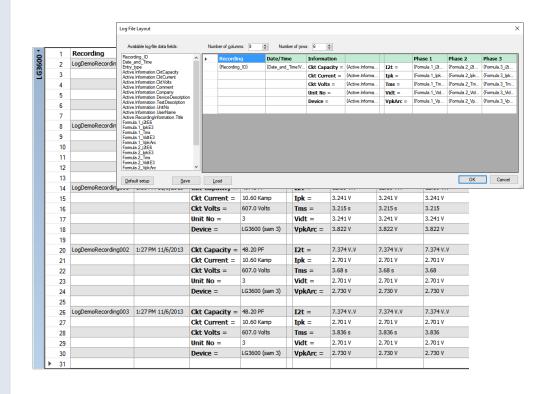


User manual

English



Perception CSI Extension Log File Reader Sheet



Document version 2.0 - July 2022

For Log File reader 2.1.22194 For Perception 8.30 or higher

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1 Introduction

Welcome to the **Log File Reader** software manual. This document describes how to use this software application.

The purpose of the software is read back Perception logged data into a Perception User Table. A special user interface is created to make this possible.

The application is based on the Perception Custom Software Interface (CSI).

This manual assumes you understand your Genesis HighSpeed Test and Measurement equipment, software and basic acquisition terminology. You may like to use the Perception User Manual as a reference.

2 Scope

This Perception software extension enables the use of Log File Reader.

Via the new software the operator can do the following things:

- Read back Perception logged data into a Perception User Table.
- · Format the layout of the read data.
- Filter the data to be read from the logging file
- Sort the data to be read from the logging file
- Multiple user tables can be created each with the same or different layout and different data
- The user table(s) can be used to export the data to a table in Microsoft Word
- The user table(s) can be used to export the data to Microsoft Excel
- The user table(s) can be used by the Perception report sheet.



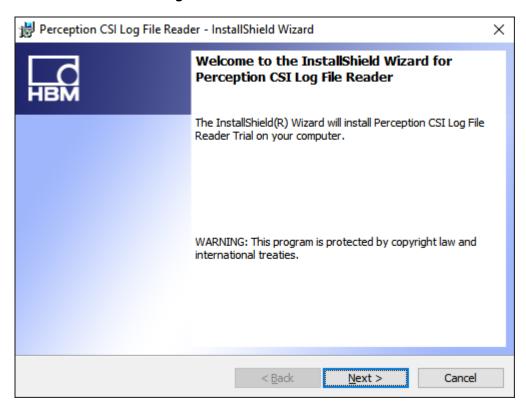
3 Getting Started

3.1 Installation

The Log File Reader software will be delivered electronically as an install file. This manual will be part of the install.

Depending on the Perception version either a 32 or 64 bit install will be done.

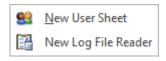
• Run the install file of the Log File Reader



• Click **Next**, and follow the on-screen instructions to complete the installation. When the process is complete, a message tells you that the option is installed. Click **Finish**.

Now the software and manual should be installed on your PC.

The Log File Reader software is **not** a stand-alone program which can be started from the Windows Start menu! It is an integrated part of the Perception software program. Once you start Perception you can create multiple instances by right mouse click on the tab area of the sheets. This works similar as adding a new user sheet. The picture below shows the menu from where you can select the **New Log File Reader** item.



The manual has also been installed on your PC. It is a PDF file which can be opened via the windows HBM menu.



If you cannot open this pdf file then you may have to install the Acrobat® Reader®.

3.2 Requirements

Log File Reader software operates on any PC where Perception is running.

The Log File Reader application can only be used when the HASP® USB key CSI option has been enabled. You can check if this option has been enabled by going to the Help About dialog and click **More...**.

The "More About Perception" dialog shows which options are enabled.

The CSI option icon looks like:

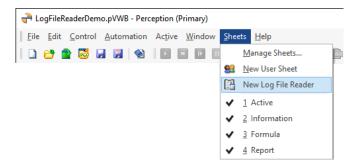




4 Log File Reader

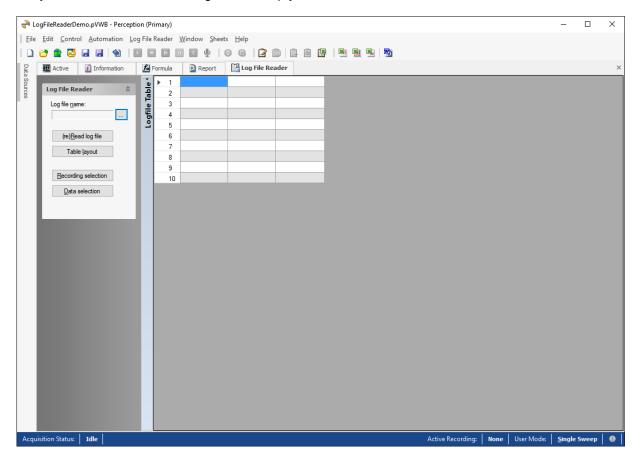
4.1 General

A new Log File Reader sheet can be created via the Sheets menu.



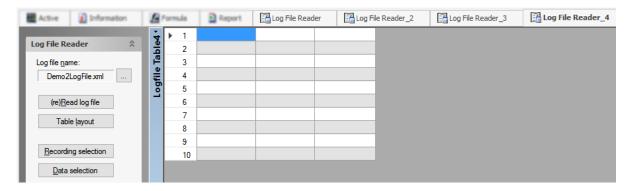
Or you can use a right mouse click at the tab area of the sheets.

The Log File Reader contains a Menu Panel, and a fixed user table. Initially the user table and the entry field for the name of the log file are empty.



It is possible to create multiple Log File reader sheets, each with its own layout and log data.





4.1 Reading Perception log file

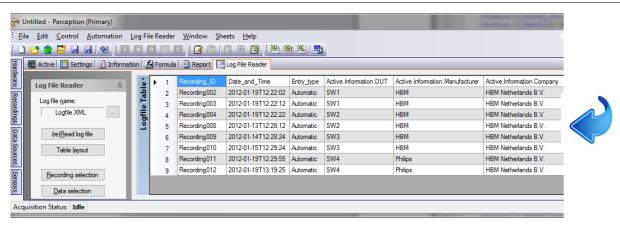
The first thing to do is select a Perception created log file. In the Perception user manual you can find how to create such a Perception log file, search for the key word 'Logfile'. When using the logging feature of Perception it is possible to add a line per recording to a log file. This can be done automatically after a recording has been done. The log file can contain any string or numerical data sources available in the Perception. The log file is an xml structured file. Below an example of a raw log file called Logfile.XML.

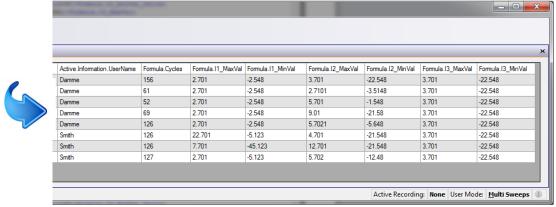


```
C:\Export\Logfile.XML - Notepad++
<u>File Edit Search View Encoding Language Settings Macro Run Plugins Window ?</u>
                                                                                                    X
  🜏 🔒 🖺 🖺 🥦 😘 😭 🖟 | 🚜 🗅 🌓 | 🤝 🖒 | 🗩 🖒 🖒 🤝 🐿 👛 🛬 🔫 👒 🛂 🚍 🖺 🖫 🎙 📳 🐼 🕩 🗈 🗈 🖼 👭
Logfile.XML
      <Log />
  3
      \Box
         <Log>
            <Recording_ID>Recording002</Recording_ID>
            <Date and Time>2012-01-19T12:22:02</Date and Time>
  5
  6
            <Entry_type>Automatic</Entry_type>
  7
            <Active.Information.DUT>SW1</Active.Information.DUT>
  8
            <Active.Information.Manufacturer>HBM</Active.Information.Manufacturer>
  9
            <active.Information.Company>HBM Netherlands B.V.</active.Information.Company>
            <Active.Information.UserName>Damme</Active.Information.UserName>
            <Formula.Cycles>156</Formula.Cycles>
            <Formula.I1 MaxVal>2.701</Formula.I1 MaxVal>
            <Formula.I1 MaxVal Units>V</Formula.I1 MaxVal Units>
            <Formula.I1_MinVal>-2.548</Formula.I1_MinVal>
 14
 15
            <Formula.I1_MinVal_Units>V</Formula.I1_MinVal_Units>
            <Formula.I2 MaxVal>3.701</Formula.I2 MaxVal>
 16
            <Formula.I2_MaxVal_Units>V</Formula.I2_MaxVal_Units>
 17
 18
            <Formula.I2_MinVal>-22.548</formula.I2_MinVal>
 19
            <Formula.I2 MinVal Units>V</Formula.I2 MinVal Units>
            <Formula.I3_MaxVal>3.701</Formula.I3_MaxVal>
 21
            <Formula.I3 MaxVal Units>V</Formula.I3 MaxVal Units>
 22
            <Formula.I3 MinVal>-22.548</Formula.I3 MinVal>
 23
            <Formula.I3 MinVal Units>V</Formula.I3 MinVal Units>
 24
          </Log>
      25
         <Log>
            <Recording ID>Recording003</Recording ID>
 26
 27
            <Date_and_Time>2012-01-19T12:22:12</Date_and_Time>
 28
            <Entry type>Automatic</Entry type>
 29
            <Active.Information.DUT>SW1</Active.Information.DUT>
 30
            <Active.Information.Manufacturer>HBM</Active.Information.Manufacturer>
 31
            <Active.Information.Company>HBM Netherlands B.V.</Active.Information.Company>
            <Active.Information.UserName>Damme/Active.Information.UserName>
            <Formula.Cycles>61</Formula.Cycles>
 34
            <Formula, I1 MaxVal>2.701</Formula, I1 MaxVal>
 35
            <Formula.I1 MaxVal Units>V</Formula.I1 MaxVal Units>
 36
            <Formula.I1_MinVal>-2.548</Formula.I1_MinVal>
 37
            <Formula.I1 MinVal Units>V</Formula.I1 MinVal Units>
 38
            <Formula.I2_MaxVal>2.7101</Formula.I2_MaxVal>
 39
            <Formula.I2 MaxVal Units>V</Formula.I2 MaxVal Units>
 40
            <Formula.I2_MinVal>-3.5148</Formula.I2_MinVal>
 41
            <Formula.I2_MinVal_Units>V</Formula.I2_MinVal_Units>
  42
            <Formula.I3_MaxVal>3.701
            <Formula.I3_MaxVal_Units>V</Formula.I3_MaxVal_Units>
 43
 44
            <Formula.I3 MinVal>-22.548</Formula.I3 MinVal>
 45
            <Formula.I3_MinVal_Units>V</Formula.I3_MinVal_Units>
 46
          </Log>
 47
          <Log>
  48
            <Recording ID>Recording004</Recording ID>
eXtensible Marku length: 9191 lines: 179
                                     Ln:133 Col:57 Sel:0
                                                                   Dos\Windows
                                                                                                INS
                                                                                 ANSI
```

In this log file you can find for example I1_Maxval, this is the maximum value of the signal I1 as calculated by a formula in the formula database. Enter the correct log file name and the log file will automatically be read. You always can force a re-read by clicking at the **(re)Read log file** button.





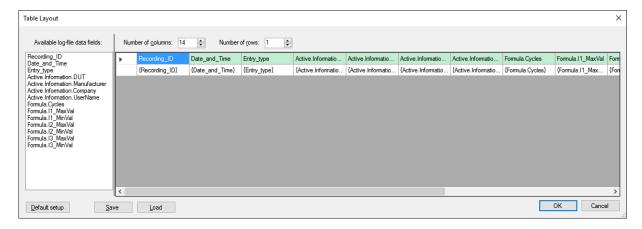


You now can see that each recording is one line in the user table. The next chapter shows you how you can modify the layout.

4.2 Table Layout

The layout of the user table can be modified via the Table Layout menu.

Click at the menu button Table layout and the Table Layout dialog appears:



This dialog is used to create a nice layout for showing the logging data into the user table.

At the left hand side of the dialog the available log-file data fields are shown. At the right hand side you see a data grid showing a green header row and a second row showing the various data fields. This is the layout you get the first time, or when you press the **Default setup** button.

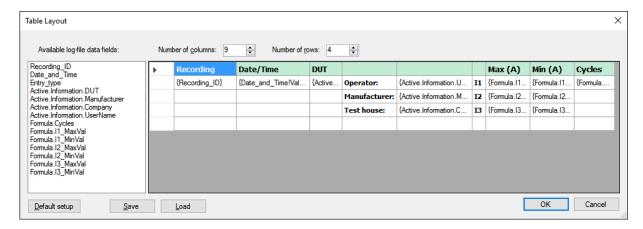
At the top you can see the number of columns of the layout grid and also the number of rows. This number defines the number of rows that will be used in the user table per recording. By default it is set to 1, but most likely you will use multiple rows.

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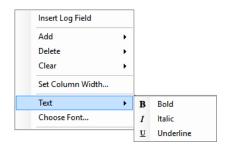


We will now change the configuration in a way that the data is shown in a nicer layout. In the example below we reduce the number of columns to 9 and the number of rows to 4. We can modify the header by directly typing the column titles in here.

The available log-file data fields can be drag-dropped in the grid cells or by using the Insert.

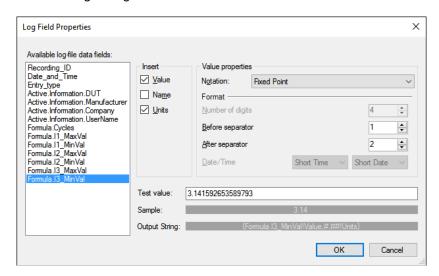


You can change the configuration by using the following context menu of a grid cell (Right mouse click on a cell):



Insert Log Field

If you select this the following dialog will be shown:



Via this dialog you can select a log-file data field and also how the data should be shown, this formatting part is almost simular to that of a standard Perception user table.

The other menu items do have simular functionality as there is for a user table and are very self explaining.



Once you have finished your table layout you can close this window by clicking at the OK button. The logging data will be re-read again and will be shown conform the table layout you just have created. In our example this looks like:

1	Recording	Date/Time	DUT				Max (A)	Min (A)	Cycles
2	Recording002	12:22 PM 1/19/2012	SW1	Operator:	Damme	I1	2.70 V	-2.55 V	156
3				Manufacturer:	НВМ	12	3.70 V	-22.55 V	
4				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
5									
6	Recording003	12:22 PM 1/19/2012	SW1	Operator:	Damme	I1	2.70 V	-2.55 V	61
7				Manufacturer:	НВМ	12	2.71 V	-3.51 V	
8				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
9									
10	Recording004	12:22 PM 1/19/2012	SW2	Operator:	Damme	I1	2.70 V	-2.55 V	52
11				Manufacturer:	НВМ	12	5.70 V	-1.55 V	
12				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
13									
14	Recording008	12:28 PM 1/13/2012	SW2	Operator:	Damme	I1	2.70 V	-2.55 V	69
15				Manufacturer:	НВМ	12	9.01 V	-21.58 V	
16				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
17									
18	Recording009	12:28 PM 1/14/2012	SW3	Operator:	Damme	I1	2.70 V	-2.55 V	126
19				Manufacturer:	НВМ	12	5.70 V	-5.65 V	
20				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
21									
22	Recording010	12:29 PM 1/15/2012	SW3	Operator:	Smith	I1	22.70 V	-5.12 V	126
23				Manufacturer:	НВМ	12	4.70 V	-21.55 V	
24				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
25									
26	Recording011	12:29 PM 1/19/2012	SW4	Operator:	Smith	I1	7.70 V	-45.12 V	126
27				Manufacturer:	Philips	12	12.70 V	-21.55 V	
28				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
29									
30	Recording012	1:19 PM 1/19/2012	SW4	Operator:	Smith	I1	2.70 V	-5.12 V	127
31				Manufacturer:	Philips	12	5.70 V	-12.48 V	
32				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	

If you reopen the Table Layout window again you see a couple of buttons at the bottom.

Default setup

This button is used to create a default setup, this setup has only one row per recording and the number of columns is set equal to the number of available log-file data fields. Most of the time this layout is not very useful, but can be a good start for a new table layout.

Save

The save button is used to save your current table layout into a separate file, a so called **Log Layout File** with default extension of **.pLLF**. This file can be reused later by this or another *Log File Reader* sheet.

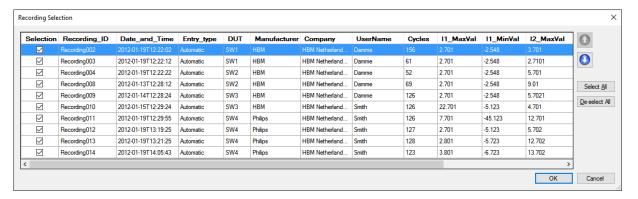
Load

The load button is used to load an existing layout, see the **Save** option above.

4.3 Recording selection

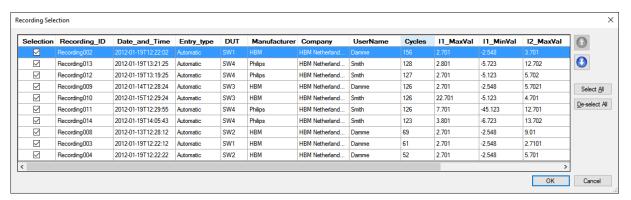
Each time Perception has finished a recording a line of data will be added to the log file, consequently it is possible that the log file will become very large, maybe too large for a user table. Therefore you can use the **Recording Selection** dialog, here you can select which recordings you want to used for the current Log File reader table.





You can also modify the order of the recordings, this can be done via the arrow keys at the right hand side. You can select one or more recordings and use the arrow keys to shift the selected recordings up or down.

It is also possible to change the order of the recordings by clicking at the titles at the header of a column. The recordings are sorted conform the values of the selected column, this sorting order can be reversed by clicking a second time at the same title. In the example below we have clicked twice at the **Cycles** title column, now the recordings are ordered in a way that the recording having the largest number of cycles is shown first.



If you have many recordings in a log file then we advice you to open this **Recording selection** dialog as one of the first things to be done; select a limited number of recordings and continue with for example the **Table Layout**. Working this way will speed up the reading of the log file and showing the formatted data. Especially when you are using different fonts or font-styles the limiting of the number of recordings helps to speed up things.

When you now close the **Recording Selection** dialog the table will be cleared and recreated. As you can see the ordering has been changed, the recording with the largest number of cycles is shown first.



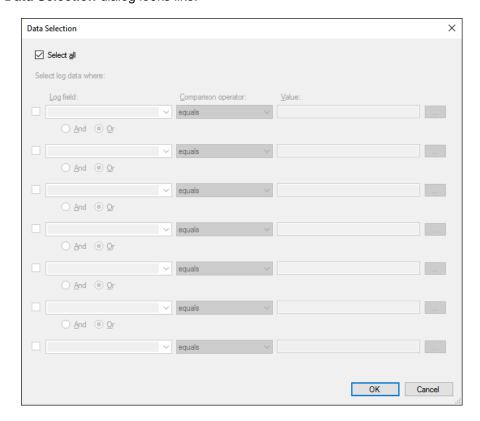
	1	Recording	Date/Time	DUT				Max (A)	Min (A)	Cycles
	2	Recording002	12:22 PM 1/19/2012	SW1	Operator:	Damme	I1	2.70 V	-2.55 V	156
	3				Manufacturer:	НВМ	12	3.70 V	-22.55 V	
۱	4				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
	5									
	6	Recording013	1:21 PM 1/19/2012	SW4	Operator:	Smith	I1	2.80 V	-5.72 V	128
	7				Manufacturer:	Philips	12	12.70 V	-13.48 V	
	8				Test house:	HBM Netherlands B.V.	13	12.70 V	-23.55 V	
	9									
	10	Recording012	1:19 PM 1/19/2012	SW4	Operator:	Smith	I1	2.70 V	-5.12 V	127
	11				Manufacturer:	Philips	12	5.70 V	-12.48 V	
	12				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
	13									
	14	Recording009	12:28 PM 1/14/2012	SW3	Operator:	Damme	I1	2.70 V	-2.55 V	126
	15				Manufacturer:	НВМ	12	5.70 V	-5.65 V	
	16				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
	17									
	18	Recording010	12:29 PM 1/15/2012	SW3	Operator:	Smith	I1	22.70 V	-5.12 V	126
	19				Manufacturer:	НВМ	12	4.70 V	-21.55 V	
	20				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
	21									
	22	Recording011	12:29 PM 1/19/2012	SW4	Operator:	Smith	I1	7.70 V	-45.12 V	126
	23				Manufacturer:	Philips	12	12.70 V	-21.55 V	
	24				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
	25									
	26	Recording014	2:05 PM 1/19/2012	SW4	Operator:	Smith	I1	3.80 V	-6.72 V	123
	27				Manufacturer:	Philips	12	13.70 V	-12.48 V	
	28				Test house:	HBM Netherlands B.V.	13	5.70 V	-2.55 V	
	29									
	30	Recording008	12:28 PM 1/13/2012	SW2	Operator:	Damme	I1	2.70 V	-2.55 V	69
	31		, ,		Manufacturer:	НВМ	12	9.01 V	-21.58 V	
	32				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
	33									
	34	Recording003	12:22 PM 1/19/2012	SW1	Operator:	Damme	I1	2.70 V	-2.55 V	61
	35				Manufacturer:	НВМ	-	2.71 V	-3.51 V	
	36				Test house:	HBM Netherlands B.V.	_	3.70 V	-22.55 V	
	37									
	38	Recording004	12:22 PM 1/19/2012	SW2	Operator:	Damme	I1	2.70 V	-2.55 V	52
	39				Manufacturer:		12		-1.55 V	
	40				Test house:	HBM Netherlands B.V.		3,70 V	-22,55 V	
	41						_			



4.4 Data Selection

Via the Data Selection dialog you can finetune the data selection even more. This dialog will apear after you click at the **Data selection** button at the menu panel.

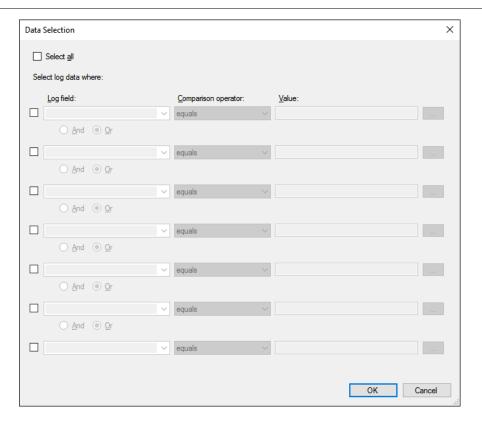
Via this menu you can define a data selection filter on the recordings you have selected via the recording selection dialog as described in the previous chapter. Initially the **Data Selection** dialog looks like:



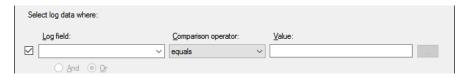
Allmost all entry fields are disabled because the **Select all** checkbox is marked as selected, this means no filtering at all.

If you will however filter the selected data you have to un-check this checkbox, now the dialog looks like:

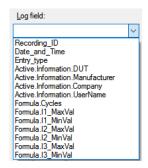




The other checkboxes are now enabled and can be set selected or not. If you set the first checkbox to selected then the fields behind this checkbox will be enabled.



Now you can select a log field to be used to define the filter.



Next you can select the comparison operator:



The last field to be entered is the value to be used by the comparision. In the selection below we will select all recordings from the recording selection where the DUT is equal to SW4:

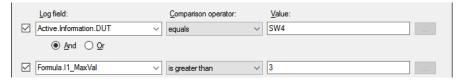




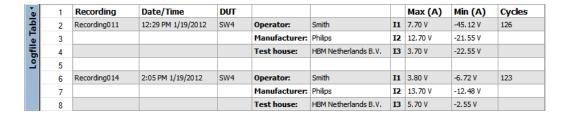
If you now close this dialog by clicking at the **OK** button then the table shows only recordings from the already selected recordings where the **DUT** equals to **SW4**

Φ.		1	Recording	Date/Time	DUT				Max (A)	Min (A)	Cycles
e Table		2	Recording013	1:21 PM 1/19/2012	SW4	Operator:	Smith	I1	2.80 V	-5.72 V	128
		3				Manufacturer:	Philips	12	12.70 V	-13.48 V	
Logfile		4				Test house:	HBM Netherlands B.V.	13	12.70 V	-23.55 V	
٥		5									
		6	Recording012	1:19 PM 1/19/2012	SW4	Operator:	Smith	I1	2.70 V	-5.12 V	127
		7				Manufacturer:	Philips	12	5.70 V	-12.48 V	
		8				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
		9									
		10	Recording011	12:29 PM 1/19/2012	SW4	Operator:	Smith	I1	7.70 V	-45.12 V	126
		11				Manufacturer:	Philips	12	12.70 V	-21.55 V	
		12				Test house:	HBM Netherlands B.V.	13	3.70 V	-22.55 V	
		13									
		14	Recording014	2:05 PM 1/19/2012	SW4	Operator:	Smith	I1	3.80 V	-6.72 V	123
		15				Manufacturer:	Philips	12	13.70 V	-12.48 V	
		16				Test house:	HBM Netherlands B.V.	13	5.70 V	-2.55 V	
	>	17									

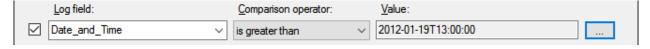
You can use more rules for the data selection for example:



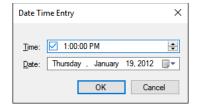
This will result in:



If you select the **Date_and_Time** Log field in the Data Selection dialog then the button behind the Value entry will be enabled.



If you press this button then the **Date Time Entry** dialog will be shown. This dialog is used to enter a date time. In the dialog below 1:00:00PM at 19th of January 2012 is selected.



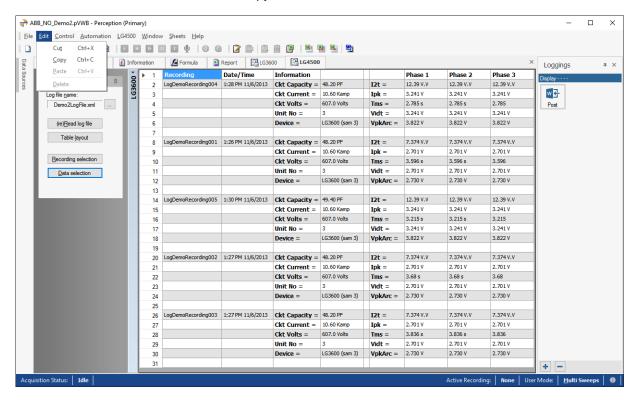
If the above filter is used then only the recordings done after 1:00:00PM at 19th of January 2012 will be selected.



4.5 Copy - Paste

It is possible to copy and paste a log file reader sheet. This chapter will show you how this works.

- Select the log file reader sheet which you want to copy
- Select the main menu Edit -> Copy

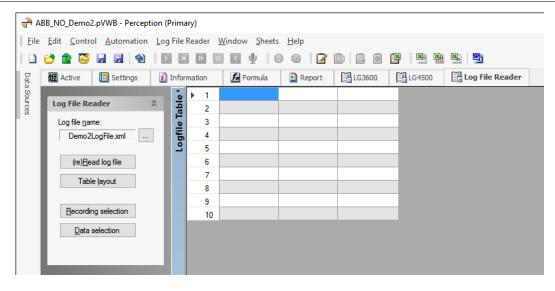


Create a new log file reader sheet using the menu Sheets-New Log File Reader

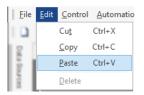


• A new empty Log File Reader sheet is created.

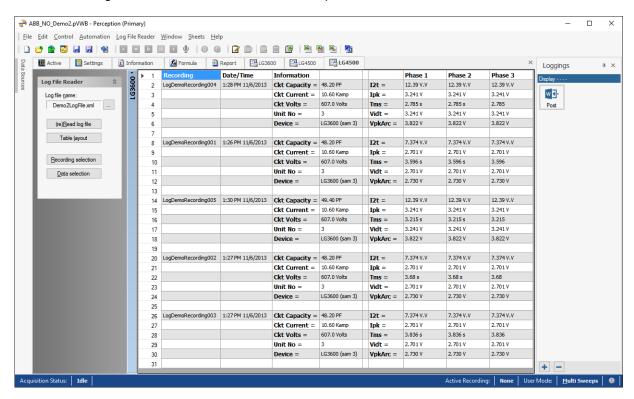




Now select Paste in the Edit menu



The Log File Reader sheet has now been copied:

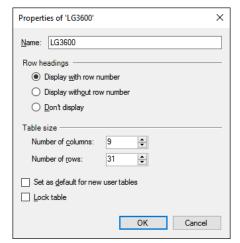


After you have copied the sheet you can change the selected data via the **Recording selection** and/or the **Data selection** dialogs. The advantage of working like this is that you have the same table layout for multiple log file reader sheets. It is recommanded that you change the table name and the sheet name.

Changing the sheet name:

Right mouse click at the titlebar of the table

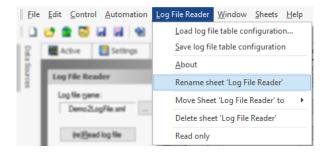




• Change the Name and press OK

Changing the sheet name:

• Select Rename sheet 'Log File Reader' in the Log File Reader main menu



• Enter the new name:





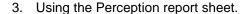
4.6 Reporting

There are three different ways you can use for reporting.

1. Using the toolbox buttons to post, append or copy to Excel.

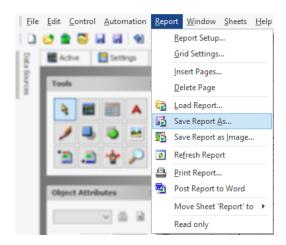


Using the toolbox button to post to Word



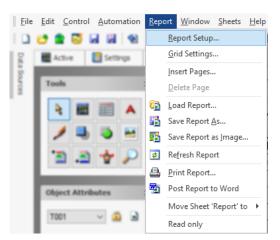
When you use the Perception report sheet you still have the ability to post the report to Word. The difference between posting the table directly to Word and posting the report to Word is that in the first method a Word table is created and filled with data, most of the time you have to manully adjust the Word table layout to get a nice view. However when posting the report to Word a picture is created the layout is exactly as you have defined in the report, no extra work needed in Word.

There are different ways to use the Perception report sheet. You can create a report page per table or you create per table a report save the report using a descriptive name. A report layout can be saved to a file using the menu Report -> Save Report As..



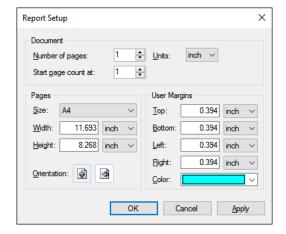
4.6.1 Creating a report layout using the Report sheet

- Go to the report sheet
- Go to the Report Setup...



Select the Page size, in this example it is set to A4

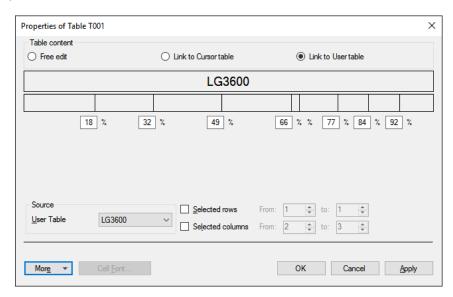




- Page orientation, most likely landscape
- Number of pages most likely 1, but if you have more tables you can select a page per table.
- Close the report Setup window.
- Add a table to the report.



- Open the properties window of the new table
- Select "Link to User table" and then select the usertable you want to use as the source for this report table.



 Close the porperties window, allign the table and if the layout is OK lock it using the Object Attributes window at the left side.



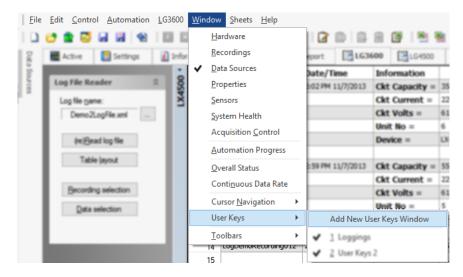
The report is ready to be used.



4.6.2 Using userkeys for reporting

Via a userkey you can post a Perception report to Word. This paragraph describes how to do this.

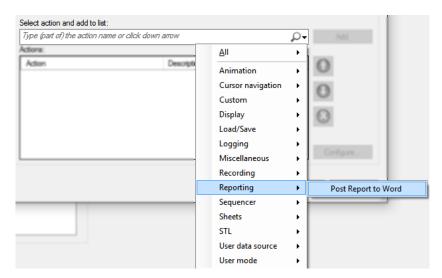
Create a new user keys window, Menu Window -> User Keys -> Add New User Keys Window



A new empty user keys window is created.



- Add a new key to this new user keys window by clicking at the + key at the bottom of the window.
- Select the Post Report to Word key action

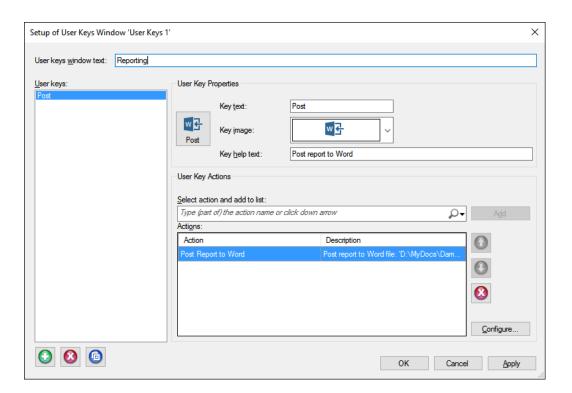




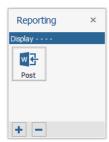
 Configure the Post Report to Word action, a location and name for the Word report document has to be defined



- Set the Key text for example to Post
- Set the Key help text for example Post report to Word
- Optional you can give the window a descriptive title for example Reporting



• Close the setup window and your user key is ready to be used.



The following example shows how to use three user keys for three different tables to be reported to Word using the Perception report sheet.

The following setup is used:

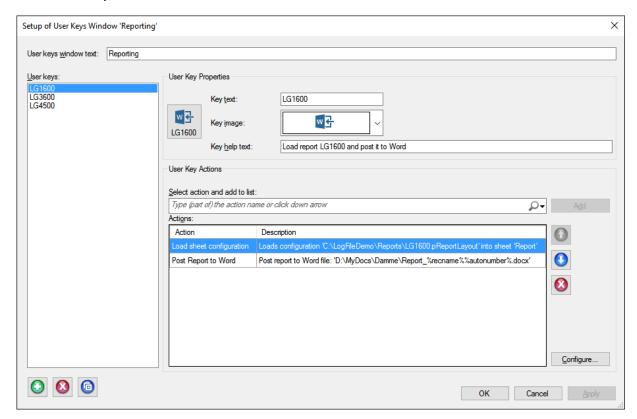
- Perception has been extended with three Log File Reader sheets
- There are three different Perception report file layouts available (*.pReportLayout files), for each Log file reader sheet one.



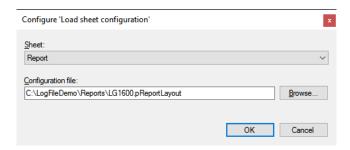
Three different user keys will be defined



· Per key two actions are defined



 First action is Load sheet configuration this action is used to load the correct report file layout. For example file LG1600.pReportLayout



• The second action is **Post Report to Word**, this action has to be configured as well; The name of the report document has to be entered



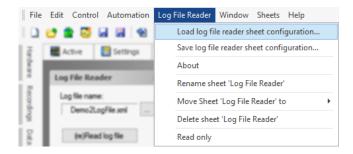


Repeat these steps for the other two user kesy, they should point to different report layouts.

4.7 Saving / Loading log file reader sheet configuration

In the Log File Reader main menu you can find two items:

- Load log file reader sheet configuration
- Save log file reader sheet configuration



These menus are used to load or save the complete setup of the log file reader sheet, this means not only the layout of the sheet, but also:

- the actual log file name
- the selected recordings
- the data selection settings
- the content of the user sheet

This saving and loading of the configuration works simular to the way the standard Perception sheets: *Reporting, Formula, Settings* and *Information* are working. This means the configuration can be saved in a separate file having the extension *.pLogTable. The configuration is also always automatically saved in the experiment file (*pNRF) and the workbench file (*.pVWB), therefore it can be re-loaded from these files as well.

4.8 Tips

- If the table redraw is very slow try again without using different fonts or font styles like e.g. Bold.
- For large data sets always first do a recording selection before doing anything else.
- Save your table layouts for later reuse.

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