

---

# Technical Information

Daqstation  
DX Report Simulator  
Operation Guide



TI 04L41B01-04EN

---

---

# Introduction

Please read through this operation guide carefully before using the software.

## ■ Notice

- The contents of this manual are subject to change without notice as a result of continuing improvements to the performance and functions.
- Every effort has been made to ensure accuracy in the preparation of this manual. Should any errors or omissions come to your attention, however, please inform Yokogawa Electric's sales office or sales representative.
- Under no circumstances may the contents of this manual, in part or in whole, be transcribed or copied without our permission.

## ■ Trademarks

- Our product names or brand names mentioned in this manual are the trademarks or registered trademarks of Yokogawa Electric Corporation (hereinafter referred to as YOKOGAWA).
- Microsoft, MS-DOS, Windows, Windows XP, and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Adobe, Acrobat, and Postscript are either registered trademarks or trademarks of Adobe Systems Incorporated.
- We do not use the TM or ® mark to indicate these trademarks or registered trademarks in this manual.
- All other product names mentioned in this manual are trademarks or registered trademarks of their respective companies.

## ■ About the Usage of Open Source Software

The DX Report Simulator uses Expat source code for report creation. In accordance with the Expat license agreement, the copyright notice, redistribution conditions, and license are listed below.

Copyright (c) 1998, 1999, 2000 Thai Open Source Software Center Ltd

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

# Safety Precautions

## ■ Scope of the Manual

This manual does not explain the basic operations of the operating systems. For information regarding the basic operations of Windows, see the user's guide that came with Windows.

## ■ Warning and Disclaimer

- YOKOGAWA makes no warranties regarding the software.
- The software is provided on an "as is" basis. YOKOGAWA assumes no liability to any person or entity for any loss or damage, direct or indirect, arising from the use of the software or from any unpredictable defect of the software.

## ■ Notes on Software

- YOKOGAWA makes no warranties regarding the software.
- It is strictly prohibited to reproduce the product except for backup purposes.
- All reverse-engineering operations, such as reverse compilation or the reverse assembly of the software are strictly prohibited.
- No part of the software may be transferred, converted, or sublet for use by any third party, without prior written consent from YOKOGAWA.

# Daqstation DX Report Simulator Operation Guide

TI 04L41B01-04EN

## CONTENTS

Introduction .....	i
Safety Precautions.....	ii
<b>1. The DX Report Simulator.....</b>	<b>1-1</b>
1.1 Requirements .....	1-1
1.2 Functions .....	1-1
<b>2. Outputting Report Files .....</b>	<b>2-1</b>
2.1 Starting DX Report Simulator .....	2-1
2.2 Specifying a Setting File .....	2-1
2.3 Specifying a Template File .....	2-3
2.4 Specifying a Report File Save Destination.....	2-3
2.5 Creating Report Files.....	2-4
<b>3. Checking Report Files .....</b>	<b>3-1</b>
3.1 Date and Time Display .....	3-1
3.2 Number Display.....	3-2
3.3 Examples of Error Displays .....	3-3
<b>4. Messages and Corrective Actions .....</b>	<b>4-1</b>
Revision Information .....	i

# 1. The DX Report Simulator

The DX Report Simulator is a software program for checking report templates used by the DX1000, DX1000N, and DX2000.

## 1.1 Requirements

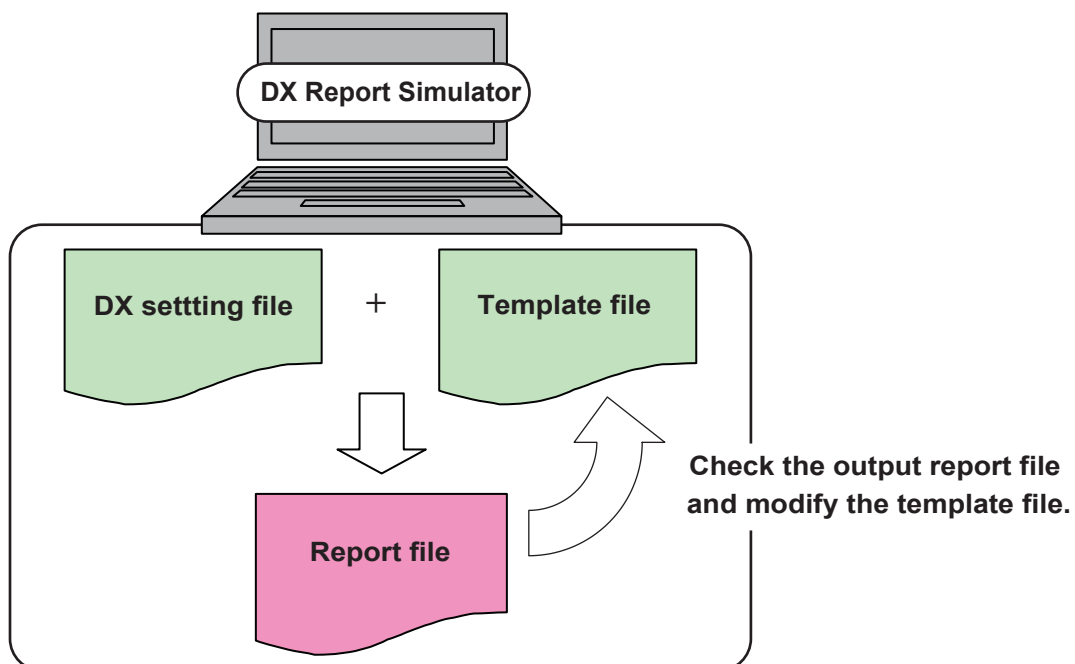
Item	Description
PC	An application (such as Microsoft Excel) associated with the .xml file type must be installed. See below for system requirements.
DX Report Simulator	This program. Download it from the following URL. <a href="http://www.yokogawa.com/ns/dxadv/download/">http://www.yokogawa.com/ns/dxadv/download/</a>
DX setting file	A setting file for the DX1000, DX1000N, or DX2000 with the extension .PDL or PEL.
Report template file	The report template file. The file name extension is .xml.

### PC System Requirements

OS	Windows XP	Windows Vista	Windows 7
<b>Version</b>	Professional SP2 or SP3 (excluding the Professional x64 Edition)	Business SP2 (excluding the 64-bit edition)	Professional (excluding the 64-bit edition)
<b>CPU</b>	Pentium II, 333 MHz or faster		
<b>Memory</b>	128 MB or more	2 GB or more	
<b>Hard disk</b>	100 MB or more of free space. NTFS is recommended.		

## 1.2 Functions

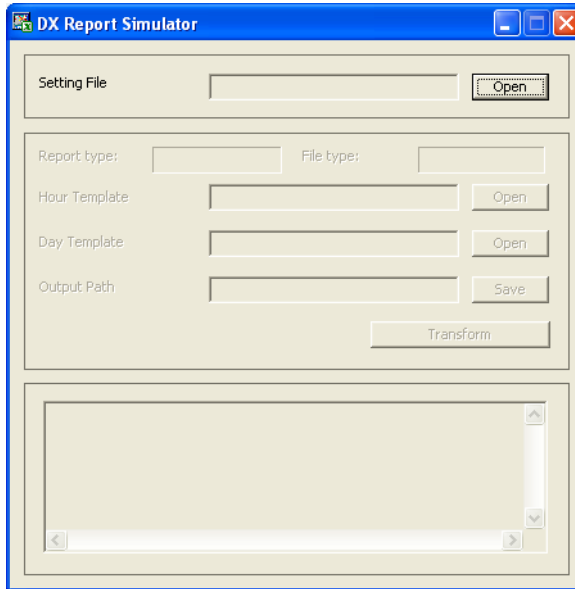
The DX report template function outputs reports based on report templates created in Microsoft Excel. This program outputs a simulated report using a DX setting file and report template file. It enables you to check the form and contents of reports.



## 2. Outputting Report Files

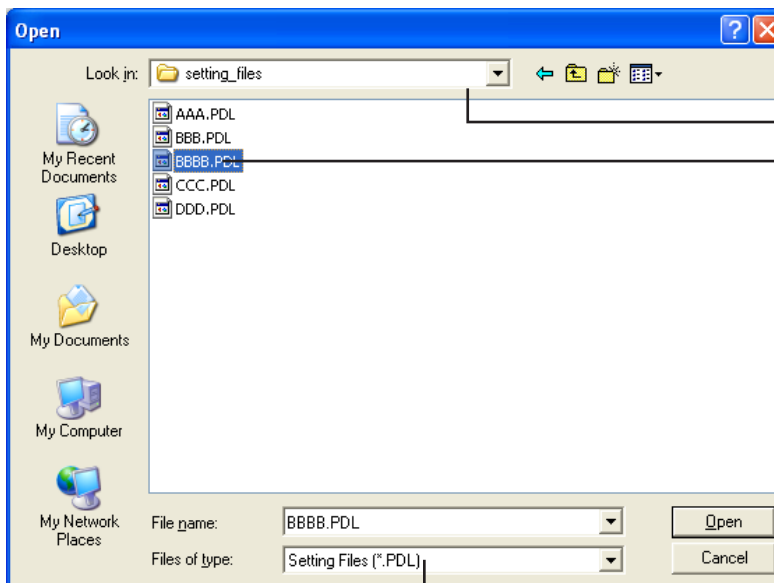
### 2.1 Starting DX Report Simulator

Double click **SimulatorEn.exe**. The DX Report Simulator screen is displayed.



### 2.2 Specifying a Setting File

1. Under **Setting File**, click the **Open** button.  
The **Open** dialog box is displayed.
2. Select a file and click the **Open** button.



Select a folder.

Select a file.

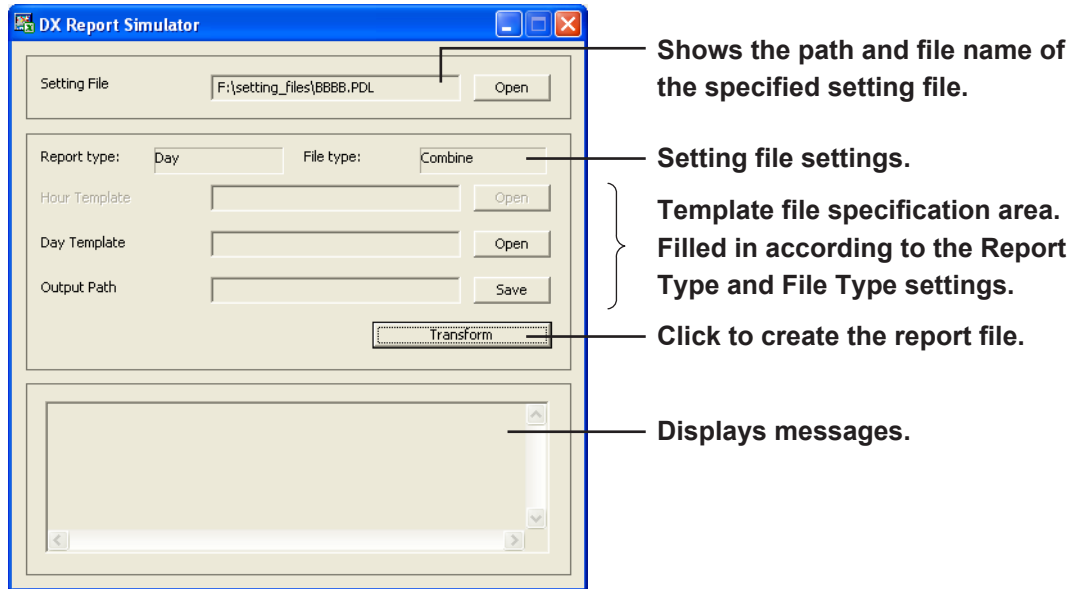
Click Open.

Select a file type.

\*.PDL: No Advanced Security function (/AS1 option)

\*.PEL: With Advanced Security function (/AS1 option)

The setting file is specified.



### Setting file settings

Setting	Display	Description
Report type	Hour, Day, Hour + Day, Day + Week, Day + Month	The types of reports created. On the DX, this is set in Basic Setting mode under <b>Menu tab &gt; Report &gt; Basic settings &gt; Report type</b> .
File type	Combine, Separate	Combine: When creating two kinds of reports, report data is saved to a single file. Separate: When creating two kinds of reports, a separate file is created for each report. On the DX, this is set in Basic Setting mode under <b>Environment tab &gt; Report &gt; File type</b> .
Use template	This item must be set to <b>Use</b> to use the report template function. If set to <b>Not</b> , a message is displayed and the setting file cannot be specified. On the DX, this is set in Basic Setting mode under <b>Environment tab &gt; Report &gt; Use Template</b> .	

The boxes in the template specification area are filled in as follows depending on the report type and file type.

**Hour template, Day template, Week template, Month template, Hour + Day template, Day + Week template, Day + Month template.**

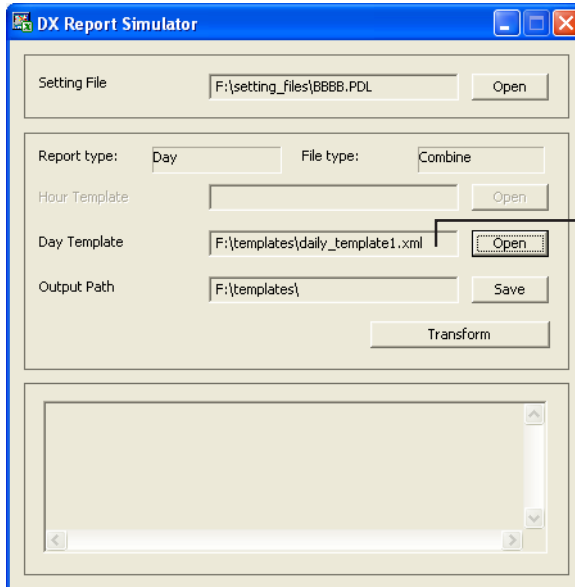
Here we describe the operation with the following settings as an example:

Report type: Day (Daily report)

File type: Combine

## 2.3 Specifying a Template File

1. Under **Day Template**, click the **Open** button.  
The **Open** dialog box is displayed.
2. Select a file and click the **Open** button.  
The template file is specified.

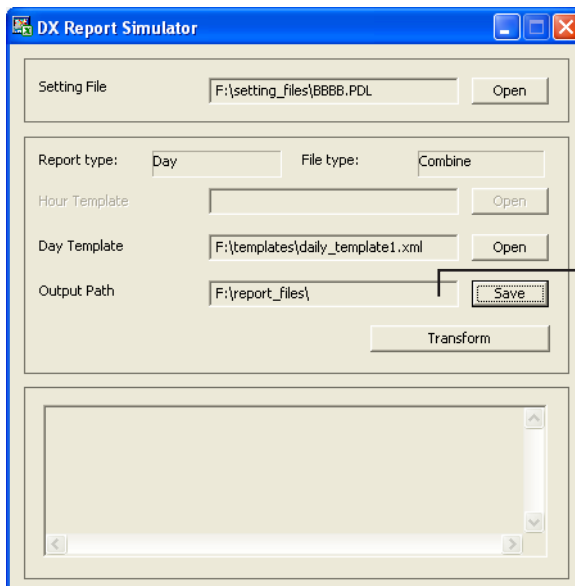


Shows the path and file name of the specified template file.

## 2.4 Specifying a Report File Save Destination

When specifying a template, the template folder is automatically set as the save destination for report files. To change the save destination, perform the following steps.

1. Under **Output Path**, click the **Save** button.  
The **Browse for Folder** dialog box appears.
2. Select a folder and click the **OK** button.  
The save destination is specified.



Shows the path of the save destination.

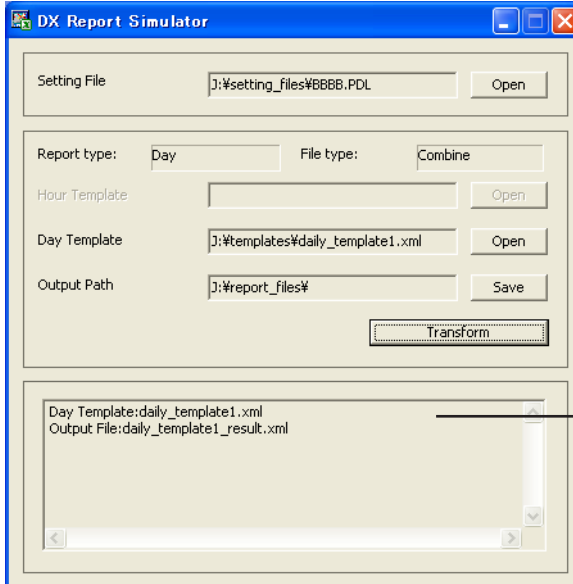


## 2.5 Creating Report Files

Click the **Transform** button. The created report file is saved and displayed. The file name of the report is the file name of the template appended by "\_result." For example, if the template file name is daily1.xml, the file name of the report will be daily1\_result.xml.

DX Advance Report							
Date		June 4, 2010					
Type	Report Time	CH01					
		INST.	MIN.	MAX.	AVE.	SUM.	INST.
DAILY	5/2/10 0:00	0.3201	0.1201	0.4201	0.2201	5201.0	0.3201
	5/3/10 0:00	0.3202	0.1202	0.4202	0.2202	5202.0	0.3202
	5/4/10 0:00	0.3203	0.1203	0.4203	0.2203	5203.0	0.3203
	5/5/10 0:00	0.3204	0.1204	0.4204	0.2204	5204.0	0.3204
	5/6/10 0:00	0.3205	0.1205	0.4205	0.2205	5205.0	0.3205
	5/7/10 0:00	0.3206	0.1206	0.4206	0.2206	5206.0	0.3206
	5/8/10 0:00	0.3207	0.1207	0.4207	0.2207	5207.0	0.3207
	5/9/10 0:00	0.3208	0.1208	0.4208	0.2208	5208.0	0.3208
	5/10/10 0:00	0.3209	0.1209	0.4209	0.2209	5209.0	0.3209
	5/11/10 0:00	0.321	0.121	0.421	0.221	5210.0	0.321
	5/12/10 0:00	0.3211	0.1211	0.4211	0.2211	5211.0	0.3211
	5/13/10 0:00	0.3212	0.1212	0.4212	0.2212	5212.0	0.3212
	5/14/10 0:00	0.3213	0.1213	0.4213	0.2213	5213.0	0.3213
	5/15/10 0:00	0.3214	0.1214	0.4214	0.2214	5214.0	0.3214
	5/16/10 0:00	0.3215	0.1215	0.4215	0.2215	5215.0	0.3215
	5/17/10 0:00	0.3216	0.1216	0.4216	0.2216	5216.0	0.3216
	5/18/10 0:00	0.3217	0.1217	0.4217	0.2217	5217.0	0.3217
	5/19/10 0:00	0.3218	0.1218	0.4218	0.2218	5218.0	0.3218
	5/20/10 0:00	0.3219	0.1219	0.4219	0.2219	5219.0	0.3219
	5/21/10 0:00	0.322	0.122	0.422	0.222	5220.0	0.322

Messages are displayed. If no report file is created, check for messages and troubleshoot accordingly. For a list of messages see chapter 4, "Messages and Corrective Action."



Messages are displayed.

As with hourly and daily reports, when one each of two types of reports are created (when the file type is Separate), two report files are created and displayed.

## 3. Checking Report Files

### 3.1 Date and Time Display

The date and time are displayed according to the following rules.

Hourly report

**yyyy/mm/dd hh:00:00**

└ Date on the PC      └ 24-hour hours up to the [Time (hour)]

Daily report

**yyyy/mm/dd hh:00:00**

└ Year/month      └ [Time (hour)]  
on the PC      └ One month of dates, up to the [Date] closest to but not including  
the PC date.

Hourly + daily report

<Date/time of hourly report>

**yyyy/mm/dd hh:00:00**

└ Date on the PC      └ 24-hour time up to the [Time (hour)]

<Date/time of daily report>

**yyyy/mm/dd hh:00:00**

└ Date on the PC      └ [Time (hour)]

Daily + weekly report

<Date/time of daily report>

**yyyy/mm/dd hh:00:00**

└ Year/month      └ [Time (hour)]  
on the PC      └ 7 days of dates up to the [Day of the week] closest to but not including  
the date on the PC

<Date/time of weekly report>

**yyyy/mm/dd hh:00:00**

└ Year/month      └ [Time (hour)]  
on the PC      └ Year of dates, up to the [Day of the week] closest to but not including  
the date on the PC

Daily + monthly report

<Date/time of daily report>

**yyyy/mm/dd hh:00:00**

└ Year/month      └ [Time (hour)]  
on the PC      └ One month of dates, up to the [Date] closest to but not including the date  
on the PC

<Date/time of monthly report>

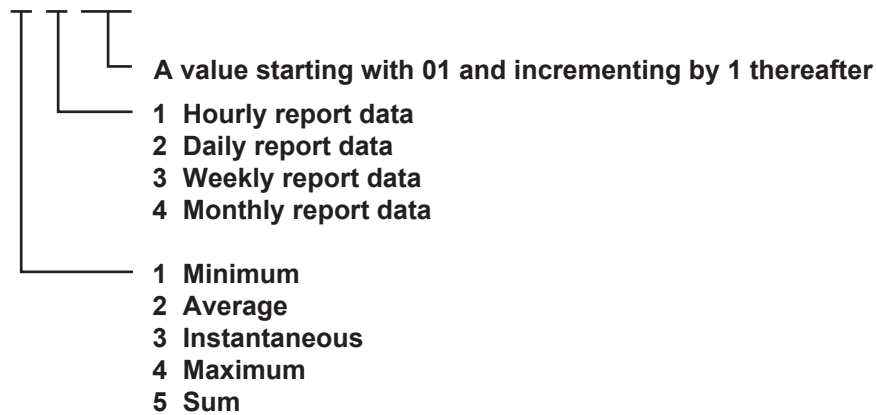
**yyyy/mm/dd hh:00:00**

└ Year/month      └ [Time (hour)]  
on the PC      └ [Date]

## 3.2 Number Display

The average and other values are displayed according to the following rules.

**3 2 0 1**



### Decimal places

The decimal places for the minimum, average, instantaneous, and maximum values are the same as those of the input range for their channel.

### Example

If there are four digits after the decimal point, the instantaneous values of a daily report correspond to the following keywords.

Keyword	Report Output
\$ReportDataInst(Day)\$	0.3201
\$Repeat\$	0.3202
\$Repeat\$	0.3203

The sum value is displayed as an exponent with six digits after the decimal point.

### Example

The sum value of a daily report is displayed as: 5.201000E+3.

### Decimal point

The symbol for the decimal point (period ".", " or comma ", ", ") depends on the formatting of the cell. However, if the data in a template-based report file are strings, the decimal point symbol matches the type specified in the setting file. The decimal point type is set in Basic Setting mode under **Environment** tab > **Operating environment**.

## 3.3 Examples of Error Displays

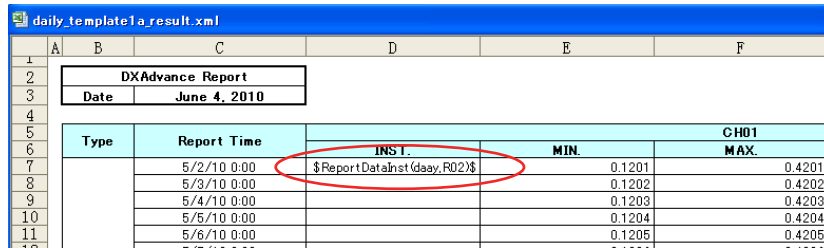
### ■ Keyword itself displayed

#### Cause

The keyword description is not correct. There are typographical or formatting errors.

#### Example

In `$ReportDataInst(daay,R01)$`, "daay" is misspelled.



The screenshot shows a spreadsheet titled 'daily\_template1a\_result.xml'. It contains a table with columns: Type, Report Time, INST., MIN., and CH01 MAX. The INST. column contains the text '\$ReportDataInst(daay,R02)\$', which is circled in red. The other columns contain numerical values for different dates and times.

Type	Report Time	INST.	MIN.	CH01 MAX.
	5/2/10 0:00	\$ReportDataInst(daay,R02)\$	0.1201	0.4201
	5/3/10 0:00		0.1202	0.4202
	5/4/10 0:00		0.1203	0.4203
	5/5/10 0:00		0.1204	0.4204
	5/6/10 0:00		0.1205	0.4205

#### Explanation

A formatting error results if even the font used for a keyword does not match. For information on keyword formatting, see section 9.6 in the DX1000/DX1000N User's Manual or the DX2000 User's Manual.

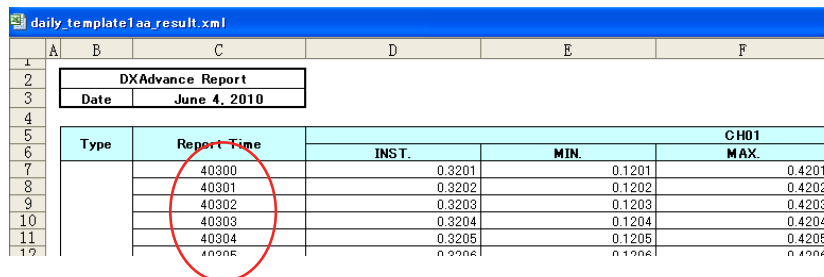
### ■ Date not displayed correctly

#### Cause

The template format was not set correctly.

#### Example

The format of the corresponding cell in the template is "General."



The screenshot shows a spreadsheet titled 'daily\_template1aa\_result.xml'. It contains a table with columns: Type, Report Time, INST., MIN., and CH01 MAX. The Report Time column contains dates like '40300', '40301', etc., which are circled in red. The INST. column contains values like '0.3201', '0.3202', etc., which are also circled in red. The other columns contain numerical values.

Type	Report Time	INST.	MIN.	CH01 MAX.
	40300	0.3201	0.1201	0.4201
	40301	0.3202	0.1202	0.4202
	40302	0.3203	0.1203	0.4203
	40303	0.3204	0.1204	0.4204
	40304	0.3205	0.1205	0.4205

#### Explanation

The date/time display and decimal place alignment for numbers are also set in the cell format.

The template format was not set correctly.

## 4. Messages and Corrective Actions

The following messages may appear on the DX Report Simulator.

Message	Explanation (Corrective Action)
There is no setting file.	The file cannot be saved. Check whether the file and folder names are correct.
The setting file is incorrect.	The setting file is corrupt, or its format is incorrect.
Report type has not been set.	In Basic Setting mode, Menu tab > Report > Basic settings > Report type is turned OFF. Specify a setting file whose report type is set to something other than OFF.
Report template has not been used.	In Basic Setting mode, Environment tab > Report > Use Template is set to Not. Specify a setting file whose Use Template setting is set to Use.
The template file is incorrect.	The size of the template file exceeds 400 KB, or the template file format is not correct.
There is no template file.	This file cannot be saved. Check whether the file and folder names are correct.
Not enough free space on disk.	Ensure that there is sufficient free space.
XX Report file already exists. Do you want to overwrite it?	Determine whether or not to overwrite the existing file.
Fail to save file.	The output path cannot be saved. Check whether the specified output path is correct.

---

# Revision Information

Title : DX Report Simulator Operation Guide

Manual number : TI 04L41B01-04EN

**June. 2010/1st Edition**

Newly published.

Written by Yokogawa Electric Corporation  
Published by Yokogawa Electric Corporation  
2-9-32 Nakacho, Musashino-shi, Tokyo 180-8750, JAPAN