# **TETware**

# Report Writer User Guide

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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 on their computer systems, and by software testing engineers who will use TETware or TETware 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:

- TETware Programmers Guide
- TETware User Guide
- TETware Installation Guides
- TETware Release Notes
- TETware GUI User Guide
- TETware Real Time and Embedded Systems Extension Guide
- TETware Knowledgebase

### 1.5 Problem Reporting

If you have subscribed to TETware support and you encounter a problem while installing and using TETware, 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

### 2.2 Description

THE TETware Report Writer, 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 - -
```

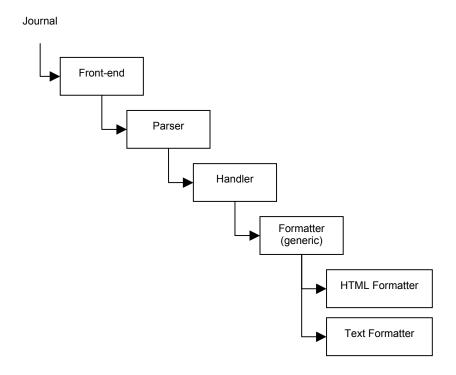
i.e. read from standard input, write to standard output, and produce HTML without color information, to content level 3.

# 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	grw_createformatter()	Provides a format independent API for writing
	formatter.h	grw_begindocument() grw_enddocument() grw_printh1() grw_printh2()	documents. Also acts as a layer to perform generic operations for the individual formatters.
		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()	
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

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# 4 Using the Report Writer from the TETware GUI

# 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. Some boxes are required while others are optional.

#### 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.

#### **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 suffix as well as the file name. Note that you should specify the path as well. If you do not the report will be included in your TET ROOT 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

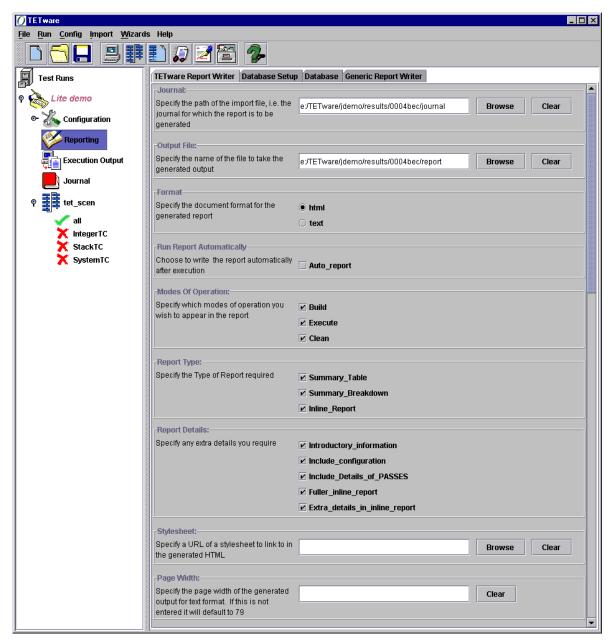


Figure 1: TETware GUI Report Writer Tab

#### **Run Report Automatically**

If you want the journal file to be written as a report **automatically** after the test run execution is complete, then you should check the Auto-report checkbox. The Report will be written to the same directory as the journal file unless you specify a different path in the Output File field.

#### **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 GUI User Guide or Appendix I of the TETware Programmers Guide.

#### **Report Type:**

This allows the user to specify the type(s) of report required. The 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 allows you 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).

#### **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.

### 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 Text 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 the TETware GUI.

### Sample Journal File

```
0|3.5-lite 13:49:38 20020325|User: alanh TCC Start, Command line:
E:\\TETware\\bin\\tcc -bec -g GUItetbuild.cfg -x GUItetexec.cfg -f
GUItetclean.cfg -p -s scenTETfile E:\\TETware\\jdemo TETallscen
5|Windows NT ALAN HAFFENDEN 5 0 586|System Information
20|e:/TETware/jdemo/_GUItetbuild.cfg 0|Config Start
30||TET API COMPLIANT=false
30||TET BUILD TOOL=E:\TETware\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/jdemo/ GUItetexec.cfg 1|Config Start
30||TET API COMPLIANT=true
30||TET EXEC TOOL=E:\TETware\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
30||TET VERSION=3.5-lite
```

```
40||Config End
20|e:/TETware/jdemo/ GUItetclean.cfg 2|Config Start
30||TET API COMPLIANT=false
30||TET_CLEAN_TOOL=E:\TETware\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 version: System Information: Date of test run: Start time:	Windows_NT ALAN_HAFFENDEN 5 0 586 2002-03-25						
	Configuration Information  Suild mode configuration for e:/TETware/jdemo/_GUItetbuild.cfg						
+	++						
Variable							
TET_API_COMPLIANT +	false						
TET_BUILD_TOOL	E:\TETware\bin\jet-build.exe						
TET_OUTPUT_CAPTURE							
TET_PASS_TC_NAME							
TET_RESCODES_FILE							
TET_VERSION	3.5-lite						
Execute mode configuration for e:/TETware/jdemo/_GUItetexec.cfg							

Variable	Value	
TET_API_COMPLIANT	true	
TET_EXEC_TOOL	E:\TETware\bin\jet-exec.exe	
TET_EXEC_IN_PLACE		
TET_OUTPUT_CAPTURE	I	
TET_RESCODES_FILE	I	
TET3RT_MSS_TRACE2JNI	false	
TET_PASS_TC_NAME	False	
TET_VERSION	3.5-lite	
	on for e:/TETware/jdemo/_GUItetclean.cfg	
Lean mode configurati	on for e:/TETware/jdemo/_GUItetclean.cfg Value	 +   + 
Lean mode configurati  Variable  TET_API_COMPLIANT	on for e:/TETware/jdemo/_GUItetclean.cfg Value	
Lean mode configurati  Variable  TET_API_COMPLIANT	on for e:/TETware/jdemo/_GUItetclean.cfg  Value  false  E:\TETware\bin\jet-clean.exe	
Variable  TET_API_COMPLIANT  TET_CLEAN_TOOL  TET_OUTPUT_CAPTURE	on for e:/TETware/jdemo/_GUItetclean.cfg  Value  false  E:\TETware\bin\jet-clean.exe	
Variable  TET_API_COMPLIANT  TET_CLEAN_TOOL  TET_OUTPUT_CAPTURE	on for e:/TETware/jdemo/_GUItetclean.cfg  Value  false  E:\TETware\bin\jet-clean.exe    true  true	

Build mode	e Silmi	marv	
=======			
+	-+	+	-
Result			
Success	1	1	
Failure	1	0	
Total	1	1	
1	1		
Execute mo			
=======	====	=====	==
+	Code	Cou	ınt
+			
+			3
+			
Clean mode			
+	-+		÷
Result	Co	unt	
Success	Ī	1	
+	1	0	
+	1	1	
+	-+	+	-

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Build mode result breakdown

+	·	
Testcase +		
/ts/IntegerTC/IntegerTC		
T		
Execute mode result break		
=======================================	===	
PASS		
+   Test case		
+   /ts/IntegerTC/IntegerTC		-+
+		-+
Clean mode result breakdo	rin.	
======================================		
+	-++	
Testcase		
+   /ts/IntegerTC/IntegerTC		
+	-++	
Inline report		
========		
/ts/IntegerTC/IntegerTC []	build]	
++   Test Status		

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Suc	Success (0)						
			erTC [execute]	-			
IC	TP	Result	+   Information +	lines			
1	1	PASS	+   +				
2	2	PASS					
3	3	PASS					
/ts/I	Intege	rTC/Integ	erTC [clean]				
+   Suc	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/jdemo/\_GUItetbuild.cfg

Variable	Value
TET_API_COMPLIANT	false
TET_BUILD_TOOL	E:\TETware\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/jdemo/\_GUItetexec.cfg

Variable	Value
TET_API_COMPLIANT	true
TET_EXEC_TOOL	E:\TETware\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/jdemo/\_GUItetclean.cfg

Variable	Value
TET_API_COMPLIANT	false
TET_CLEAN_TOOL	E:\TETware\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**



# **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

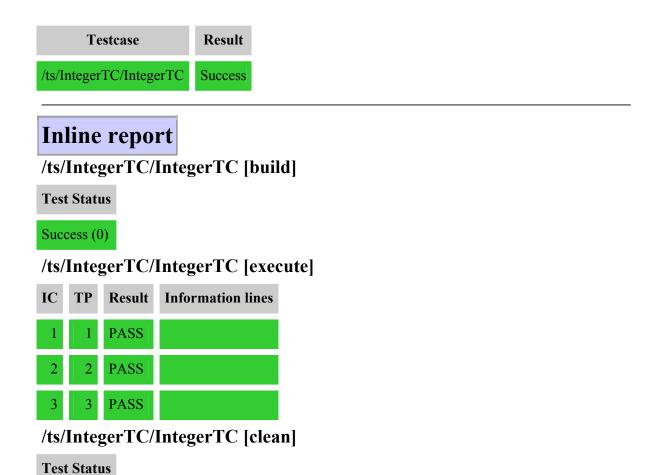
# Execute mode result breakdown

#### **PASS**

Test case Test purposes (IC.TP)

/ts/IntegerTC/IntegerTC 1.1, 2.2, 3.3

# Clean mode result breakdown



Success (0)