

TETware

Report Writer User Guide

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THE *Open* GROUP

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1 Introduction

1.1 Preface

This document is the TETware Report Writer User Guide.

TETware is a Test Execution Management System that takes care of the administration, reporting, and sequencing of the tests providing a single common user interface for all of the tests that you develop.

TETware has been tested and used on UNIX, Linux and Windows operating systems.

Throughout this document, the Windows NT, 2000 and 9x operating systems are referred to collectively as **Win32** systems. The individual names are only used when it is necessary to distinguish between them.

1.2 Audience

This document is intended to be read by systems administrators who will install TETware or TETware *professional* on their computer systems, and by software testing engineers who will use TETware or TETware *professional* to run verification test suites.

1.3 Conventions Used in this Guide

The following typographic conventions are used throughout this guide:

- `Courier` font is used for function and program names, literals and file names. Examples and computer-generated output are also presented in this font.
- The names of variables are presented in *italic font*. You should substitute the variable's value when typing a command that contains a word in this font.

- **Bold font** is used for headings and for emphasis.

1.4 Related Documents

Refer to the following documents for additional information about TETware *professional*:

TETware *professional* User Guide
TETware *professional* Installation Guide
TETware *professional* Demonstration Guide
TETware *professional* Release Notes
TETware *professional* Help Pages
TETware *professional* Real Time and Embedded Systems Extension

Refer to the following documents for additional information about TETware

TETware Programmers Guide
TETware User Guide
TETware Installation Guide

1.5 Problem Reporting

If you have subscribed to TETware or TETware *professional* support and you encounter a problem while installing and using TETware or TETware *professional*, you can send a support request by electronic mail using the dedicated email address that is provided. Evaluators should email to tetware_manager@opengroup.org

All Problem Reports are welcome and actively encouraged. The more problems that are found and fixed the better the product will be. Please submit all bugs and queries found. Also, please submit requests for features and upgrades.

2. User Guidelines

2.1 Syntax

```
grw [-c content ] [-f html|chtml|text] [-o out] [-p pagewidth] \
    [-s stylesheet] [journal]
```

2.2 Description

grw parses a TETware journal file and produces a more readable version of the journal as a "report" document. It is designed to produce the report in a variety of different document formats. HTML and plain text are supported by default.

'journal' is the path of the input file, i.e. the journal file for which the report is to be generated. "-" indicates standard input.

2.3 Options

```
-f html|chtml|text
```

Specify the document format for the generated report.

html	HTML
chtml	HTML with Color Information
text	Plain Text

```
-c content
```

Specify the content and layout of the generated report.

'content' is either:

- (a) (Simple case) An integer from 1 - 7. Where:

- 1 Summary table(s).
- 2 Summary table(s).
Summary breakdown, excluding passes.
- 3 Summary table(s).
Summary breakdown, including passes.
- 4 Summary table(s).
Simple inline report, excluding passes.
- 5 Summary table(s).
Full inline report, excluding passes.
- 6 Summary table(s).
Full inline report, including passes.
- 7 Summary table(s).
Full inline report, including passes.
Extra detail in inline report.

- (b) (Configurable case) An expression specifying the content.
This has the following format (regular expression syntax):

`[bce]+[TBI]+[pifxc]*`

Where

- b build mode
- c clean mode
- e execute mode
- T summary table
- B summary breakdown
- I inline report
- p include detail of passes
- i introductory information
- f fuller inline report - includes info lines and other tcc/tcm/testcase output
- x extra detail into inline report
- c include configuration

E.g. "bTBpi", "becTI".

-o out

Specify the name of the file to take generated output.
"-" indicates standard output.

-p pagewidth

Specify the page width of the generated output, in bytes.
The default is 79. ("text" format only).

-s stylesheet

Specify a URI of a stylesheet to link to in the generated HTML.
("chtml" and "html" formats only).

Running grw with no options is effectively:

```
grw -c 3 -f html -o - -
```

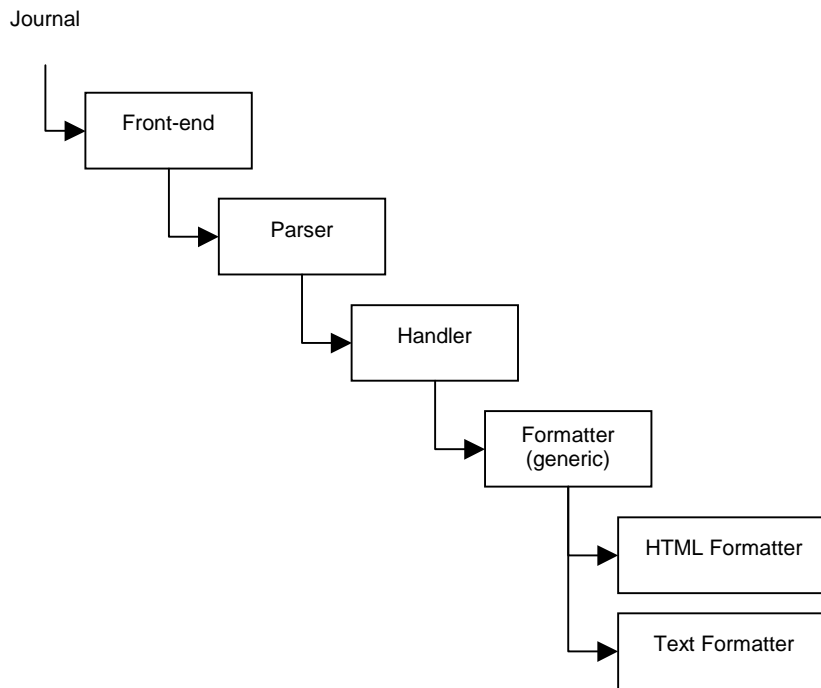
i.e. read from standard input, write to standard output, produce HTML without colour information, to content level 3.

3 Programmer Guidelines

This section is for programmers who would like to modify or extend the report writer in some way.

3.1 Architecture

The process of producing a report from a TETware journal can be thought of as a pipeline.



Component	Source Files	Public Functions	Description
Front-end	main.c	main()	Program entry point
Parser	parser.	grw_parsejournal	Parses journal, line by line, and hands parsed line items to handler
Handler	handler.c	grw_beginjournal() grw_handleline() grw_endjournal()	Controls content and layout of generated document
Formatter	formatter.c formatter.h	grw_createformatter() grw_begindocument() grw_enddocument() grw_printh1() grw_printh2() grw_printh3() grw_print() grw_starttable() grw_endtable() grw_startrow() grw_endrow() grw_printcell() grw_startcell() grw_endcell() grw_startulist() grw_endulist() grw_printlistentry() grw_breakline() grw_printhline()	Provides a format independent API for writing documents. Also acts as a layer to perform generic operations for the individual formatters.
HTML Formatter	html.c	grw_createhtmlformatter()	Produces HTML
Text Formatter	text.c	grw_createtextformatter()	Produces plain text

Remaining source files:

Description	Source Files
Overall header file	grw.h
Copy of TETware journal defines	tet_jrnl.h
General utilities	utils.c
	svector.c

3.2 Adding a new document format

Adding a new document format is a matter of plugging in a new component at the end of the pipeline, alongside the "HTML Formatter" and "Text Formatter". Here is an outline of the process:

1. Create a new source (.c) file implementing a (public) function which will create a new formatter. The existing functions are called `grw_createhtmlformatter()` and `grw_createtextformatter()`, so a good name would be `grw_createDDDformatter()`, where "DDD" is the name of the new document format. The routine must return a pointer to a newly allocated `grw_formatter_t` structure, with all the function pointers set.
2. Add a prototype for the new `grw_createDDDformatter()` function to `grw.h`.
3. Edit `main.c` to call the new routine when the '-f' flag has the relevant value.
4. Add the new source file to the makefile.
5. Rebuild.

3.3 Changing inbuild defaults

Certain pieces of default information are compiled into the program, but are easily modified in the source. For example:

Information	#define(s)	Source file
Default document format	DEFAULT_FORMAT	main.c
Default content level	DEFAULT_CONTENT	main.c
Basic content levels	CONTENT_L1	handler.c
	CONTENT_L7	
HTML colours	COLOR_..	html.c
Default pagewidth	DEFAULT_PAGEWIDTH	text.c

4 Using the Report Writer in TETware *professional*

4.1 Configuring the TETware Report Writer

Depending on what information you require in your report, you can decide to check or uncheck the boxes next to the relevant variables (please see Figure 1). Some boxes are required while others are optional.

Report Generator:

This variable enables you to specify the location of TETware Report Writer. The default location is `C:\tet_root\bin\` (where 'C' is the Drive letter, *tet_root* is your TETware *professional* root directory and 'bin' is the sub-directory)

Format:

This specifies which document format you will want for the generated report. Either:

Html	Results can be viewed in HTML Format or
Text	Results can be viewed in test (txt) Format

Mode of Operation:

You will be able to specify which mode of operation should appear in the report. Any combination of the following can be chosen: Build, Execute or Clean. For more information on Modes of Operation please see Section 2.6 of the TETware *professional* User Guide.

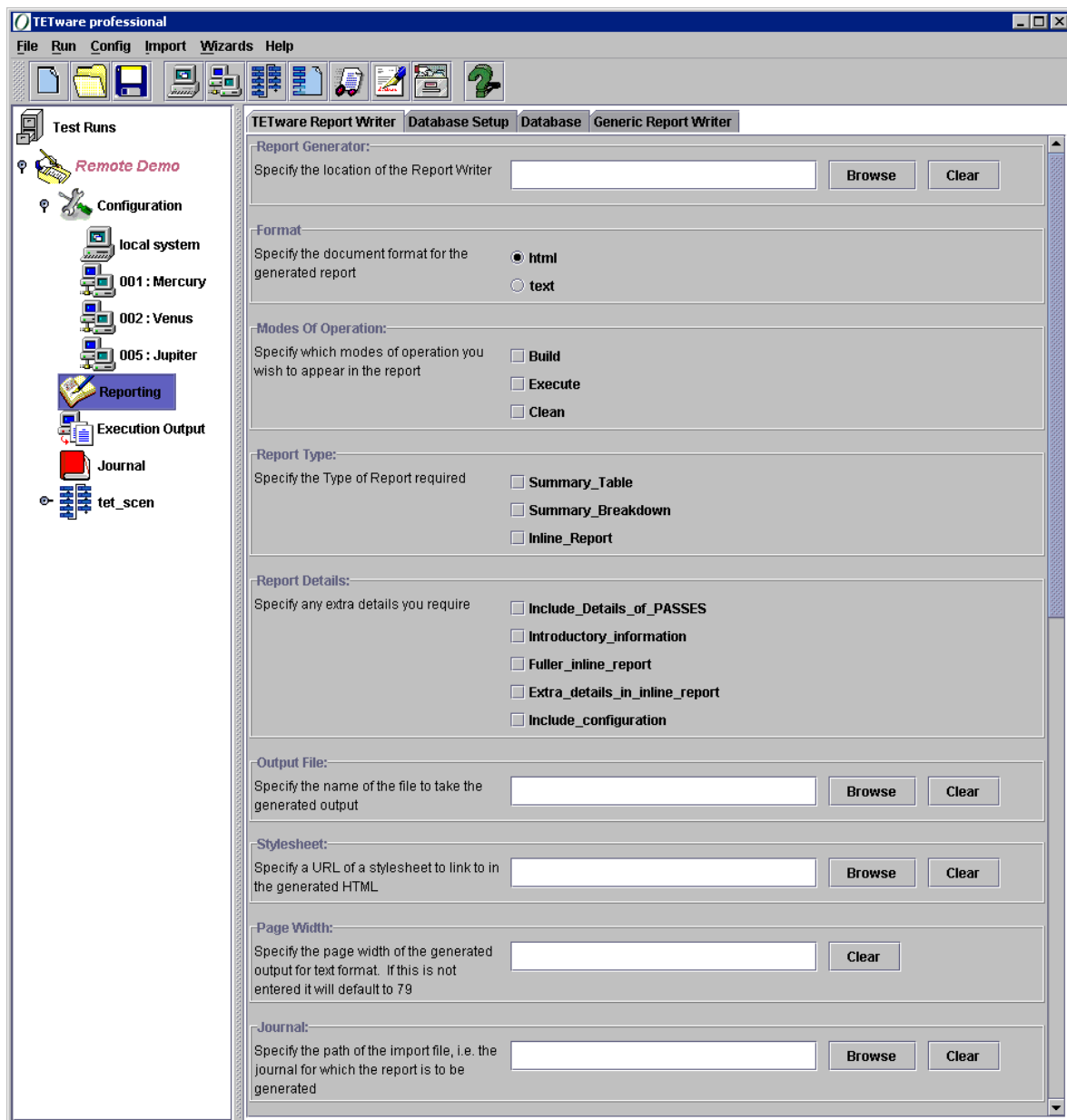


Figure 1: TETware Report Writer

Report Type:

This allows the user to specify the type(s) of report required. User can pick a combination of the following: -

Summary_table	Provides a summary of the results by mode of operation.
Summary_breakdown	Provides a summary of the results by mode of operation and test case.
Inline_report.	Provides a summary of the results by test case and mode of operation.

Report Details:

This allow user to specify any extra detail is required. Such details include:

Include_Details of PASSES	If this option is selected details of tests that PASS will be included. Not selecting this item can help locate problems.
Introductory_information	This adds the: TETware version; System information; Date of Test Run and Start time to the top of your Report.
Fuller_inline_Report	This is an Inline Report broken down by Test Cases and Test Purpose (TP). You must have selected Report Type: Inline_Report for this option to be available.
Extra_Details_in_inline_report	This adds Scenario information to the Inline Report. You must have selected Report Type: Inline_Report for this option to be available.
Include_configuration	This adds configuration information, by variable and value, to the top of the report (after introductory information).

Output File:

This specifies the name of the file to which you want the generated output to be written. (If this file is already in existence, then you can click on the `Browse` button to select the file). You must specify the path and the suffix as well as the file name.

Stylesheet:

This option or field applies only if the html format has been selected. If specified the URL of the stylesheet to link to in the generated HTML.

Page Width:

This option applies only to text format reports. It specifies the page width of the generated output. If this is not entered, it will use the default - which is 79 – will be used.

Journal:

This specifies the path of the import file, i.e. the journal from which the report is to be generated (This file can also be browsed and selected). After a Test Run has been executed this field is automatically completed. If the Test Run is saved the Journal name that was current when the Test Run is saved is also saved.

4.1 Creating a Report

Select the Run TETware Report Writer button on the toolbar.



You can then go and view your report at the appropriate location using a tool that is appropriate for the format selected, e.g. your browser if the Report is saved in HTML format.

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Appendix B

Notes

This Appendix contains three file listings

1. A Sample Journal File
2. A Sample Test Run Report – Test Format
3. A Sample Test Run Report – HTML Format.

Both of the Reports were produced from the Journal File using the TETware Report Writer from within TETware *professional*.

Sample Journal File

```

0|3.5-lite 13:49:38 20020325|User: alanh TCC Start, Command line:
E:\\TETware_professional\\bin\\tcc -bec -g _GUItetbuild.cfg -x
_GUItetexec.cfg -f _GUItetclean.cfg -p -s _scentTETfile
E:\\TETware_professional\\jdemo _TETallscen
5|Windows_NT ALAN_HAFFENDEN 5 0 586|System Information
20|e:/TETware_professional/jdemo/_GUItetbuild.cfg 0|Config Start
30| |TET_API_COMPLIANT=false
30| |TET_BUILD_TOOL=E:\\TETware_professional\\bin\\jet-build.exe
30| |TET_OUTPUT_CAPTURE=true
30| |TET_PASS_TC_NAME=true
30| |TET_RESCODES_FILE=tet_code
30| |TET_VERSION=3.5-lite
40| |Config End
20|e:/TETware_professional/jdemo/_GUItetexec.cfg 1|Config Start
30| |TET_API_COMPLIANT=true
30| |TET_EXEC_TOOL=E:\\TETware_professional\\bin\\jet-exec.exe
30| |TET_EXEC_IN_PLACE=true
30| |TET_OUTPUT_CAPTURE=false
30| |TET_RESCODES_FILE=tet_code
30| |TET3RT_MSS_TRACE2JNL=false
30| |TET_PASS_TC_NAME=False

```

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```
30| |TET_VERSION=3.5-lite
40| |Config End
20|e:/TETware_professional/jdemo/_GUItetclean.cfg 2|Config Start
30| |TET_API_COMPLIANT=false
30| |TET_CLEAN_TOOL=E:\TETware_professional\bin\jet-clean.exe
30| |TET_OUTPUT_CAPTURE=true
30| |TET_PASS_TC_NAME=true
30| |TET_RESCODES_FILE=tet_code
30| |TET_VERSION=3.5-lite
40| |Config End
110|0 /ts/IntegerTC/IntegerTC 13:49:38|Build Start, scenario ref 1-0
130|0 0 13:49:50|Build End, scenario ref 1-0
10|1 /ts/IntegerTC/IntegerTC 13:49:50|TC Start, scenario ref 1-0
15|1 3.5-lite 3|TCM Start
400|1 1 1 13:49:51|IC Start
200|1 1 13:49:51|TP Start
220|1 1 0 13:49:52|PASS
410|1 1 1 13:49:52|IC End
400|1 2 1 13:49:52|IC Start
200|1 2 13:49:52|TP Start
220|1 2 0 13:49:52|PASS
410|1 2 1 13:49:52|IC End
400|1 3 1 13:49:52|IC Start
200|1 3 13:49:52|TP Start
220|1 3 0 13:49:52|PASS
410|1 3 1 13:49:52|IC End
80|1 0 13:49:52|TC End, scenario ref 1-0
300|2 /ts/IntegerTC/IntegerTC 13:49:52|Clean Start, scenario ref 1-0
320|2 0 13:49:53|Clean End, scenario ref 1-0
900|13:49:53|TCC End
```


Sample Test Run Report – Text Format

```

+-----+
|               |
| TETware Test Run Report |
|               |
+-----+

```

```

TETware version:      3.5-lite
System Information:   Windows_NT ALAN_HAFFENDEN 5 0 586
Date of test run:    2002-03-25
Start time:          13:49:38

```

Configuration Information

```
=====
```

```

Build mode configuration for
e:/TETware_professional/jdemo/_GUItetbuild.cfg

```

Variable	Value
TET_API_COMPLIANT	false
TET_BUILD_TOOL	E:\TETware_professional\bin\jet-build.exe
TET_OUTPUT_CAPTURE	true
TET_PASS_TC_NAME	true
TET_RESCODES_FILE	tet_code
TET_VERSION	3.5-lite

```

Execute mode configuration for
e:/TETware_professional/jdemo/_GUItetexec.cfg

```

Variable	Value
TET_API_COMPLIANT	true
TET_EXEC_TOOL	E:\TETware_professional\bin\jet-exec.exe
TET_EXEC_IN_PLACE	true
TET_OUTPUT_CAPTURE	false
TET_RESCODES_FILE	tet_code
TET3RT_MSS_TRACE2JNL	false
TET_PASS_TC_NAME	False
TET_VERSION	3.5-lite

Clean mode configuration for
e:/TETware_professional/jdemo/_GUItetclean.cfg

Variable	Value
TET_API_COMPLIANT	false
TET_CLEAN_TOOL	E:\TETware_professional\bin\jet-clean.exe
TET_OUTPUT_CAPTURE	true
TET_PASS_TC_NAME	true
TET_RESCODES_FILE	tet_code
TET_VERSION	3.5-lite

Build mode summary
=====

Result	Count
Success	1
Failure	0
Total	1

Execute mode summary
=====

Result Code	Count
PASS	3
Total	3

Clean mode summary
=====

Result	Count
Success	1
Failure	0
Total	1

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Build mode result breakdown

=====

Testcase	Result
/ts/IntegerTC/IntegerTC	Success

Execute mode result breakdown

=====

PASS

Test case	Test purposes (IC.TP)
/ts/IntegerTC/IntegerTC	1.1, 2.2, 3.3

Clean mode result breakdown

=====

Testcase	Result
/ts/IntegerTC/IntegerTC	Success

Inline report

=====

/ts/IntegerTC/IntegerTC [build]

```
+-----+
| Test Status |
+-----+
| Success (0) |
+-----+
```

/ts/IntegerTC/IntegerTC [execute]

```
-----
```

IC	TP	Result	Information lines
1	1	PASS	
2	2	PASS	
3	3	PASS	

/ts/IntegerTC/IntegerTC [clean]

```
-----
```

```
+-----+
| Test Status |
+-----+
| Success (0) |
+-----+
```

Sample Test Run Report – HTML Format

TETware Test Run Report

TETware version: 3.5-lite

System Information: Windows_NT ALAN_HAFFENDEN 5 0 586

Date of test run: 2002-03-25

Start time: 13:49:38

Configuration Information

Build mode configuration for e:/TETware_professional/jdemo/_GUItetbuild.cfg

Variable	Value
TET_API_COMPLIANT	false
TET_BUILD_TOOL	E:\TETware_professional\bin\jet-build.exe
TET_OUTPUT_CAPTURE	true
TET_PASS_TC_NAME	true
TET_RESCODES_FILE	tet_code
TET_VERSION	3.5-lite

Execute mode configuration for e:/TETware_professional/jdemo/_GUItetexec.cfg

Variable	Value
TET_API_COMPLIANT	true
TET_EXEC_TOOL	E:\TETware_professional\bin\jet-exec.exe

TET_EXEC_IN_PLACE	true
TET_OUTPUT_CAPTURE	false
TET_RESCODES_FILE	tet_code
TET3RT_MSS_TRACE2JNL	false
TET_PASS_TC_NAME	False
TET_VERSION	3.5-lite

Clean mode configuration for e:/TETware_professional/jdemo/_GUItetclean.cfg

Variable	Value
TET_API_COMPLIANT	false
TET_CLEAN_TOOL	E:\TETware_professional\bin\jet-clean.exe
TET_OUTPUT_CAPTURE	true
TET_PASS_TC_NAME	true
TET_RESCODES_FILE	tet_code
TET_VERSION	3.5-lite

Build mode summary

Result	Count
Success	1
Failure	0
Total	1

Execute mode summary

Result Code	Count
PASS	3
Total	3

Clean mode summary

Result	Count
Success	1
Failure	0
Total	1

Build mode result breakdown

Testcase	Result
/ts/IntegerTC/IntegerTC	Success

Execute mode result breakdown

PASS

Test case	Test purposes (IC.TP)
/ts/IntegerTC/IntegerTC	1.1, 2.2, 3.3

Clean mode result breakdown

Testcase	Result
/ts/IntegerTC/IntegerTC	Success

Inline report

/ts/IntegerTC/IntegerTC [build]

Test Status

Success (0)

/ts/IntegerTC/IntegerTC [execute]

IC	TP	Result	Information lines
1	1	PASS	
2	2	PASS	
3	3	PASS	

/ts/IntegerTC/IntegerTC [clean]

Test Status

Success (0)
