Creating automated reports using VBS AN 44

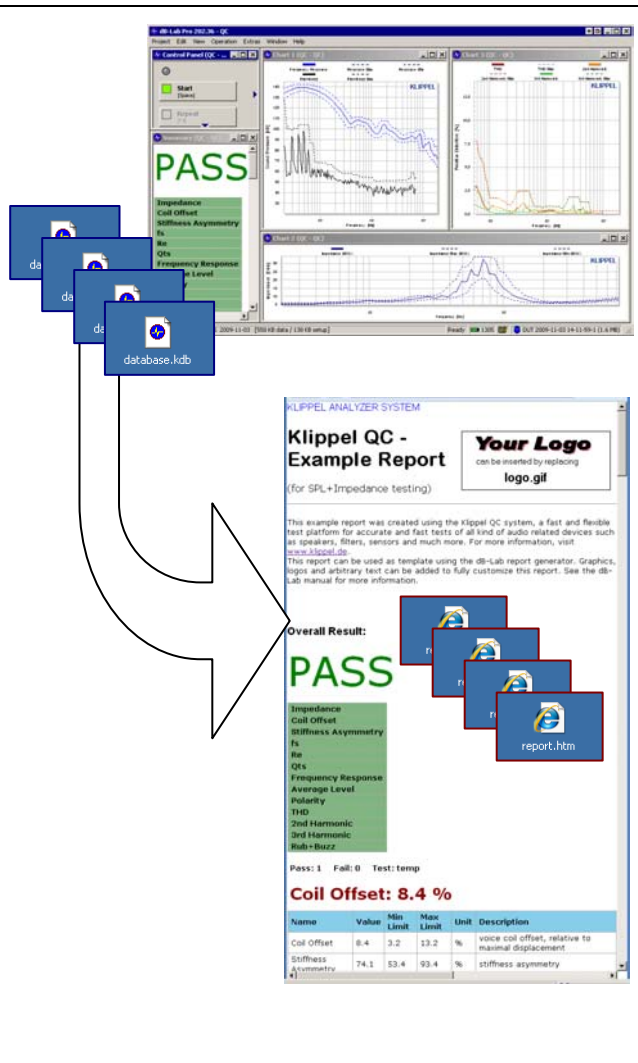Application Note to the KLIPPEL R&D and QC SYSTEM

Publishing measured results is important to customers and clients. While the KLIPPEL database contains all information about results and setups in one single file, this format may be not decent for non-technical people. Using the KLIPPEL software, it is easy and fast to create HTML-templates based on operations or objects within KLIPPEL databases.

If multiple reports are required e.g. from a series of measurements or on a regular basis, the user interactive method of creating a report (opening database, navigating to operation, selecting templates etc.) is time consuming and boring.

Using the Automation Access to the KLIPPEL proprietary databases (*.klb), it is possible to generate such reports in an automated way. In this Application Note the access of the data is shown using windows scripting (VBS). This is a simple and open programming language which can be edited and extended easily by the user. The VBS script can be started using a command line. However, a simple batch file is also provided to show the calling syntax for the script. This solution is convenient and extremely flexible at the same time.

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Interactive Report

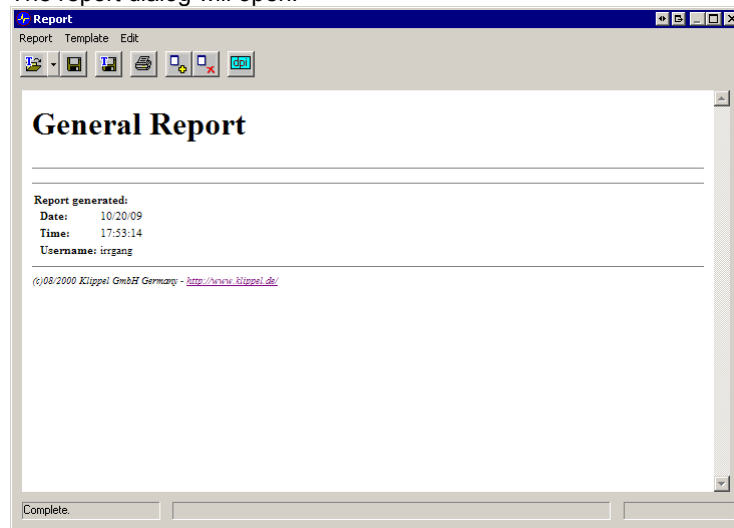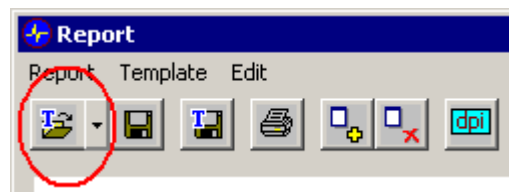|	
Open Database	If the database is not already open (just after a measurement), double click on any kdb-file to open the database in dB-Lab. Select the object and operation for which a report shall be generated. QC: Note that for all QC databases there is only one object "QC" in the root folder containing only one operation also labeled "QC". No login is required for creating a report. R&D databases usually contain multiple operations in one or more objects / folders.
Create report	To create a report, select *Project / Report* or click on the report icon: The report dialog will open:
Select a template	Select *Template / Open* or click on the icon: to open a template. For most operations generic templates are provided from KLIPPEL.
Print / Save report	Select *Report / Save as…* or *Print* to publish the report as HTML-file or as printed output (pdf, hard copy).
Modify Template	Modify the saved HTML-file and load the modified file as template. All measurement results and graphs are replaced, but the modified appearance (text, graphics, pictures etc.) is used from the user modified HTML-file. See also the dB-Lab Manual for more information.

Automated Reports

Automation	The KLIPPEL Analyzer Software can be controlled via software interface by external applications, such as Visual Basic, C++, C# or Scripting applications.
	For details see the comprehensive Automation Documentation Package.
Scripting using KLIPPEL Automation	In this Application Note a simple windows scripting program is used to generate reports from KLIPPEL databases. The source code is provided in the Software Package belonging to this Note.
	The KLIPPEL Automation Software comes with the dB-Lab installation.
	Note that the KLIPPEL Viewer Software and the dB-Lab Lite version cannot be used. Use the installation CD for setup.
	Scripts run without compilation, so no further software tools are required.
	As the name says, scripts do not provide a nice graphical user interface. If this is required, use the script as template and implement your project using one of the high programming languages.

Example 1 : Process one database

Target	A single operation in a database shall be processed. QC databases typically contain just one operation while R&D databases may contain multiple operations.
	In the batch file the operation and the containing folder must be specified.
	After the generation, the result shall be opened automatically.
Run the example	o Download and extract the software package *AN44 Software (Creating automated report).zip*.
	o Navigate to the folder *process one kdb-file*.
	o Start the batch file *test.bat*.
	o A command window will open and the used parameters are shown in a short configuration message box. Confirm with *ok*.
	o dB-Lab is now called and the report is generated.
	o The shell window is closed automatically, and the report will be opened using a web browser.
Modify the example	Using a simple text editor (e.g. Notepad), you may change:
	o names of files (database, template, report)
	o usage of command line parameter to invoke names
	o switching on/ off the viewing of the completed result
	o creation of sequences of report generations.

Example 2 : Process one folder with databases

Target	A folder with a set of databases shall be processed.
	In this example a typical QC test-Log folder is used. In such a folder databases are stored from QC measurements. Each database contains one measurement.
	For each database a report with the same name shall be generated and stored in a subfolder called "reports".
	While the first example shows the result, this option is disabled. The generation is silent.
Run the example	o Download and extract the software package *AN44 Software (Creating automated report).zip*.
	o Navigate to the folder *process QC test folder and* start the batch file *test.bat*
	o A command window will open. The target and source folder are shown.
	o dB-Lab is now called and the report is generated.
	o The shell window is closed automatically after all reports were generated.
	o Navigate to the output folder: *process QC test folder\MyWoofer\Log\reports* and open one HTML-file to verify the result.
Modify the example	Using a simple text editor (e.g. Notepad) you may change:
	o names of files and folders (database, template, report)
	o scope of the tree, where databases are searched
	o kind and number of operations to be processed
	o usage of command line parameter to invoke names or folders

Software

dB-Lab Pro	To generate reports with user defined templates (customized to company style etc.), a dB-Lab Pro license is required. In most cases a dB-Lab Pro license is included in the measurement system. However, additional licenses also for clients or remote locations without any KLIPPEL system can be purchased.
Windows script	If not already installed on your system, the windows scripting can be downloaded from the Microsoft website.
	Open the doc folder and check the web site links for the actual software and a documentation package.
AN44 Software (Creating automated report).zip	Two examples are preconfigured to be used with this Application Note.
	Note: The software is NOT to be used in customer applications as it is. Additional parameter checks and tests should be used to make the solution robust and safe. However, it is beyond the scope of this Application Note to provide a complete solution. The software included is intended to be used as a starting point for customer specific solutions.
dB-Lab Manual	You will find more information on the Report System in the dB-Lab Manual.
Automation Documentation Package	Detailed information about the KLIPPEL Automation Interface including examples using several programming languages are provided.

Disclaimer

The software provided with this Application Note is NOT to be used in customer applications as it is. Additional parameter checks and tests should be used to make the solution robust and safe. However, it is beyond the scope of this Application Note to provide a complete solution. The software included is intended to be used as a starting point for customer specific solutions.

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