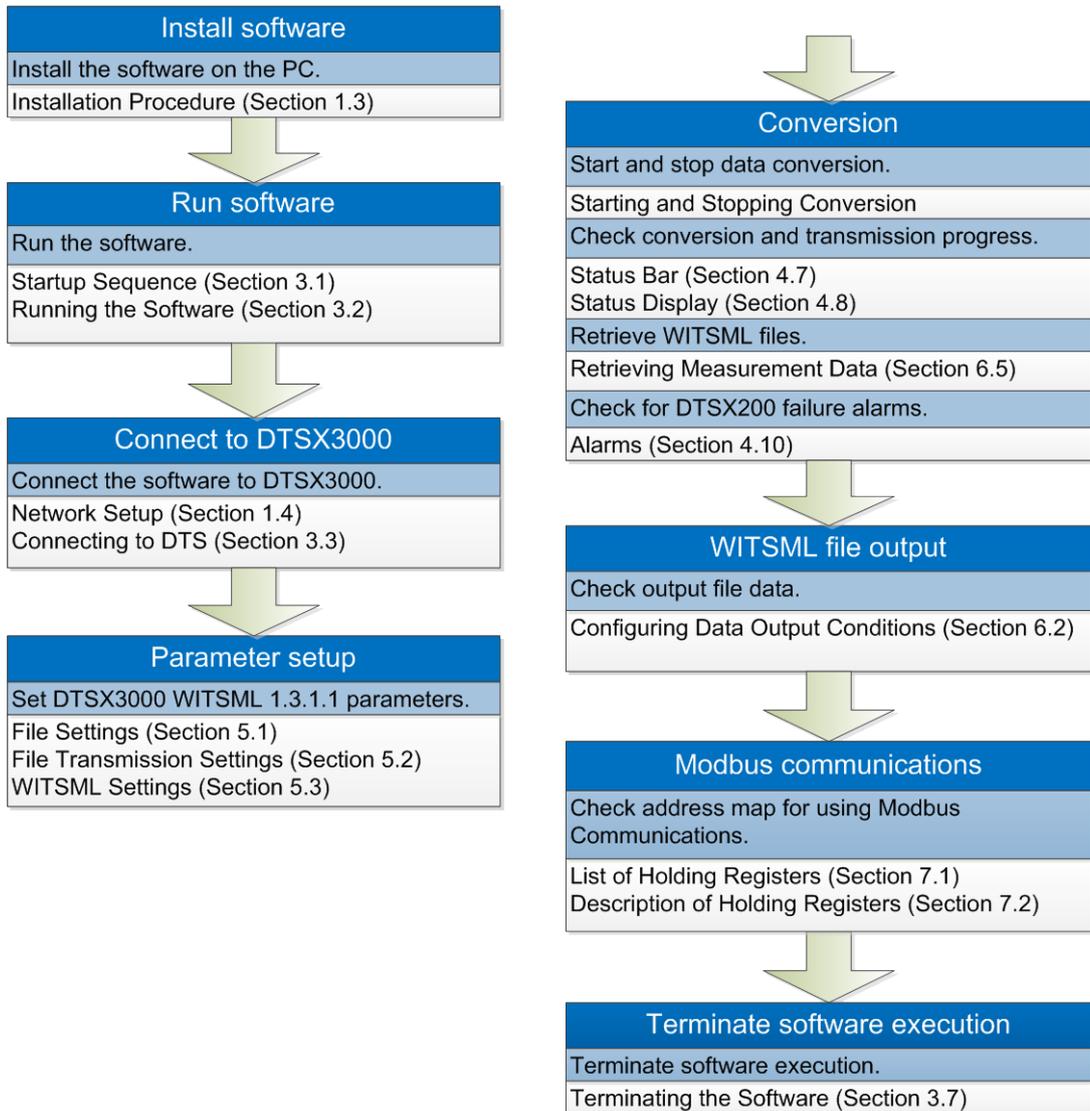
SEE ALSO

In addition, read the HTTP server configuration example described in the DTSX3000 Guide (IM39J06B40-01E).

2. Using the Software

2.1 Operation Flowchart

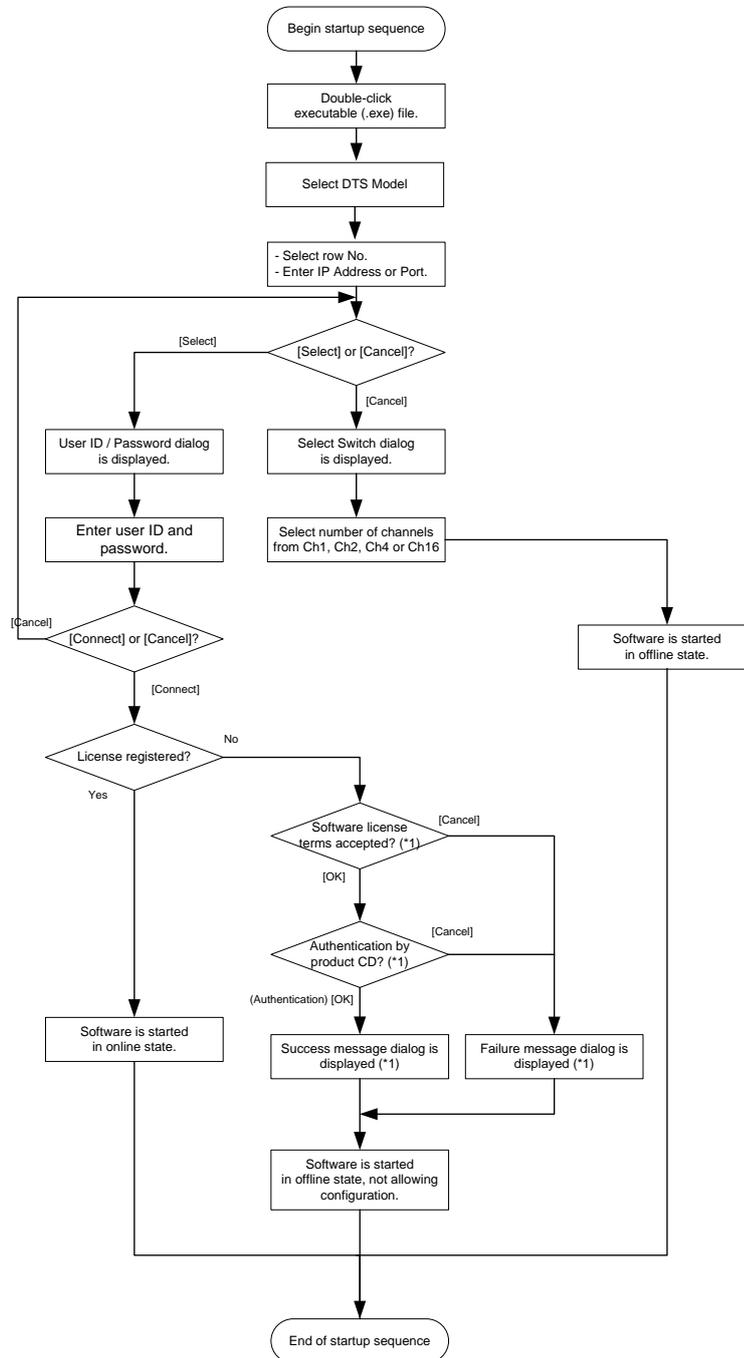
The operation flowchart below shows the overall operation flow when using the software for the first time. For details on individual items, see the respective chapters or sections indicated in the flowchart.



3. Running and Terminating the Software

3.1 Startup Sequence

The flowchart below gives an overview of the startup sequence for the software. For details on individual items, see the respective sections.



*1: If connection to the DTSX Series is successful but no license for the WITSML conversion function is registered, you need to register the license. For details on how to do so, see Section 3.4, "Registering License."

3.2 Running the Software

- **Running the software from the Start menu**

In Microsoft Windows running on a PC, select Start>All Programs>

YOKOGAWA DTSX3000>DTSX3000 Data Conversion Software WITSML 1.3.1.1.

- **Running the software from its desktop icon**

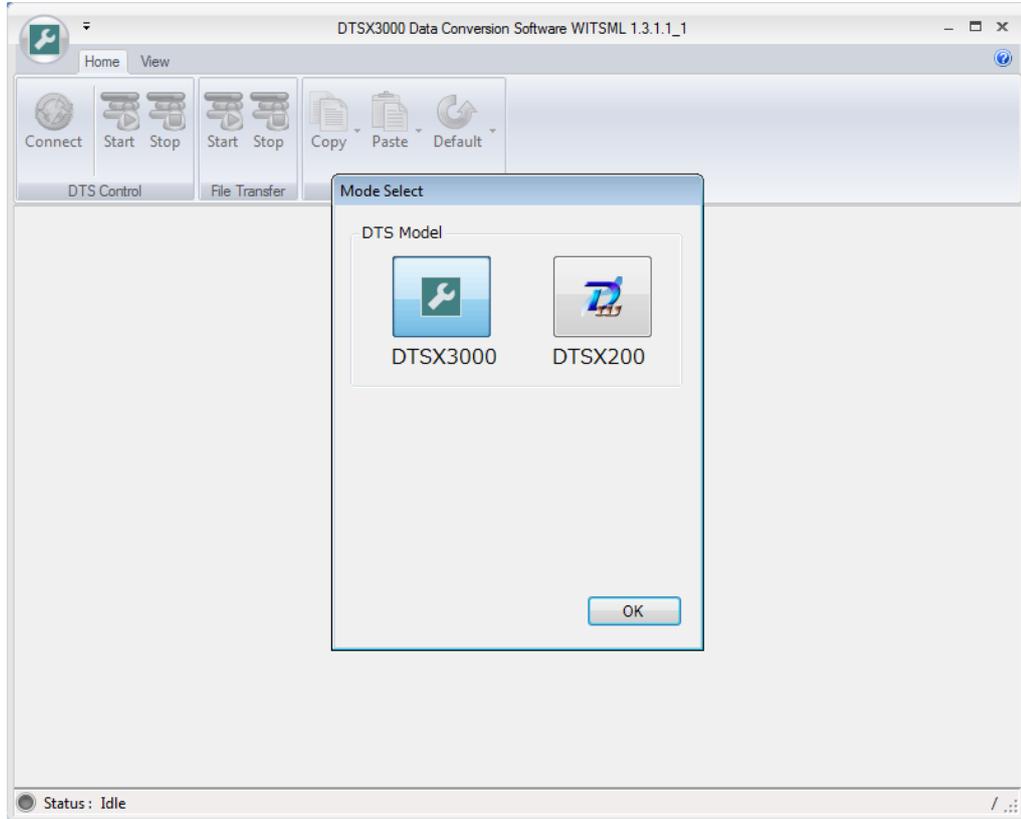
You can also run the software by double-clicking the “DTSX3000 Data Conversion Software WITSML 1.3.1.1” icon on the desktop.



3.3 Connecting to DTSX Series

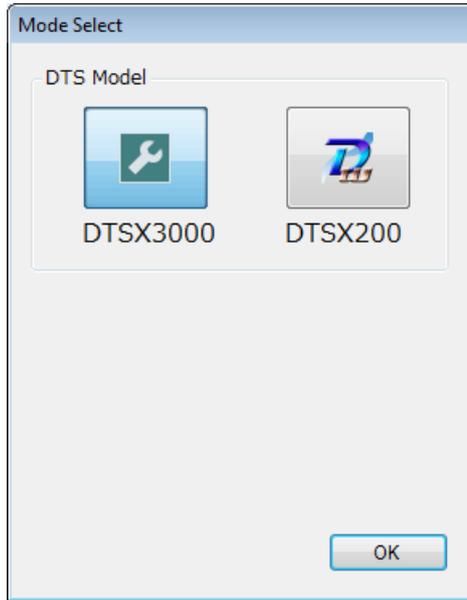
After DTSX3000 Data Conversion Software WITSML 1.3.1.1 is started (hereafter described as the main window), it displays the Mode Select dialog.

At this point, operations of the main window are still disabled. First, you need to configure settings for connection to the DTSX Series.

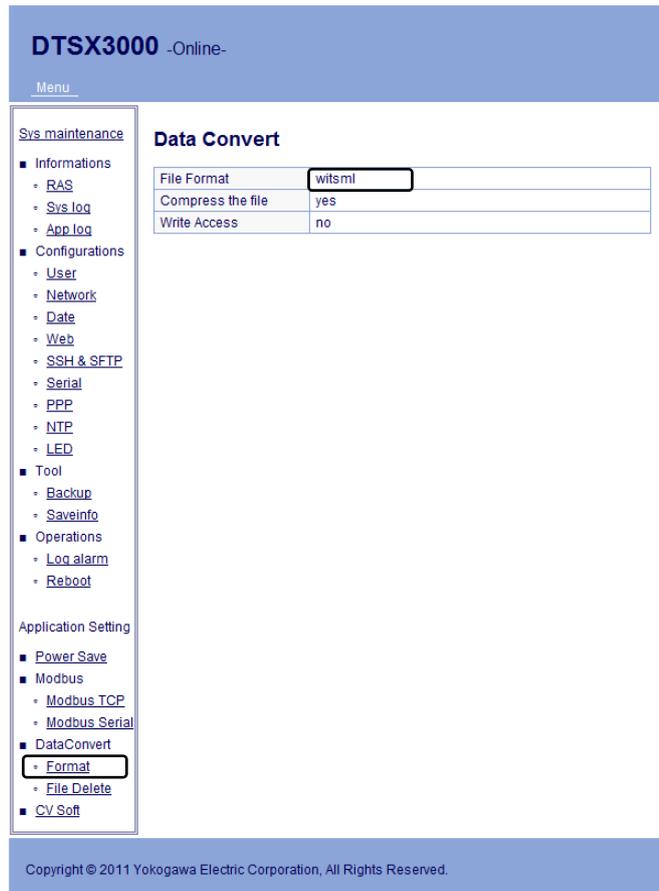


- **Select the DTS model to be connected**

Select the model of the DTS to be connected. Specifically, click the model of the DTS unit to be connected under DTS Model, and then click the [OK] button.

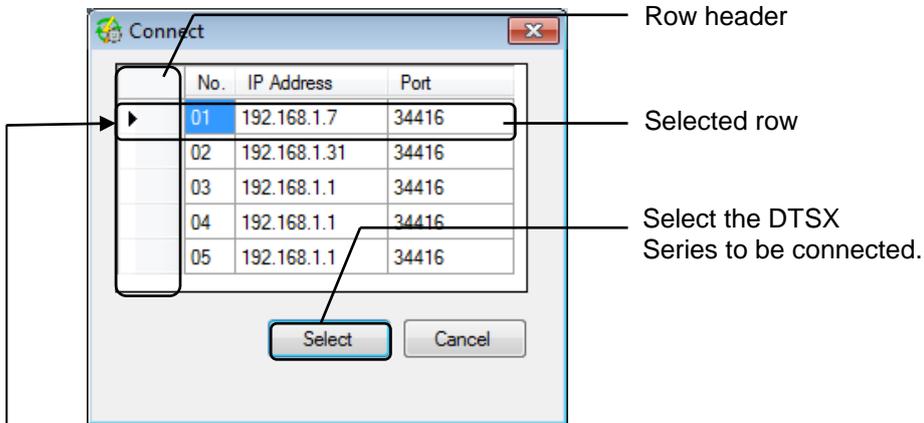


If you have selected DTSX3000 as the DTS Model, ensure that the Data Convert>File Format system setting of the DTS to be connected is witsml, or else, the connection would fail.

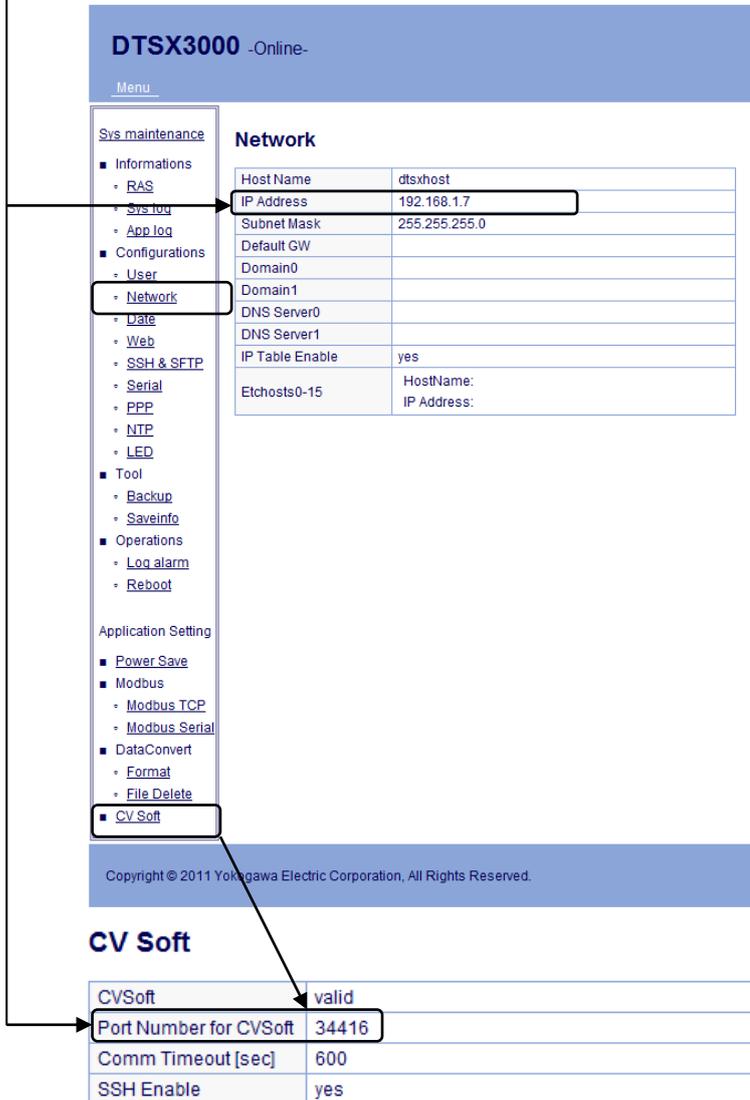


• Define settings for connection to DTSX Series

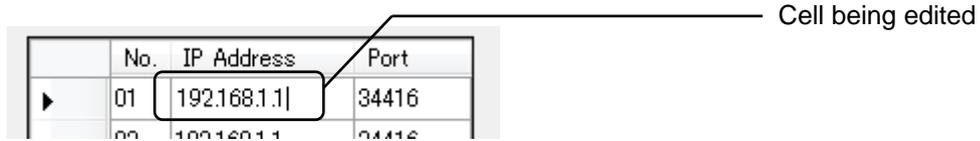
1. On the Connect dialog, select the row with network setting (IP address) and CV Soft setting (port number) matching the DTSX Series to be connected by clicking on its row header. An arrow (▶) mark is displayed before the selected row.



Example: DTSX3000 system configuration



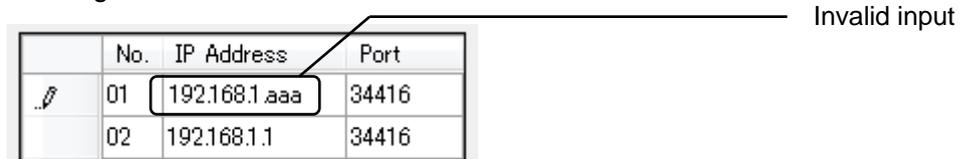
- 2. If none of the displayed rows matches the IP address and the port number of the destination DTSX Series, edit a cell value to the required value by first clicking on the cell to enable it.



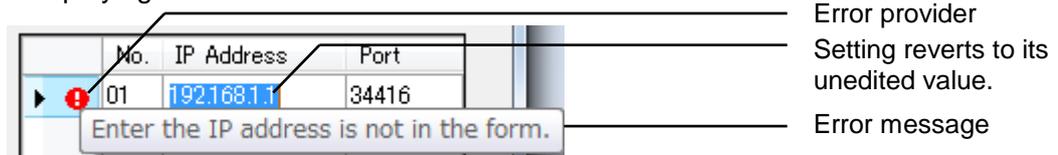
TIP

- Cell numbers displayed in the [No.] column cannot be edited. Only values in the IP Address and Port columns can be edited.
- The software performs input validation when you move the focus to another cell or another control after editing a cell value. If an invalid edited value is detected, the edited value reverts to its unedited value and an error provider control is displayed in the row header area. To see the error message, move the mouse cursor over the error provider.

Editing a cell

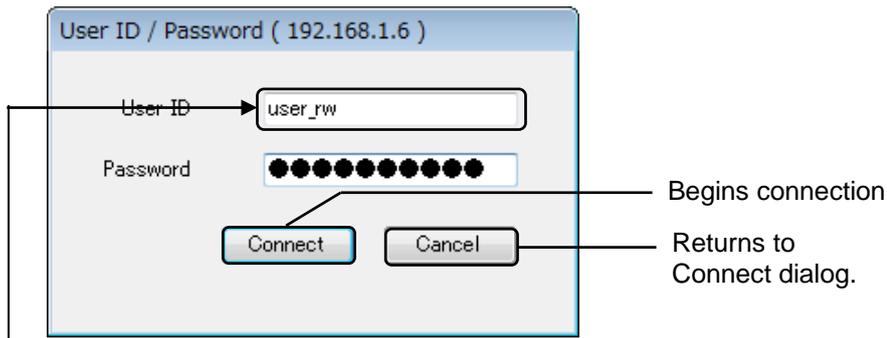


Displaying an error



- IP address must be entered in IP address (IPv4) format.
- Port number must be an integer from 0 to 65535.

3. Click [Select]. The UserID/Password dialog is displayed.
4. Enter the user ID and password of a user having read and write authority.



Example: DTSX3000 system configuration

Name	Role	Updated password
dtsx	Admin	01/01/2011
user_rw	User.readwrite	11/18/2012
user_ro	User.readonly	11/18/2012

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TIP

- The [Connect] button is enabled when a user ID is entered.
- Enter the user ID and password of a user account registered in the DTSX Series.

SEE ALSO

For details on how to register a user account, see the DTSX3000 Guide (IM39J06B40-01E).

- 5. Clicking [Connect] initiates connection to DTSX Series. Clicking [Cancel] returns to the Connect dialog. When connected to a DTSX Series with no registered license for the WITSML conversion function, you need to register a license for the function.

SEE ALSO

See Section 3.4, "Registering License," for details.

TIP

- When you click [Connect] on the UserID/Password dialog, edited settings on the Connect dialog are saved and will be displayed in the Connect dialog when the software is next executed. Up to five IP address and port number pairs can be saved. Entered values are not saved if you click [Cancel].
- Values entered in the UserID/Password dialog are not saved and must be re-entered each time.

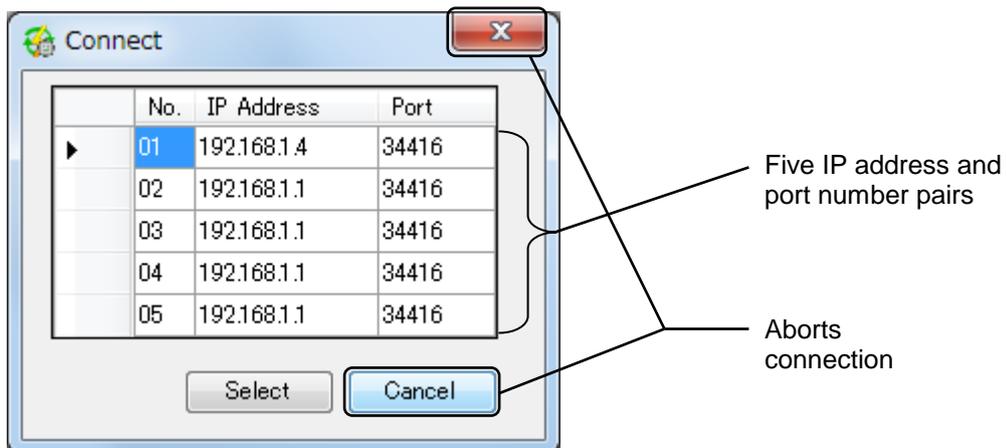


IMPORTANT

- Only users with read and write authority are allowed to connect to the DTSX Series.
- Connection can only be made to a DTS whose model matches the DTS Model setting selected on the Mode Select dialog.

● **Canceling connection to DTSX Series**

You can abort a connection by clicking the [Cancel] button in the Connect dialog or the [X] button at the top right corner of the Connect dialog. Doing so runs the software in offline state.



3.4 Registering License

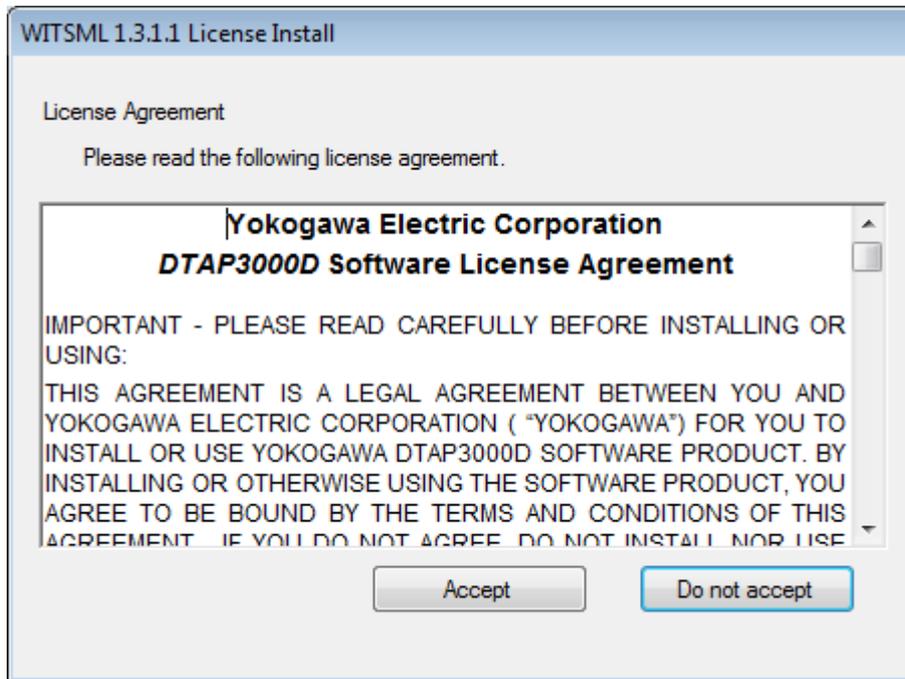
To use the WITSML data conversion function of the DSX3000, a license for the WITSML data conversion function (hereinafter referred to simply as license) needs to be registered on the DTSX3000. This license is not registered on a new DTSX3000 before delivery. To register the license using this software, follow the procedure described below.

1. Insert the CD-ROM of this software into the CD-ROM drive of the PC.
2. Run the software and connect to the DTSX3000.

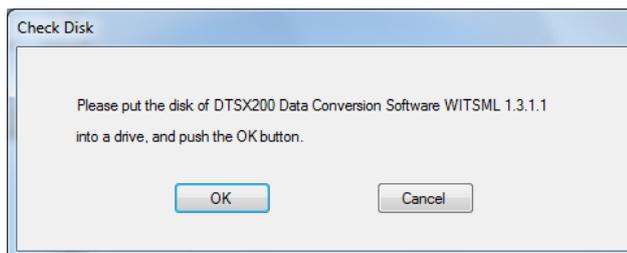
SEE ALSO

For details on how to do so, see Section 3.2, "Running the Software," and Section 3.3, "Connecting to DTSX Series."

3. If connection is successful but no license for the WITSML conversion function is registered on the DTSX3000, the following dialog is displayed. If you agree with the terms of the license agreement, click [Accept]. If you do not agree with the terms of the license agreement, click [Do not accept] and license registration will be aborted.



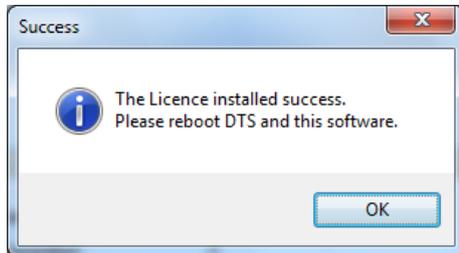
4. If you have selected [Accept] in the preceding step, the following dialog is displayed. Click [OK] to proceed with license authentication using the software CD-ROM inserted in the CD-ROM drive earlier. Clicking [Cancel] aborts the license registration.



5. If license registration is successful, the following success dialog is displayed. Click [OK]. Thereafter, reboot the DTSX3000 and terminate the software.

SEE ALSO

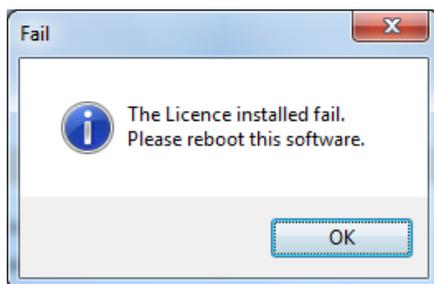
For details on how to reboot the DTSX3000, see the DTSX3000 Guide (IM39J06B40-01E). For details on how to terminate this software, see Section 3.7, "Terminating the Software."



6. Remove the CD-ROM of the software from the CD-ROM drive of the PC.
7. After booting the DTSX3000, run the software and verify that you can successfully connect to the DTSX3000.

TIP

- One license for the WITSML data conversion function is required per DTSX3000 unit. To use the WITSML data conversion function on another DTSX3000 unit, either purchase an additional license or reuse an existing license by first removing it from the DTSX3000 where it is registered. For details on how to remove the license, see Section 3.5, "Removing License."
- The product CD-ROM of this software provided with your purchase is required for license registration.
- You need to reboot the DTSX3000 after license registration to enable the license. For details on the reboot procedure, see the DTSX3000 Guide (IM39J06B40-01E).
- After you click the [OK] button on the success dialog, the software enters offline mode and editing of settings is disallowed. Terminate the software forthwith.
- If you click the [Do not accept] button in step 3 above or click the [Cancel] button in step 4 above, the license is not registered and the following Failure dialog is displayed. Click [OK] and the software enters offline mode and editing of settings is disallowed. Terminate the software forthwith.



重要

The software license cannot be registered on a DTSX200.

3.5 Removing License

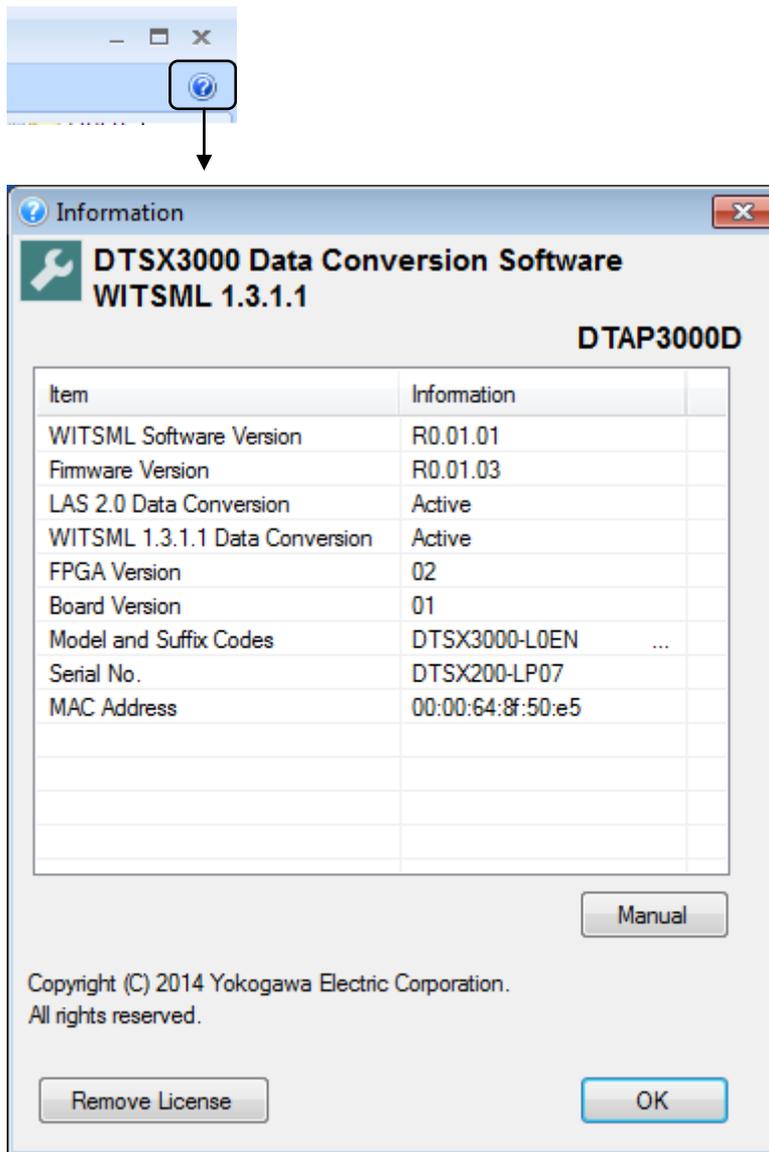
One license of the WITSML data conversion function can only be registered on one DTSX3000. To migrate a registered license from one DTSX3000 to another DTSX3000, you need to remove it from the first DTSX3000. To do so:

1. Run the software and connect to the DTSX3000.

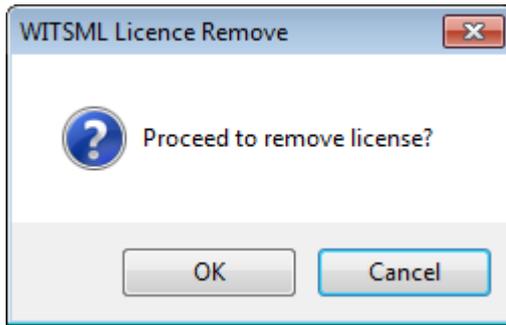
SEE ALSO

For details on how to do so, see Section 3.2, "Running the Software," and Section 3.3, "Connecting to DTSX Series."

2. Click the [?] button located at the top right corner of the software. The following Information dialog is displayed.



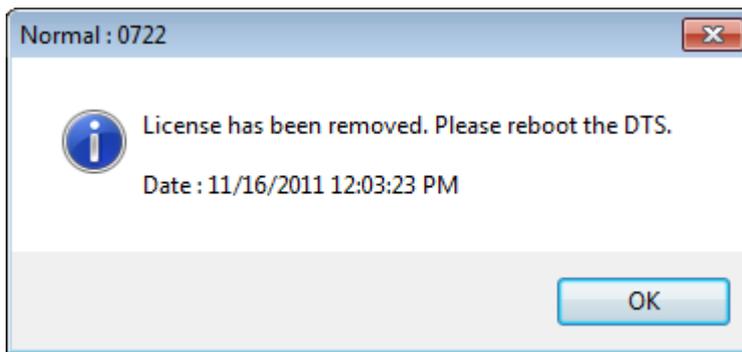
3. Click the [Remove License] button on the Information dialog. When the following dialog is displayed, click [OK].



4. When the license is successfully removed, the following dialog is displayed. Click [OK]. Thereafter, reboot the DTSX3000 and terminate the software.

SEE ALSO

For details on how to reboot the DTSX3000, see the DTSX3000 Guide (IM39J06B40-01E). For details on how to terminate this software, see Section 3.7, "Terminating the Software."



TIP

- You need to reboot the DTSX3000 after license removal to disable the license. For details on the reboot procedure, see the DTSX3000 Guide (IM39J06B40-01E).
- After the license is removed, the software is disconnected from the DTSX3000. Terminate the software forthwith.



重要

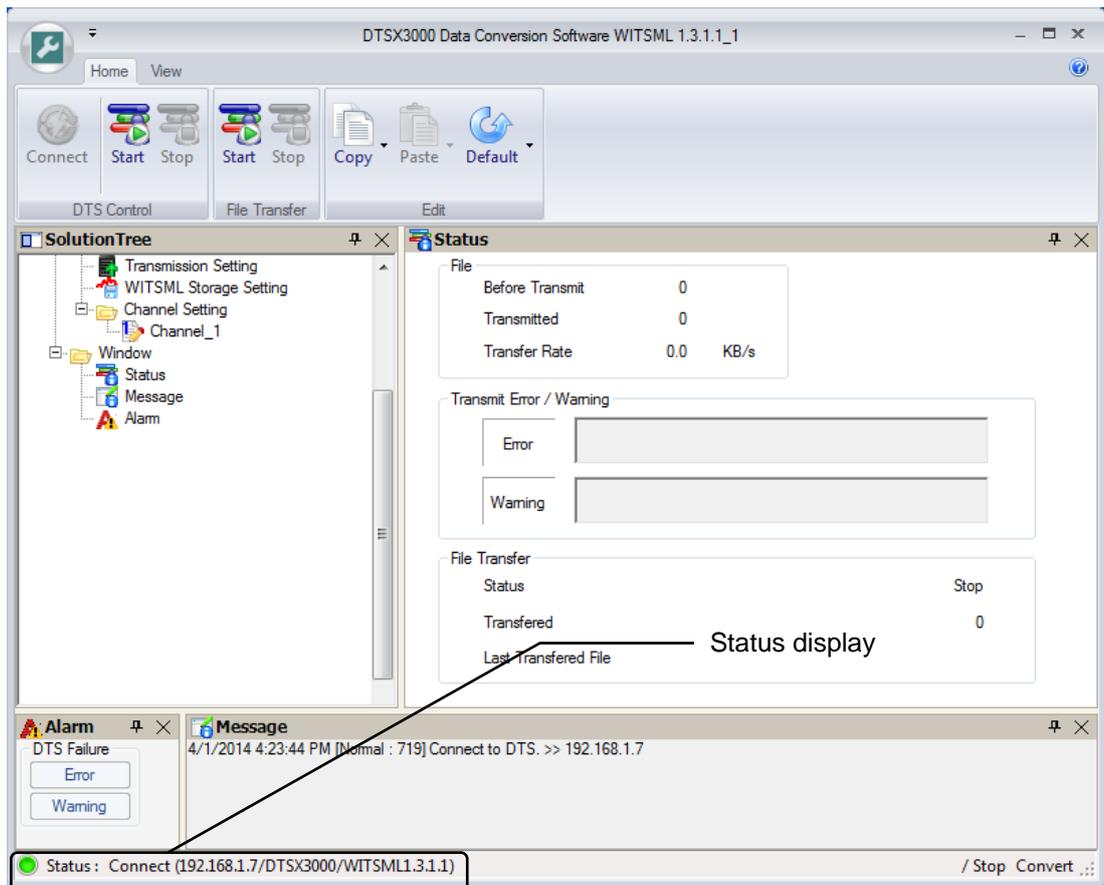
The software license cannot be removed from a DTSX200.

3.6 Online and Offline States

In online state when the software is connected to the DTSX Series, you can control WITSML file conversion by the DTSX Series, as well as edit settings. On the other hand, in offline state where the software is not connected to the DTSX Series, you can edit settings.

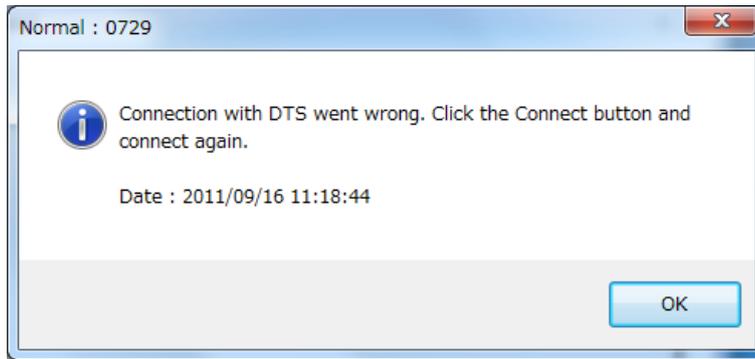
- **Running in online state**

To run in online state, select the DTSX model for connection in the Mode Select dialog, and then click [Connect] in the UserID/Password dialog. Connection to the DTS Series begins and the main window is activated. The status display changes from “Idle” to “Connecting...” and when connection is successful, to “Connect (IP address/model/conversion mode of the DTSX series).” (The conversion mode is displayed only if a DTSX3000 is connected).



TIP

- If connection to the DTS Series is unsuccessful, the following error message dialog is displayed and the status display changes to "Idle."



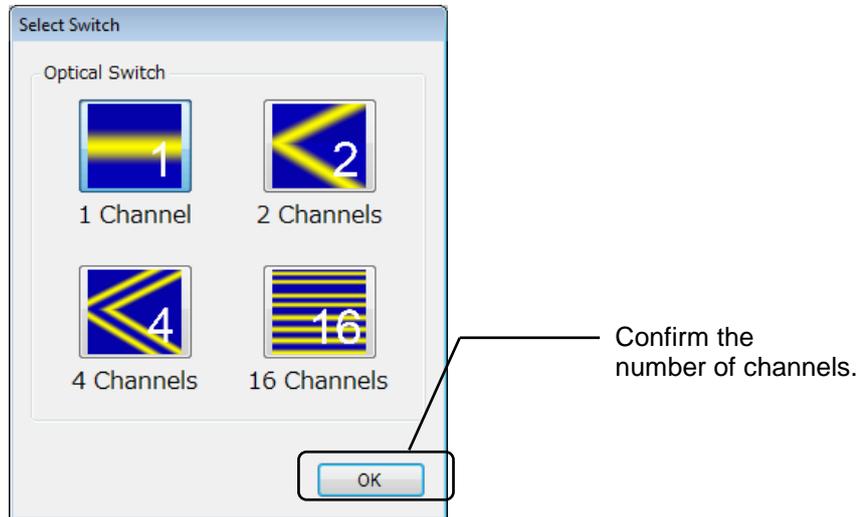
The [Connect] button of the main window is enabled at this time. Click [OK] on the error message dialog, and then click the [Connect] button to redisplay the Connect dialog. Re-enter a valid user ID and a password to connect to the DTSX Series.



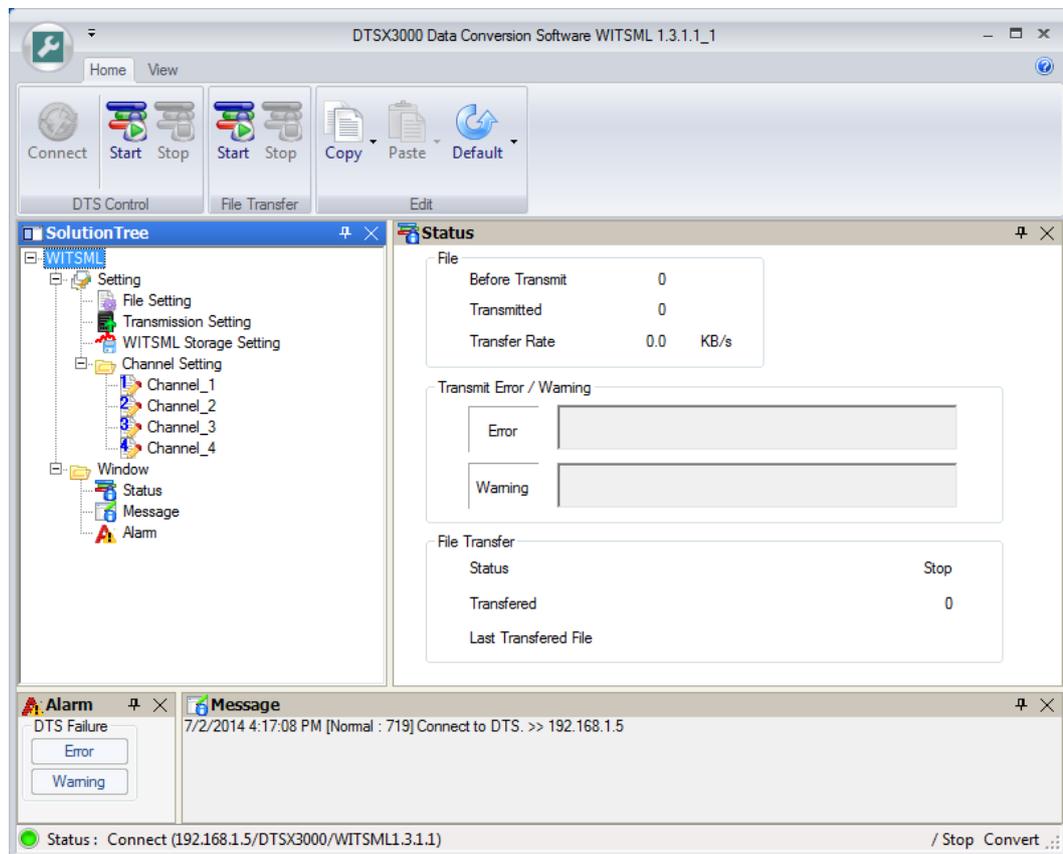
- If connection is successful, the number of channels displayed under Channel Setting automatically changes to match the number of channels of the optical switch.
- If connection is successful, the current settings of the DTSX Series are retrieved and displayed under File Setting, Transmission Setting and Channel Setting.
- If a connected DTSX Series becomes disconnected due to, say, removal of the Ethernet cable, the status display changes to "Retry connection" and the software retries to connect until connection is successful.

● **Running in offline state**

If you run the software in offline state without connecting to DTSX Series, only editing of setting values is allowed. To run in offline state, click [Cancel] in the Connect dialog. Without connecting to the DTSX Series, the number of channels for the optical switch cannot be determined automatically and thus must be specified manually. When the Select Switch dialog is displayed, select either 1 Channel(switchless), 2 Channels, 4 Channels or 16 Channels for Switch Type (number of channels).



Click [OK] on the Select Switch dialog window. The switch type (number of channels) is confirmed and DTSX3000 Data Conversion Software WITSML 1.3.1.1 is activated. The status display, however, remains as “Idle.”



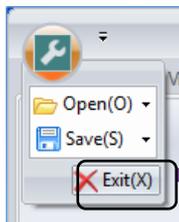
TIP

- The number of channels displayed on Channel Setting changes automatically to match the number of channels selected for the optical switch on the Select Switch dialog.
- File Setting, Transmission Setting and Channel Setting display the last confirmed edited settings.

3.7 Terminating the Software

- **Terminating the software from the main window menu**

1. Click the icon at the top left of the main window. A menu is displayed.
2. Select [Exit] from the menu.



- **Terminating the software using the [X] button of the main window**

You can also terminate software execution by clicking the [X] button at the top right corner of the main window.



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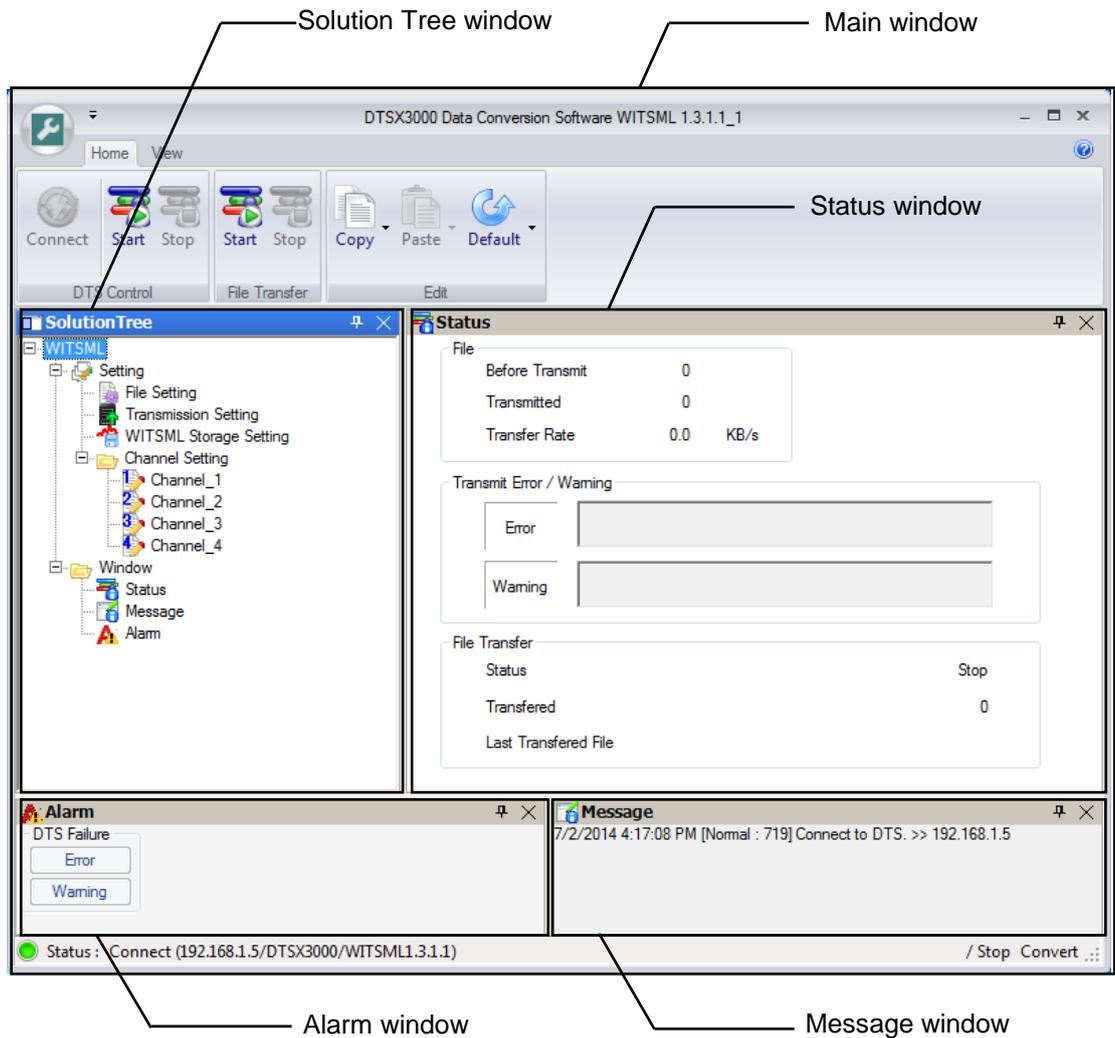
4. Basic Software Operations

This chapter describes the windows, dialogs and basic operations of the software.

This document distinguishes between “windows”, which can be docked to the main window, and “dialogs”, which are displayed as pop-ups of windows.

4.1 Window Components and Functions

When the software is first executed, the main window, Solution Tree window, Status window, Alarm window and Message window are displayed. For subsequent executions, windows that were previously displayed when software execution was last terminated are restored.



4.1.1 List of Windows and Dialogs

The tables below list the windows and dialog windows of the software. Dialogs for loading and saving are, however, omitted

Window Name	Description	For Details, See:
Main	Base window	Subsection 4.1.2, Main Window
Solution Tree	Displays solution tree	Subsection 4.1.3, Solution Tree window
Status	Displays conversion and transmission status	Section 4.8, Status Display
Message	Displays software messages	Section 4.9, Messages
Alarm	Reports DTSX Series errors and warnings	Section 4.10, Alarms

Dialog Name	Description	For Details, See:
File Setting	WITSML output file configuration	Section 5.1, File Settings
Transmission Setting	WITSML file transmission configuration	Section 5.2, File Transmission Settings
WITSML Storage Setting	WITSML file storage settings	Section 4.6, File Storage Settings
WITSML Channel_1-16	WITSML settings for each channel	Section 5.3, WITSML Settings

4.1.2 Main Window

The main window is the base window for all other windows, which can be dragged and dropped onto the main window.

- **Start Menu button**

The Start Menu button is displayed at the top left corner of the main window. Clicking the Start Menu button displays the Start menu for selection of the Open, Save and Exit operations.



- **Title bar**

The title bar is displayed at the top of the main window. The title bar displays the application name as "DTSX3000 Data Conversion Software WITSML 1.3.1.1_n" where the suffix n is the application launch ID, which is assigned serially from 1 to 8 each time a DTSX3000 software application is run. Up to eight DTSX3000 applications can run concurrently on one PC.

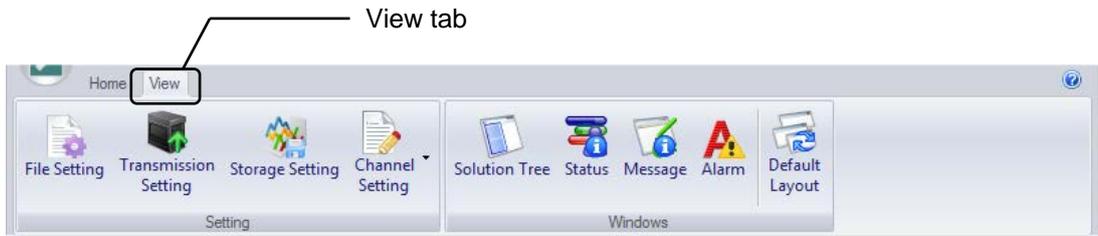
TIP

- Besides this software, other DTSX3000 applications include the "DTSX3000 Control Visualization Software" and the "DTSX3000 Control Visualization Software LAS 2.0 Data Conversion."

- **Menu**

A menu is displayed at the top of the main window. The menu displays a list of buttons for operating the application. You can switch between menus by clicking one of the two tabs displayed above the menu.

Menu (Tab)	Description
Home	Lists buttons for the main functions, DTSX Series control functions and settings edit functions.
View	Lists buttons for displaying windows and dialogs.



The table below lists the group boxes and buttons for each tab.

Menu Item (Tab, group box or button)	Description
Home	Tab for main functions, DTS control functions and settings edit functions
DTS Control (*1)	Group box for DTSX Series control functions
Connect (*1)	Button for displaying the Connect dialog
Start (*1)	Button for starting WITSML file conversion and transmission.
Stop (*1)	Button for stopping WITSML file conversion and transmission.
File Transfer (*1)	Group box for file transfer to PC
Start (*1)	Button for starting WITSML file transfer to PC
Stop (*1)	Button for stopping WITSML file transfer to PC
Edit	Group box for settings edit functions
Copy (*2)	Drop-down button that displays a menu for copying WITSML settings for individual channels
Paste (*2)	Drop-down button that displays a menu for pasting WITSML settings for individual channels
Default (*2)	Drop-down button that displays a menu for defaulting various settings
View	Tab for window and dialog display functions
Setting	Group box for WITSML settings
File Setting	Button for displaying File Setting dialog
Transmission Setting	Button for displaying Transmission Setting dialog
Storage Setting	Button for displaying WITSML Storage Setting dialog
Channel Setting (*3)	Drop-down button that displays a menu for displaying WITSML Channel_1-16 dialogs
Windows	Group box for window display and manipulation
Solution Tree	Button for displaying and giving focus to the Solution Tree window
Status	Button for displaying and giving focus to the Status window
Message	Button for displaying and giving focus to the Message window
Alarm	Button for displaying and giving focus to the Alarm window

	Default Layout	Button for initializing the display positions of windows
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*1: These items are not displayed in offline state.

*2: Clicking the Copy, Paste or Default drop-down button displays a menu of settings for selection. For details, see Section 4.3, "Copying, Pasting and Defaulting Settings."

*3: Clicking the Channel Setting drop-down button displays a menu for displaying each WITSML Channel dialog.

● **Help button**

The Help button is displayed near the top right corner of the main window. Clicking the Help button displays the Information dialog window.

SEE ALSO

For details, see Section 4.11, "Help."



● **Status bar**

The Status bar is displayed at the bottom of the main window. It displays the DTSX Series connection status and WITSML file conversion status.

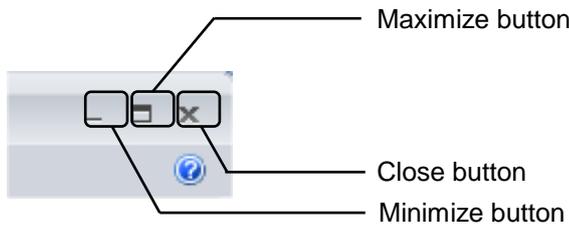
SEE ALSO

For details, see Section 4.7, "Status Bar."



● **Other buttons**

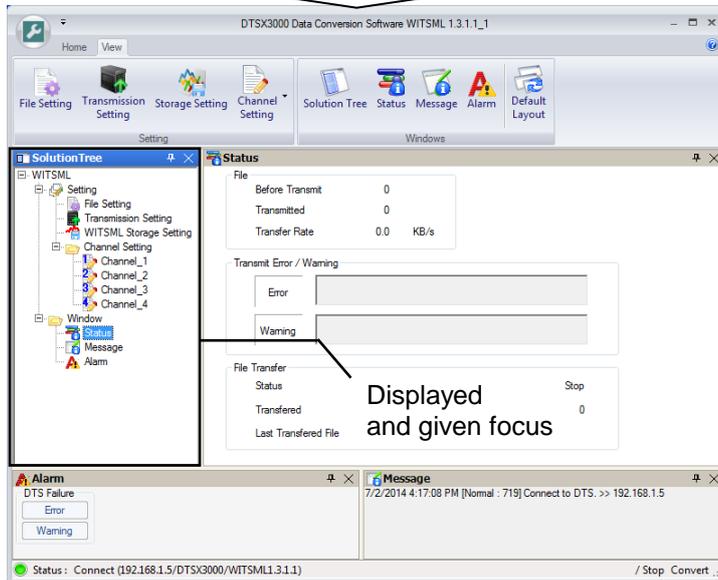
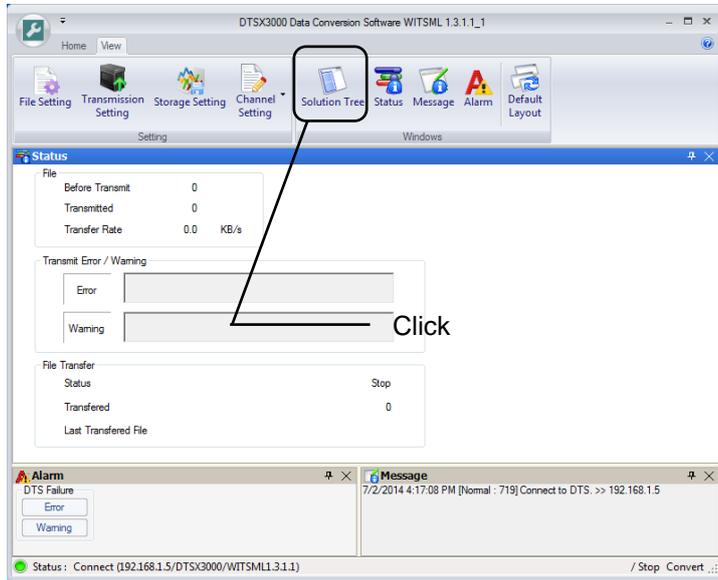
The Minimize button, Maximize/Reduce button and the Close button are displayed at the top right corner of the main window.



4.1.3 Solution Tree Window

Selecting View>Windows>Solution Tree displays (or if already displayed, gives focus to) the Solution Tree window. The table below lists the functions of the Solution Tree window.

The Solution Tree window can be used to display other windows and dialogs, to copy settings and perform other operations.



● **Solution Tree window layout**

The Solution Tree window displays nodes structured in the form of a tree. Nodes displayed at the bottom level are called leaf nodes. Leaf nodes are bolded in the table below. Double-clicking on a leaf node displays its associated window or dialog. Right-clicking on some nodes displays a context menu of functions for loading settings, copying, etc.

Details on window display, dialog display and context menu operations of the Solution Tree window are described later in this chapter.

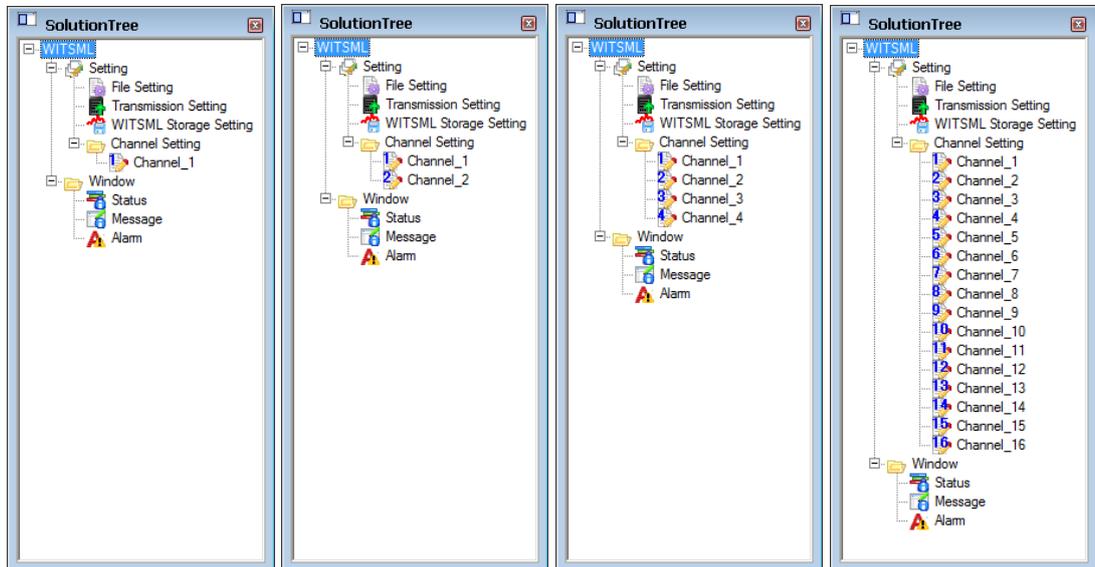
The table below shows the tree structure of the nodes.

TIP

In online state, individual nodes for displaying dialogs may be enabled or disabled depending on the state of the DTSX Series. Double-clicking on a disabled node will not display its associated dialog.

Node Name	Description
WITSML	Root node
Setting	Group node for settings-related nodes
File Setting	Node for displaying and operating the File Setting dialog
Transmission Setting	Node for displaying and operating the Transmission Setting dialog
WITSML Storage Setting	Node for displaying and operating the WITSML Storage Setting dialog.
Channel Setting	Group node for channel setting related nodes
Channel_1-16 (*1)	Nodes for displaying and operating WITSML Channel_1-16 dialogs
Window	Group node for window display related nodes
Status	Node for displaying and giving focus to the Status window
Message	Node for displaying and giving focus to the Message window
Alarm	Node for displaying and giving focus to the Alarm window

*1: In online state, nodes are displayed for the number of channels installed in the DTSX Series. In offline state, nodes are displayed for the number of channels selected in the Select Switch dialog.



Number of channels=1

Number of channels=2

Number of channels=4

Number of channels=16

● **Context menus**

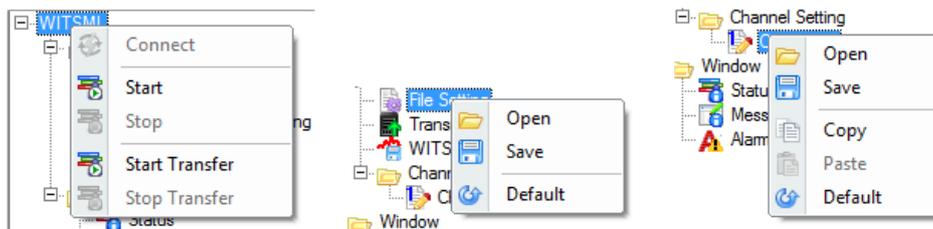
In the Solution Tree window, right-clicking on a node bolded in the table below displays its associated context menu.

The table below shows the mapping between context menus and nodes.

Node name	Context menu	
	Online	Offline
WITSML	I	X
Setting	II	II
File Setting	II	II
Transmission Setting	II	II
WITSML Storage Setting	II	II
Channel Setting	X	X
Channel_1-16 (*1)	III	III
Window		
Message	X	X
Alarm		
Status		

- X Node has no context menu.
- I Connect/Start/Stop/Start Transfer/Stop Transfer
- II Open/Save/Default
- III Open/Save/Copy/Paste/Default
- *1 In online state, nodes are displayed for the number of channels installed in the DTSX Series. In offline state, nodes are displayed for the number of channels selected in the Select Switch dialog.

Operation Type	Item	Description
DTSX Series operations	Connect	Displays dialog for connection to DTSX Series.
	Start	Starts WITSML file conversion and transmission.
	Start Transfer	Starts WITSML file transfer to PC.
	Stop Transfer	Stops WITSML file transfer to PC.
	Stop	Stops WITSML file conversion and transmission.
Settings operations	Open	Loads settings file for the node.
	Save	Saves settings file for the node.
	Copy	Copies settings for the node.
	Paste	Pastes settings for the node.
	Default	Initializes settings for the node.



TIP

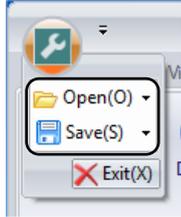
- In online state, individual menu items on a displayed context menu may be enabled or disabled depending on the state of the DTSX Series. A disabled context menu item cannot be selected.
- Operations on the context menu of the Setting node apply to the combined settings of the File Setting, Transmission Setting, WITSML Storage Setting and Channel Setting nodes just below it.

4.2 Loading and Saving Settings

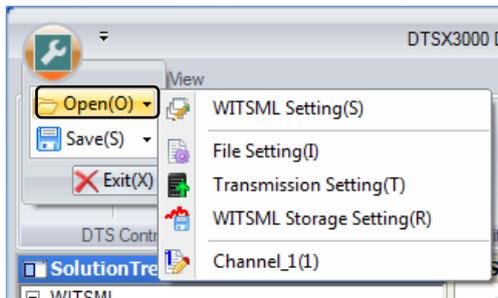
Settings specified using the software can be saved to or loaded from a settings file either from the Start menu of the main window or from a context menu in the Solution Tree window.

4.2.1 Loading and Saving Settings from the Start Menu

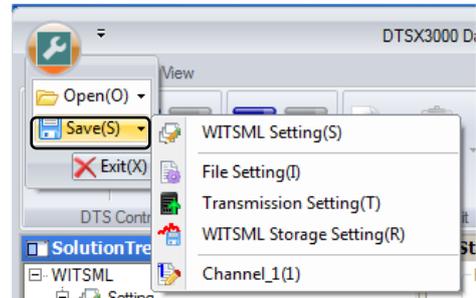
This subsection describes how to load and save settings from the Start menu of the main window by selecting Start menu>Open and Start menu>Save respectively.



Clicking Open or Save on the Start menu displays a cascade menu of settings type. Selecting a settings type to be loaded or saved from the displayed menu displays a corresponding load/save dialog.



Open menu



Save menu

The table below lists each Open or Save menu option along with the open/save dialog displayed and the settings file loaded or saved when the option is selected from the menu.

Open/Save Menu	Open/Save Dialog Displayed Settings File Type	File Extension
WITSML Setting	"Open/Save a WITSML setting file" dialog Settings file combining File Setting, Transmission Setting and WITSML settings for Channel 1 to 16	*.duw(DTSX200) *.duwl(DTSX3000)
File Setting	"Open/Save a file setting file" dialog File configuration file	*.duf(DTSX200) *.dufl(DTSX3000)
Transmission Setting	"Open/Save a transmission setting file" dialog Transmission configuration file	*.duv(DTSX200) *.duvl(DTSX3000)
WITSML Storage Setting	"Open/Save a WITSML setting file" File storage setting file	*.duq(DTSX200) *.duql(DTSX3000)
Channel_1-16 (*1)	"Open/Save a WITSML channel setting file" dialog WITSML channel setting file	*.dux(DTSX200) *.duxl(DTSX3000)

*1: In online state, menu options are listed for the number of channels installed in the DTSX Series.
In offline state, menu options are listed for the number of channels selected in the Select Switch dialog.

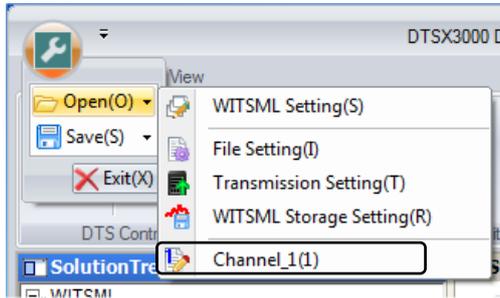
TIP

The WITSML Setting menu option combines File Setting, Transmission Setting, WITSML Storage Setting and Channel Setting (settings for Channel_1 to Channel_16). It can be used for loading or saving all these settings in one go. If the DTSX Series is installed with less than the maximum of 16 channels, settings of uninstalled channels are disabled.

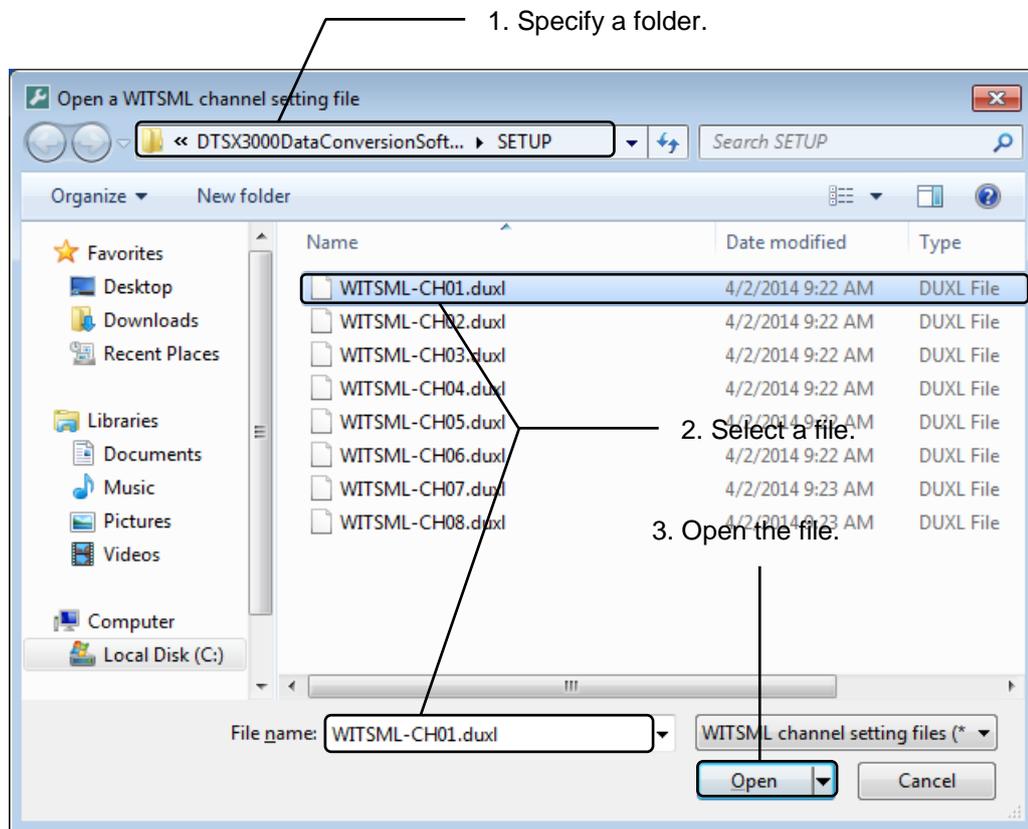
● Procedure for loading settings (in main window)

We describe the procedure below using an example for loading settings of Channel 1.

1. Select Start menu>Open>Channel_1. (The “Open a WITSML channel setting file” dialog is displayed.)



2. Specify the folder containing the channel settings file to be loaded.
3. Select the channel settings file to be loaded and click [Open]. (The “Open a WITSML channel setting file” dialog closes.)



After loading is completed, you can check the loaded channel settings by selecting View> Setting>Channel Setting>Channel_1 to display the WITSML Channel_1 dialog window.

TIP

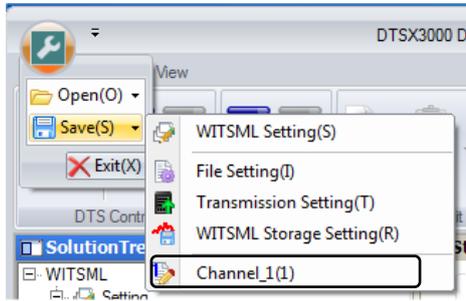
In Windows 7, the following folder is specified by default in each Load dialog:

C:\Users\<username>\ Documents\ DTSX3000DataConversionSoftware_WITSML1311\SETUP

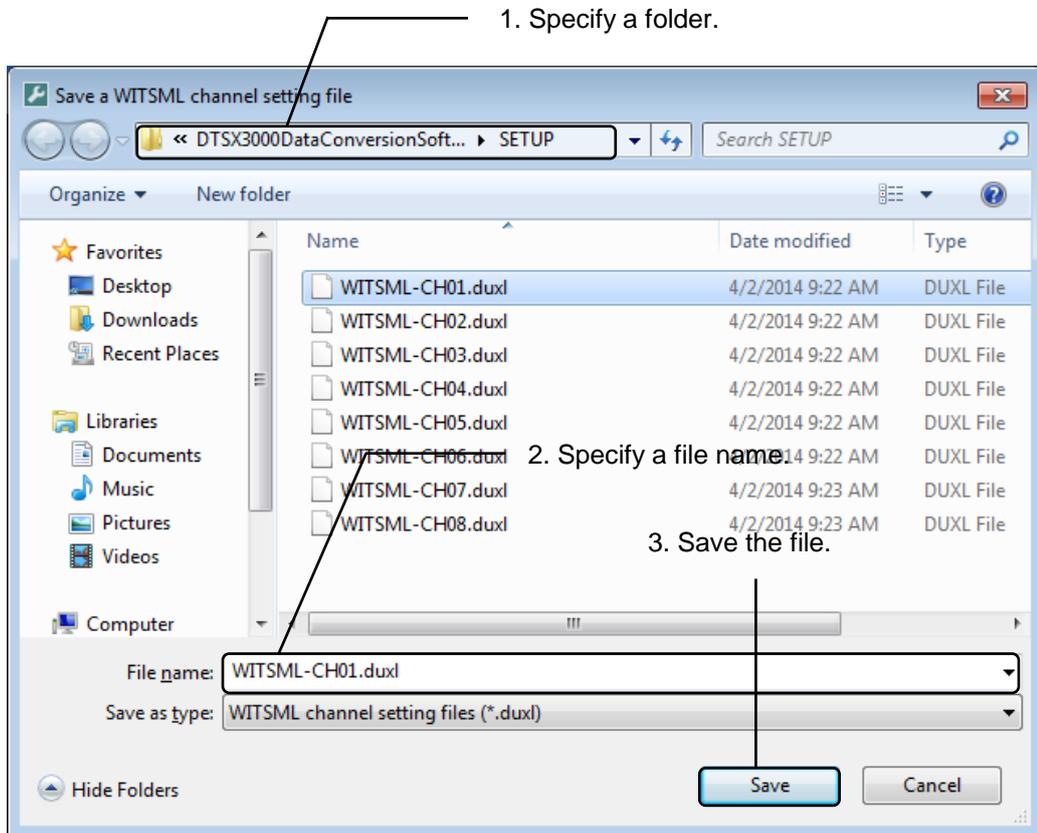
● **Procedure for saving settings (in main window)**

We describe the procedure below using an example for saving channel settings of Channel 1.

1. Select Start menu>Save> Channel_1. (The “Save a WITSML channel setting file” dialog is displayed.)



2. Specify the destination folder for saving the channel settings file.
3. Specify a file name for saving the channel settings and click [Save]. (The “Save a WITSML channel setting file” dialog closes.)



TIP

In Windows 7, the following destination folder is specified by default in each Save dialog window:
C:\Users\\ Documents\ DTSX3000DataConversionSoftware_WITSML1311\SETUP

4.2.2 Loading and Saving Settings from Context Menu

This subsection describes how to load and save settings from a context menu in the Solution Tree window by right-clicking on a node and selecting Open and Save respectively from the displayed context menu.



The table below shows the open or save dialog displayed and the settings file loaded or saved when Open or Save is selected from the context menu of each node.

Node	Open/Save Dialog Displayed Settings File Type	File Extension
Setting	"Open/Save a WITSML setting file" dialog Settings file combining File Setting, Transmission Setting and WITSML settings for Channel 1 to 16	*.duw(DTSX200) *.duwl(DTSX3000)
File Setting	"Open/Save a file setting file" dialog File configuration file	*.duf(DTSX200) *.dufl(DTSX3000)
Transmission Setting	"Open/Save a transmission setting file" dialog Transmission configuration file	*.duv(DTSX200) *.duvl(DTSX3000)
WITSML Storage Setting	"Open/Save a WITSML setting file" dialog File storage setting file	*.duq(DTSX200) *.duql(DTSX3000)
Channel Setting		
Channel_1-16 (*1)	"Open/Save a WITSML channel setting file" dialog WITSML channel setting file	*.dux(DTSX200) *.duxl(DTSX3000)

*1: In online state, nodes are displayed for the number of channels installed in the DTSX Series.
In offline state, nodes are displayed for the number of channels selected in the Select Switch dialog.

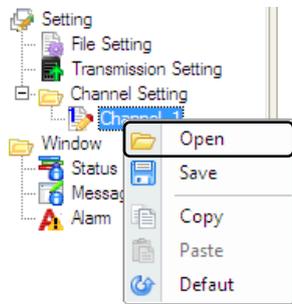
TIP

The context menu of the Setting node combines File Setting, Transmission Setting, WITSML Storage Setting and Channel Setting (settings for Channel_1 to Channel_16). It can be used for loading or saving all settings in one go. If the DTSX Series is installed with less than the maximum of 16 channels, settings of uninstalled channels are disabled.

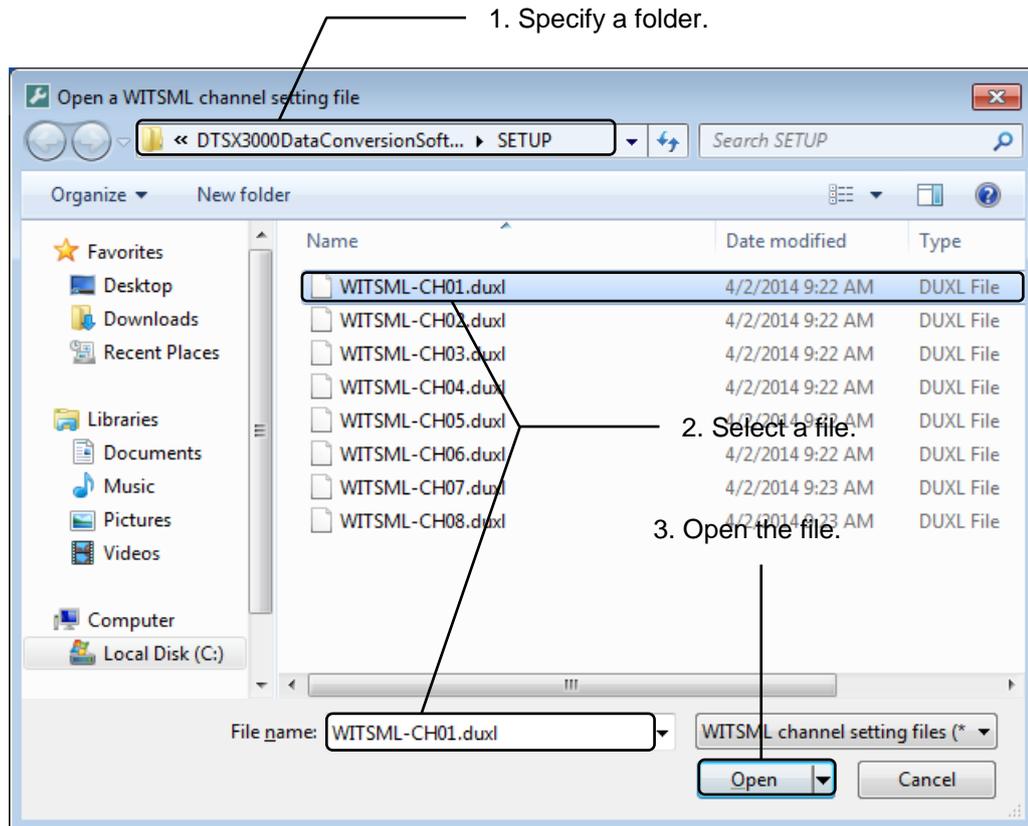
● **Procedure for loading settings (in Solution Tree window)**

We describe the procedure below using an example for loading channel settings of Channel 1.

1. Right-click the Channel_1 node.
2. Select Open from the context menu. (The “Open a WITSML channel setting file” dialog is displayed.)



3. Specify the folder containing the channel settings file to be loaded.
4. Select the channel settings file to be loaded and click [Open]. (The “Open a WITSML channel setting file” dialog closes.)



After loading is completed, you can check the loaded settings by double-clicking the Channel_1 node to display the WITSML Channel_1 dialog window.

TIP

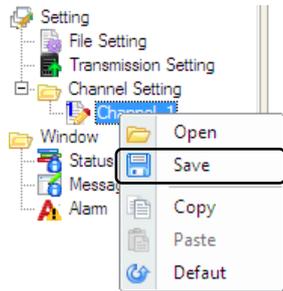
In Windows 7, the following folder is specified by default in a Load dialog:

C:\Users\<username>\ Documents\ DTSX3000DataConversionSoftware_WITSML1311 \SETUP

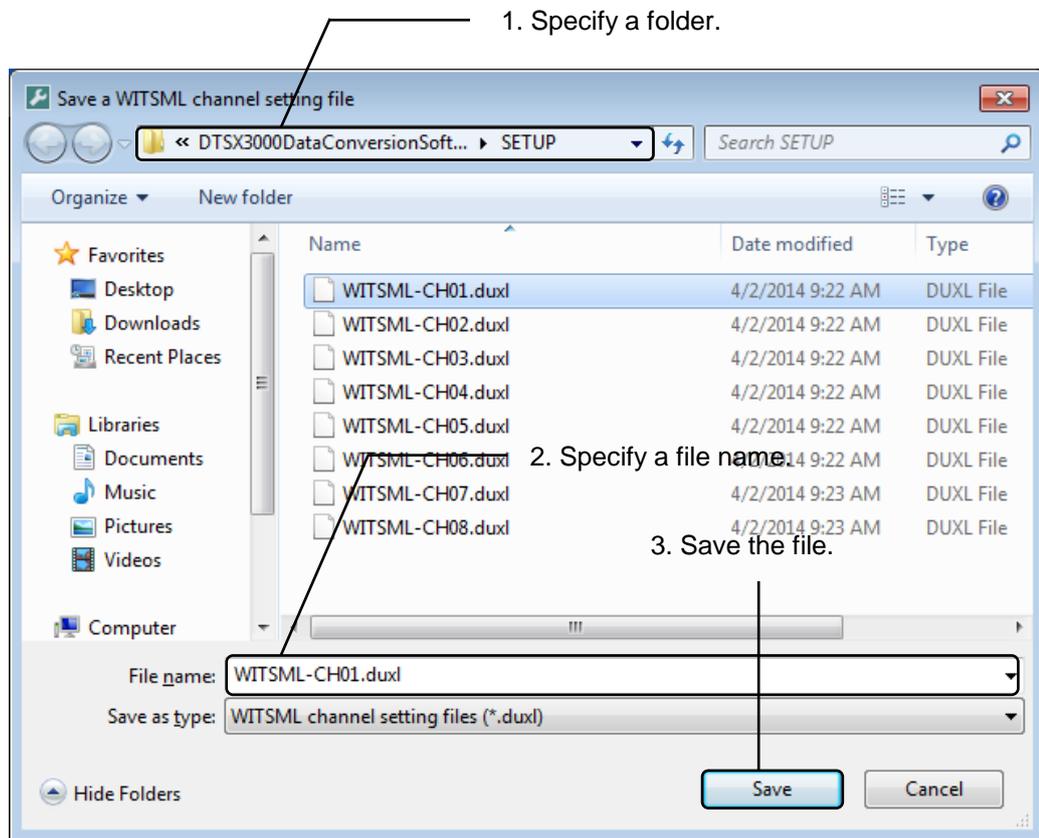
● Procedure for saving settings (in Solution Tree window)

We describe the procedure below using an example for saving channel settings of Channel 1.

1. Right-click on the Channel_1 node.



2. Select Save from the context menu. (The “Save a channel setting file” dialog is displayed.)
3. Specify the destination folder for saving the channel settings file.
4. Specify a file name for saving the channel settings and click [Save]. (The “Save a WITSML channel setting file” dialog closes.)



TIP

In Windows 7, the following destination folder is specified by default in each Save dialog.

C:\Users\\ Documents\ DTSX3000DataConversionSoftware_WITSML1311\SETUP

4.3 Copying, Pasting and Defaulting Settings

You can copy, paste and initialize (set to default values) WITSML channel settings either from the menu of the main window or from a context menu in the Solution Tree window.

TIP

- You must perform a copy operation before a paste operation.
- A copy operation overwrites previously copied values.
- Pasting and defaulting is not allowed during conversion or disconnection in online state.

4.3.1 Copying, Pasting and Defaulting Settings from the Main Window Menu

This subsection describes how to copy, paste and initialize (default) settings using the main window menu by selecting Home>Edit>Copy, Home>Edit>Paste and Home>Edit>Default respectively.



Clicking Copy, Paste or Default on the menu displays a menu for selecting the type of settings to be copied, pasted or defaulted.

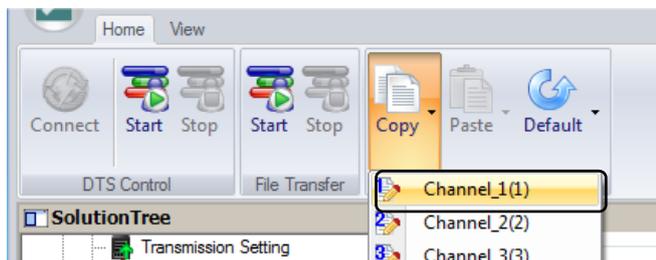
TIP

- The WITSML Setting option on the Default menu combines File Setting, Transmission Setting, WITSML Storage Setting and Channel_1-16 (settings for Channel_1 to Channel_16). It can be used for defaulting all settings in one go.

- **Procedure for copying settings (in main window)**

We describe the procedure below using an example for copying channel settings of Channel 1.

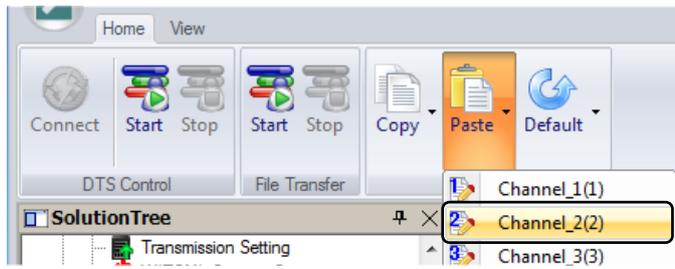
1. Select Home> Edit>Copy>Channel_1.



- **Procedure for pasting settings (in main window)**

We describe the procedure below using an example for pasting to channel settings of Channel 2.

1. Select Home> Edit>Paste>Channel_2.

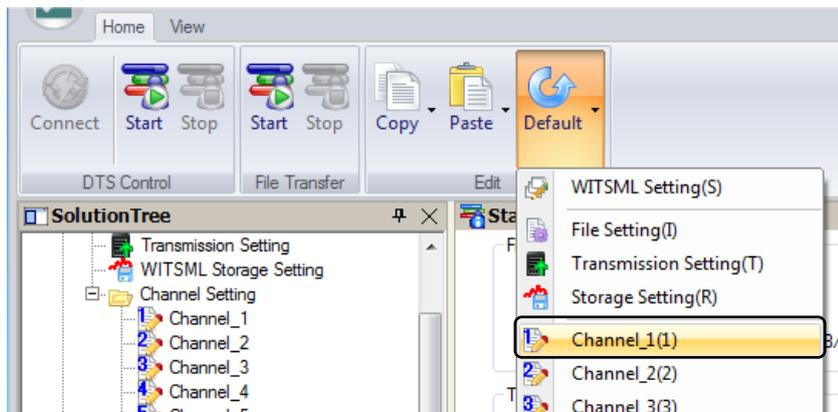


After pasting is completed, you can check the pasted WITSML channel settings by selecting View >Setting>Channel Setting>Channel_2 to display the WITSML Channel_2 dialog window.

● **Procedure for defaulting settings (in main window)**

We describe the procedure below using an example for defaulting channel settings of Channel 1.

1. Select Home> Edit>Default>Channel_1.



After defaulting is completed, you can check the initialized channel settings by selecting View> Setting>Channel Setting>Channel_1 to display the WITSML Channel_1 dialog window.

4.3.2 Copying, Pasting and Defaulting Settings from Context Menu

This subsection describes how to copy, paste and default settings from a context menu in the Solution Tree window by right-clicking on a node and selecting Copy, Paste and Default respectively from the displayed context menu.

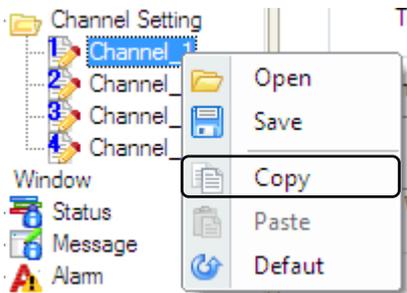
TIP

The context menu of the Setting node combines File Setting, Transmission Setting, WITSML Storage Setting and Channel_1-16. It can be used for defaulting all settings in one go.

- **Procedure for copying settings (in Solution Tree window)**

We describe the procedure below using an example for copying channel settings of Channel 1.

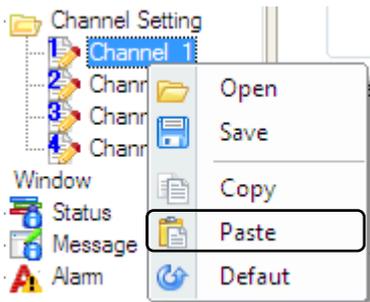
1. Right-click the Channel_1 node.
2. Select Copy from the context menu.



- **Procedure for pasting settings (in Solution Tree window)**

We describe the procedure below using an example for pasting to channel settings of Channel 1.

1. Right-click on the Channel_1 node.
2. Select Paste from the context menu.

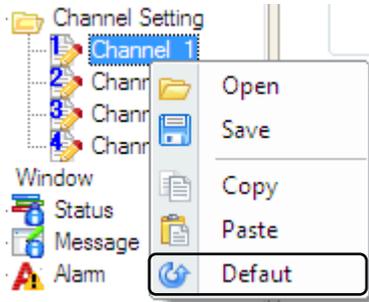


After pasting is completed, you can check the pasted channel settings by double-clicking on the Channel_1 node to display the WITSML Channel_1 dialog window.

- **Procedure for defaulting settings (in Solution Tree window)**

We describe the procedure below using an example for defaulting channel settings of Channel 1.

1. Right-click on the Channel_1 node.
2. Select Default from the context menu.



After defaulting is completed, you can check the initialized channel settings by double-clicking on the Channel_1 node to display the WITSML Channel_1 dialog window.

4.4 Displaying Windows and Dialogs

This section describes how to display windows and dialogs, as well as basic window operations. Windows and dialogs can be displayed from the menu of the main window or from a node in the Solution Tree window.

A window or dialog can be displayed by clicking on its associated menu button in the main window. If the window is already displayed, it is given focus.

A window or dialog can also be displayed by double-clicking on its associated node in the Solution Tree window. If the window is already displayed, it is given focus.

4.4.1 Menu Items for Displaying Windows (in main window)

This subsection describes the displaying of windows from the main window menu. The table below lists the menu items (tabs, group boxes, buttons and menus) for displaying windows.

Menu Element (Tab, group box, button or menu)	Description
View (tab)	
Windows (group box)	
Solution Tree (button)	Displays and moves focus to Solution Tree window
Status (button)	Displays and moves focus to Status window
Message (button)	Displays and moves focus to Message window
Alarm (button)	Displays and moves focus to Alarm window

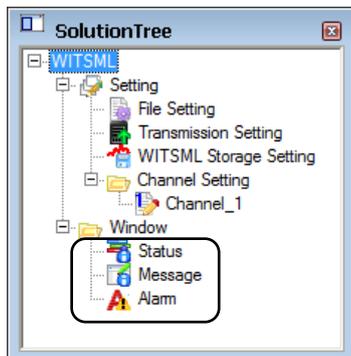


Buttons for displaying windows

4.4.2 Nodes for Displaying Windows (in Solution Tree Window)

This subsection describes the displaying of windows from a node in the Solution Tree window. The table below lists the nodes for displaying windows.

Node for Displaying Windows	Description
WITSML	
Window	
Status	Displays and moves focus to Status window
Message	Displays and moves focus to Message window
Alarm	Displays and moves focus to Alarm window



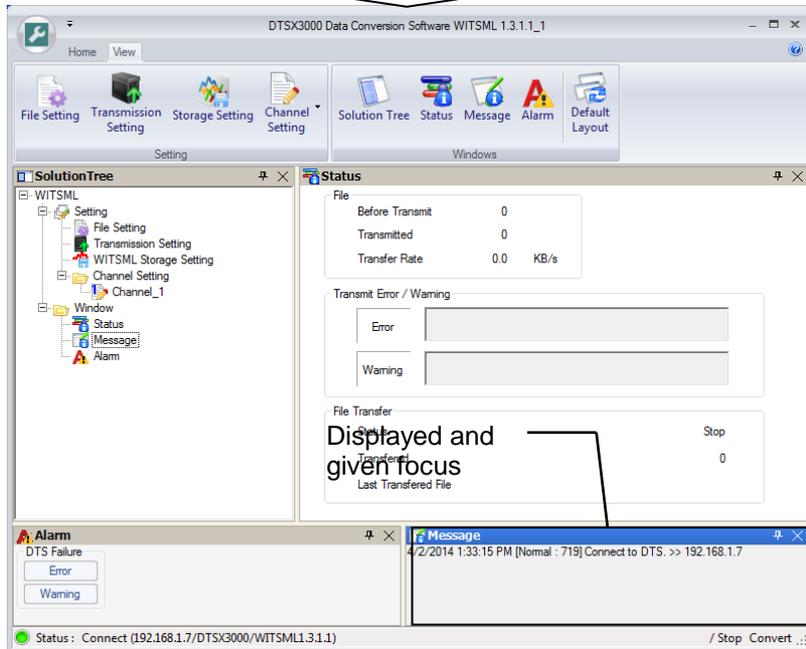
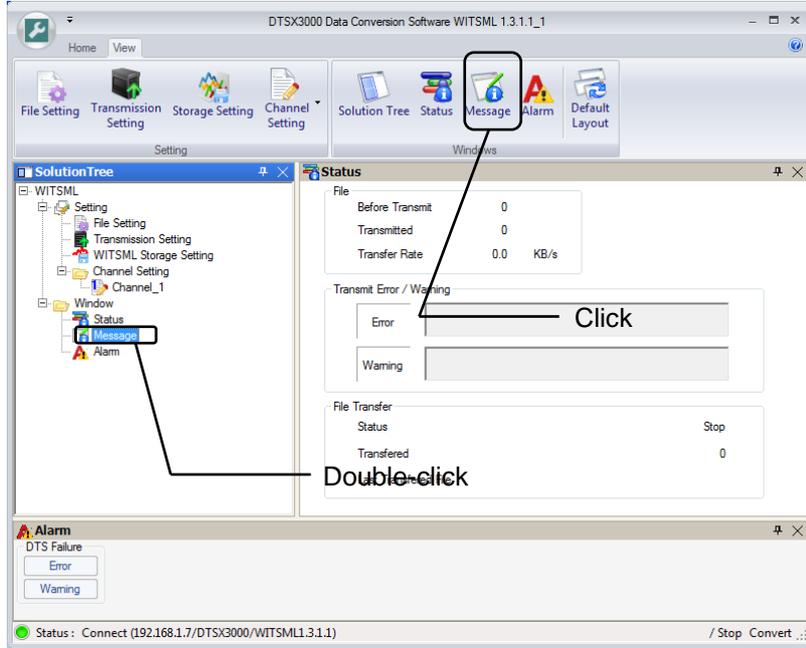
Nodes for displaying windows

4.4.3 Window Operations

This subsection describes basic window operations.

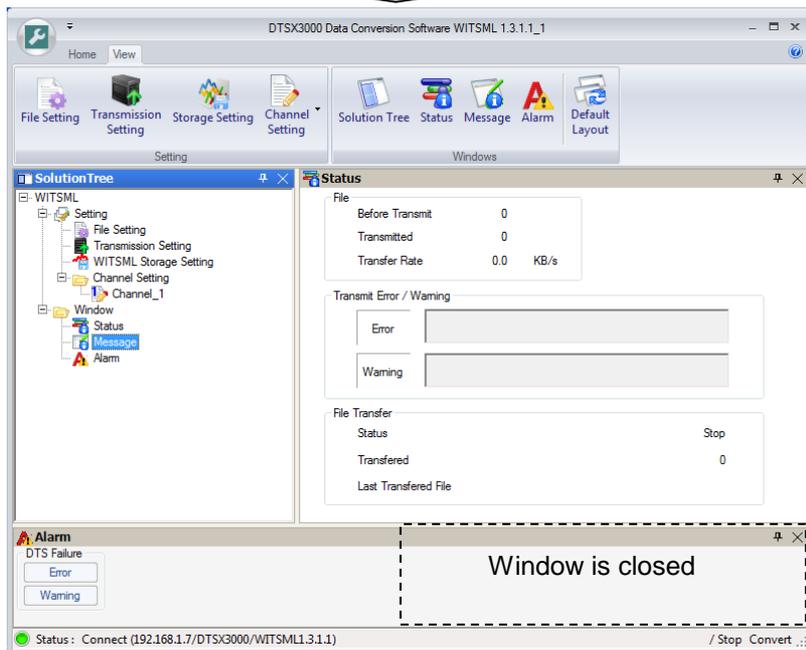
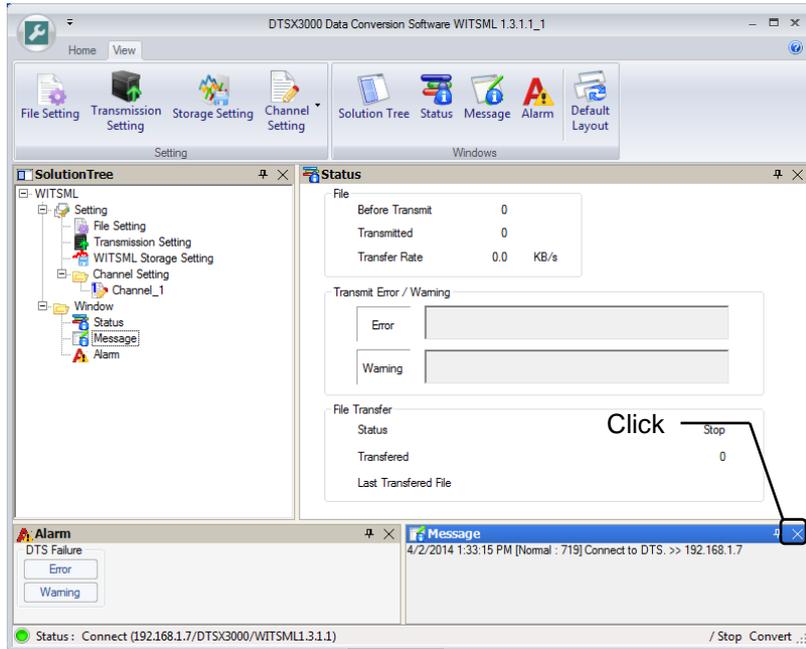
- **Displaying and giving focus to a window**

A window can be displayed by clicking on its associated menu item in the main window or double-clicking on its associated node in the Solution Tree window. If the window is already displayed, it is given focus.



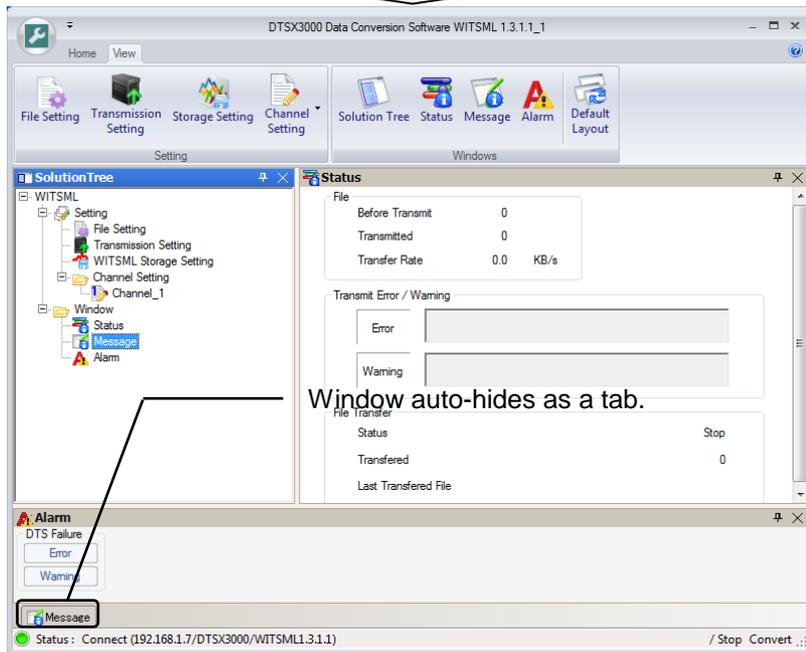
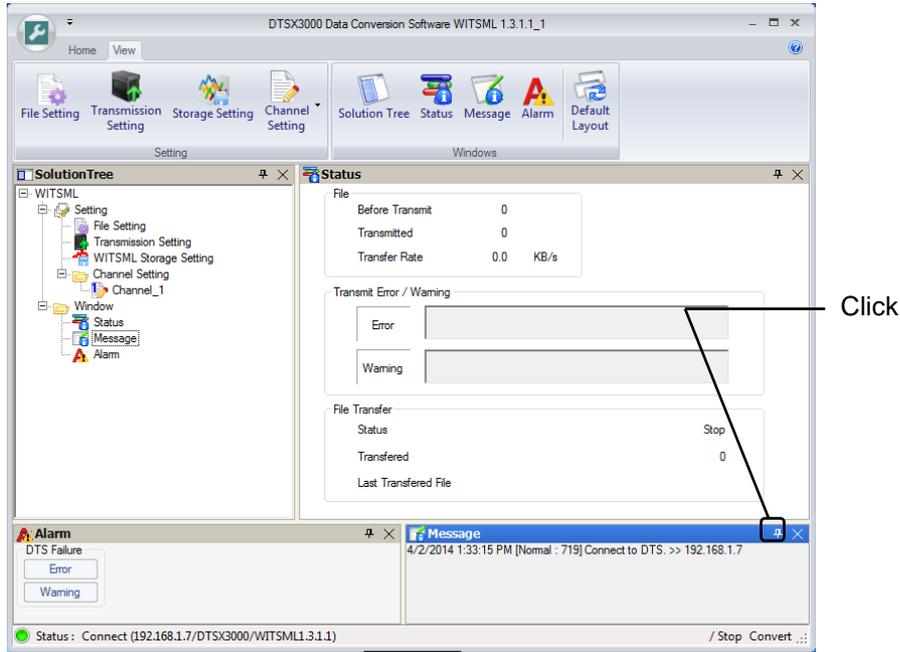
- **Closing a window**

Clicking on the [x] button at the top right corner of a window closes it.



- **Auto-hiding a window**

Clicking on the [] button at the top right corner of a window auto-hides it. An auto-hiding window appears as a tab along one of the four edges of the main window.



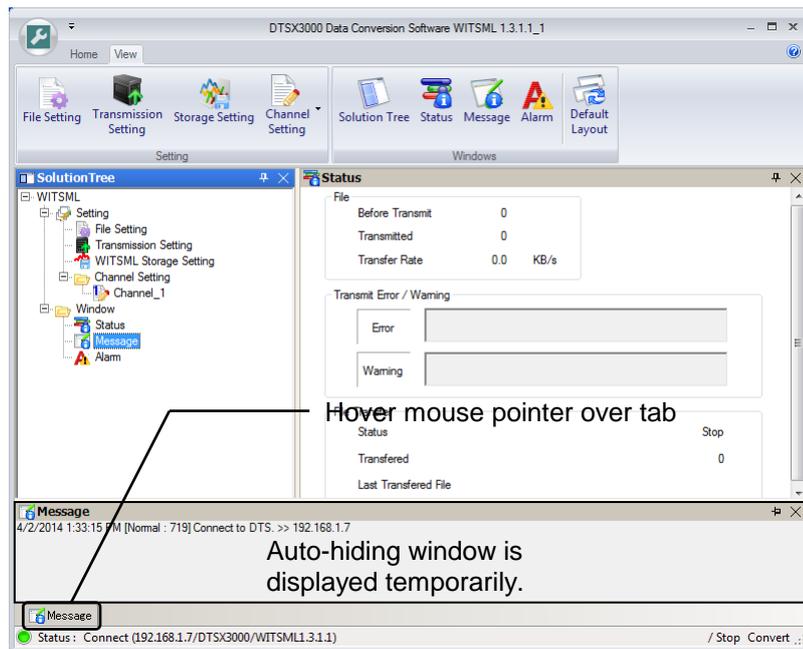
- **Displaying an auto-hiding window temporarily**

Hovering the mouse pointer over the tab of an auto-hiding window displays the window temporarily. Moving the mouse pointer outside the temporarily displayed window auto-hides it again.

Clicking on a temporarily displayed window gives it focus. The window remains displayed until the focus is moved elsewhere.

TIP

Hovering the mouse pointer over the tab of an auto-hiding window when the application itself is not in focus will not display the window temporarily.



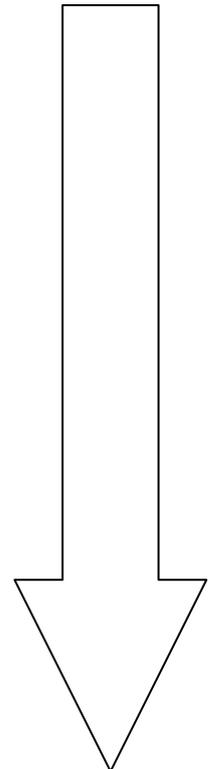
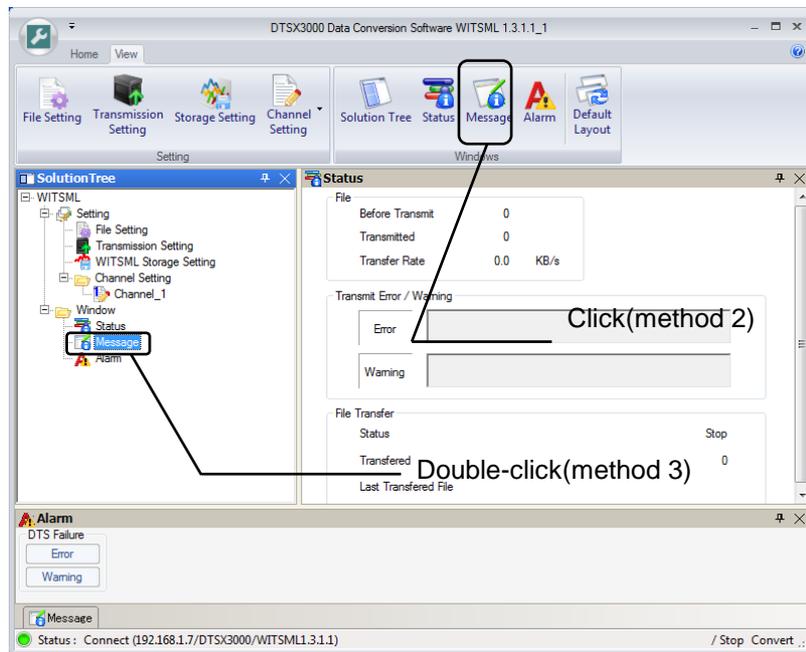
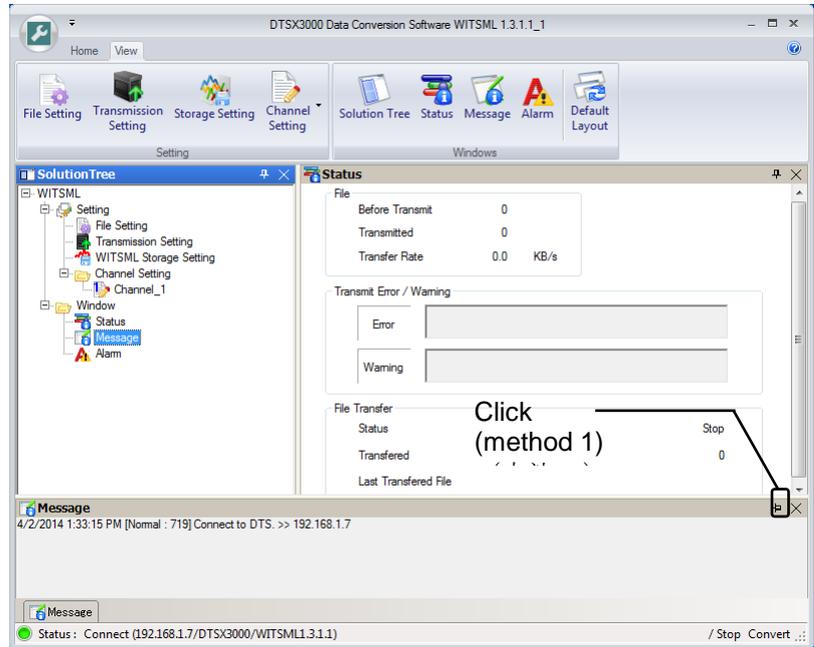
- **Turning off auto-hiding of a window**

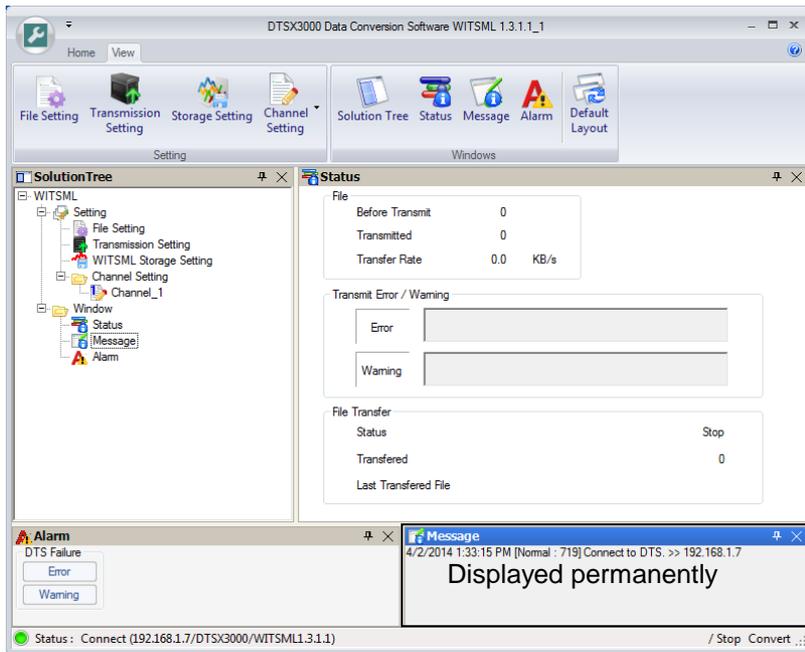
There are three ways to turn off auto-hiding of a window:

Method 1: Clicking on [] when the auto-hiding window is temporarily displayed.

Method 2: Clicking on its associated menu button in the main window.

Method 3: Double-clicking on its associated node in the Solution Tree window.





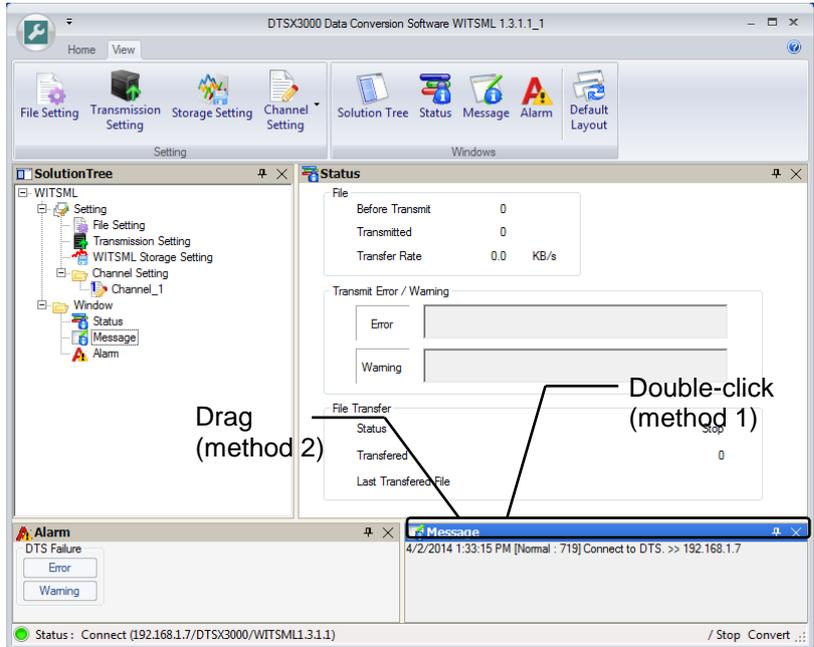
● **Floating a window**

There are two ways to float a window as described below:

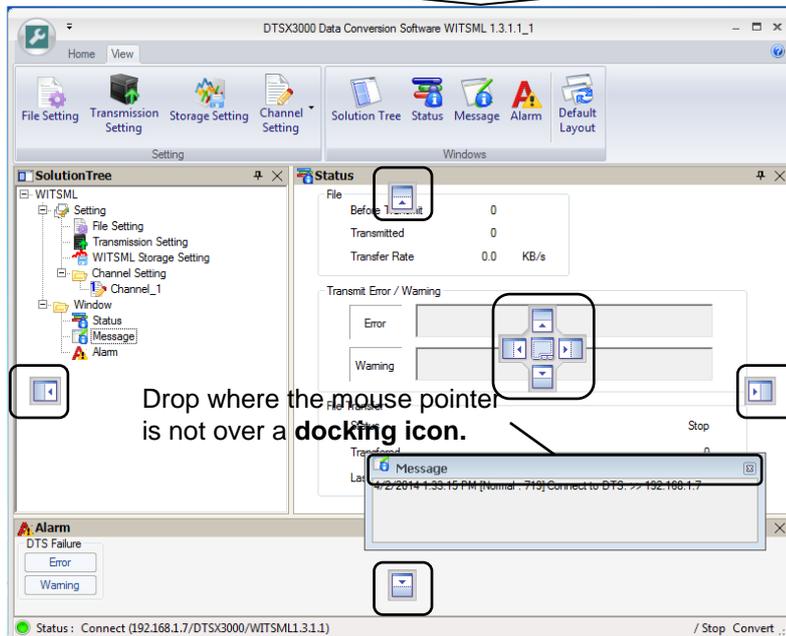
Method 1 : Double-click on the title bar of a window to be floated.

Method 2 : Drag and drop the title bar of a window to be floated (see procedure below):

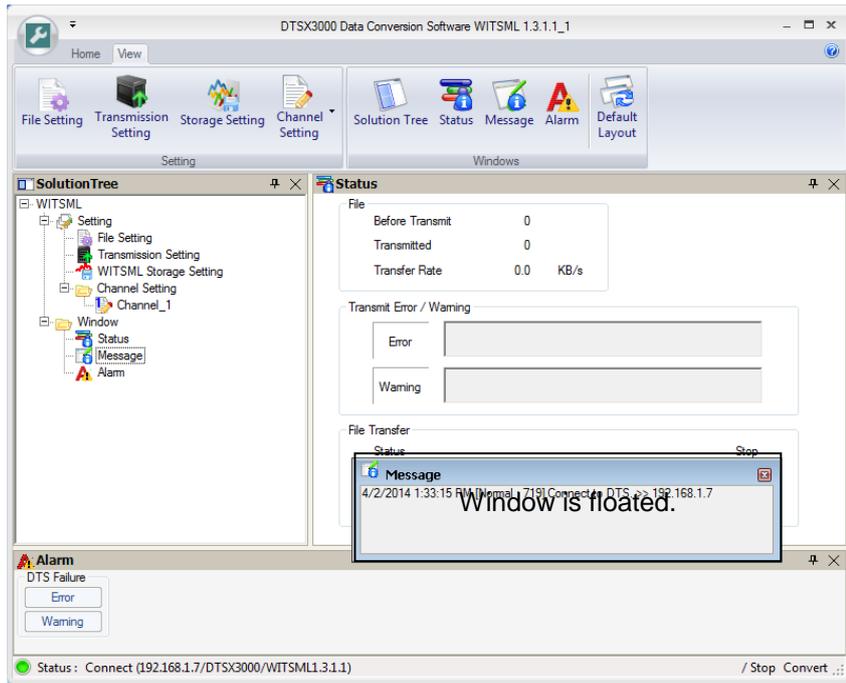
1. Drag the title bar of a window to be floated. (Docking icons appear when the title bar is dragged over the display area of another window.)
2. Drop the title bar where the mouse pointer is not over a docking icon.



Drag

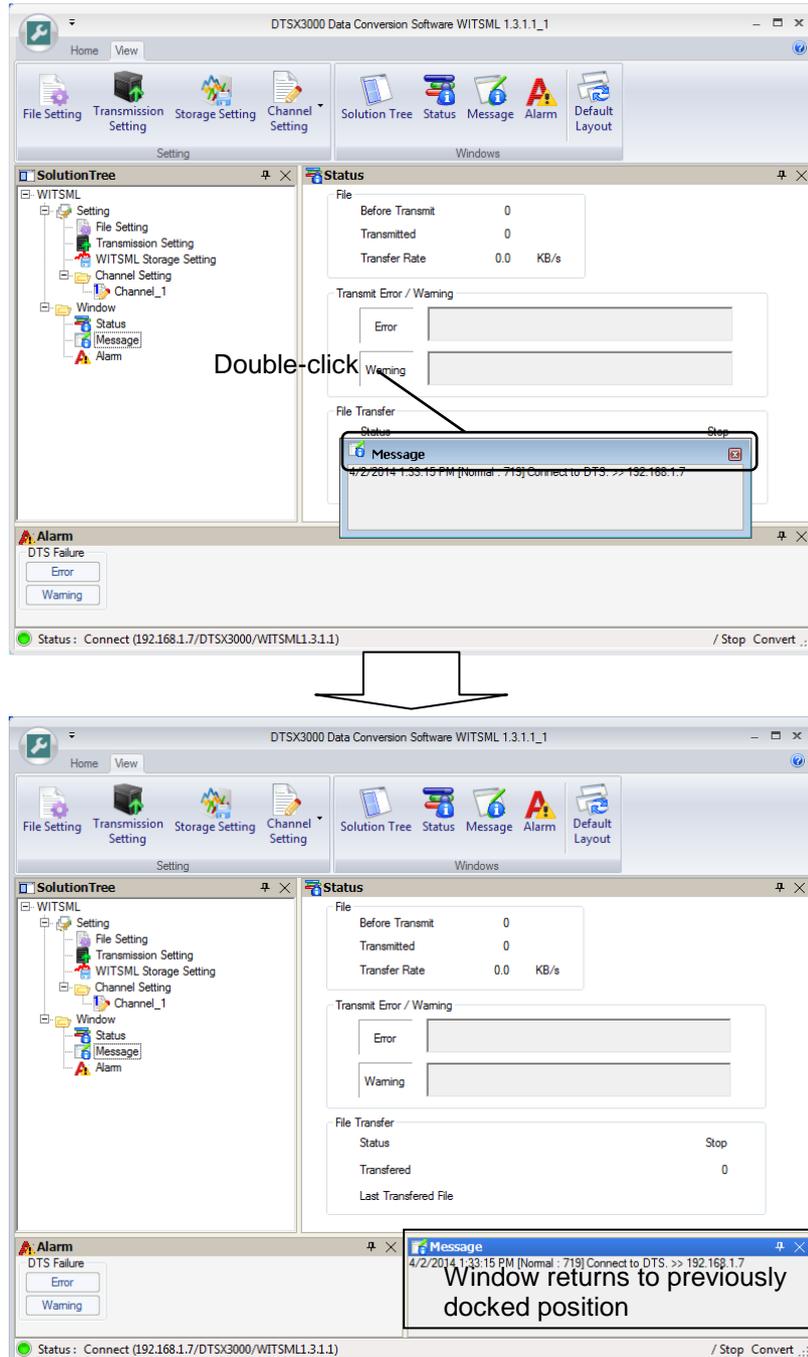


Double-click



- **Returning a floating window to its previously docked position**

To return a floating window to its previously docked position, double-click its title bar.



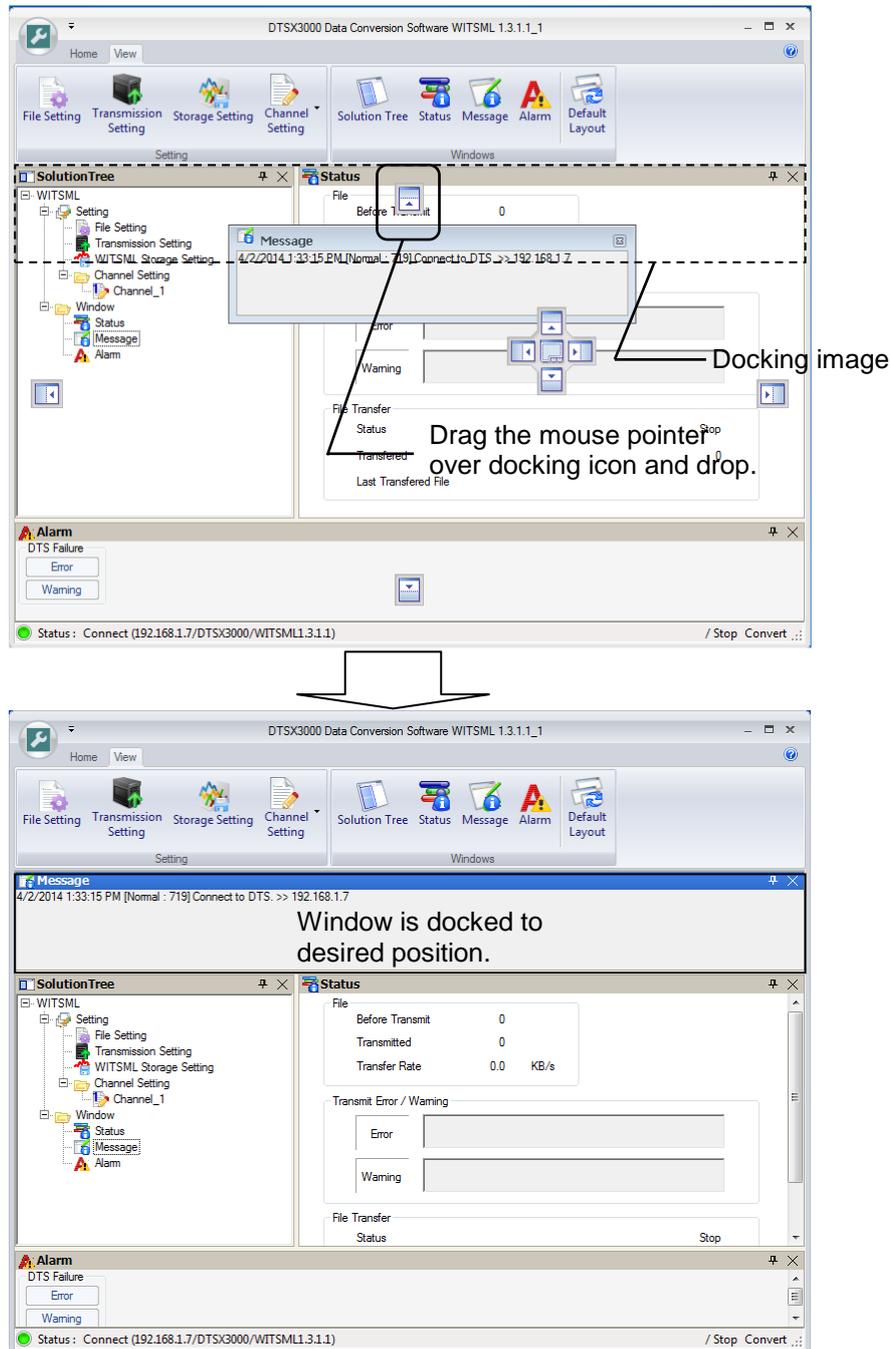
- **Docking a window to any edge of the main window**

A window can be docked to any one of the four edges of the main window using the following procedure:

1. Drag the title bar of the window to be docked. (Docking icons appear when the title bar is dragged over the display area of another window.)
2. Drag, move the mouse pointer over the desired docking icon displayed on an outer edge, and drop. (An outline of the window (docking image) appears when the mouse pointer is over a docking icon.)

TIP

If a window to be docked is the only displayed window, dropping it over any docking icon (except the cross center of the inner docking icons) will dock the window fully within the main window.



- **Docking a window to any edge of a window other than the main window**

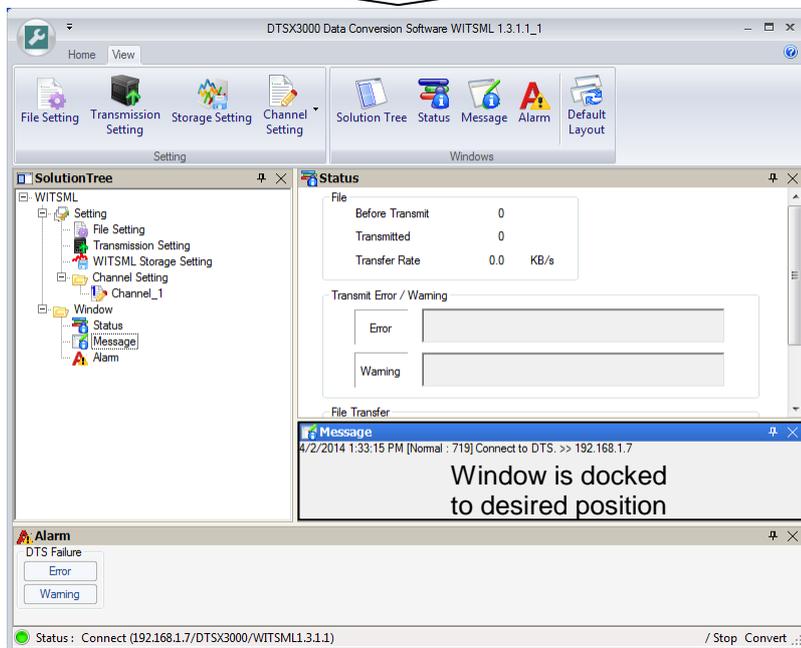
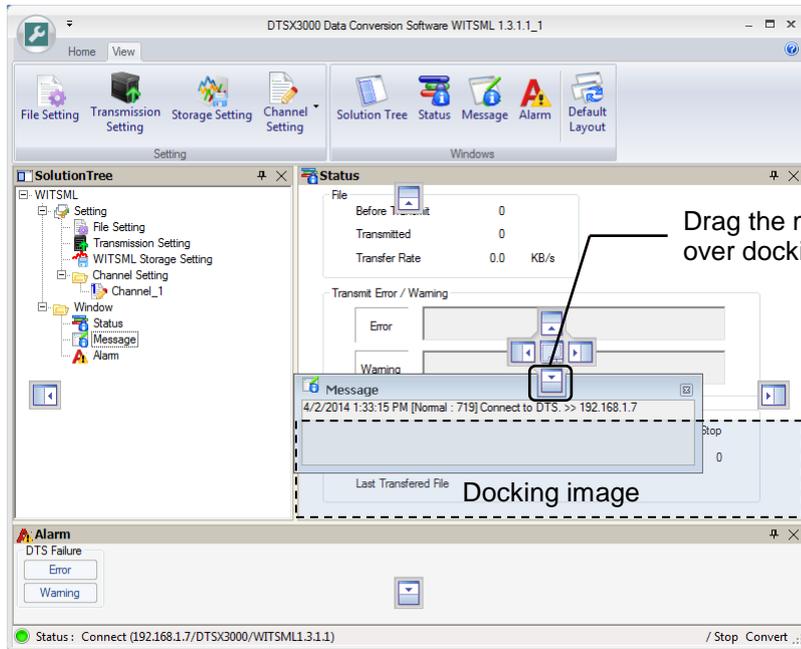
A window can be docked to any one of the four edges of a window other than the main window using the following procedure:

1. Drag the title bar of the window to be docked. (Docking icons appear when the title bar is dragged over another window.)

2. Drag the title bar over the display area of the window where you want to dock it. Move the mouse pointer over the desired docking icon (except the cross center) displayed on an inner edge, and drop the title bar. (An outline of the window (docking image) appears when the mouse pointer is over a docking icon.)

TIP

A window can also be docked to a floating window. When a window to be docked is dragged over the display area of a floating window, only the docking icons arranged as a cross appear.



● **Tab-docking a window (creating a set of tabbed windows)**

A window can be tab-docked to another window, other than the main window. There are two ways to do this.

Method 1: Using the docking icon (See detailed procedure below.)

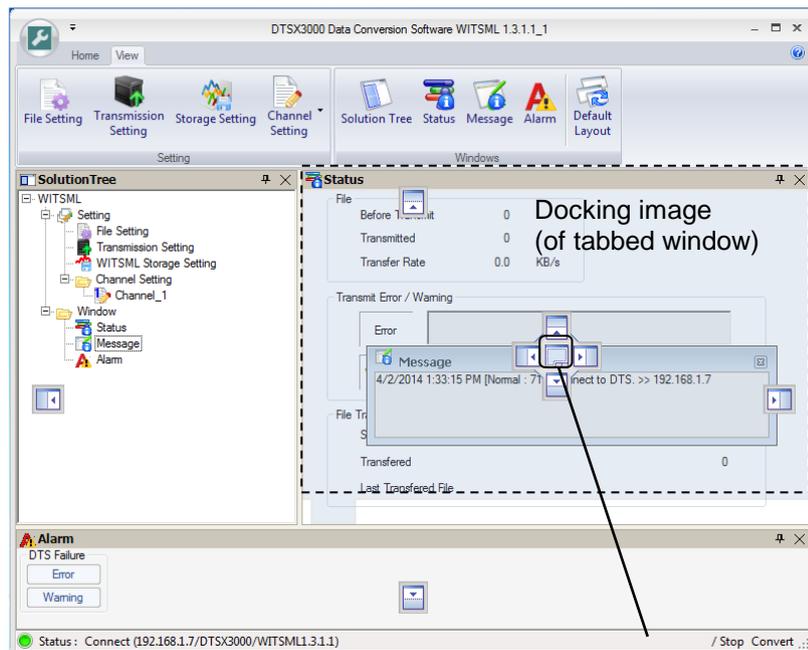
1. Drag the title bar of the window to be tab-docked. (Docking icons appear when the title bar is dragged over the display area of another window.)
2. Drag the title bar over the display area of the window where you want to dock it. Move the mouse pointer over the cross center of the inner docking icons, and release the mouse button. (An outline of the window (docking image) appears when the mouse pointer is over a docking icon.)

Method 2: Drag and drop window title bar onto the title bar of the destination window (See detailed procedure below.)

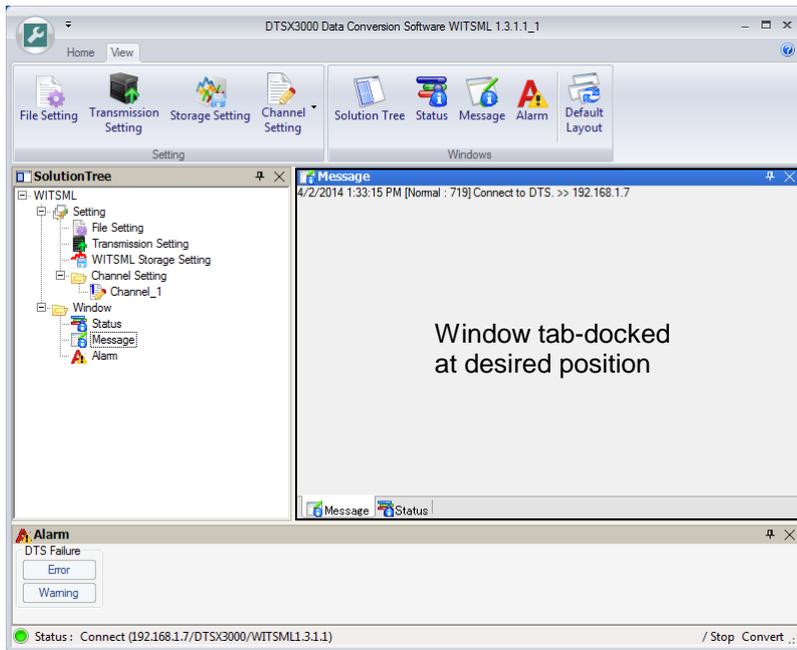
1. Drag the window title of the window to be tab-docked.
2. Move the mouse pointer over the title bar of another window and release the mouse button. (An outline of the window (docking image) appears when the mouse pointer is over the title bar.)

TIP

If no other window is displayed, moving the mouse pointer over the cross center of the inner docking icons floats the window.

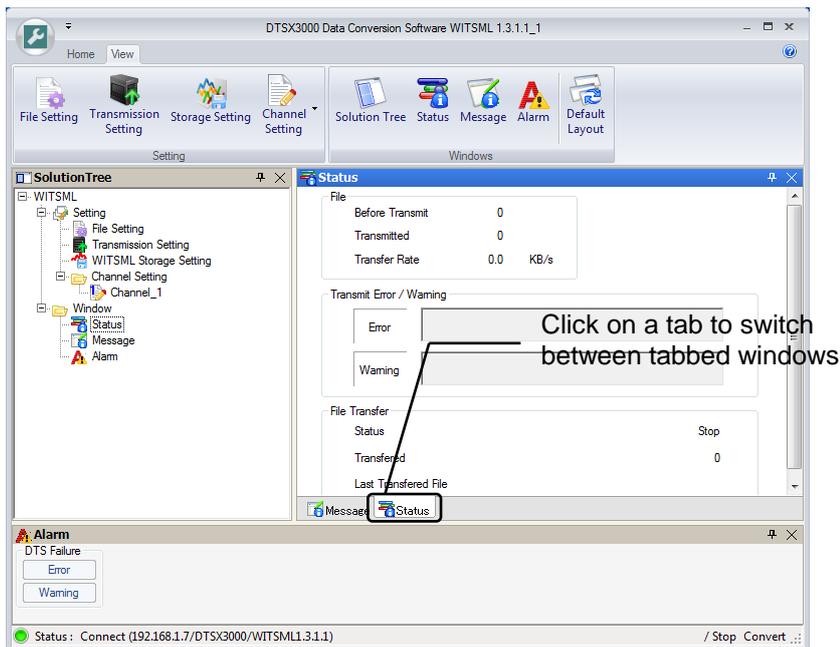


Drag the title bar over the docking icon and drop it



- **Switching display between tabbed windows**

Clicking a tab at the bottom of a tabbed group switches the window display to the selected tabbed window.



- **Separating a tabbed window**

A superimposed window can be separated using any of the following two methods:

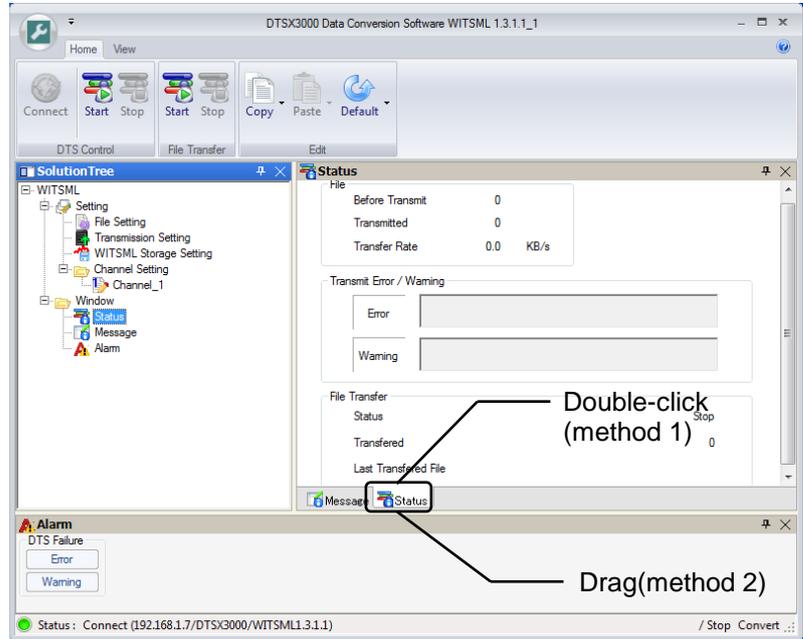
Method 1 : Double-click the tab of the window to be separated. (The separated window becomes a floating window.)

Method 2 : Drag and drop the tab of the window to be separated. (Dragging a tab has the same effect of dragging the title bar of that window.)

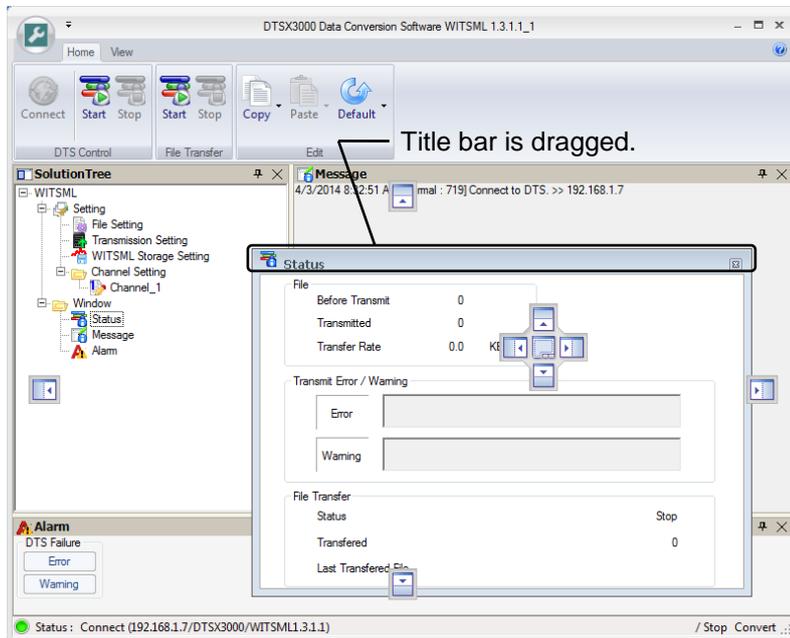
TIP

In method 2, the dragged window can be floated or docked in any preferred way as follows:

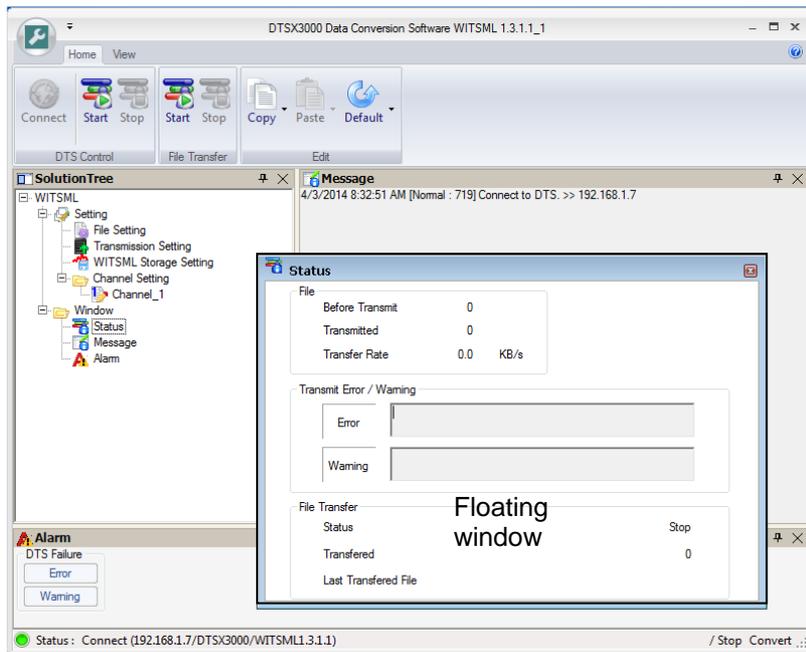
- Float the window (method 2)
- Drag the tab to any one of the four edges of the main window
- Drag the tab to any one of the four edges of another window



Drag



Double-click



● **Closing a tabbed window**

Clicking the [X] button at the top right corner of a tabbed window closes the window.

TIP

- If the tabbed window is docked in a main window, only the displayed window is closed.
- If the tabbed window is floating, all windows of the tabbed group are closed.

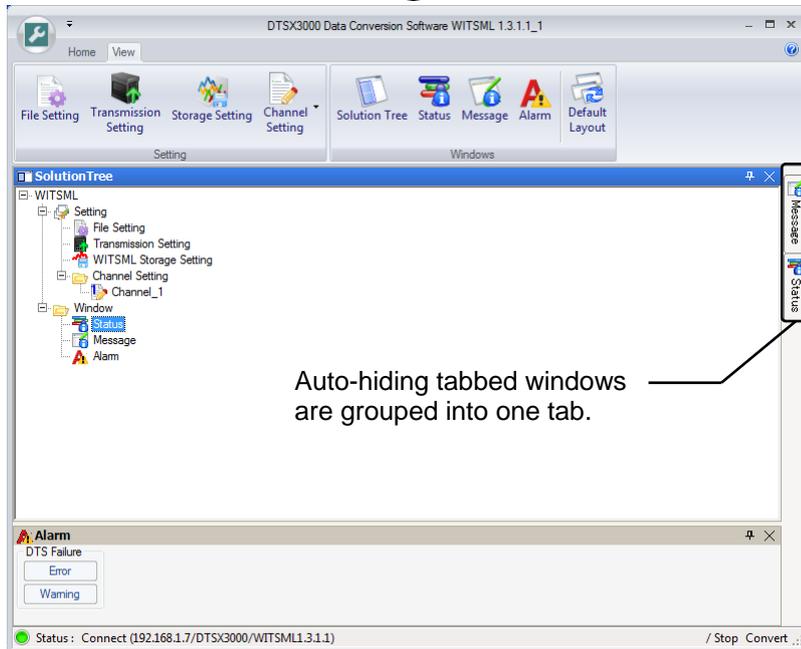
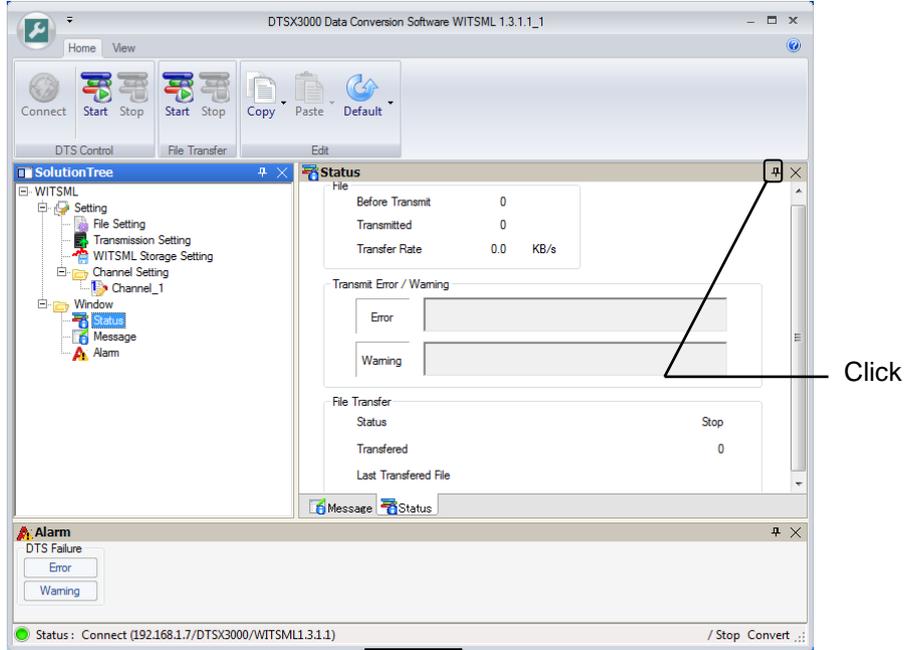
SEE ALSO

For details on the window operation, see the description entitled “Closing a window.”

- **Auto-hiding tabbed windows**

Clicking on the [] button at the top right corner of the displayed window auto-hides its tabbed windows. Auto-hiding tabbed windows appear as a tab along one of the four edges of the main window.

Auto-hiding tabbed windows are grouped into a single tab, which displays their window titles jointly.



- **Displaying an auto-hiding tabbed window temporarily**

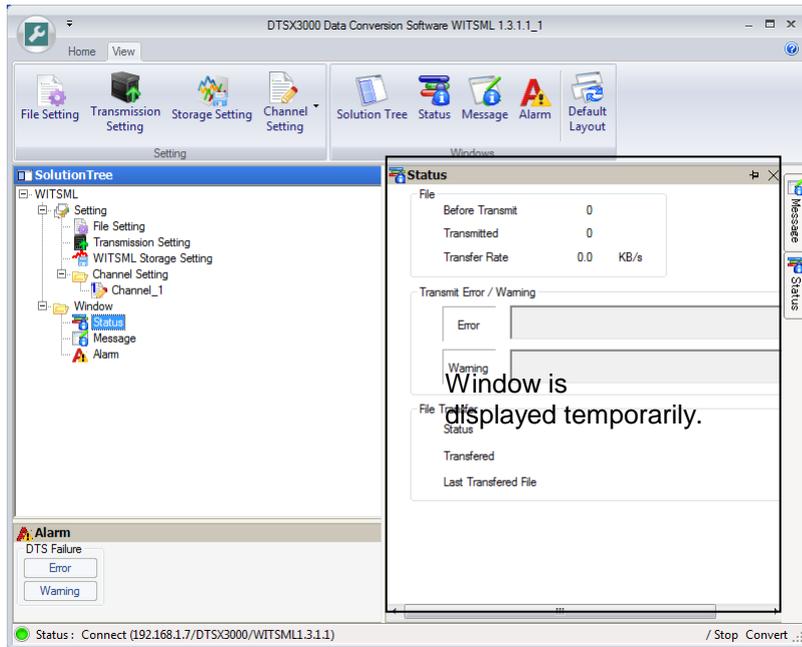
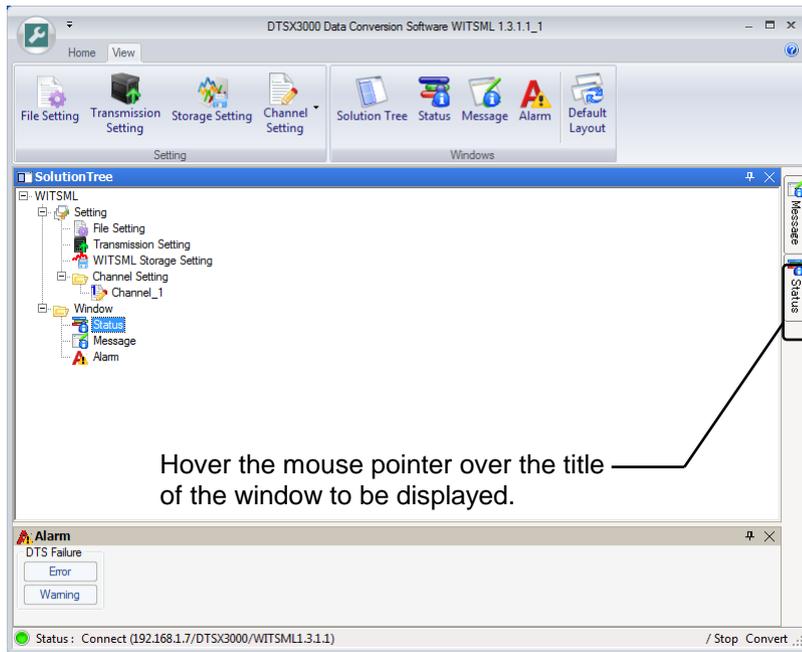
Hovering the mouse pointer over any window title in a tab displays the auto-hiding window temporarily. Moving the mouse pointer outside the temporarily displayed window auto-hides it again.

No tab is displayed at the bottom of the temporarily displayed window. (Switching display between windows is not allowed.)

Clicking on a temporarily displayed window gives it focus. The window remains displayed until the focus is moved elsewhere.

TIP

Hovering the mouse pointer over a window title in a tab when the application itself is not in focus will not display the auto-hiding window temporarily.



- **Turning off auto-hiding of a tabbed window**

The method is similar to that for a normal non-tabbed window. For details, see the description entitled “Turning off auto-hiding of a window.”

- **Floating a tabbed window**

The method is similar to that for a normal non-tabbed window. For details, see the description entitled “Floating a window.”

- **Returning a floating tabbed window to its previously docked position**

The method is similar to that for a normal non-tabbed window. For details, see the description entitled “Returning a floating window to its previously docked position.”

- **Docking a tabbed window to any edge of the main window**

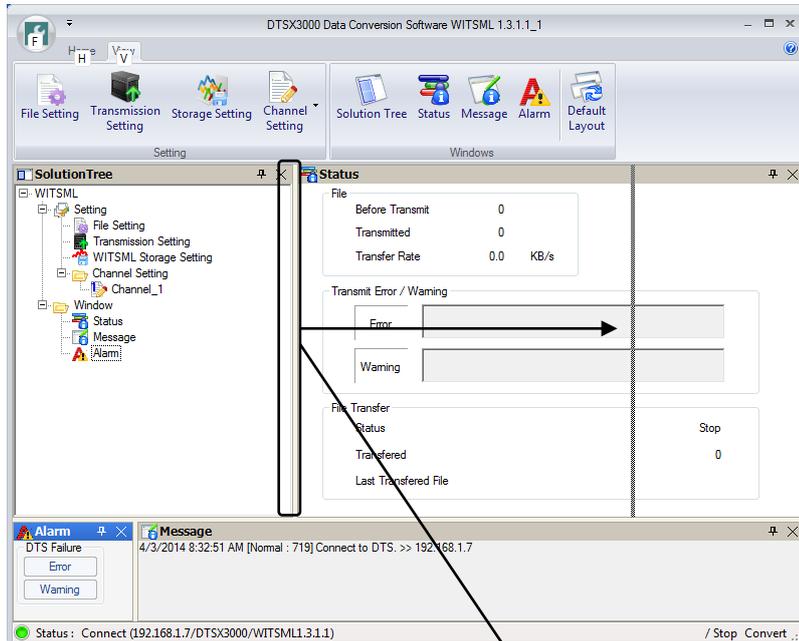
The method is similar to that for a normal non-tabbed window. For details, see the description entitled “Docking a window to any edge of the main window.”

- **Docking a tabbed window to any edge of a window other than the main window**

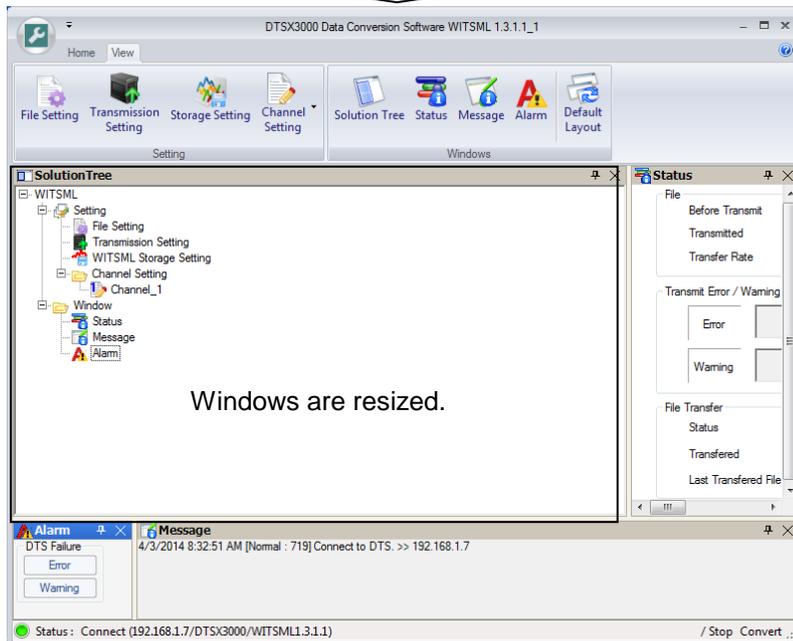
The method is similar to that for a normal non-tabbed window. For details, see the description entitled “Docking a window to any edge of a window other than the main window.”

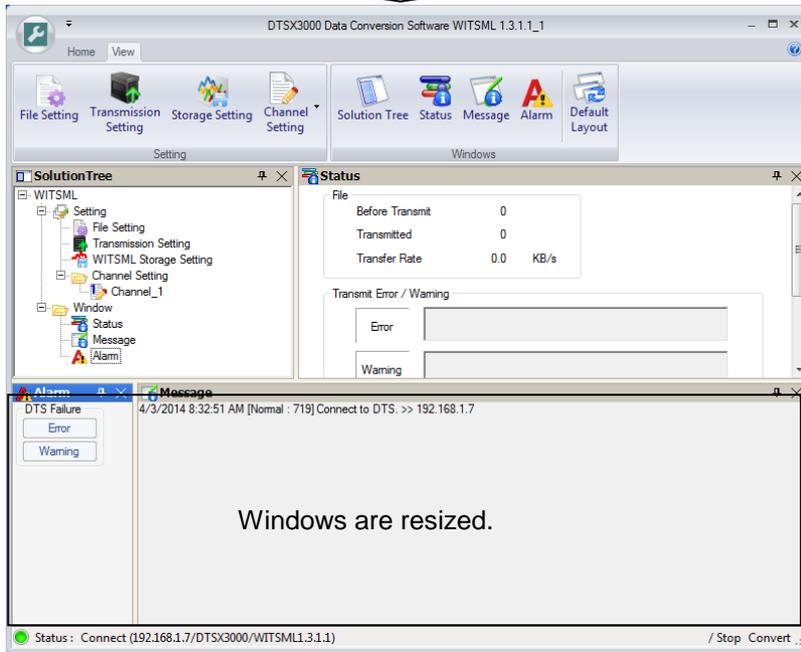
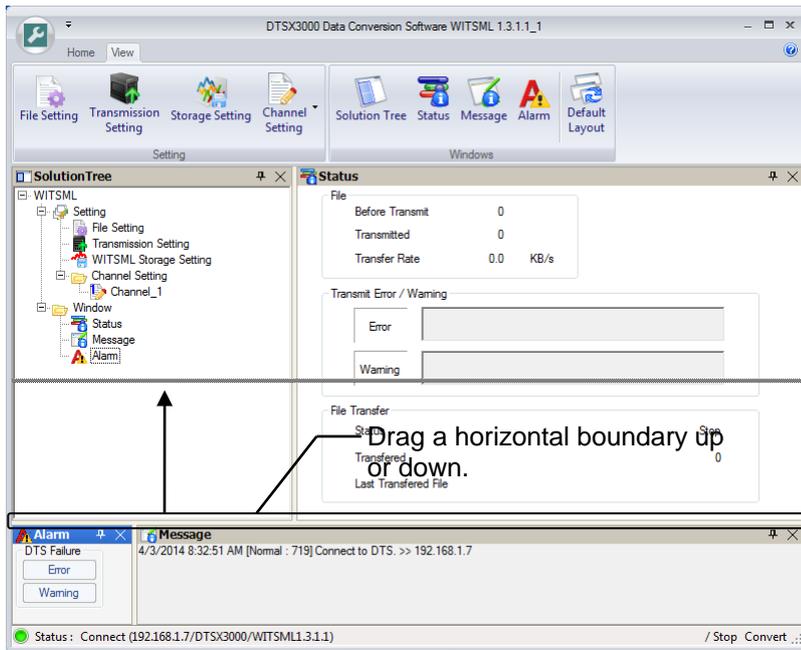
- **Resizing a window**

When multiple windows are displayed, the windows can be resized by dragging and dropping the boundary between the windows. A vertical boundary can be dragged left and right while a horizontal boundary can be dragged up and down.



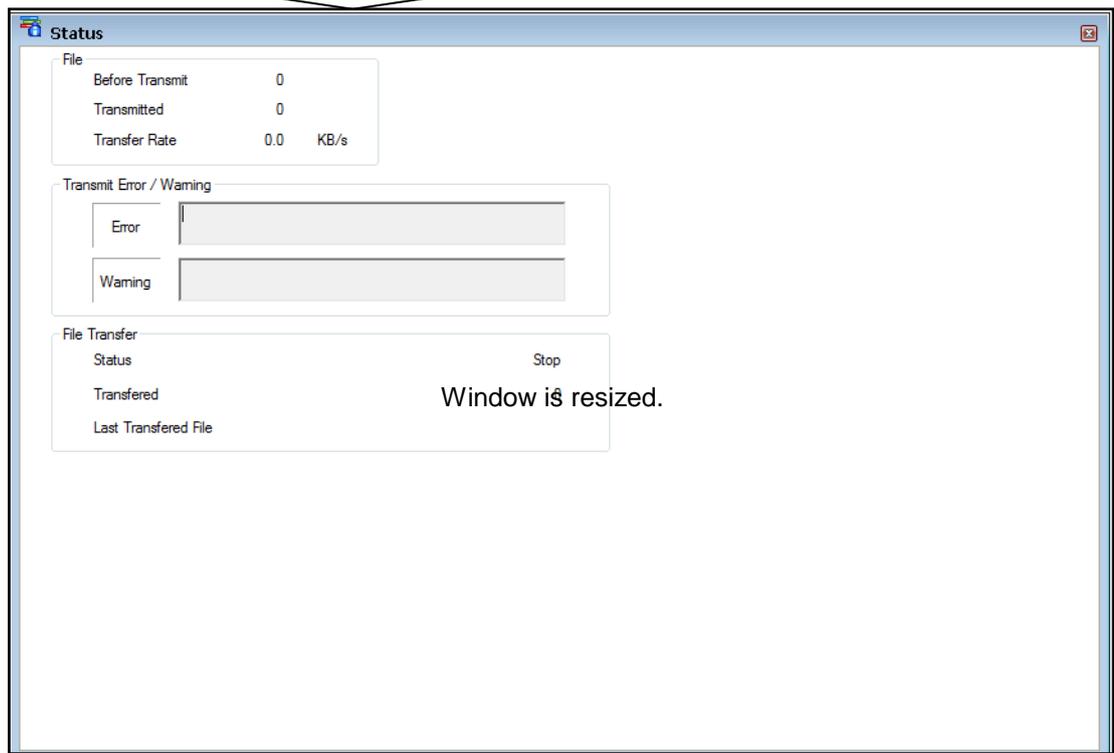
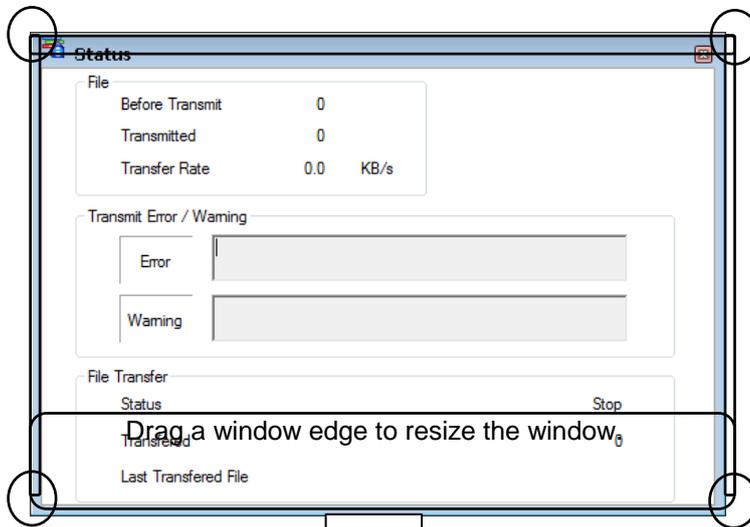
Drag a vertical boundary left or right.





- **Resizing a floating window**

A floating window can be resized by dragging and dropping one of its edges. The left and right edges of a floating window can be dragged left and right while the top and bottom edges of a floating window can be dragged up and down. The corners of a floating window can be dragged diagonally.

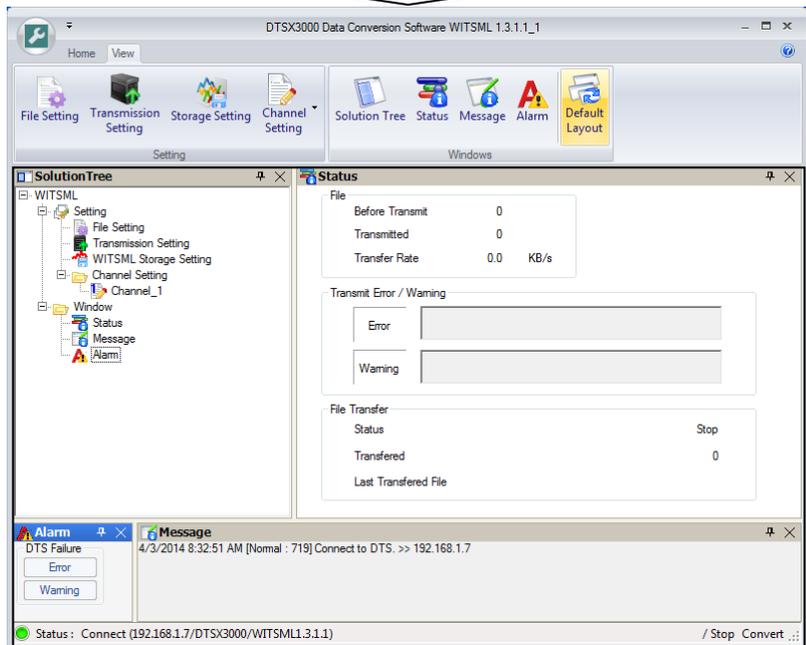
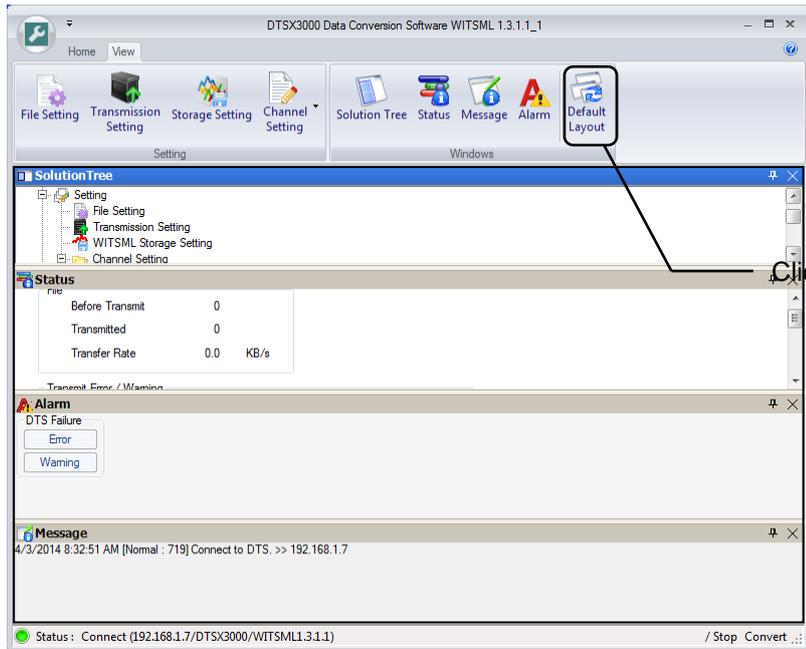


● **Initializing window layout**

Selecting View>Windows>Default Layout in the main window initializes the window layout.

TIP

- The initial window layout refers to the window layout when the application is first started after installation.
- The size of the main window is not initialized.



Window layout is initialized.

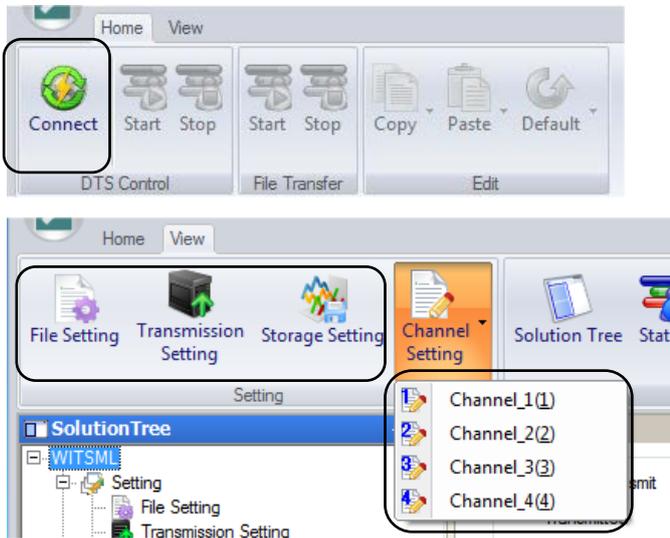
4.4.4 Menu Items for Displaying Dialogs (in main window)

This subsection describes the displaying of dialogs from the main window menu. The table below lists the menu items (tabs, group boxes, buttons and menus) for displaying dialogs.

Menu Element (Tab, group box, button or menu)	Description
Home	(tab)
DTS Control (*1)	(group box)
Connect (*1)	(button) Displays Connect dialog
View	(tab)
Setting	(group box)
File Setting	(button) Displays File Setting dialog
Transmission Setting	(button) Displays Transmission Setting dialog
Storage Setting	(button) Displays WITSML Storage Setting dialog
Channel Setting	(Drop-down button)
Channel_1-16 (*2)	(menu) Displays WITSML Channel_1-16 dialog

*1: Displayed in offline state only.

*2: In online state, menu options are listed for the number of channels installed in the DTSX Series.
In offline state, menu options are listed for the number of channels selected in the Select Switch dialog.



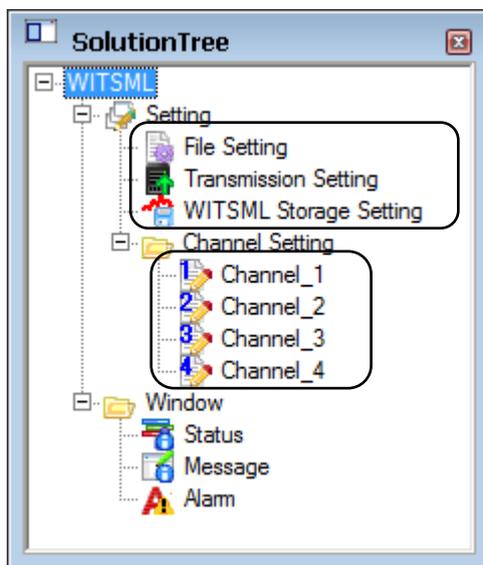
4.4.5 Nodes for Displaying Dialogs (in Solution Tree Window)

This subsection describes the displaying of dialogs from a node in the Solution Tree window. The table below lists the nodes for displaying dialogs.

Nodes for Displaying Dialogs	Description
WITSML	
Setting	
File Setting	Display and operation of File Setting dialog
Transmission Setting	Display and operation of Transmission Setting dialog
WITSML Storage Setting	Display and operation of WITSML Storage Setting dialog
Channel Setting	
Channel_1-16 (*1)	Display and operation of WITSML Channel_1-16 dialog

*1: In online state, nodes are displayed for the number of channels installed in the DTSX Series.
In offline state, nodes are displayed for the number of channels selected in the Select Switch dialog.

In offline state, the context menu of the WITSML node includes a Connect option, which can be selected to display the Connect dialog when login to DTSX Series is not successful.



4.4.6 Dialog Operations

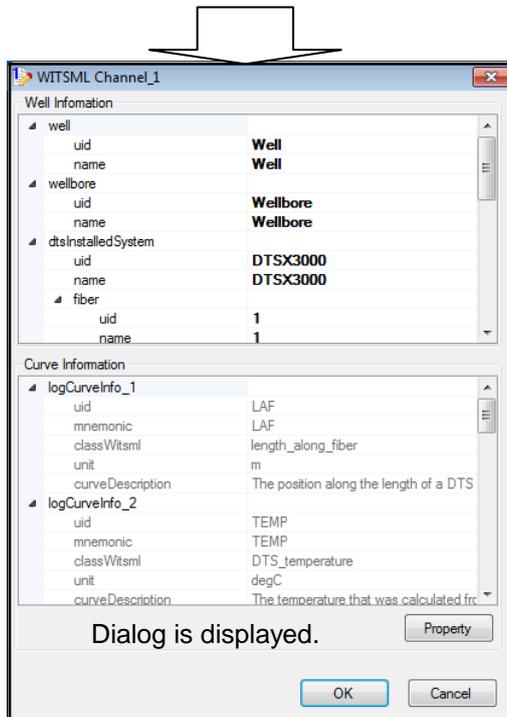
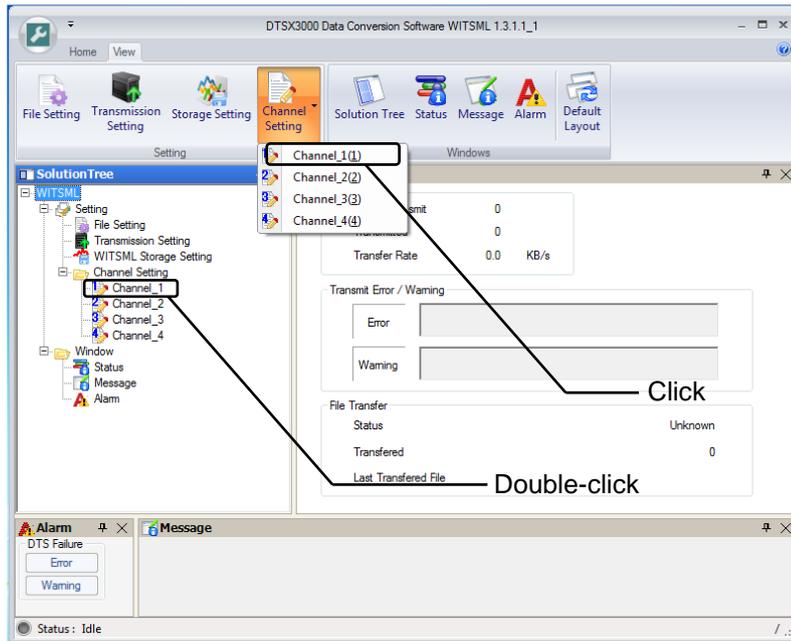
This subsection describes basic dialog operations.

A dialog is displayed as a pop-up window. While a dialog is displayed, focus cannot be moved to another window.

Dialogs cannot be resized and do not allow complex operations available with normal windows.

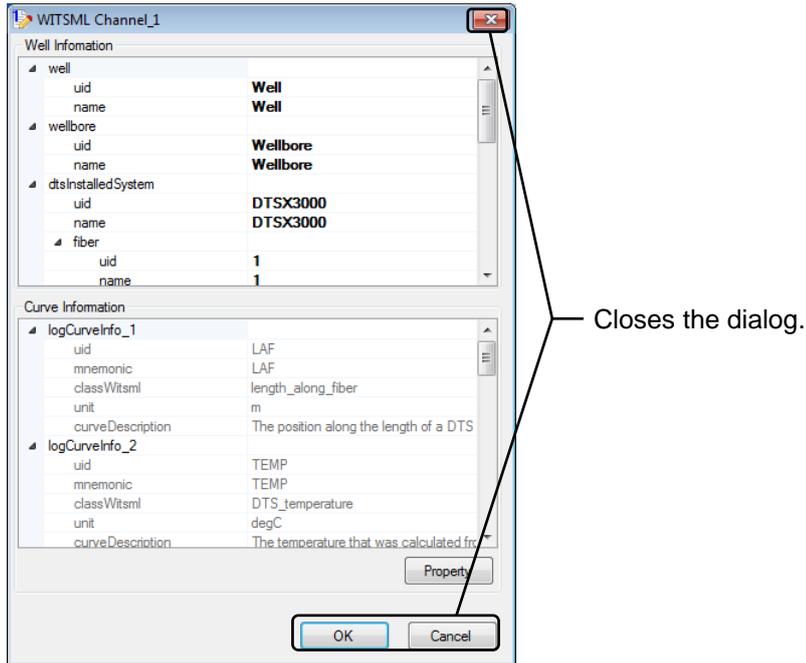
- **Displaying a dialog**

A dialog can be displayed by clicking on its associated button in the main window or double-clicking on its associated node in the Solution Tree window.



- **Closing a dialog**

Clicking the [OK] button or [Cancel] button at the bottom of a dialog or the [x] button at the top right corner of a dialog closes the dialog.



4.5 Starting and Stopping Measurement

You can start, as well as stop WITSML file conversion by the DTSX Series from the menu of the main window or a context menu in the Solution Tree window.

Starting and stopping conversion is allowed only when the DTSX Series is connected in online state. If file transmission is specified on the Transmission Setting dialog, transmission also begins when conversion begins and stops when conversion stops.

Moreover, conversion can be started only when it is not in progress and conversely can be stopped only when it is in progress.

Menu or Context Menu Item	Online State	Offline State
Start	O(*1)	X
Stop	O(*2)	X

O Displayed

X Not displayed

*1: Executable when connected to DTSX Series and conversion is not in progress

*2: Executable when connected to DTSX Series and conversion is in progress

TIP1

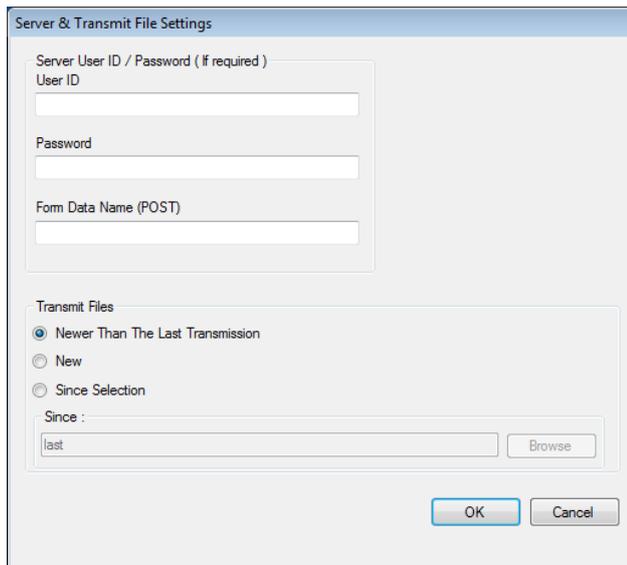
After conversion is started, the DTSX Series converts measurement result data to WITSML files after each measurement. Thus, WITSML files cannot be created unless measurement is started.

SEE ALSO

For details on measurement by the DTSX3000, see the DTSX3000 Guide (IM39J06B40-01E).

TIP2

If the Transmit checkbox is selected on the Transmission Setting dialog, the following Server & Transmit File Settings dialog is displayed when you start conversion.



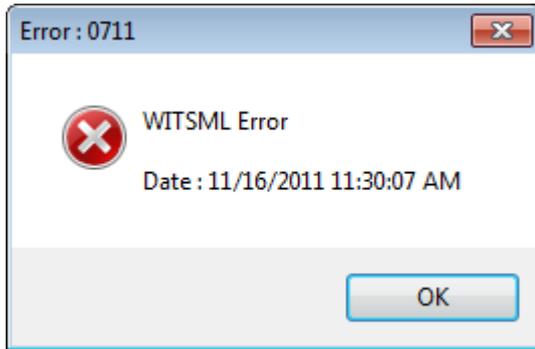
Click the [OK] button to begin conversion. Clicking the [Cancel] button aborts conversion.

SEE ALSO

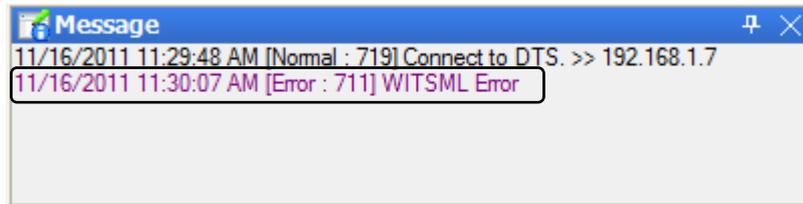
For details, see Section 5.2, "File Transmission Settings."

TIP3

WITSML conversion cannot be started during LAS conversion execution by the connected DTSX200. If you start WITSML conversion during LAS conversion execution, the following error message will be displayed.



The same error also appears in the Message window.



Always stop LAS conversion before starting WITSML conversion.

SEE ALSO

For details on LAS conversion, see the DTAP200 LAS 2.0 Guide (IM39J06B45-02E).

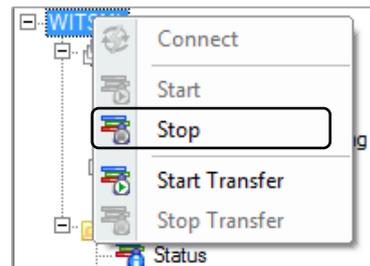
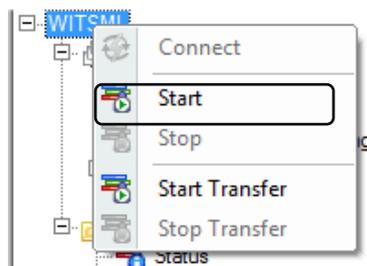
4.5.1 Starting Conversion from Menu (in main window)

This subsection describes how to start and stop conversion by the DTSX Series from the menu in the main window. To start conversion, select Home>DTS Control>Start. To stop conversion, select Home>DTS Control>Stop.



4.5.2 Starting Conversion from Context Menu (in Solution Tree window)

This subsection describes how to start and stop conversion by the DTSX Series from a context menu in the Solution Tree window.



- **Procedure for starting conversion**

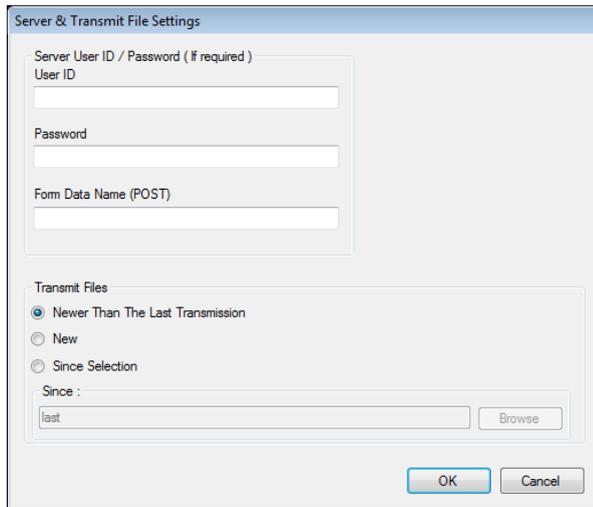
1. Right-click on the WITSML node.
2. Select Start from the displayed context menu.

- **Procedure for stopping conversion**

1. Right-click on the WITSML node.
2. Select Stop from the displayed context menu.

4.5.3 Sever & Transmit File Settings

If the Transmit checkbox is selected on the Transmission Setting dialog, the Server & Transmit File Settings dialog is displayed when you click the button to start conversion.



Click the [OK] button to start conversion. Click the [Cancel] button to perform no conversion.

The settings in the dialog are described below.

- Server User ID and Password (if required)

If the server specified in Server Configuration requires user authentication, you need to specify a valid user ID and password.

These settings are not required if authentication is not required.

DTSX Series supports both Basic authentication and Digest authentication.

Moreover, if you have selected POST for the HTTP method, specify the Form Data Name. When the Form Data Name is not specified, it will be set to uploadfile.

- Transmit Files

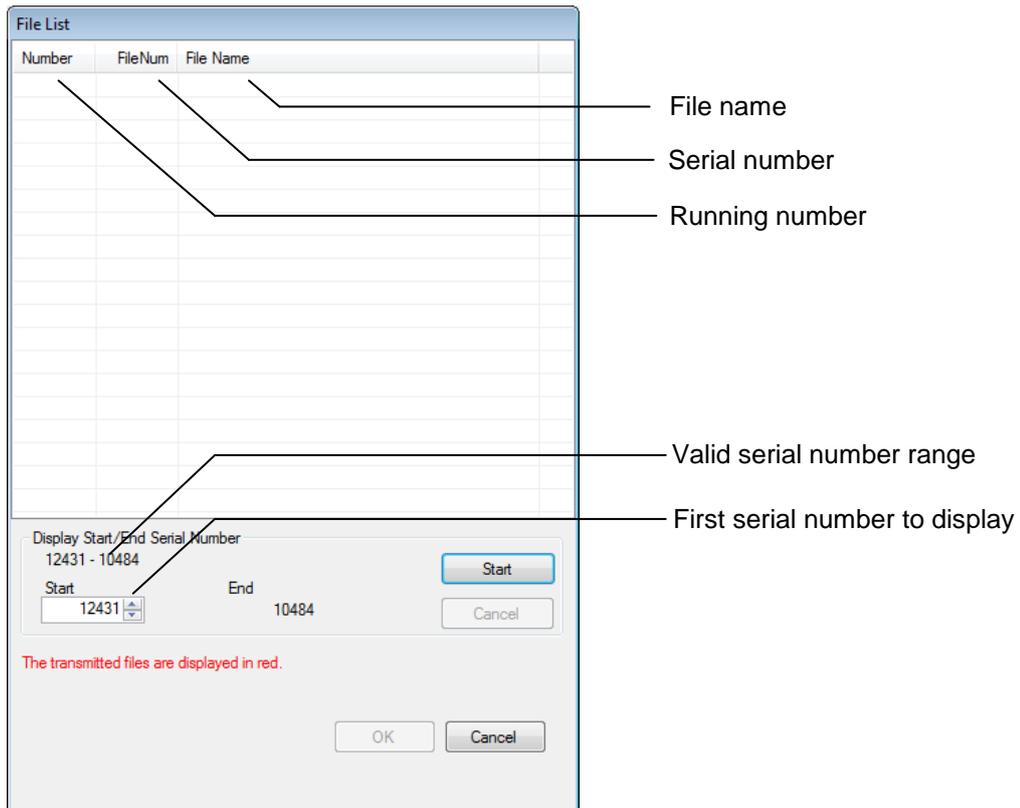
Select the file transmission mode.

Option	Description
Newer Than The Last Transmission	Transmits files starting from the file following the last transmitted file.
New	Transmits files starting from the first acquired data after WITSML conversion begins.
Since Selection	Transmits files starting from a user-selected file.

When the dialog is displayed, Transmit Files is automatically set to Newer Than The Last Transmission. To select the New or Since Selection option, edit the setting each time before starting conversion.

The Transmit Files setting does not display the current setting on the DTSX Series. Until a new setting value is updated when conversion is started, the DTSX Series stores the Transmit Files setting of the previous conversion.

If you have selected Since Selection, click the [Browse] button to display the File List dialog. From the displayed file list, select the first file to be transmitted. All files generated after the selected file are also transmitted.



The initial file list is displayed starting from new data.

You can display the file list starting from a serial number by entering the serial number in the Start textbox and then clicking the [Start] button. You should enter a valid starting serial number by referring to the displayed valid serial number range, in which the first number indicates the newest file and the second number indicates the oldest file.

A block of 100 files is listed each time (0-99, 100-199, 200-299, and so on). The specified starting serial number determines the block to be displayed but the serial number of the first file actually displayed always ends with 99 and may not match the specified starting serial number exactly. For instance, if the specified starting serial number is 13080, the first file actually displayed is the file with serial number 13099.

By default, the Start text box displays the serial number of the newest data file. Clicking the Start button without changing the default Start value displays a list of all files.

For details on appropriate file transmission settings, check with your system administrator.

SEE ALSO

For details, see Section 5.2, "File Transmission Settings."

4.6 Starting and Stopping File Transfer

You can start and stop transfer of WITSML files created by DTSX Series to the PC from the menu of the main window or a context menu in the Solution Tree window.

Starting and stopping of file transfer is allowed only when the DTSX Series is connected in online state. File transfer can be started only when it is not in progress and conversely can be stopped only when it is in progress.

Menu or Context Menu Item	Online state	Offline state
Start Transfer	O(*1)	X
Stop Transfer	O(*2)	X

O Displayed

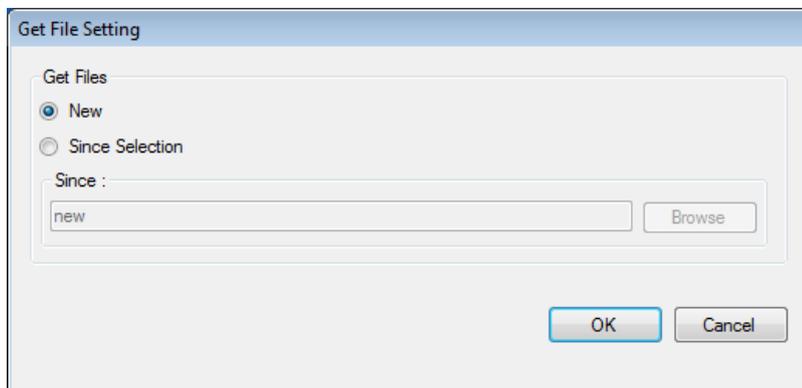
X Not displayed

*1: Executable when connected to DTSX Series and file transfer is not in progress

*2: Executable when connected to DTSX Series and file transfer is in progress

TIP

The following Get File Setting dialog is displayed when you start file transfer.



Click the [OK] button to start file transfer. Click the [Cancel] button to skip file transfer.

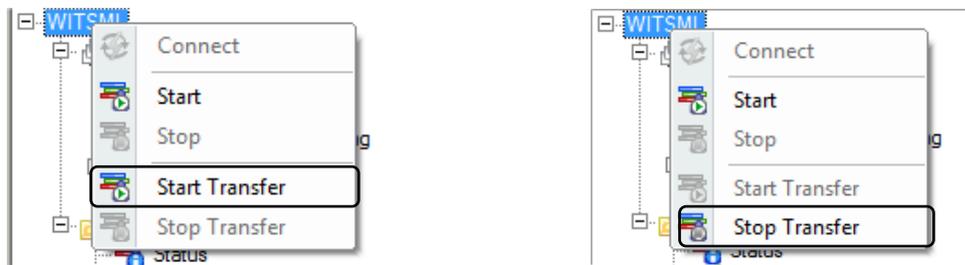
4.6.1 Starting and Stopping Transfer from Menu (in main window)

This subsection describes how to start and stop file transfer from the menu in the main window. To start file transfer, select Home>File Transfer>Start. To stop file transfer, select Home>File Transfer>Stop.



4.6.2 Starting and Stopping Transfer from Context Menu (in Solution Tree window)

This subsection describes how to start and stop file transfer from a context menu in the Solution Tree window.

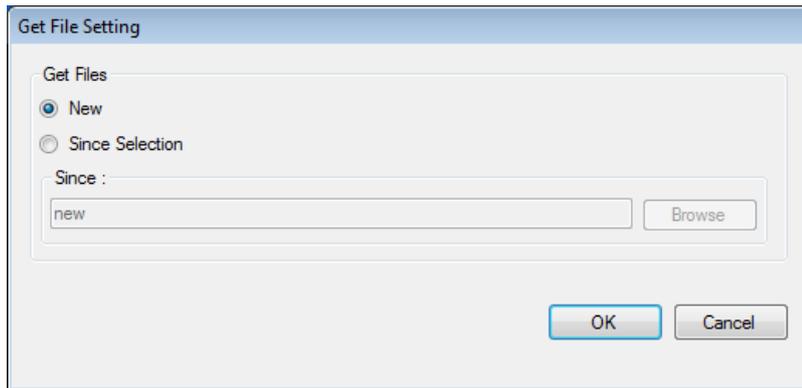


- **Procedure for starting transfer**
 1. Right-click on the WITSML node.
 2. Select [Start Transfer] from the displayed context menu.

- **Procedure for stopping transfer**
 1. Right-click on the WITSML node.
 2. Select [Stop Transfer] from the displayed context menu.

4.6.3 File Transfer Settings

The Get File Setting dialog is displayed when you click the button to start file transfer.



Click the [OK] button to start file transfer. Click the [Cancel] button to skip file transfer. The settings in the dialog are described below.

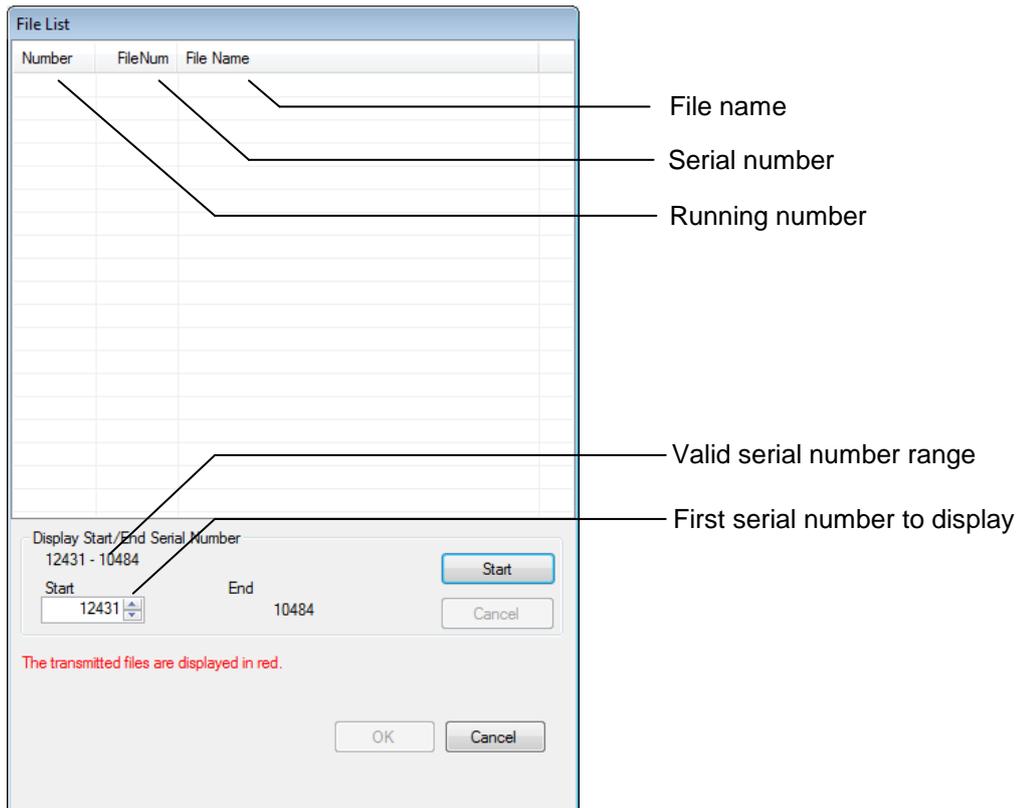
- Get Files

Select the file transfer mode.

Option	Description
New	Transmits files starting from the first acquired data after WITSML conversion begins.
Since Selection	Transmits files starting from a user-selected file.

When the dialog is displayed, Get Files is automatically set to New. To select the Since Selection option, change the setting each time before starting file transfer.

If you have selected Since Selection, press the Browse button to display the File List dialog. From the displayed file list, select the first file to be transmitted. All files generated after the selected file are also transmitted.



The file list is displayed starting from new data.

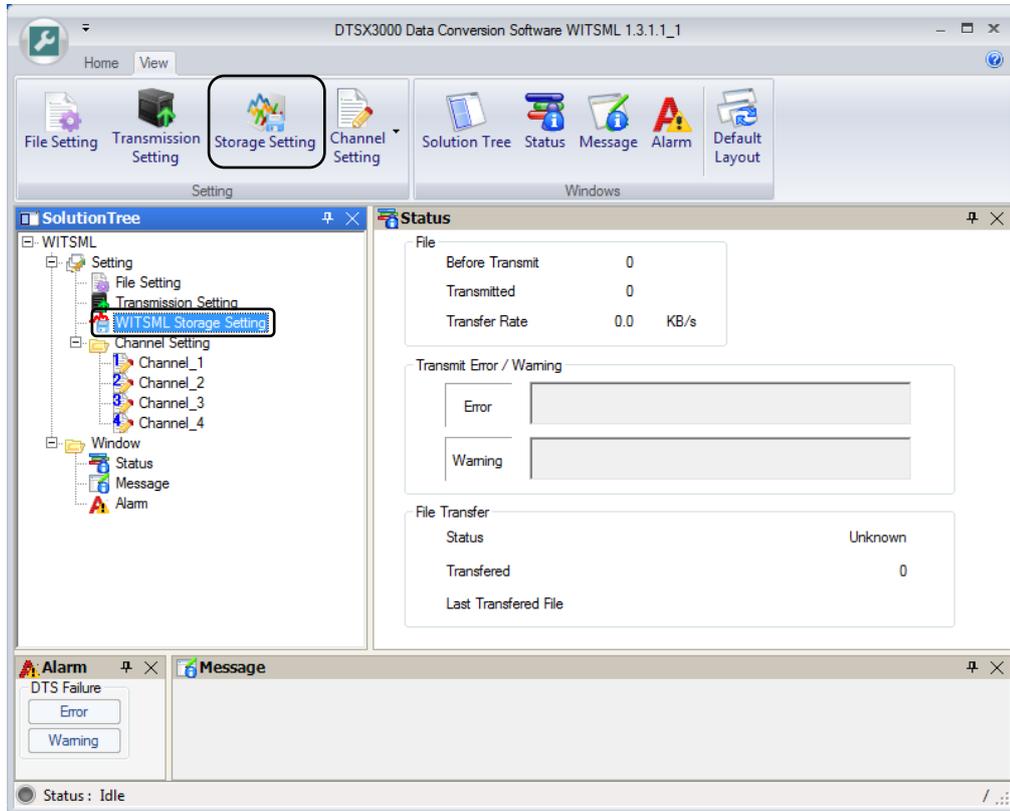
You can display the file list starting from a serial number by entering the serial number in the Start text box and then clicking the [Start] button. You should enter a valid starting serial number by referring to the displayed valid serial number range, in which the first number indicates the newest file and the second number indicates the oldest file.

A block of 100 files each time is listed each time. The specified start serial number defines the block to be displayed but the serial number of the first file actually displayed always ends with 99 and does not match the specified starting serial number exactly. For instance, if the specified starting serial number is 13080, the first file actually displayed is the file with serial number 13099.

By default, the Start text box displays the serial number of the newest data file. Clicking the Start button without changing the default Start value displays a list of all files.

4.6.4 File Storage Settings

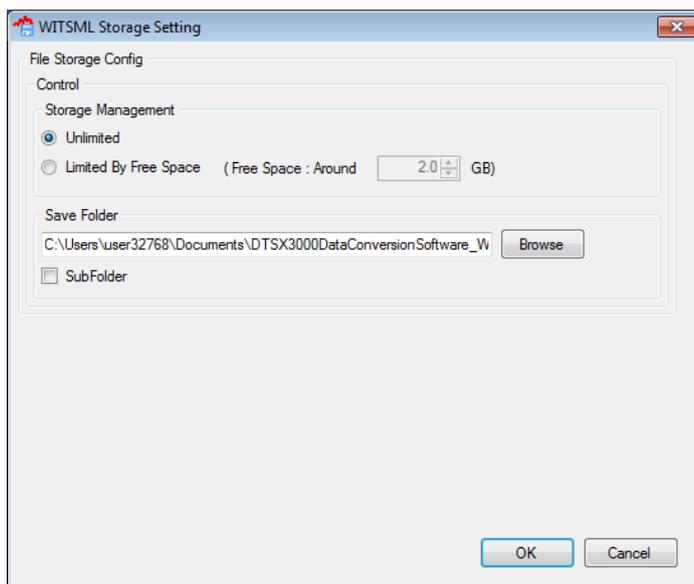
The File Storage Setting dialog is displayed when you select View>Setting>Storage Setting from the main window or double-click the WITSML Storage Setting node in the Solution Tree.



The WITSML Storage Setting dialog is used to define how files transferred from the DTSX series are to be stored on the PC.

TIP

These settings cannot be modified when file transfer is in progress.



You can define the destination folder for storing files, as well as whether to limit file storage by the amount of free space on the storage device. If a limit is defined, file storage stops when free space falls below the specified limit.

File Storage Settings:

1. Select whether not to limit (Unlimited) or to limit file storage by the amount of free space on the storage device (Limited By Free Space).
2. If you have selected to limit storage by the amount of free space (Limited By Free Space), specify a limit from 1.0 to 100000.0 (GB) for Free Space.
3. Specify the destination folder (Save Folder) for storing files. If the specified folder is not present, an error message will be displayed when you click the [OK] button.
4. Select whether to create subfolders within the destination folder using the SubFolder checkbox. If the SubFolder checkbox is selected, a subfolder named according to the start time of file storage is created below the destination folder specified in [Save Folder], and below this subfolder, serial-numbered subfolders 00000000, 00000001, 00000002, etc., each used for storing a block of 100 files, are created.

If the Subfolder checkbox is not selected, all files are stored in the destination folder specified in [Save Folder].

TIP

- Even if you have selected not to limit file storage by the amount of free space, if the specified destination file (Save Folder) is on the system drive (C:), storage will stop automatically when free space falls below roughly 1 GB.
- File storage will be limited roughly but not strictly by the numeric value specified for Free Space.
- It is recommended to specify a destination folder (Save Folder) on the PC's internal hard disk drive. If a network drive is specified, file storage may sometimes fail due to communications error.

4.7 Status Bar

The status bar is displayed at the bottom of the main window. It displays DTSX Series error status, DTSX Series connection status and WITSML file conversion status information.



- **DTSX Series error status**

DTSX Series error status is indicated by the color of a lamp. The lamp is lit in red if a DTSX Series error is detected. Detailed error information can be checked on the maintenance screen of the DTSX Series.

The table below lists each color of the lamp along with its description.

Lamp Color	Status
Grey	DTSX Series is not connected.
Green	No DTSX Series connection error and warning
Red	DTSX Series connection error
Yellow	DTSX Series connection warning

SEE ALSO

For details, see the DTSX3000 Guide (IM39J06B40-01E).

- **DTSX Series Connection Status**

The status of the connection to the DTSX Series, the destination IP address, the model name of the connected DTS and the conversion mode of the connected DTS are displayed (the conversion mode is displayed only if the DTSX3000 is connected).

The table below lists each connection status display value with its description.

Connection Status Display	Description
Idle	Not connected
Connecting ...	Establishing connection
Connect	Connected
Retry connection	Retrying to connect

- **WITSML File Conversion Status**

The status of DTSX Series data conversion to WITSML formatted file is displayed. During conversion (Run status), the status for file transmission to the server is also displayed.

The table below lists each WITSML conversion status display value with its description.

WITSML conversion status display	Description
Stop	Conversion stopped
Run preparation	Preparing to start conversion
Run	Conversion started
Stop preparation	Preparing to stop conversion
Unknown	Conversion status is unknown

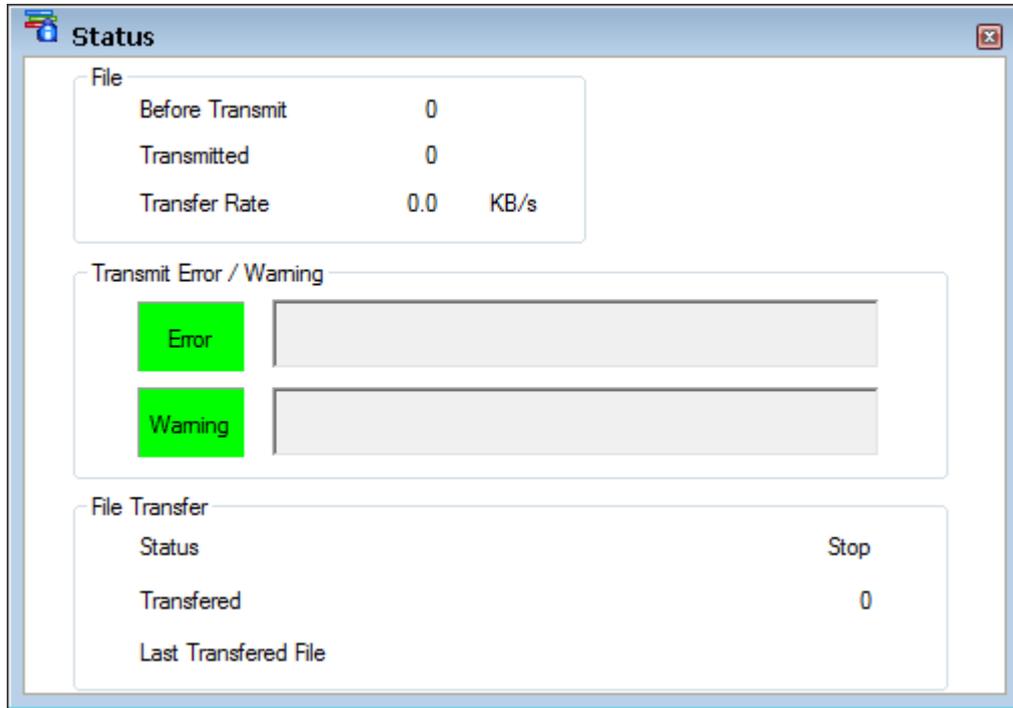
During conversion (Run status), the following status information for WITSML file transmission to the server is displayed.

Status display	Description
Before transmit	The number of files pending transmission to the server
Transmitted	The number of files already transmitted to the server

4.8 Status Display

Selecting View>Windows>Status in the main window displays (or if already displayed, gives focus to) the Status window. The Status window can also be displayed by double-clicking on the Status node in the Solution Tree window.

File transmission progress can be monitored on the Status window. Its window elements are described below.



Status window

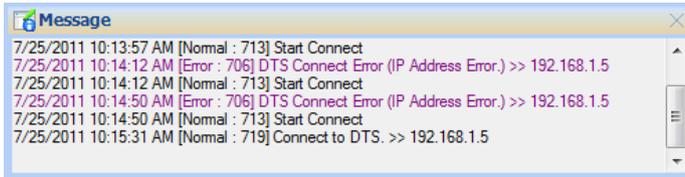
Category	Item	Description	
File	Before Transmit	Number of WITSML files pending transmission to the server	
	Transmitted	Number of WITSML files already transmitted to the server	
	Transfer Rate	Transfer rate of WITSML file transmission to the server	
Transmit Error / Warning	Error	An error message is displayed if an error is detected during WITSML file transmission to the server. *	
	Warning	A warning message is displayed if a warning is detected during WITSML file transmission to the server. *	
File Transfer	Status	Run	Transfer of WITSML files to PC is in progress.
		Stop	Transfer of WITSML files to PC is not in progress.
	Transferred	Number of files already transferred to the PC.	
	Last Transferred File	Name of the last file transferred.	

*: See Appendix B, "List of Transmission Messages" for details.

4.9 Messages

Selecting View>Windows>Message in the main window displays (or if already displayed, gives focus to) the Message window. The Message window can also be displayed by double-clicking on the Message node in the Solution Tree window.

The Message window displays various information and error messages. The displayed information includes the time of occurrence, message type, message number and message text.



The following types of messages may be displayed.

Type	Description
Normal	Normal information
Error	An error has been detected (but the application can continue execution.)
FatalError	An error has been detected (and the application cannot continue execution.)
Warning	A warning has been detected (but the application can continue execution.)
Terminated	The application is terminated.

For details on error and warning messages, see Appendix A, "List of Messages."



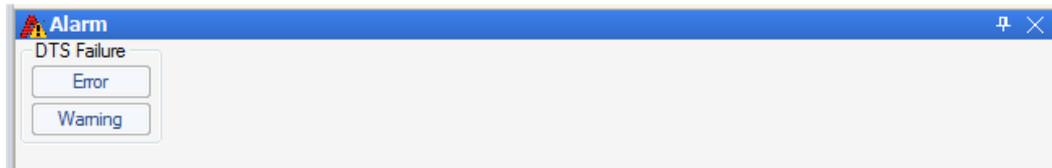
IMPORTANT

- If an Error type message is displayed, the application can continue execution but there may be some limitations on its operation thereafter.
- If a FatalError type message is displayed, it will be followed by a "Terminated" type message and the application will be aborted.

4.10 Alarms

Selecting View>Windows>Alarm in the main window displays (or if already displayed, gives focus to) the Alarm window. The Alarm window can also be displayed by double-clicking on the Alarm node in the Solution Tree window.

The Alarm window displays DTS failure information.



- **DTS Failure buttons**

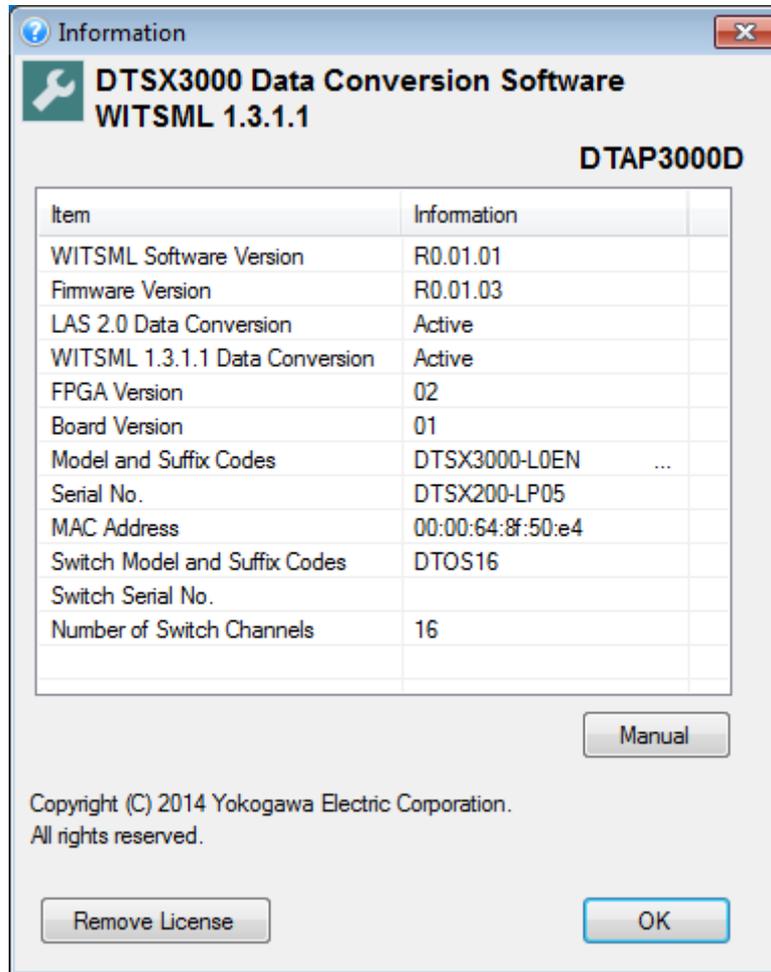
The DTS failure button indicators indicate whether a DTS failure has been detected. If an error or warning has been detected, the corresponding error or warning button turns red. The button reverts to its original color when the error or warning condition is no longer present. Details on a detected error or warning can be checked from the maintenance window of the DTSX Series.

SEE ALSO

For details, see the DTSX3000 Guide (IM39J06B40-01E).

4.11 Help

Clicking on the [?] button located at the upper right corner of the main window displays the Information dialog window. The window displays version information about the software in offline state and additional information about the DTSX Series in online state.



The following types of information are displayed in the Information window.

Displayed Item	Description
LAS Software Version	Version of the software
Firmware Version	Version of the firmware of the connected DTSX Series
LAS 2.0 Data Conversion	“Active” or “Inactive” is displayed if the LAS 2.0 conversion function installed in the connected DTSX Series is enabled or disabled respectively.
WITSML 1.3.1.1 Data Conversion	“Active” or “Inactive” is displayed if the license for the WITSML 1.3.1.1 conversion function of the connected DTSX Series is enabled or disabled respectively.
FPGA Version	FPGA version of the connected DTSX Series
Board Version	Board version of the connected DTSX Series
Model and Suffix Codes	Model number and suffix codes of the connected DTSX Series
Serial No.	Serial number of the connected DTSX Series
MAC Address	MAC address of the connected DTSX Series
Switch Model and Suffix Codes	Model number and suffix codes of the optical switch of the connected DTSX Series (if an optical switch is installed)
Switch Serial No.	Serial number of the optical switch of the connected DTSX Series (if an optical switch is installed)
Number of Switch Channels	Number of channels of the optical switch of the connected DTSX Series (if an optical switch is installed)

Clicking the [Manual] button displays this manual in PDF format. Software capable of displaying PDF files must be pre-installed on the PC to view the manual.

To remove the WITSML license from a DTSX3000, click the [Remove License] button. (This button is disabled when a DTSX200 is connected.)

SEE ALSO

For details, see Section 3.5, "Removing License."

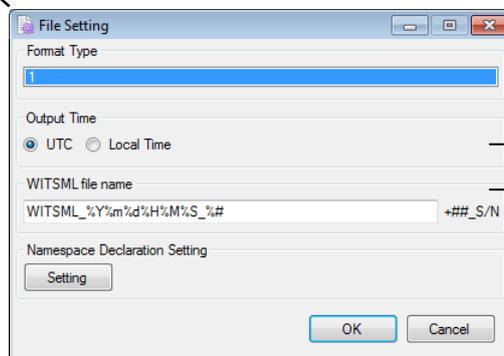
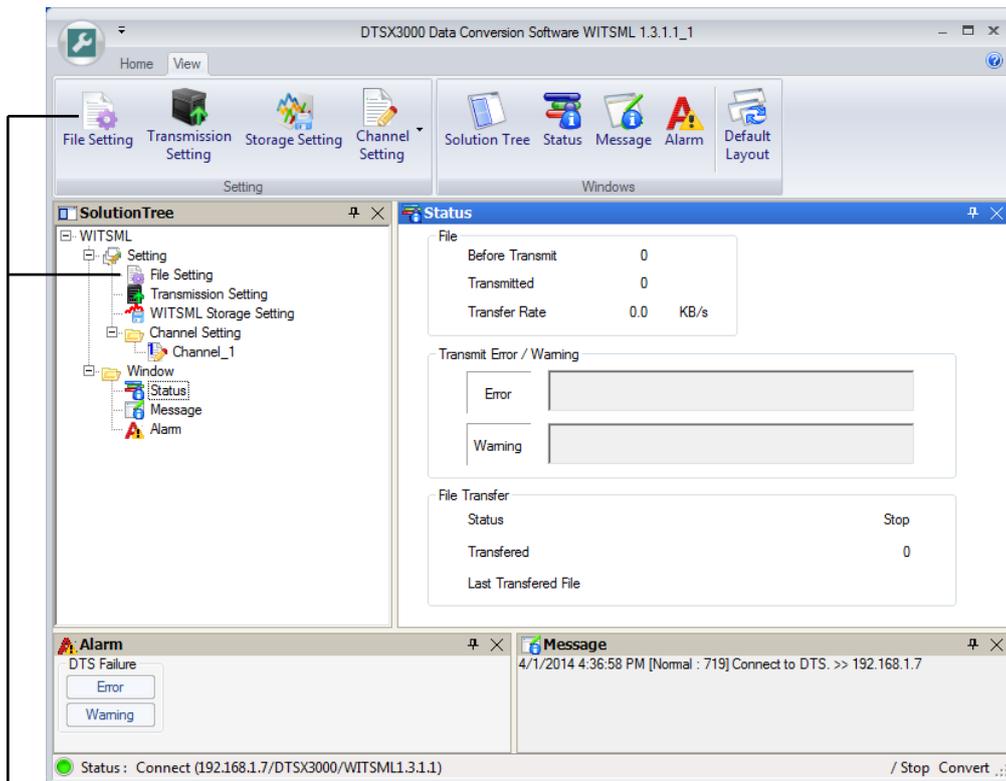
5. WITSML File Configuration

This chapter describes WITSML data conversion configuration and WITSML Transmission Setting.

5.1 File Settings

Selecting View>Setting>File Setting from the main window menu displays the File Setting dialog. The File Setting dialog can also be displayed by double-clicking the File Setting node in the Solution Tree window.

You can include year, month and day, as well as measured channel number as part of generated file names by specifying format specifiers on the File Setting dialog.



Select whether to use UTC or local time representation for time (year, month, date, hour, minute, second).

Specify the file name format string using format specifiers

● **Format Type**

This indicates the format type. It is fixed to 1 for WITSML format and may assume other values for future supported formats.

● **Output Time**

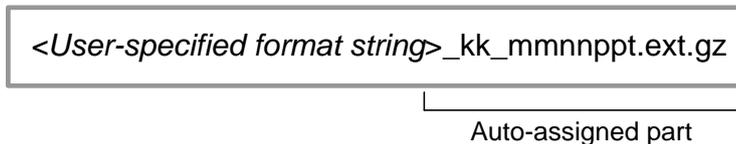
Select either UTC or Local Time for output time representation. For details on notations for year, month, date, hour, minute, second, see “WITSML file name” below and Section 5.3, “WITSML Settings.”

Item	Description
UTC	Use UTC time representation for time (year, month, date, hour, minute, second).
Local Time	Use local time representation for time (year, month, date, hour, minute, second).

● **WITSML file name**

Specify the file name format string for WITSML output files.

The final file name consists of a user specified part and an auto-assigned part. The former is a result of format conversion according to the format specifiers specified above while the latter is assigned automatically by DTSX Series.



Any of the following format specifiers, if specified in the user-specified format string, is automatically converted by DTSX Series into its respective data as shown in the table below. Characters in the specified format string other than the format specifiers are output without conversion.

Format specifiers

Format specifier	Data	Example	Remarks
%Y	Year in Gregorian calendar	2011	Four digits are output Two digits are output 0 is displayed in the tens place for values 0 to 9.
%y		11	
%m	Month	07	
%d	Date	19	
%H	Time	01	
%M	Minute	23	
%S	Second	45	
%#	Channel number	01	

Restrictions

- The ‘%’ character can only be used to denote a format specifier within a format string.
- Only alphanumeric characters, the underscore (_) character and the hyphen (-) character are allowed in a format string.
- Up to 64 characters can be specified for the format string with each format specifier counted as two characters.

Example

Specified format string	Converted file name
DTSX_%Y-%m-%dT%H-%M-%S_CH%#	DTSX_2011-07-19T01-23-45_CH01_ <i>kk_mmmnppt.ext.gz</i>

The following character strings are assigned in the auto-assigned part.

Item	Data	Description
_kk	File type	For internal use by DTSX Series (00 to 99)
_mmnnpp	Serial number	For internal control by DTSX Series (000000 to 999999) mm, nn and pp together represent the name of a directory in the DTSX Series internal memory where the file is stored. For details, see the DTSX3000 Guide (IM39J06B40-01E).
t	Transmission mark	An underscore (_) character is assigned for a file that has been transmitted externally using the HTTP client function of the DTSX Series.
.ext	Extension	A file extension is assigned according to the conversion format. For WITSML format, ".xml" is assigned.
.gz	Extension	Files are compressed in gzip format and assigned a ".gz" extension.

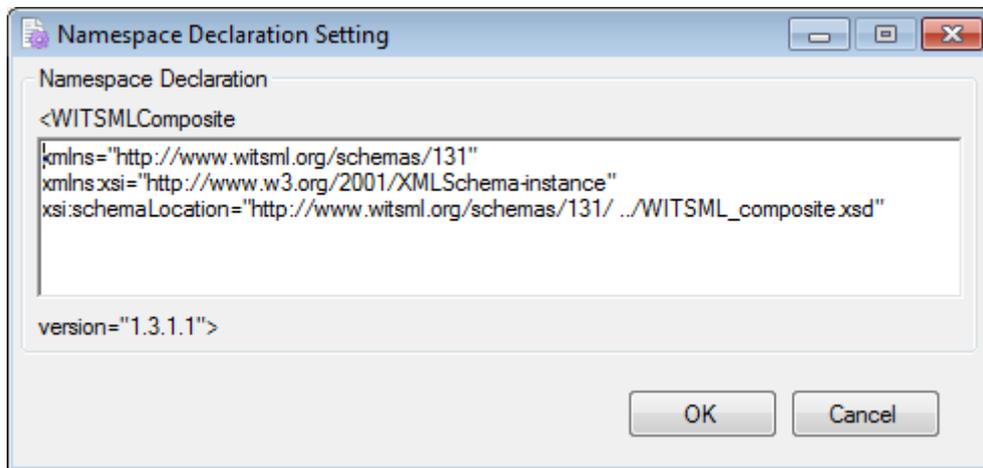
TIP

- The characters and maximum length allowed for a file name vary with the operating system and database of the server. Check and abide by the server's file naming restrictions.
- The format specifiers for year, month, day, hour, minute and second are converted from the measurement end time.
- For each archive file on the DTSX Series, a single underscore (_) character is assigned as a transmission mark if the file has been transmitted using the HTTP client function, whether only once or repeatedly. For details on archive files, see the DTSX3000 Guide (IM39J06B40-01E).

● **Namespace Declaration Setting**

Specify the WITSML namespace declaration.

To specify the WITSML namespace declaration, click the [Setting] button to display the Namespace Declaration Setting dialog and enter the namespace declaration code in the text box of the dialog.



The element name is fixed as "WISTMLComposite." The version attribute is fixed as "1.3.1.1". You can code the other attributes of the namespace declaration using the following format:

attribute name 1= "attribute value 1" attribute name 2= "attribute value 2" ...

Assign an attribute value to an attribute name using the equal (=) character.

Enclose each attribute value within double-quotes. (Do not use single-quotes.)

The newline character is not allowed.

TIP

- If the specified namespace declaration is invalid by XML coding rules, the following default namespace declaration will be output to a generated WITSML file:

```
<WITSMLComposite xmlns="http://www.witsml.org/schemas/131"
```

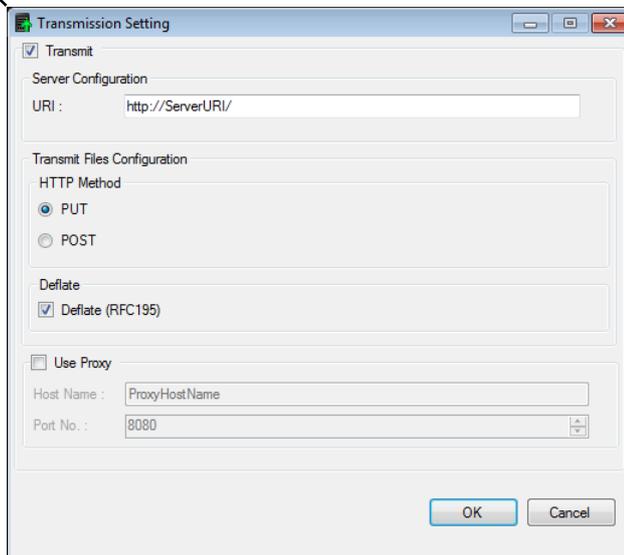
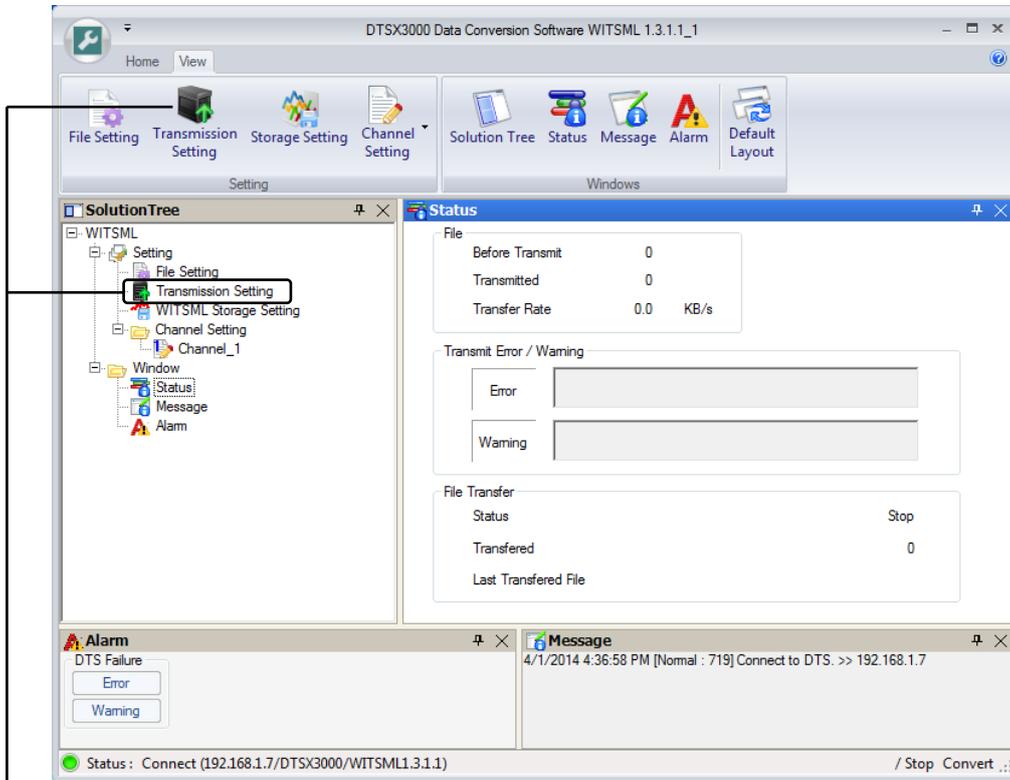
```
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```
xsi:schemaLocation="http://www.witsml.org/schemas/131/ ../WITSML_composite.xsd"
```

```
version="1.3.1.1">
```

5.2 File Transmission Settings

Selecting View>Setting>Transmission Setting from the main window menu displays the Transmission Setting dialog. The Transmission Setting dialog can also be displayed by double-clicking the Transmission Setting node in the Solution Tree window.



- **Transmit checkbox**

Select or deselect this checkbox to enable or disable WITSML file transmission to the server.

- **Server Configuration**

Enter the URI of the server in the URI field. You may check the URI with your system administrator. This setting is mandatory and allows up to 255 characters.

The specified URI string is converted to URI-encoding. The length limit applies to the URI-encoded string.

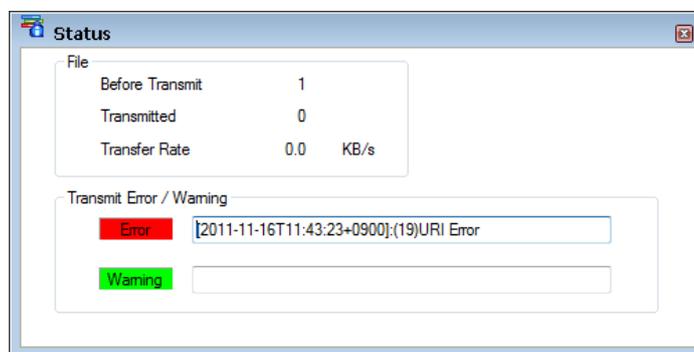
Characters other than reserved characters and unreserved characters defined in RFC2396 and the '#' character are converted to URI escape characters. As this software only allows ASCII characters excluding control characters, the table below lists the escape characters used.

Characters	Escape characters (URI encoding)
space	%20
"	%22
%	%25
<	%3C
>	%3E
[%5B
\	%5C
]	%5D
^	%5E
`	%60
{	%7B
	%7C
}	%7D

The pound (#) character is used as a delimiter character for URI references and fragment identifiers. Only one '#' character can be specified in a URI. If more than one pound (#) character is specified, the URI string is invalid. For details on fragment identifier, see the RFC2396.

TIP

The combined length of the URI and file name must not exceed 255 characters. If it exceeds 255 characters, the following URI error message is displayed in the Status dialog when transmission is started and no file will be transmitted.



SEE ALSO

For details on generated file names, see Section 5.1, "File Settings."

- **HTTP Method**

Select whether to put or post files on the server.

Option	Description
PUT	Transmits files to server using PUT
POST	Transmits files to server using POST

- **Deflate**

Select or deselect this checkbox to enable or disable file deflation compliant to RFC195 (GZIP deflation).

- **Use Proxy**

Select or deselect this checkbox to indicate whether a proxy server is used.

- **Host Name**

If you have selected to use a proxy server, you must enter a host name or IP address of up to 255 characters for the proxy server.

- **Port No.**

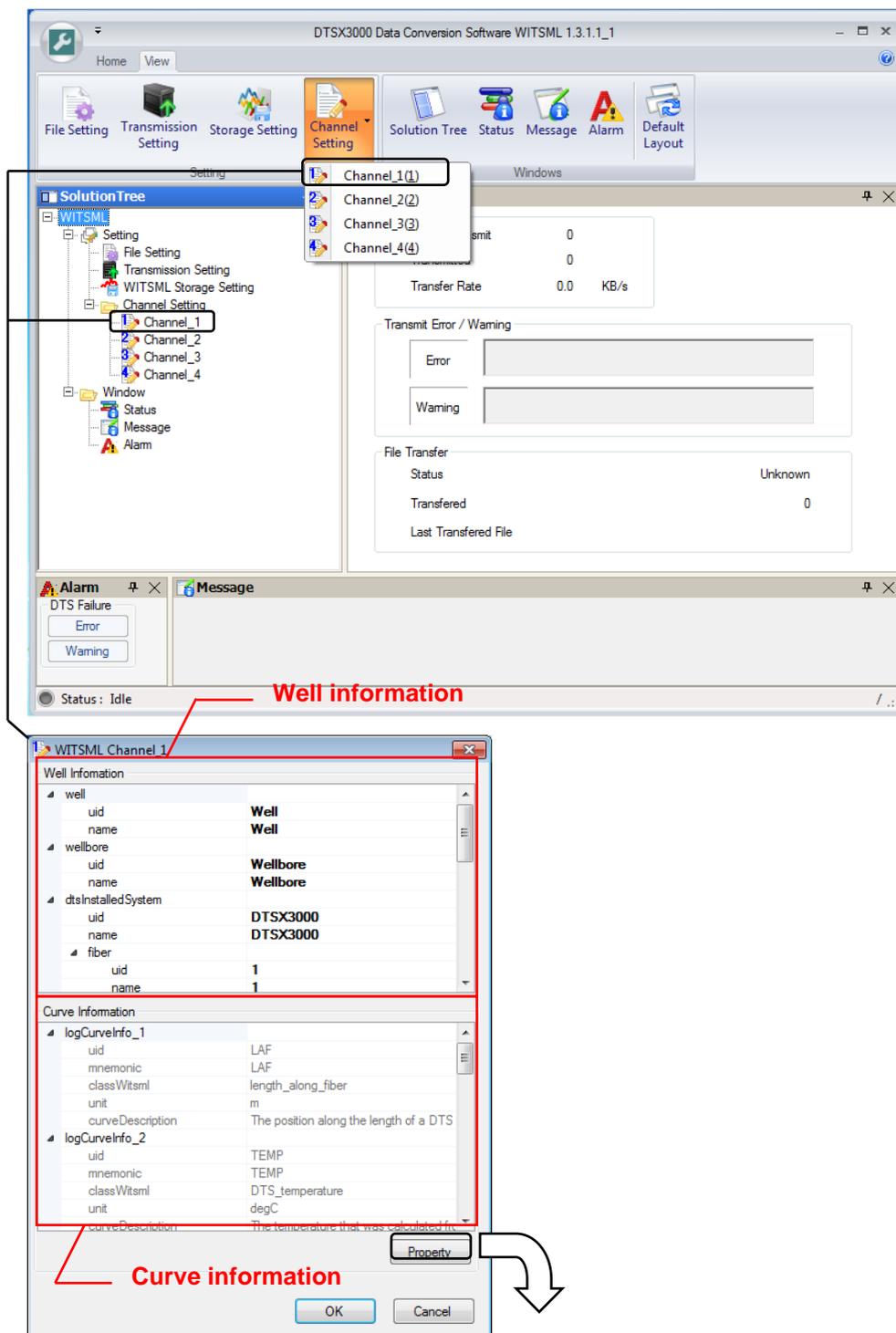
If you have selected to use a proxy server, you can optionally enter a port number of up to 65535 characters for the proxy server.

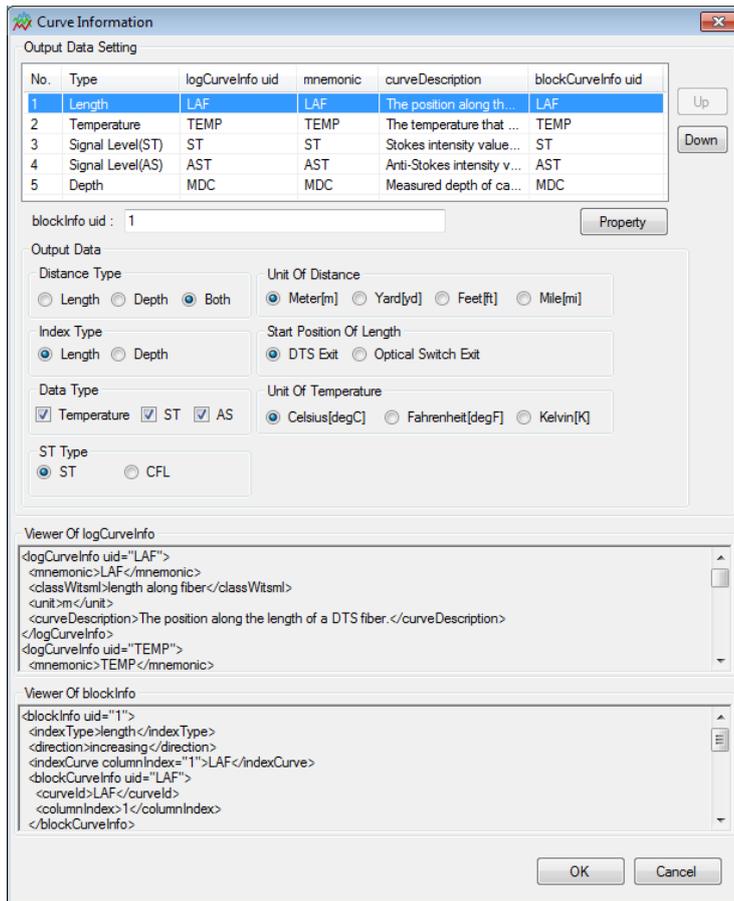
5.3 WITSML Settings

DTSX Series measurement result data can be converted to WITSML formatted files. WITSML settings can be specified for each individual installed channel of the DTSX Series using the WITSML Channel_1-16 dialogs.

In double-ended measurement, the WITSML settings for the forward measurement channel are used.

Selecting View>Setting>Channel Setting>Channel_1-16 from the main window menu displays the WITSML Channel_1-16 dialog. The dialog can also be displayed by double-clicking the Channel_1-16 node in the Solution Tree window.





WITSML settings define the Well information and curve information to be output to WITSML files.

Well information comprises well, wellbore, dtsInstalledSystem and dtsMeasurement information, while curve information comprises logCurveInfo and blockInfo.

The WITSML Channel_1-16 dialog has two group boxes, namely, Well Information and Curve Information. The former is used for editing Well information while the latter displays curve information for browsing only. To edit curve information, click on the [Property] button to display the Curve Setting dialog.

TIP

- You can specify format specifiers within a setting to output measurement start time. For details on how to do so, see the description for "CreationDate" given later in this section.
- The percent (%) character is used to denote a format specifier and will not produce correct output if used otherwise.
- The "%Y" format specifier, which comprises only two characters, converts into a four-character calendar year string. When specifying "%Y" within a setting, ensure that the final output element string or attribute string does not exceed its length limit.

■ Well Information

The well information parameters, which can be edited in the Well Information group box, are listed and described below.

- **well - uid**

Specify a unique identifier for the well.

This is an optional parameter allowing up to 64 characters.

- **well - name**

Specify a name for the well.

This is a mandatory parameter allowing up to 64 characters.

- **wellbore - uid**

Specify a unique identifier for the wellbore.

This is an optional parameter allowing up to 64 characters.

- **wellbore - name**

Specify a name for the wellbore.

This is a mandatory parameter allowing up to 64 characters.

- **dtsInstalledSystem - uid**

Specify a unique identifier for the DTSX Series.

This is an optional parameter allowing up to 64 characters.

- **dtsInstalledSystem - name**

Specify a name for the DTSX Series.

This is a mandatory parameter allowing up to 64 characters.

- **fiber - uid**

Specify a unique identifier for the optical fiber of the channel being configured.

This is an optional parameter allowing up to 64 characters.

- **fiber - name**

Specify a name for the optical fiber of the channel being configured.

This is a mandatory parameter allowing up to 64 characters.

- **dtsMeasurement - uid**

Specify a unique identifier for the DTSX Series measurement.

This is an optional parameter allowing up to 64 characters.

- **dtsMeasurement - name**

Specify a name for the DTSX Series measurement.

This is a mandatory parameter allowing up to 64 characters.

- **dtsMeasurement – runDuration**

Specify whether to output measurement duration and the unit for measurement duration output by selecting one of the options listed below.

runDuration setting	Unit for measurement duration output
s	second
ms	millisecond
us	microsecond
NotUse	No measurement duration output

- **installedSystemUsed - uidRef**

A reference to the unique identifier of the DTSX Series used. As this application allows only one dtsInstalledSystem - uid to be specified, the specified value is displayed.

- **installedSystemUsed - name**

A reference to the name of the DTSX Series used. As this application allows only one dtsInstalledSystem - name to be specified, the specified value is displayed.

- **dataInWellLog - uidRef**

A reference to the unique identifier of the well log used to record the table of data. As this application allows only one well log - uid (well log identifier) to be specified, the specified value is displayed.

- **dataInWellLog**

A reference to the name of the well log used to record the table of data. As this application allows only one well log - name (well log name) to be specified, the specified value is displayed.

- **connectedToFiber - uidRef**

A reference to the unique identifier of the optical fiber used to record the table of data. The fiber - uid is displayed in this application. This setting is omitted if no optical switch is installed in the DTSX Series, which means that only one channel is present.

- **connectedToFiber**

A reference to the name of the optical fiber used to record the table of data. The specified fiber - name is displayed in this application.

- **wellLog - uid**

Specify a unique identifier for the well log.
This is an optional parameter allowing up to 64 characters.

- **wellLog - name**

Specify a name for the well log.
This is a mandatory parameter allowing up to 64 characters.

- **serviceCompany**

Specify the service company name.
This is a mandatory parameter allowing up to 64 characters.

● **CreationDate**

Specify a format string for the measurement end date and time. This parameter is mandatory.

Any of the following format specifiers, if specified in the date format string, is automatically converted by DTSX Series into its respective data as shown in the table below. Characters in the format string other than the format specifiers are assigned without conversion.

Format Specifiers

Format specifier	Data	Example	Remarks
%Y	Year in Gregorian calendar	2011	Four digits are output.
%y		11	Two digits are output.
%m	Month	07	0 is displayed in the tens place for values 0 to 9.
%d	Date	19	
%H	Time	01	
%M	Minute	23	
%S	Second	45	

Restrictions

- The percent character (%) when not used as part of a format specifier is not allowed.
- Up to 64 characters can be specified with each format specifier counted as two characters.

Example

Specified format string	Converted date/time string
%Y-%m-%dT%H:%M:%S	2011-07-19T01:23:45

TIP

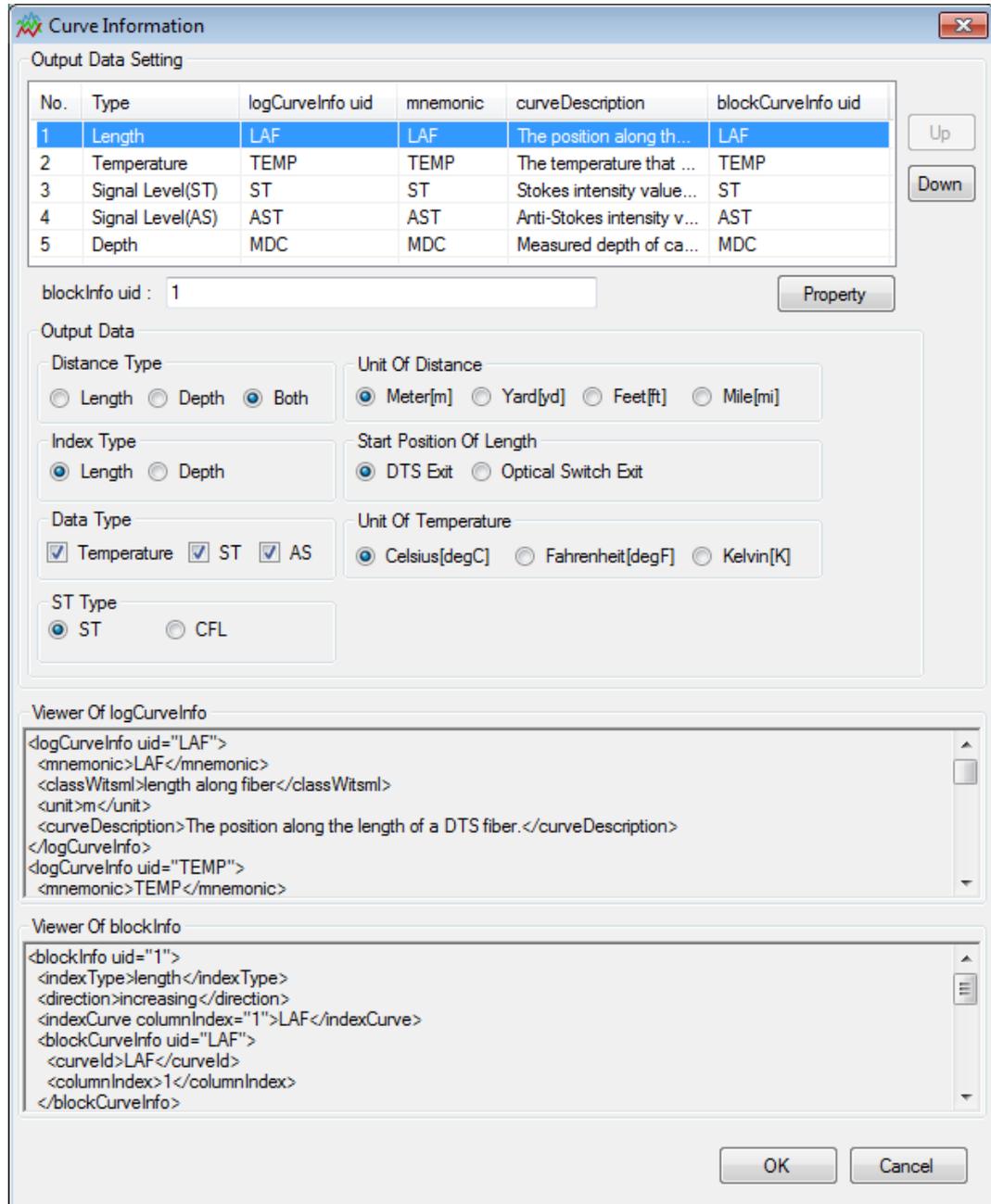
- Format specifiers are converted to UTC or local time values according to the Output Time setting of File Setting. For details, see Section 5.1, "File Settings."
- Format specifiers can also be specified in settings other than CreationDate to output measurement end time.
- The "%Y" format specifier, which comprises only two characters, converts into a four-character calendar year string. When specifying "%Y" within a setting, ensure that the final output element string or attribute string does not exceed its length limit.

● **nullValue**

Specify a character string to be output for a null value. This is an optional parameter. To omit the parameter, leave the field empty.

■ Curve Information

To display the Curve Setting dialog, click the [Property] button in the Curve Information group box. Log curve information (logCurveInfo) and block curve information (blockCurveInfo) can be specified on the displayed dialog.



● **Output Data Setting list**

The data types to be output are listed according to output (column) order. Up to five data types can be output.

Item	Description
No.	Data output column number
Type	Data type
logCurveInfo uid	Unique identifier of logCurveInfo
mnemonic	Mnemonic
curveDescription	Data description
blockCurveInfo uid	Unique identifier of blockCurveInfo

- No.

The No. column displays the output column number for outputting the data type associated with a row to a WITSML file. It is a running number starting from 1 for the top row.

You can rearrange the displayed data rows using the [Up] and [Down] buttons as follows:

1. Click to select the row to be moved.
2. Click [Up] to swap the data of the selected row with the preceding row; Click [Down] to swap the data of the selected row with the following row.

TIP

For example, clicking row No. 2 followed by the [Up] button swaps the data of row No.1 and row No 2.

- Type

The Type field displays the data type to be output. Five data types are listed. Values in the Type column cannot be edited.

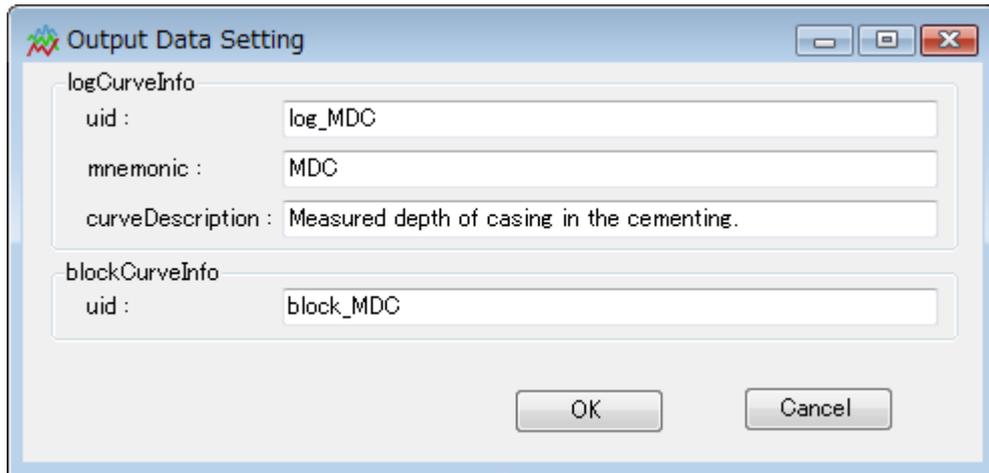
Type	Description
Length	Distance
Depth	Depth
Temperature	Temperature
ST	Stokes intensity
AS	Anti-Stokes intensity

TIP

The following table shows the mapping between Type and classWitsml.

Type	classWitsml
Length	length along fiber
Depth	measured depth of casing
Temperature	DTSX Series temperature
ST	Stokes intensity
AS	anti Stokes intensity

To edit the logCurveInfo and blockCurveInfo of any data row in the list, double-click on the row to display the Output Data Setting dialog.



How to Edit logCurveInfo and blockCurveInfo

1. Double-click the row to be edited in the Output Data Setting list. Alternatively, click on the row to be edited, and then click the [Property] button.
2. Edit the required settings on the displayed Output Data Setting dialog.
3. When you are done, click [OK] to close the dialog.
 - The edited settings are updated in the Output Data Setting list.

The settings on the Output Data Setting dialog are described below.

- logCurveInfo group box > uid
Specify a logCurveInfo uid. This is a mandatory parameter allowing 1 to 64 characters.
- logCurveInfo group box > mnemonic
Specify a mnemonic for the curve. This is a mandatory parameter allowing 1 to 32 characters.
- logCurveInfo group box > curveDescription
Specify a description for the data. This is a mandatory parameter allowing 256 characters.

TIP

The table below lists the default curveDescription value for each data type.

Type	curveDescription
Length	The position along the length of a dts fiber.
Depth	Measured depth of casing in the cementing.
Temperature	The temperature that was calculated from Distributed Temperature Survey data.
ST	Stokes intensity values from a Distributed Temperature Survey.
AS	Anti-Stokes intensity values from a Distributed Temperature Survey.

- blockCurveInfo group box > uid
Specify a blockCurveInfo uid. This is an optional parameter allowing up to 64 characters.

● **blockInfo uid**

Specify a blockInfo uid. This is a mandatory parameter allowing 1 to 64 characters.

● **Output Data group box**

Select the data types for output, the unit for data output, and the data type to be used as index.

- Distance Type

Select one of the following radio button options for outputting distance type data.

Distance Type	Output
Length	Fiber length (distance)
Depth	Depth
Both	Both fiber length (distance) and depth

TIP

The selected distance type or types are displayed in the Output Data Setting list.

- Data Type

Select whether to include or exclude each of the following data types in the output.

Data Type	Output
Temperature	Temperature
ST	Stokes intensity
AS	Anti-Stokes intensity

TIP

The selected data types are displayed in the Output Data Setting list.

- ST Type

If ST is selected in Data Type, specify the output data for the ST (stokes intensity data) data field using the radio buttons. If ST is not selected in Data Type, ST Type is disabled in the display.

ST Type	Output
ST	Stokes intensity
CFL	Calculated Fiber Loss

TIP

The DTSX series outputs either ST data or CFL data using the same ST (stokes intensity data) data field. Thus, ST data and CFL data cannot be output concurrently.

- Unit Of Distance group box

Select one of the following options for unit of distance.

Unit Of Distance	Unit
Meter[m]	meter
Yard[yd]	yard
Feet[ft]	feet
Mile[mi]	mile

- Index Type

If you have selected Both for Distance Type, select either Length or Depth to be used as index data. This setting is disabled (not selectable) in the display If you have selected Length or Depth for Distance Type.

- Start Position Of Length

Select either DTSX Series Exit or Option Switch Exit as the starting position (0 m) for length values if Index Type is enabled and Length is selected for Index Type. This setting is disabled (not selectable) in the display if Index Type is disabled or if Index Type is enabled but Depth is selected for Index Type.

- Unit Of Temperature

Select one of the following units for temperature data output. This setting is enabled only if Temperature is selected for Data Type.

Unit of temperature	Unit
Celsius[degC]	Celsius
Fahrenheit[degF]	Fahrenheit
Kelvin[ft]	Kelvin

● **Viewer Of logCurveInfo**

logCurveInfo to be output to a WITSML file is displayed. You can check the attribute and element settings (the WITSML data output).

logCurveInfo output	Related settings
Uid	logCurveInf uid
Mnemonic	mnemonic
classWitsml	Type
Unit(*1)	Type Unit of distance Unit of temperature
curveDescription	curveDescription

● **Viewer Of blockInfo**

blockInfo and blockCurveInfo to be output to a WITSML file is displayed. You can check the attribute and element settings (WITSML output).

blockInfo output	Related settings
uid	blockInfo uid
indeType	Index
direction	"increasing" (fixed value)
indexCurve – columnIndex	Index No.
indexCurve	Index mnemonic

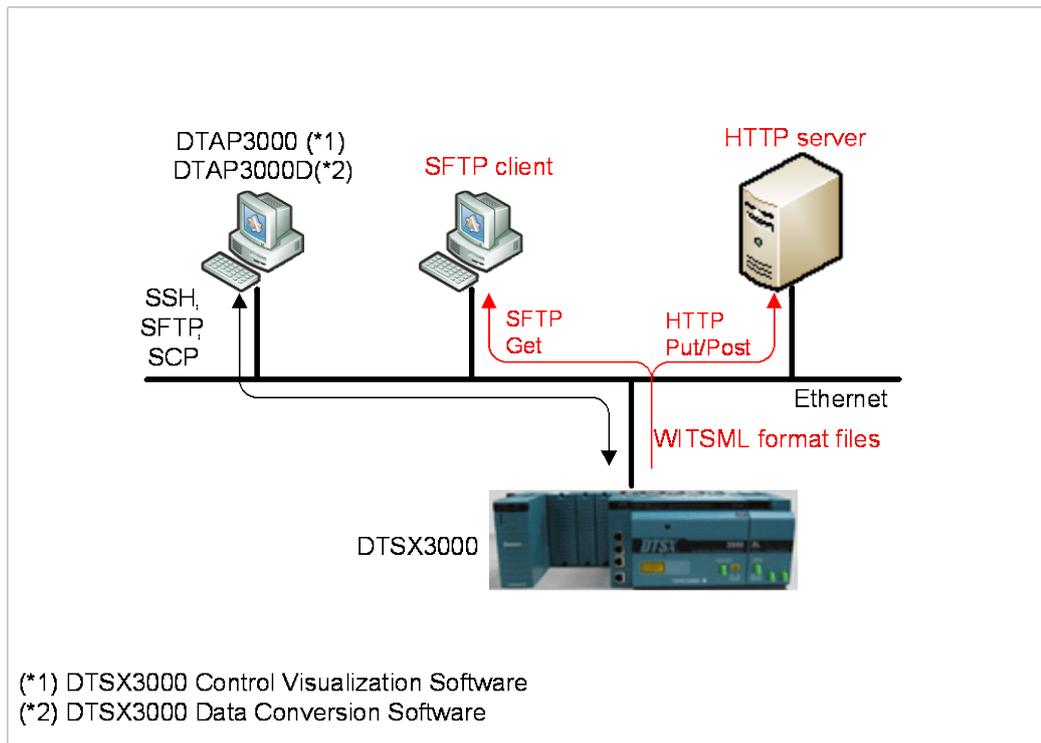
blockCurveInfo output	Related settings
Uid	blockCurveInfo uid
curveID	logCurveInfo uid
columnIndex	No.

6. WITSML File Output

6.1 Overview of Data Output

The DTSX Series converts measured data into WITSML (Wellsite Information Transfer Standard Markup Language) formatted files and stores them in its internal memory area. WITSML format version 1.3.1.1 is supported.

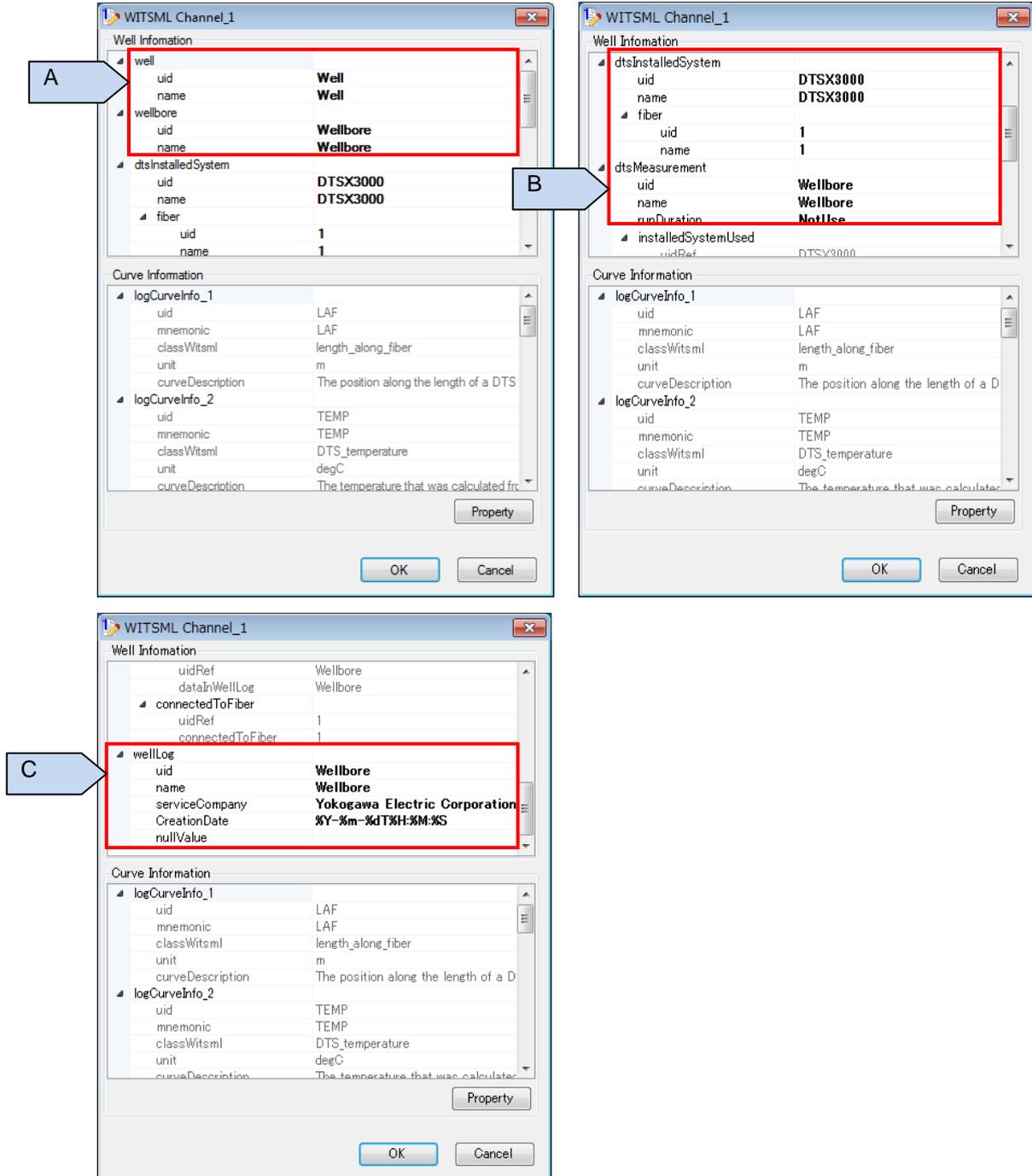
WITSML formatted files stored in the internal memory of the DTSX series can be accessed externally from an SFTP client, or using the WITSML file transfer to PC function of this application software. The files can also be transferred to an external HTTP server using the HTTP client function of the DTSX series.



6.2 Configuring Data Output Conditions

This section describes the WITSML data output format and output conditions, which can be configured using this software.

The following screen captures show the WITSML settings available in the software and how they map to the WITSML output data.



WITSML Channel_1-16 dialog

The screenshot shows the 'Curve Information' dialog box with the following sections and callouts:

- Output Data Setting:** A table with columns: No., Type, logCurveInfo uid, mnemonic, curveDes, and blockCurveInfo uid. Callout 'E' points to the first row (No. 1, Type Length).
- blockInfo uid:** A text field containing '1'. Callout 'E' points to this field.
- Output Data:** Radio buttons for Distance Type (Length, Depth, Both) and Index Type (Length, Depth). Callout 'E' points to the Index Type section.
- Unit Of Distance:** Radio buttons for Meter[m], Yard[yd], Feet[ft], and Mile[mi]. Callout 'D' points to this section.
- Start Position Of Length:** Radio buttons for DTS Exit and Optical Switch Exit.
- Data Type:** Checkboxes for Temperature, ST, and AS.
- Unit Of Temperature:** Radio buttons for Celsius[degC], Fahrenheit[degF], and Kelvin[K]. Callout 'D' points to this section.
- ST Type:** Radio buttons for ST and CFL.
- Viewer Of logCurveInfo:** XML output for logCurveInfo uid="LAF" and uid="TEMP".
- Viewer Of blockInfo:** XML output for blockInfo uid="1".
- Buttons:** OK and Cancel at the bottom.

Curve Setting dialog

The following figure shows how the settings in blocks A to E shown in the preceding screen captures of the WITSML Channel_1-16 dialog and the Curve Setting dialog map to parts of a sample WITSML output file.

Example: WITSML formatted output file

<pre><?xml version="1.0" encoding="UTF-8"?> <WITSMLComposite xmlns:witsml="http://www.witsml.org/schemas/131"omitted..... <!-- [info] App Ver : 01.01, Module Ver : 0.9.8--> <wellSet></pre>	
<pre><well uid="Well"> <name>Well</name> <wellboreSet> <wellbore uid="Wellbore"> <name>Wellbore</name></pre>	A
<pre><dtsInstalledSystemSet> <dtsInstalledSystem uid="Yokogawa DTS"> <name>Yokogawa DTS</name> <fiberInformation> <fiber uid="1"> <name>1</name> <mode>multimode</mode> </fiber> </fiberInformation> </dtsInstalledSystem> </dtsInstalledSystemSet> <dtsMeasurementSet> <dtsMeasurement uid="Wellbore"> <name>Wellbore</name> <runDuration uom="s">2.00</runDuration> <installedSystemUsed uidRef="Yokogawa DTS">Yokogawa DTS</installedSystemUsed> <dataInWellLog uidRef="Wellbore">Wellbore</dataInWellLog> <connectedToFiber uidRef="1">1</connectedToFiber> </dtsMeasurement> </dtsMeasurementSet></pre>	B
<pre><wellLogSet></pre>	
<pre><wellLog uid="Wellbore"> <name>Wellbore</name> <serviceCompany>Yokogawa Electric Corporation</serviceCompany> <creationDate>2011/09/15 06:12:45</creationDate> <indexType>length</indexType> <nullValue>NULL</nullValue></pre>	C

<pre> <logCurveInfo uid="LAF"> <mnemonic>LAF</mnemonic> <classWitsml>length along fiber</classWitsml> <unit>m</unit> <curveDescription>The position along the length of a DTS fiber.</curveDescription> </logCurveInfo> <logCurveInfo uid="TEMP"> <mnemonic>TEMP</mnemonic> <classWitsml>DTS temperature</classWitsml> <unit>degC</unit> <curveDescription>The temperature that was calculated from a DTS.</curveDescription> </logCurveInfo> <logCurveInfo uid="ST"> <mnemonic>ST</mnemonic> <classWitsml>Stokes intensity</classWitsml> <unit>dB</unit> <curveDescription>Stokes intensity values from a DTS.</curveDescription> </logCurveInfo> <logCurveInfo uid="AST"> <mnemonic>AST</mnemonic> <classWitsml>anti-Stokes intensity</classWitsml> <unit>dB</unit> <curveDescription>Anti-stokes intensity values from a DTS.</curveDescription> </logCurveInfo> <logCurveInfo uid="MDC"> <mnemonic>MDC</mnemonic> <classWitsml>measured depth of casing</classWitsml> <unit>m</unit> <curveDescription>Measured depth of casing the cementing.</curveDescription> </logCurveInfo> </pre>	D
<pre> <blockInfo uid="1"> <indexType>length</indexType> <direction>increasing</direction> <indexCurve columnIndex="1">LAF</indexCurve> <blockCurveInfo uid="LAF"> <curveId>LAF</curveId> <columnIndex>1</columnIndex> </blockCurveInfo> <blockCurveInfo uid="TEMP"> <curveId>TEMP</curveId> <columnIndex>2</columnIndex> </blockCurveInfo> <blockCurveInfo uid="ST"> <curveId>ST</curveId> <columnIndex>3</columnIndex> </blockCurveInfo> <blockCurveInfo uid="AST"> <curveId>AST</curveId> <columnIndex>4</columnIndex> </blockCurveInfo> <blockCurveInfo uid="MDC"> <curveId>MDC</curveId> <columnIndex>5</columnIndex> </blockCurveInfo> </blockInfo> </pre>	E
<pre> <logData> <!-- [info] Data Line Number = 1290 --> <data id="1">0.65,23.86,23.297080,21.753693,0.65</data> <data id="1">1.66,39.22,23.145284,21.806285,1.66</data> <data id="1">2.68,50.21,22.873478,21.668657,2.68</data> omitted..... <data id="1">1304.14,258.19,-0.000700,0.288371,1304.14</data> <data id="1">1305.15,101.23,10.856529,10.171895,1305.15</data> <data id="1">1306.17,-200.00,-0.000700,10.871319,1306.17</data> </logData> </pre>	F

```

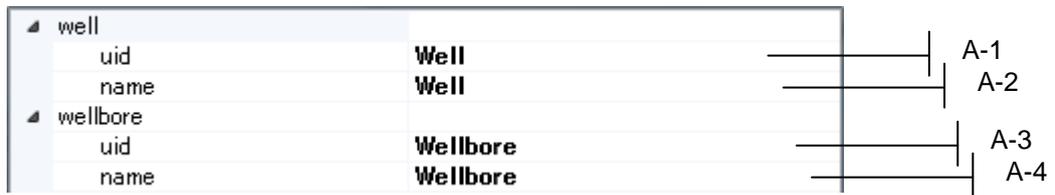
        </wellLog>
    </wellLogSet>
</wellbore>
</wellboreSet>
</well>
</wellSet>
</WITSMLComposite>
<!--
DTSX200_CNVT_FILEEND -->
    
```

Detailed descriptions of each block follow.

● **Block A**

Block A defines well and wellbore related information.

Sample settings for block A



Block A of sample output file

```

<well uid="Well">
  <name>Well</name>
  <wellboreSet>
    <wellbore uid="Wellbore">
      <name>Wellbore</name>
    
```

Item	Tag	Description
A-1	<well uid="Well ">	Well identifier (character string up to 64 characters long)
A-2	<name>Well</name>	Well name (character string up to 64 characters long)
A-3	<wellbore uid="Wellbore">	Wellbore identifier (character string up to 64 characters long)
A-4	<name>Wellbore</name>	Wellbore name (character string up to 64 characters long)

● **Block B**

Block B defines measurement device and fiber information.

Sample settings for block B



Block B of sample output file

```

<dtsInstalledSystemSet>
  <dtsInstalledSystem uid="Yokogawa DTS">
    <name>Yokogawa DTS</name>
    <fiberInformation>
      <fiber uid="1">
        <name>1</name>
        <mode>multimode</mode>
      </fiber>
    </fiberInformation>
  </dtsInstalledSystem>
</dtsInstalledSystemSet>
<dtsMeasurementSet>
  <dtsMeasurement uid="Wellbore">
    <name>Wellbore</name>
    <runDuration uom="s">2.00</runDuration>
    <installedSystemUsed uidRef="Yokogawa DTS">Yokogawa DTS</installedSystemUsed>
    <dataInWellLog uidRef="Wellbore">Wellbore</dataInWellLog>
    <connectedToFiber uidRef="1">1</connectedToFiber>
  </dtsMeasurement>
</dtsMeasurementSet>

```

Item	Tag	Description								
B-1	<dtsInstalledSystem uid="Yokogawa DTS">	dtsInstalledSystem identifier (character string up to 64 characters long)								
B-2	<name>Yokogawa DTS</name>	dtsInstalledSystem name (character string up to 64 characters long)								
B-3	<fiber uid="1">	Fiber identifier (character string up to 64 characters long)								
B-4	<name>1</name>	Fiber name (character string up to 64 characters long)								
	<mode>multimode</mode>	Fiber mode (fixed to multi-mode) This setting is always fixed to multimode and cannot be configured.								
B-5	<dtsMeasurement uid="Wellbore">	dtsMeasurement identifier (character string up to 64 characters long)								
B-6	<name>Wellbore</name>	dtsMeasurement identifier (character string up to 64 characters long)								
B-7	<runDuration uom="s"> 2.00 </ runDuration >	DTSX Series measurement time. uom defines the unit of measurement time as follows: <table border="1" style="margin-left: 20px;"> <tr> <td>s</td> <td>Second</td> </tr> <tr> <td>ms</td> <td>millisecond</td> </tr> <tr> <td>us</td> <td>microsecond</td> </tr> <tr> <td>NotUse</td> <td>No measurement time output. * This tag is not output to a WITSML file.</td> </tr> </table>	s	Second	ms	millisecond	us	microsecond	NotUse	No measurement time output. * This tag is not output to a WITSML file.
s	Second									
ms	millisecond									
us	microsecond									
NotUse	No measurement time output. * This tag is not output to a WITSML file.									
B-1/B-2	<installedSystemUsed uidRef="Yokogawa DTS"> Yokogawa DTS</installedSystemUsed>	uidRef: Reference to the identifier of the dtsInstalledSystem used. A dtsInstalledSystem uid is output. installedSystemUsed: Reference to the name of the dtsInstalledSystem used. A dtsInstalledSystem name is output.								
C-1/C-2	<dataInWellLog uidRef="Wellbore">Wellbore</dataInWellLog>	uidRef: Reference to the identifier of the wellLog used. A wellLog uid is output. dataInWellLog: Reference to the name of the wellLog used. A wellLog name is output.								
B-3/B-4	<connectedToFiber uidRef="1">1</connectedToFiber>	uidRef: Reference to the identifier of the fiber. A fiber uid is output. connectedToFiber: Reference to the name of the fiber. A fiber name is output.								

● **Block C**

Block C defines log output information.

Sample settings for block C

wellLog		
uid	Wellbore	C-1
name	Wellbore	C-2
serviceCompany	Yokogawa Electric Corporation	C-3
CreationDate	%Y-%m-%dT%H:%M:%S	C-4
nullValue	NULL	C-5

Block C of sample output file

```

<wellLog uid="Wellbore">
  <name>Wellbore</name>
  <serviceCompany>Yokogawa Electric Corporation</serviceCompany>
  <creationDate>2011-09-15T06:12:45</creationDate>
  <indexType>length</indexType>
  <nullValue>NULL</nullValue>
    
```

Item	Tag	Description
C-1	<wellLog uid="Wellbore">	wellLog identifier (character string up to 64 characters long)
C-2	<name>Wellbore</name>	wellLog name (character string up to 64 characters long)
C-3	<serviceCompany>Yokogawa Electric Corporation</serviceCompany>	Name of service company (character string up to 64 characters long)
C-4	<creationDate>2011-09-15T06:12:45</creationDate>	Data output start time For details on the output format, see Section 5.3, "WITSML Settings – ■ Well Information – CreationDate."
C-5	<nullValue>NULL</nullValue>	Output string for Null value (character string up to 32 characters long)

● **Block D,E**

Clicking the [Property] button of the WITSML Channel_1-16 dialog displays the Curve Setting dialog for configuring data output conditions and defining output data in blocks D and E.

Sample settings for blocks D and E

No.	Type	logCurveInfo uid	mnemonic	curveDescription	blockCurveInfo uid
1	Length	LAFaa	LAFbb	The position along t...	LAFcc
2	Depth	MDC	MDC	Measured depth of c...	MDC
3	Temperature	TEMP	TEMP	The temperature tha...	TEMP
4	ST	ST	ST	Stokes intensity val...	ST
5	AS	AST	AST	Anti-Stokes intensit...	AST

Annotations in the image:

- E-4: Points to the 'Property' button.
- D-3: Points to the 'logCurveInfo uid' column header.
- D-1: Points to the 'mnemonic' column header.
- D-2: Points to the 'curveDescription' column header.
- D-5: Points to the 'blockCurveInfo uid' column header.
- E-3: Points to the 'Type' column header.
- E-1: Points to the 'Data Type' section (Temperature, ST, AS).
- E-4: Points to the 'Unit Of Distance' section (Meter, Yard, Feet, Mile).
- D-4: Points to the 'Unit Of Temperature' section (Celsius, Fahrenheit, Kelvin).
- E-2: Points to the 'Start Position Of Length' section (DTS Exit, Optical Switch Exit).
- E-4: Points to the 'Distance Type' section (Length, Depth, Both).

Block D of sample output file

```

<logCurveInfo uid="LAF">
  <mnemonic>LAF</mnemonic>
  <classWitsml>length along fiber</classWitsml>
  <unit>m</unit>
  <curveDescription>The position along the length of a DTS fiber.</curveDescription>
</logCurveInfo>
<logCurveInfo uid="TEMP">
  <mnemonic>TEMP</mnemonic>
  <classWitsml>DTS temperature</classWitsml>
  <unit>degC</unit>
  <curveDescription>The temperature that was calculated from a DTS.</curveDescription>
</logCurveInfo>
<logCurveInfo uid="ST">
  <mnemonic>ST</mnemonic>
  <classWitsml>Stokes intensity</classWitsml>
  <unit>dB</unit>
  <curveDescription>Stokes intensity values from a DTS.</curveDescription>
</logCurveInfo>
<logCurveInfo uid="AST">
  <mnemonic>AST</mnemonic>
  <classWitsml>anti-Stokes intensity</classWitsml>
  <unit>dB</unit>
  <curveDescription>Anti-stokes intensity values from a DTS.</curveDescription>
</logCurveInfo>
<logCurveInfo uid="MDC">
  <mnemonic>MDC</mnemonic>
  <classWitsml>measured depth of casing</classWitsml>
  <unit>m</unit>
  <curveDescription>Measured depth of casing the cementing.</curveDescription>
</logCurveInfo>
    
```

Item	Tag	Description												
D-1	<logCurveInfo uid="LAF">	logCurveInfo identifier (character string up to 64 characters long)												
D-2	<mnemonic>LAF</mnemonic>	logCurveInfo mnemonic (character string for reference) (character string up to 32 characters long)												
D-3	<classWitsml>length along fiber</classWitsml>	logCurveInfo class name (measured quantity) A classWitsml value is uniquely defined according to Type. <table border="1"> <thead> <tr> <th>Type</th> <th>classWitsml</th> </tr> </thead> <tbody> <tr> <td>Length</td> <td>length along fiber</td> </tr> <tr> <td>Depth</td> <td>measured depth of casing</td> </tr> <tr> <td>Temperature</td> <td>DTSX Series temperature</td> </tr> <tr> <td>ST</td> <td>Stokes intensity</td> </tr> <tr> <td>AS</td> <td>anti Stokes intensity</td> </tr> </tbody> </table>	Type	classWitsml	Length	length along fiber	Depth	measured depth of casing	Temperature	DTSX Series temperature	ST	Stokes intensity	AS	anti Stokes intensity
Type	classWitsml													
Length	length along fiber													
Depth	measured depth of casing													
Temperature	DTSX Series temperature													
ST	Stokes intensity													
AS	anti Stokes intensity													
D-4	<unit>m</unit>	Measurement unit. Allowable unit values depend on Type. <table border="1"> <thead> <tr> <th>Type</th> <th>classWitsml</th> </tr> </thead> <tbody> <tr> <td>Length</td> <td>Unit: m, yd, ft or mi as specified for Unit Of Distance</td> </tr> <tr> <td>Temperature</td> <td>Unit: degC, degF or K as specified for Unit Of Temperature</td> </tr> <tr> <td>ST</td> <td rowspan="2">Unit: dB</td> </tr> <tr> <td>AS</td> </tr> </tbody> </table>	Type	classWitsml	Length	Unit: m, yd, ft or mi as specified for Unit Of Distance	Temperature	Unit: degC, degF or K as specified for Unit Of Temperature	ST	Unit: dB	AS			
Type	classWitsml													
Length	Unit: m, yd, ft or mi as specified for Unit Of Distance													
Temperature	Unit: degC, degF or K as specified for Unit Of Temperature													
ST	Unit: dB													
AS														
D-5	<curveDescription>The position along the length of a DTS fiber.</curveDescription>	Description of logCurveInfo (character string up to 256 characters long)												

Block E of sample output file

```

<blockInfo uid="1">
  <indexType>length</indexType>
  <direction>increasing</direction>
  <indexCurve columnIndex="1">LAF</indexCurve>
  <blockCurveInfo uid="LAF">
    <curveId>LAF</curveId>
    <columnIndex>1</columnIndex>
  </blockCurveInfo>
  <blockCurveInfo uid="TEMP">
    <curveId>TEMP</curveId>
    <columnIndex>2</columnIndex>
  </blockCurveInfo>
  <blockCurveInfo uid="ST">
    <curveId>ST</curveId>
    <columnIndex>3</columnIndex>
  </blockCurveInfo>
  <blockCurveInfo uid="AST">
    <curveId>AST</curveId>
    <columnIndex>4</columnIndex>
  </blockCurveInfo>
  <blockCurveInfo uid="MDC">
    <curveId>MDC</curveId>
    <columnIndex>5</columnIndex>
  </blockCurveInfo>
</blockInfo>
    
```

Item	Tag	Description						
E-1	<blockInfo uid="1">	blockInfo identifier (character string up to 64 characters long)						
E-2	<indexType>length</indexType>	Index type A classWitsml value is uniquely defined according to Index Type. <table border="1"> <thead> <tr> <th>Index Type</th> <th>classWitsml</th> </tr> </thead> <tbody> <tr> <td>Length</td> <td>length</td> </tr> <tr> <td>Depth</td> <td>measured depth</td> </tr> </tbody> </table>	Index Type	classWitsml	Length	length	Depth	measured depth
Index Type	classWitsml							
Length	length							
Depth	measured depth							
	<direction>increasing</direction>	Sort order for index (fixed to ascending order) This tag value is fixed to "increasing" and cannot be configured.						
E-2	<indexCurve columnIndex="1">LAF</indexCurve>	columnIndex: Column number for the index The <columnIndex> of the blockCurveInfo defined as the index is output.						

		indexCurve: Mnemonic of the index The <mnemonic> of the logCurveInfo defined as the index is output.
E-3	<blockCurveInfo uid="LAF">	blockCurveInfo identifier (character string up to 64 characters long)
D-1	<curveId>LAF</curveId>	Curve identifier A logCurveInfo uid is output.
E-4	<columnIndex>1</columnIndex>	The output column number for the data. The value of No. is output. 0 is output for columnIndex if Type is not displayed in list.

● **Output data**

Data is output based on the output conditions and definitions in blocks D and E.

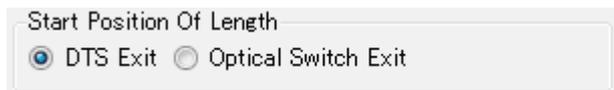
```

<logData>
<!-- [info] Data Line Number = 1290 -->
<data id="1">0.65,23.86,23.297080,21.753693,0.65</data>
<data id="1">1.66,39.22,23.145284,21.806285,1.66</data>
<data id="1">2.68,50.21,22.873478,21.668657,2.68</data>
.....omitted.....
<data id="1">1304.14,258.19,-0.000700,0.288371,1304.14</data>
<data id="1">1305.15,101.23,10.856529,10.171895,1305.15</data>
<data id="1">1306.17,-200.00,-0.000700,10.871319,1306.17</data>
</logData>
    
```

Item	Tag	Description
E-1/E-4	<data id="1">0.65,23.86,23.297080,21.753693,0.65</data>	Id: data identifier The blockInfo uid is output. Data row The specified output data types are output in each row separated by commas and in ascending order of No.

- Starting position for data

The starting position for Length is determined by the Start Position of Length setting on the Curve Setting dialog.



DTS Exit: Length is calculated starting from the exit at the DTSX Series.
Optical Switch Exit: Length is calculated starting from the exit at the optical switch.

TIP

The Start Position Of Length setting is not saved to a WITSML file.

- ST Type

The measurement data specified for ST Type is output to the ST (stokes intensity data) data field.



ST: Stokes intensity.
CFL: Calculated Fiber Loss.

TIP

- The number of output data varies with the Calculation Range setting. For details on the Calculation Range setting, see Subsection B7.3.1, "Fiber Settings" of the DTSXL Distributed Temperature Sensor Long Range System Guide (IM39J06B40-01E).
 - If ST Type is specified as CFL, the following message is output below logData in the output data.
<!-- [info] The cfl data is output to the stokes intensity data field. -->
-

6.3 Executing Data Output

After defining the output conditions, you can start measurement. You can also check created measurement data, reported errors and other statuses during measurement.

SEE ALSO

For details on remote commands for executing measurement and checking statuses, see the DTSX3000 Communications Guide (IM39J06B40-02E) and Chapter 7, "Modbus Address Map," of this Guide.

6.4 Measurement Data Output

The DTSX Series converts measurement data first into WITSML format files and archives the files in its internal memory. Files are archived continuously in its memory area according to limits on minimum free space and maximum number of files. When the memory area limit is exceeded, the oldest file is deleted and the most recent file is archived. Thus, the memory area of the DTSX Series always contains the most recent files.

The DTSX Series assigns a user-specified string and an automatically generated control number as part of the name of each measurement data archive file. This control number is related to the archive directory name.

SEE ALSO

See the DTSX3000 Guide (IM39J06B40-01E) for details.

6.5 Retrieving Measurement Data

WITSML files stored in the memory area of the DTSX Series can be retrieved externally using SFTP client functions or transferred to an external HTTP server using the HTTP client function of the DTSX Series.

SEE ALSO

See the DTSX Series Guide (IM39J06B40-01E) for details.

7. Modbus Address Map

WITSML format conversion function related settings can be set remotely through Modbus communications. This chapter shows the Modbus address map for WITSML format conversion function related settings.

SEE ALSO

For details on Modbus communications, see the DTSX3000 Communications Guide. (IM 39J06B40-02E)

7.1 List of Holding Registers

Register Number	Function	
400033	WITSML data conversion execution control	
432769	Data conversion function selection	
433025 —	WITSML 1.3.1.1 settings	Well information settings
434049 —		Curve information settings
435329 —		Transmission settings

7.2 Description of Holding Registers

(1) WITSML data conversion execution control

Relative Address	Register Number	Data Type	Description	Read/Write Data
0020 _H	40033	Short	WITSML data conversion execution control	1: Start request 0: Abort request

(2) Data conversion function settings

Relative Address	Register Number	Data Type	Description	Read/Write Data
8000 _H	432769	Short	Conversion function selection	0: LAS2.0 100: WITSML1.3.1.1

TIP

Writing a value to this register switches the Modbus address map for data conversion related registers. You must set this register before setting WITSML format conversion related registers.

(3) Well information settings

Relative Address	Register Number	Data Type	Description	Read/Write Data
8100 _H	433025	Short	Channel number for parameter	0: Ch1, ..., 15: Ch16
8101 _H	433026	Short	Parameter ID	0: well - uid 1: wel - name 2: wellbore - uid 3: wellbore name 4: dtsInstalledSystem - uid 5: dtsInstalledSystem - name 6: fiber - uid 7: fiber- name 8: dtsMeasurement - uid 9: dtsMeasurement- name 10: wellLog - uid 11: wellLog - name 12: service Company 13: CreationDate 14: null Value 100: dtsMeasurement - runDuration

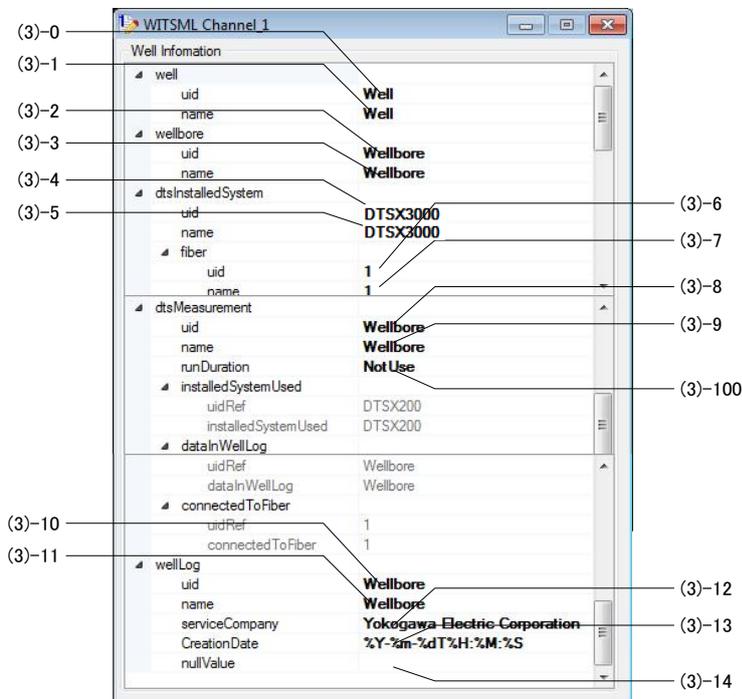
8102 _H	433027	Short x 33	Parameter value	For parameters 0 to 13: Character string (64 characters max.) For parameter 14: Character string (32 characters max.) For parameter 100: 0: s; 1: 0s; 2: μs; 3: Not used
-------------------	--------	---------------	-----------------	---

SEE ALSO

- Some parameters can be omitted. (See Section 5.3, “WITSML Settings,” for details.) To omit a parameter value, specify a null byte as the parameter value.
- For restrictions related to the CreationDate parameter, see Section 5.3, “WITSML Settings.”

TIP

- Be sure to specify a channel number using register number 433025 and a parameter ID using register number 433026 before reading or writing its parameter value using register number 433027.
- These parameter values cannot be changed during WITSML conversion.
- Only non-control ASCII characters and the null byte (0x00) are allowed. Two-byte coded data is not supported.
- When writing a character string parameter, always append a null byte (0x00) at the end of the character string data. Otherwise, the parameter may be improperly set (partially modified or unmodified).
- To specify a double-quote (") character within character string data, precede it with a backslash (\) escape character. In this case, two bytes are used for the character but the number of allowable characters for the parameter value is not reduced by one.
- The screen capture below maps the settings displayed in the DTSX3000 Data Conversion Software WITSML 1.3.1.1 to their associated well information parameters. Each label shown in the screen capture maps to a value for the parameter ID (register 433026) in the above table. Example: The field labeled as (3)-0 in the screen capture refers to the well - uid parameter.



(4) Curve information settings

Relative Address	Register Number	Data Type	Description	Read/Write Data
8500H	434049	Short	Channel number for parameter	0: Ch1, ..., 15: Ch16
8501H	434050	Short	Parameter ID	Distance data related settings 0: blockCurveInfo - columnIndex 1: blockCurveInfo - uid 2: logCurveInfo - uid 3: logCurveInfo - mnemonic 4: logCurveInfo - curve Description Depth data related settings 10: blockCurveInfo - columnIndex 11: blockCurveInfo - uid 12: logCurveInfo - uid 13: logCurveInfo - mnemonic 14: logCurveInfo - curve Description Temperature data related settings 20: blockCurveInfo - columnIndex 21: blockCurveInfo - uid 22: logCurveInfo - uid 23: logCurveInfo - mnemonic 24: logCurveInfo - curve Description Stokes intensity data related settings 30: blockCurveInfo - columnIndex 31: blockCurveInfo - uid 32: logCurveInfo - uid 33: logCurveInfo - mnemonic 34: logCurveInfo - curve Description Anti-Stokes intensity data related settings 40: blockCurveInfo - columnIndex 41: blockCurveInfo - uid 42: logCurveInfo - uid 43: logCurveInfo - mnemonic 44: logCurveInfo - curve Description Block information related settings 100: Index Type 101: blockInfo - uid Other settings 110: Unit Of Distance 111: Unit Of Temperature 112: Start Position Of Length 113: Output CFL Data
8502H	434051	Short x 129	Parameter value	For parameters 0, 10, 20, 30 and 40: 0 to 5 (short data type, 0 means to turn off display) For parameters 1, 11, 21, 31, 41, 2, 12, 22, 32 and 42: Character string (64 characters max.) For parameters 3, 13, 23, 33 and 43: Character string (32 characters max.) For parameters 4, 14, 24, 34 and 44: Character string (256 characters max.) For parameter 100: 0: Distance data; 1: Depth data For parameter 101: Character string (64 characters max.) For parameter 110: 0: m; 1: ft; 2: yd; 3: mi For parameter 111: 4: K; 5: degC; 6: degF For parameter 112: 0: DTS exit; 1: Optical switch exit For parameter 113: 0:Off; 1:On

SEE ALSO

Some parameters can be omitted. (See Section 5.3, "WITSML Settings," for details.) To omit a parameter value, specify a null byte as the parameter value.

TIP

- Be sure to specify a channel number using register number 434049 and a parameter ID using register number 434050 before reading or writing its parameter value using register number 434051.
- These parameter values cannot be changed during WITSML conversion.
- Only non-control ASCII characters and the null byte (0x00) are allowed. Two-byte coded data is not supported.
- When writing a character string parameter, always append a null byte (0x00) at the end of the character string data. Otherwise, the parameter may be improperly set (partially modified or unmodified).
- To specify a double-quote (") character within character string data, precede it with a backslash (\) escape character. In this case, two bytes are used for the character but the number of allowable characters for the parameter value is not reduced by one.
- The screen capture below maps the settings displayed in the DTSX3000 Data Conversion Software WITSML 1.3.1.1 to their associated curve information parameters. Each label shown in the screen capture maps to a value for the parameter ID (register 434050) in the above table. Example: The field labeled as (4)-0 in the screen capture refers to the blockCurveInfo - columnIndex parameter.

No.	Type	logCurveInfo uid	mnemonic	curveDescription	blockCurveInfo uid
1	Length	LAFaa	LAFbb	The position along t...	LAFcc
2	Depth	MDC	MDC	Measured depth of c...	MDC
3	Temperature	TEMP	TEMP	The temperature tha...	TEMP
4	ST	ST	ST	Stokes intensity val...	ST
5	AS	AST	AST	Anti-Stokes intensit...	AST

blockInfo uid : 1

Output Data

Distance Type
 Length Depth Both

Unit Of Distance
 Meter[m] Yard[yd] Feet[ft] Mile[mi]

Index Type
 Length Depth

Data Type
 Temperature ST AS

Unit Of Temperature
 Celsius[degC] Fahrenheit[degF] Kelvin[K]

Start Position Of
 DTS Exit Optical Switch Exit

Viewer Of logCurveInfo

```
<logCurveInfo uid="LAF">
<mnemonic>LAF</mnemonic>
<classWitsml>length along fiber</classWitsml>
<unit>m</unit>
<curveDescription>The position along the length of a dts fiber.</curveDescription>
</logCurveInfo>
```

Viewer Of blockInfo

```
<blockInfo uid="1">
<indexType>length</indexType>
<direction>increasing</direction>
<indexCurve columnIndex="1">LAF</indexCurve>
<blockCurveInfo uid="LAF">
<curveID>LAF</curveID>
```

(5) Transmission settings

Relative Address	Register Number	Data Type	Description	Read/Write Data
8A01H	435330	Short	Parameter ID	0: URI 1: Proxy host name 2: Destination server user ID 3: Destination server password 4: Transmission mode 5: Form data name 6: Conversion file name 7: Namespace declaration 100: Transmission enable 101: Transmission method 102: Proxy use flag 103: Proxy port number 104: Deflate flag 105: Conversion format type 106: UTC flag
8A02H	435331	Short x 257	Parameter value	For parameters 0, 1, 2, 3 and 5: Character string (255 characters max.) For parameter 4: "LAST", "NEW" or transmission file name Transmission file name: character string (32 characters max.) For parameter 6: Character string (64 characters max.) For parameter 7: Character string (512 characters max.) For parameters 100, 102 and 104: 0: Off; 1: On For parameter 101: 0: PUT; 1: POST For parameter 103: 1 to 65535 (unsigned short) For parameter 105: 1 to 99 (short) For parameter 106: 0: local time; 1: International standard time

SEE ALSO

- Some parameters can be omitted. (See Section 5.3, "WITSML Settings," for details.) To omit a parameter value, specify a null byte as the parameter value.
- For restrictions related to the conversion file name parameter, see Section 5.1, "File Name Configuration."

TIP

- Be sure to specify a parameter ID using register number 435330 before reading or writing its parameter value using register number 435331.
- These parameter values cannot be changed during WITSML conversion.
- Only non-control ASCII characters and the null byte (0x00) are allowed. Two-byte coded data is not supported.
- Reading of the destination server user ID (parameter 2), password (parameter 3) and form data name (parameter 5) is prohibited for security reason.
- When writing a character string parameter, always append a null byte (0x00) at the end of the character string data. Otherwise, the parameter may be improperly set (partially modified or unmodified).
- To specify a double-quote (") character within character string data, precede it with a backslash (\) escape character. In this case, two bytes are used for the character but the number of allowable characters for the parameter value is not reduced by one.

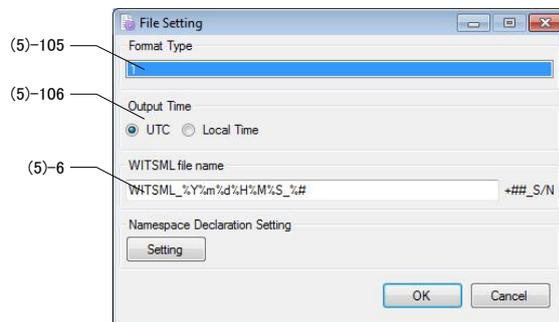
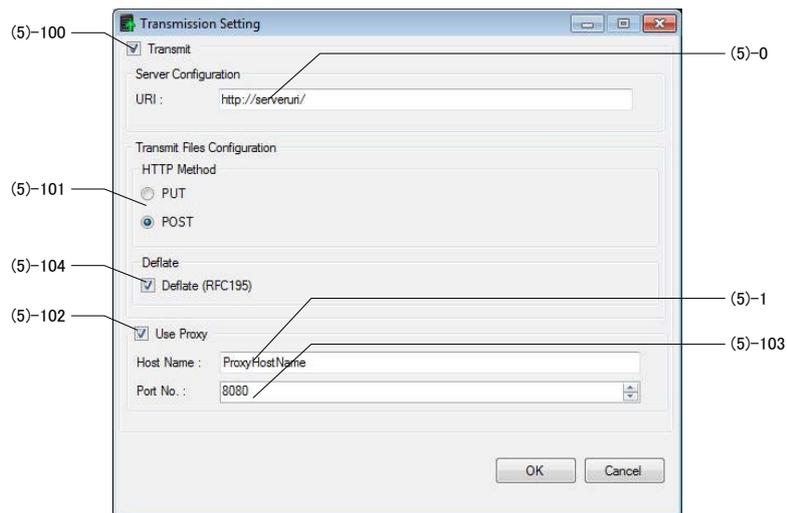
- For the URI parameter, characters other than reserved characters and unreserved characters defined in RFC2396 and the '#' character must be encoded as URI escape characters. The table below lists the characters that must be escaped with their escape characters.

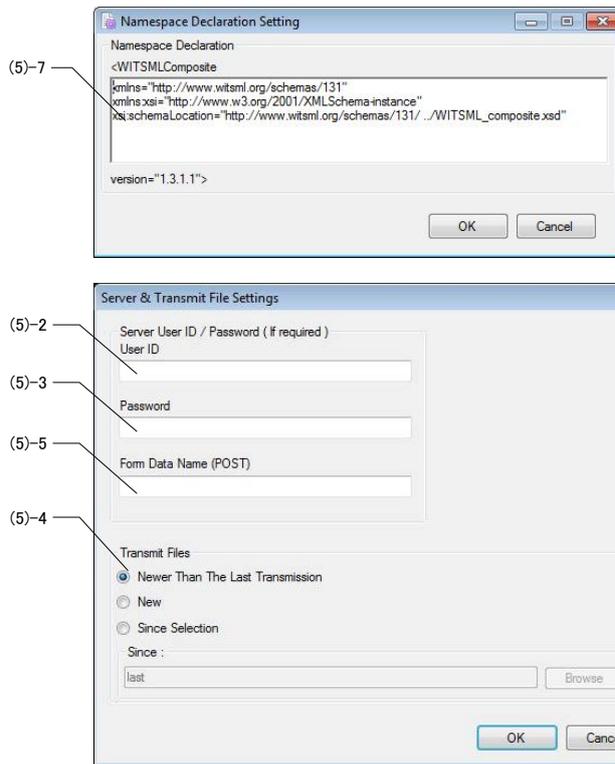
Characters	Escape characters (URI encoding)
space	%20
"	%22
%	%25
<	%3C
>	%3E
[%5B
\	%5C
]	%5D
^	%5E
`	%60
{	%7B
	%7C
}	%7D

The pound (#) character is used as a delimiter character for URI references and fragment identifiers. Only one '#' character can be specified in a URI. For details on fragment identifier, see the RFC2396.

- The screen capture below maps the Well Information fields displayed in the DTSX3000 Data Conversion Software WITSML 1.3.1.1 to their associated transmission parameters. Each label shown in the screen capture maps to a value for the parameter ID (register 435330) in the above table.

Example: The field labeled as (5)-0 in the screen capture refers to the URI parameter.





7.3 List of Input Registers

Register Number	Function
300049 — 300055	WITSML data conversion execution status information

7.4 Description of Input Registers

(1) WITSML data conversion execution status information

Relative Address	Register Number	Data Type	Description	Read Data
0030 _H	300049	Int	WITSML conversion transmission rate	0 to 2147483647 (Unit: bytes per second)
0032 _H	300051	Int	WITSML conversion number of files to be sent	0 to 2147483647
0034 _H	300053	Int	WITSML conversion number of files sent	0 to 2147483647
0036 _H	300055	Short	HTTP transmission result	This indicate the result of transmission of converted WITSML files to a specified server. 0: Transmission succeeded 1: Transmission failed 2: Server or proxy name search failed 3: User authentication by server failed 4: User authentication by proxy failed 5: Connection to server failed 6: Connection timed out 7: Setting error 8: Request to resend 19: Invalid URI

Appendix. Messages

A specific message may be displayed only in the Message window (see Section 4.9), only in dialogs or both. In addition, messages can be broadly classified into the following types.

Type	Description
Normal	Normal information
Error	An error has been detected (but the application can continue execution.)
FatalError	An error has been detected (and the application cannot continue execution.)
Warning	A warning has been detected (but the application can continue execution.)
Terminated	The application is terminated.



IMPORTANT

- If an Error type message is displayed, the application can continue execution but there may be some limitations on its operation thereafter.
- If a FatalError type message is displayed, it will be followed by a "Terminated" type message and the application will be aborted.

Appendix A List of Messages

- Normal messages

List of Normal Messages

No.	Type	Message	Description	Remedial Measures
0651	Normal	Cannot change setting, now! Please save.	A setting could not be changed. Settings cannot be changed during conversion in online state when in disconnected state.	- To keep current settings, save and then load the settings.
0653	Normal	Setting isn't transmitted to DTS. Please save.	Measurement is not started after settings are modified so current settings are not updated to the DTSX Series and may be overwritten by old settings on the DTSX Series on subsequent connection to the DTSX Series. Save the modified settings if necessary.	- To keep current settings, save the settings.
0654	Normal	Setting character(s) was(were) changed to escape character(s).	This message is displayed when characters in a specified URI are converted to escape characters.	-
0713	Normal	Start Connect,	Reconnection was initiated because an error was detected during communication with the DTSX Series.	- Check the error reported in the preceding message for the cause of reconnection.
0714	Normal	Cancel Connect	Connection with the DTSX Series was cancelled by a user.	-
0717	Normal	DTS was rebooted. It is reconnected.	Reconnection is made to the DTSX Series because the DTSX Series was rebooted.	- Check the DTSX Series message log for the cause of reboot.
0719	Normal	Connect to DTS.	Connection was made to DTSX Series.	-
0722	Normal	License Remove Success. Please reboot DTS.	The WITSML license installed in the DTSX3000 has been successfully removed. You should reboot the DTSX3000.	- Reboot the DTSX3000.
0729	Normal	Connection with DTS went wrong. Click the Connect button and connect again.	Connection to DTSX Series has failed. Click the [Connect] button to connect again.	- Click the [Connect] button to connect again.

● Error messages

List of Error Messages

No.	Type	Message	Description	Remedial Measures
0501	Error	Setup Error (Failed to load a setting.)	The specified settings file could not be loaded.	<ul style="list-style-type: none"> - Check that the file exists. - Check that software startup or exit is not in progress. - Check that conversion by DTSX Series is not in progress. - Save settings and check if the file can be loaded.
0502	Error	Setup Error (Failed to save a setting.)	The specified settings file could not be saved.	<ul style="list-style-type: none"> - Check that the file exists. - Check that software startup or exit is not in progress.
0503	Error	Setup Error (Failed to default a setting.)	The specified setting could not be initialized.	<ul style="list-style-type: none"> - Check that software startup or exit is not in progress. - Check that conversion by DTSX Series is not in progress.
0504	Error	Setup Error (Failed to copy a setting.)	The specified setting could not be copied.	<ul style="list-style-type: none"> - Check that software startup or exit is not in progress.
0505	Error	Setup Error (Failed to paste a setting)	The specified setting could not be pasted.	<ul style="list-style-type: none"> - Check that software startup or exit is not in progress. - Check that conversion by DTSX Series is not in progress. - Copy setting and check if the setting can be pasted.
0506	Error	Setup Error (Failed to change a setting.)	The specified setting could not be changed.	<ul style="list-style-type: none"> - Check that software startup or exit is not in progress. - Check that conversion by DTSX Series is not in progress.
0509	Error	Startup Error (Failed to get data from form.)	Setting(s) could not be retrieved from a displayed configuration dialog.	<ul style="list-style-type: none"> - Try re-running the software. - Try rebooting the PC. - Try reinstalling the software.
0511	Error	Form Error (Failed to open a form.)	A window or dialog could not be displayed.	<ul style="list-style-type: none"> - Try re-running the software. - Try rebooting the PC. - Try reinstalling the software.
0514	Error	Form Error (Failed to close a form.)	An error was detected during termination of a dialog.	<ul style="list-style-type: none"> - Try re-running the software. - Try rebooting the PC. - Try reinstalling the software.
0515	Error	Form Error (Failed to make a dialog)	A dialog could not be created.	<ul style="list-style-type: none"> - Try re-running the software. - Try rebooting the PC. - Try reinstalling the software.
0523	Error	Processing Error (Cannot connect to DTS.)	Connection to DTSX Series was aborted.	<ul style="list-style-type: none"> - Check that the DTSX Series is not connected. - The status display may be delayed.

No.	Type	Message	Description	Remedial Measures
0526	Error	Processing Error (Cannot start convertor.)	Conversion could not be started.	<ul style="list-style-type: none"> - Check that conversion is not already started. - Check that self test is not in progress. - Check that the DTSX Series is not disconnected. - The status display may be delayed.
0527	Error	Processing Error (Cannot stop convertor.)	Conversion could not be stopped.	<ul style="list-style-type: none"> - Check that conversion is not already stopped. - Check that self test is not in progress. - Check that the DTSX Series is not disconnected. - The status display may be delayed.
0531	Error	File Error (Failed to find a file.)	A file (manual, etc.) does not exist.	<ul style="list-style-type: none"> - Try reinstalling the software.
0532	Error	File Error (Failed to open a file.)	A file (manual, etc.) could not be opened.	<ul style="list-style-type: none"> - Install Acrobat Reader or some other PDF file browser software.
0554	Error	Setup Error (Value is empty.)	No value is specified.	<ul style="list-style-type: none"> - Specify a value. - See parameter description in this manual for details.
0555	Error	Setup Error (Over max length.)	The specified character string is too long.	<ul style="list-style-type: none"> - Specify a string value not longer than the length limit. - See parameter description in this manual for details.
0557	Error	Setup Error (Over max value.)	The specified value is too large.	<ul style="list-style-type: none"> - Specify a value equal or smaller than the high limit. - See parameter description in this manual for details.
0558	Error	Setup Error (Under min value.)	The specified value is too small.	<ul style="list-style-type: none"> - Specify a value equal or larger than the low limit. - See parameter description in the manual for details.
0559	Error	Setup Error (Can't set space character at top or bottom.)	Space character(s) are present at the beginning and/or end of the specified value.	<ul style="list-style-type: none"> - Remove preceding and trailing space character(s) from the specified value. - See parameter description in this manual for details.
0560	Error	Setup Error (Invalid Value)	The specified value is invalid. (E.g. A letter was wrongly entered for a numeric parameter.)	<ul style="list-style-type: none"> - Specify a valid value. - See parameter description in this manual for details.
0614	Error	Setup Error (Duplicate uid of logCurveInfo.)	Two or more logCurveInfo have the same uid.	<ul style="list-style-type: none"> - Define uid of logCurveInfo uniquely.
0701	Error	Comm Error	This is a general communication error. The application will automatically retry to communicate with the DTSX Series. If the failure persists, adopt the remedial measures.	<ul style="list-style-type: none"> - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0702	Error	SFTP Connect Error	SFTP connection has failed.	<ul style="list-style-type: none"> - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0703	Error	SFTP Login Error	SFTP login has failed.	<ul style="list-style-type: none"> - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0704	Error	SCP Connect Error	SCP connection has failed.	<ul style="list-style-type: none"> - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.

No.	Type	Message	Description	Remedial Measures
0705	Error	SCP Login Error	SCP login has failed.	<ul style="list-style-type: none"> - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0706	Error	DTS Connect Error (IP Address Error.)	DTSX Series was not found at the specified IP address.	<ul style="list-style-type: none"> - Check the IP address of the DTSX Series. - Check that DTSX Series is powered on. - Check the transmission path to the DTSX Series. - Try rebooting the PC. - Try rebooting the DTSX Series.
0707	Error	SSH Connect Error	SSH connection has failed.	<ul style="list-style-type: none"> - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0708	Error	SSH Login Error	SSH login has failed.	<ul style="list-style-type: none"> - Check the user ID and password. - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0711	Error	WITSML Error	An error was detected during WITSML conversion preparation or during WITSML data conversion.	<ul style="list-style-type: none"> - Check that the DTSX Series is not performing WITSML data conversion. - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0715	Error	DTS Connect Error (The number of DTS connections exceeded limit or port numbers are different.)	The number of DTSX Series connections exceeded the maximum limit or port numbers are different.	<ul style="list-style-type: none"> - Check the DTSX Series port number. - Reduce the number of connections to the DTSX Series from this software or from data conversion software. - Check the transmission path to the DTSX Series. - Try rebooting the PC. - Try rebooting the DTSX Series.
0718	Error	DTS Status Error	DTSX Series initialization is taking too long.	<ul style="list-style-type: none"> - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0720	Error	WITSML File List Error	An error was detected during retrieval of the WITSML data conversion file list.	<ul style="list-style-type: none"> - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0723	Error	License Removed Fail.	Removal of license from the DTSX3000 has failed.	<ul style="list-style-type: none"> - Try rebooting the PC. - Try rebooting the DTSX3000. - Check the transmission path between the PC and DTSX3000.

No.	Type	Message	Description	Remedial Measures
0724	Error	An optional module is not installed in DTS.	This software cannot connect to the DTSX Series because an optional module that is enabled in the DTSX Series is not installed.	<ul style="list-style-type: none"> - Check the option information of the DTSX Series. - Try rebooting the PC. - Try rebooting the DTSX Series. - Check the transmission path between the PC and DTSX Series.
0725	Error	DTS Connect Error (The port number is different.)	Connection to DTSX Series has failed because port numbers are different.	<ul style="list-style-type: none"> - Check the port number of the DTSX Series. - Check the transmission path to the DTSX Series. - Try rebooting the PC. - Try rebooting the DTSX Series.
0726	Error	Connection to this DTS is not allowed.	This application version does not allow connection to the DTSX Series.	<ul style="list-style-type: none"> - Try upgrading this software and the DTSX Series system to the latest version. - Try rebooting the PC. - Try rebooting the DTSX Series.
0728	Error	DTS Connect Error (IP Address Error.)	DTSX Series was not found at the specified IP address.	<ul style="list-style-type: none"> - Check the IP address of the DTSX Series - Check that the DTSX Series is powered on. - Check the transmission path to the DTSX Series. - Try rebooting the PC. - Try rebooting the DTSX Series.
0730	Error	User ID authority is not RW User. Please re-connect with a different user name.	The login user ID does not have RW authority.	<ul style="list-style-type: none"> - Check the authority of the login user name. - Try rebooting the DTSX Series.
0731	Error	Please perform installation from a disk.	You should re-install the application from the installation disk.	<ul style="list-style-type: none"> - Reinstall the application.

● **Fatal Error messages**

List of Fatal Error Messages

No.	Type	Message	Description	Remedial Measures
0001	FatalError	Startup Error (Failed to copy folder(s).)	The startup process has failed to copy a work folder.	- Try rebooting the PC. - Try reinstalling the software. - Try replacing the PC.
0002	FatalError	Startup Error (Failed to read a configuration File.)	The startup process has failed to load the default configuration file.	- Try rebooting the PC. - Try reinstalling the software. - Try replacing the PC.
0003	FatalError	Exit Error (Failed to copy or delete folder(s).)	A work folder could not be copied or deleted at software termination.	- Try rebooting the PC. - Try reinstalling the software. - Try replacing the PC.
0004	FatalError	Startup Error (Failed to get an application folder.)	The startup process has failed to get the folder name containing this software.	- Try rebooting the PC. - Try reinstalling the software. - Try replacing the PC.
0005	FatalError	Startup Error (Failed to get an application launch ID.)	The startup process has failed to get an application launch ID.	- Try rebooting the PC. - Try reinstalling the software. - Try replacing the PC.
0006	FatalError	Startup Error (Failed to make folder(s).)	The startup process has failed to create one or more work folders.	- Try rebooting the PC. - Try reinstalling the software. - Try replacing the PC.
0007	FatalError	Startup Error (Failed to get a MyDocuments folder.)	The startup process has failed to get a MyDocuments folder.	- Try rebooting the PC. - Try reinstalling the software. - Try replacing the PC.
0008	FatalError	Startup Error (Failed to get an application work folder.)	The startup process has failed to get an application folder.	- Try rebooting the PC. - Try reinstalling the software. - Try replacing the PC.
0009	FatalError	Startup Error (Failed to start a application. You can use 8 applications at the same time.)	The application could not be started because the limit on the number of DTSX3000-related applications (DTAP3000, DTAP3000D and DTAP3000WITSML) running concurrently was exceeded.	- Check that no more than 7 instances of the DTSX3000-related applications are running concurrently. - Try rebooting the PC.
0591	FatalError	Fatal Error	A non-recoverable software error has been detected.	- Try re-running the software. - Try rebooting the PC. - Try reinstalling the software. - Try replacing the PC.

● **Termination messages**

List of Termination Messages

No.	Type	Message	Description	Remedial Measures
0592	Terminated	Fatal Error (This application will be terminated.)	The software will be aborted because a fatal error has been detected.	- Refer to the remedial measures for the error message displayed before this message.

Appendix B List of Transmission Messages

The following types of transmission messages may be displayed in the Status window (See Section 4.8)

Type	Description
Error	An error has been detected (but the application can continue execution.)
Warning	A warning has been detected (but the application can continue execution.)

• Warning messages

List of Warning Messages

No.	Type	Message	Description	Remedial Measures
01	Warning	Generic Error	Transmission to the specified URI has failed.	- Check that the URI is correct.
02	Warning	Server or Proxy hostname lookup failed	Server or proxy name search has failed	- Check that the server and proxy name is correct. - Check that the DNS server is correctly configured in the DTSX Series. - See the DTSX3000 user manual for details.
03	Warning	User authentication failed on server	User authentication has failed on the server.	- Restart conversion and enter valid values for User ID, Password and Form Data Name (only if POST method is selected) in the UserID/Password dialog.
04	Warning	User authentication failed on proxy	User authentication has failed on the proxy.	- Restart conversion and enter valid values for UserID and Password in the Server UserID/Password dialog.
05	Warning	Could not connect to server	Connection to the server has failed.	- Check that the URI is valid. - Check that there is no problem with the transmission path between the DTSX Series and the server.
06	Warning	Connection time out	Connection has timed out.	- Check that there is no problem with the transmission path between the DTSX Series and the server.
07	Warning	The precondition failed	Settings are invalid.	- Check that there is no problem with transmission settings.
08	Warning	Retry request	Software will attempt to retransmit	- Wait for retransmission to end (this message disappears if retransmission succeeds.)

• Error messages

List of Error Messages

No.	Type	Message	Description	Remedial Measures
19	Error	URI Error	The specified URI is invalid.	- Specify a valid URI.

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