

# Custom File

Data Format Converter



## Copyright

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## Introduction

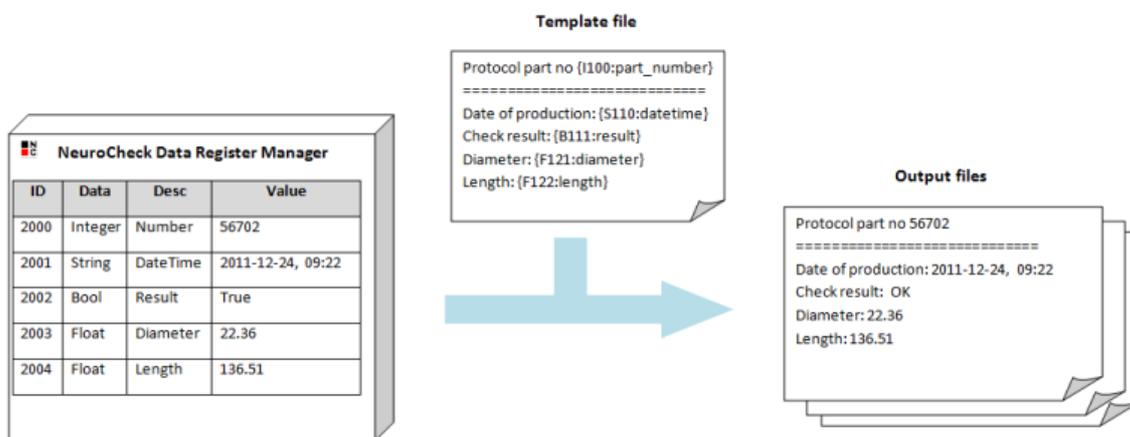
### NeuroCheck Data Format Converter

A so called Data Format Converter (abbreviated DFC) is a communication driver that converts data that is generated in NeuroCheck into a format that is suitable to a certain kind of hardware or file and vice versa.

#### Summary: Custom File Data Format Converter

The NeuroCheck Custom File Data Format Converter prepares data from NeuroCheck in a completely user-defined manner and writes the data in a custom file format into a readable text file (TXT, XML or HTML files for instance).

The format of a data set in the output file can be defined by using a so called template file. That template contains usually a textual file frame and the placeholders for the data pins. At run-time the values from the NeuroCheck data registers will be written into the file at all placeholder positions.



### Use cases of the Custom File DFC

1. Create HTML or XML check protocols, including a graphic overview of the part.  
For such specific protocols additional know-how in HTML or XML with XSL is required.

In this case you can collect data from only one part per file or you can integrate a specified number of runs in the output file:

- a. List of collected data over multiple runs (Append-Mode)  
Every NeuroCheck run a new data set is appended to the output file. Usually that data set is written in a separate line or will be visualized in HTML interpretation in a separate line of a table. The output file usually gets a header and a footer to create a valid web document (for instance XML or HTML files).  
If the output file is full according to the written number of check routine runs or the file size is exceeded the file can be overwritten or a new file in sequence can be created.
- b. One output file per part (Single file mode)  
In this mode a protocol for each part can be generated. In this case you have to set the number of runs per file in the property page [Overflow handling](#) to 1. So for each part a new file is written. It allows to write specific error or calibration protocols in text or even in XML format. XML then allows to have a dynamic visualization by applying an XSL transformation.

2. Any kind of output file format required.  
For instance files for control of any kind of external device can be created. That file formats are often specified accurately and need to be created under precise conditions (e.g. format options).

### Other Resources

For sample projects or further white paper documentations ask the [NeuroCheck Support team](#) please.

## Installation

1. Make sure that you have copied the NeuroCheck Custom File Data Format Converter into the NeuroCheck installation directory. The following files must be present in the NeuroCheck installation folder:

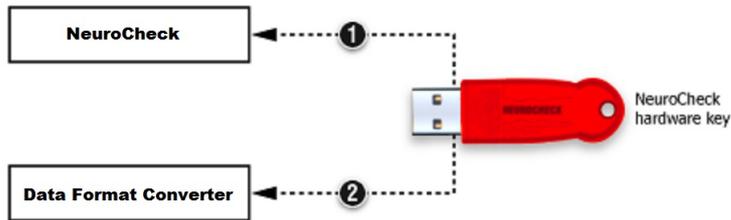
- NcFmtCnv.NeuroCheck.CustomFile.NET.dll
- NcFmtCnv.NeuroCheck.CustomFile.UI.NET.dll

If not, download and install the latest Data Format Converter update from <http://www.neurocheck.com>.

2. Configure the data format converter as new converter in NeuroCheck:
  - a. In NeuroCheck, open the Data Format Converter Manager (Menu **System** | **Data Format Converter Manager**)
  - b. Click **New ...** to start the NeuroCheck **Data Format Converter Wizard**.
  - c. Select option **File** on the first page and continue.
  - d. On the second page, select **Data Format Converter for custom files** and continue.
  - e. On the last page, select an output file that will be created by this Data Format Converter and click **Finish** to close the NeuroCheck **Data Format Converter Wizard**.
  - f. Select the new converter node.
  - g. Choose **Properties ...** to open the converter settings dialog and configure the settings for your application (see Converter Properties).
  - h. Close the properties dialog with **OK**.
3. Close the NeuroCheck **Data Format Converter Manager** with **OK**.

## Licensing

This section describes the licensing mechanism for this NeuroCheck Data Format Converter.



### 1. Protection of NeuroCheck

NeuroCheck requires a valid license which is provided as hardware security key (dongle). You obtain the standard NeuroCheck license by purchasing the software from your local NeuroCheck dealer.

### 2. Protection of Database Data Format Converter

In addition to the standard NeuroCheck license, also a license for the NeuroCheck **Database Data Format Converter** is required. The protection of the Data Format Converter is stored as special flag in the same dongle as for the NeuroCheck license. The Data Format Converter allows a couple of read or write operations in demo mode, then a message box informs about the missing license. You have to confirm that message box before a new set of executions is possible.

In order to get the license for the Custom File Data Format Converter, please contact your local NeuroCheck partner. The license can be added to a standard NeuroCheck license by remote-programming of the dongle. The remote-programming works in the same way as a NeuroCheck update.

## Converter Properties Dialog: File name

On this page you can configure the result output file or even a file series.

Element	Description
File name	Click browse to create or select the output file. The file extension can be arbitrary.
Output directory	For file series a fix output directory is configured. Click browse to select a directory or to create a new one.
Base file name	Configure here the prefix of the file series file names. After that fix prefix the consecutive number or time stamp is appended. The file extension can be arbitrary.
File identification	The file series can be configured in two ways. You can realize a ring buffer with a fix number of files using consecutive numbering or you can save the file series continuous using the current time stamp. In that case you have to take care yourself to delete the old files or just to move them in an archive.
Preview	Here the resulting file name is shown as preview.
Register ID	Get the file name dynamically from this register.

## Converter Properties Dialog: Overflow handling

On this page you can configure the properties of the result output file and even the file handling for completed files and file series.

Element	Description
Maximum file size in MB	If the file size is reached the file series is switched to the next file (or is overwritten or stopped in case of a single file output).
Maximum number of inspection runs	The file series is switched if that number of runs are completed. You will always have that number of data sets in the completed output file.
Stop file output	Stops the file output if the file size or the number of check routines runs are completed. Use this option if it is important to never loose old data.  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">  To determine whether the file output has been stopped or has finished you can use the check function "Send data from register" to display an error message in the process view.         </div>
Overwrite file resp. restart file series	The old output files will be overwritten if the file size or the number of runs are reached.

## Converter Properties Dialog: Data set template

On this page the template file for one data set is defined. You can write down the template text in the text area, but for more complex output files we recommend to use an external text editor (perhaps with syntax highlighting) to design the template file. Per button **Import...** you can load the content of a text file into the template area and **Export...** to save it to a text file.

To define an output pin textual place holders are used in the template text area. Click the button **Insert pin...** and choose data type, ID and the name of the pin. The signs { and } mark the place holder within the template text. The ID is used to mark and identify the place holder inside the template text. The mapping from the NeuroCheck register cell to the Date Format Converter pin are based on the index of the pin of a specific data type in the list of output pins. The name of the pin is just for the identification in the connect register dialog in the Data Register Manager.

It is possible to insert a place holder multiple times. On writing the output file in automatic mode, the same value will be written into all that positions in the output file.

If you prefer to define or to modify the place holder inside the text keep the following pin syntax conditions:

```
{<data type><ID>:<name>}
```

The following data typ prefixes can be used: I (Integer), F (Floating point number), S (String, Text), B (Boolean).

The range for the IDs is arbitrary (positive whole numbers) and has nothing to do with the register cell IDs (but you can do so).

Some examples for pin place holders:

```
{I99:count_executions}
```

```
{F101:value}
```

```
{S200:part_identifier}
```

```
{B303:over all result}
```

Element	Description
Data set template	Template file with place holders for data pin definitions.
Insert pin...	Opens a dialog to configure a data pin and insert it as a pin place holder at the current cursor position in the template file text.
Import...	Loads the template from an external text file.
Export...	Saves the template text to an external text file for backup purpose or to transfer the template text to another NeuroCheck system.

## Converter Properties Dialog: File header / footer

For an output file a special header and footer can be configured.

That is normally only necessary if you write more than one data set to an output file. Often you have to define a file header and a file footer to create a valid web document, for instance a HTML or an XML file.

Insert output pins for the header and footer the same way as described in [Data set template](#).

The header is written to the file before the first data set template.

The footer will be rewritten after every cycle to the end of the file.

Element	Description
Write header	Select to write the header template to the file.
Header template	Configure the header template in the text area.
Write footer	Select to write the footer template at the end of the file.
Footer template	Configure the footer template in the text area.
Insert pin...	Opens a dialog to configure a data pin and insert it as a pin place holder at the current cursor position in the template file text.
Import...	Loads the template from an external text file.
Export...	Saves the template text to an external text file for backup purpose or to transfer the template text to another NeuroCheck system.

## Converter Properties Dialog: Output pins

On this page the output pins determined from the data set template, header and footer texts are listed.

This list of pins is read-only. If you want to modify the list of pins you have to edit the template texts on the pages [Data set template](#) or [File header and footer](#).

The output pins are ordered by their ID. If the template texts contain an output pin multiple times only the configuration of one pin is shown in the list.

Element	Description
Output pins	<p>List of all defined output pins. The columns of the table are:</p> <ul style="list-style-type: none"><li>• <b>Name:</b> The name of the pin for identification in NeuroCheck pin select dialog</li><li>• <b>Data Type:</b> The type of data that can be exchanged via this pin. Possible data types are: Integer, Floating point number, String, Boolean</li><li>• <b>ID:</b> The unique identification number of the pin</li></ul>

## Converter Properties Dialog: Format options

You can specify the format of the values that are written by this converter. Especially if external devices are controlled or configured the length of a number has to be fix in most cases.

Element	Description
Boolean value	Specify here how the states of Boolean values are represented: <ul style="list-style-type: none"> <li>• <b>1 / 0:</b> 1 stands for "true" and 0 stands for "false"</li> <li>• <b>True / False:</b> True stands for "true" and False stands for "false"</li> <li>• <b>Yes / No:</b> Yes stands for "true" and No stands for "false"</li> <li>• <b>User defined:</b> the user defines the representation of the Boolean values in the input fields <b>True</b> and <b>False</b></li> </ul>
Decimal separator	Specify here the decimal separator for floating point numbers.
Number of digits	Specify here the number of decimal places of floating point numbers.
Fixed number of digits	If activated you can specify the number of digits floating point or integer numbers are represented by. The number of digits includes the plus and the minus character.

## Info Dialog

This dialog displays information about the NeuroCheck Custom File Data Format Converter.

<b>Element</b>	<b>Description</b>
Description	The description of the Data Format Converter
File	The driver assembly name the Data Format Converter
Version	The version of the data format converter
Copyright	The copyright of the data format converter

## Support Services

For technical support, please contact your local NeuroCheck partner or NeuroCheck GmbH:

Phone: +49 (0) 7146 - 89 56-40

E-Mail: [support@neurocheck.com](mailto:support@neurocheck.com)

Web: [www.neurocheck.com](http://www.neurocheck.com)

Before contacting us, please provide some important information about your system:

- **Information about your NeuroCheck installation and your PC setup:**

Use the NeuroCheck Diagnostics tool to check your installation and computer configuration.

The NeuroCheck Diagnostics is installed in the "Tools" folder within your NeuroCheck installation.

- **Log file information:**

Logging for NeuroCheck can be activated in **System > Software Settings > Diagnosis > Logging**.

