

ETAC Source Files (3-ena)

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Other Related ETAC Documents

ETAC_Preliminaries.pdf	Preliminaries before using ETAC
ETACOverview.pdf	An Overview of ETAC
ETACProgLang(Official).pdf	The Official ETAC Programming Language
RunETAC.chm	Run ETAC Scripts Help
ETACWithCPP.pdf	ETAC: Interacting with C++
ETACCompiler.pdf	The ETAC Compiler
ETACCompiler.chm	ETAC Compiler Help
ETACErrorCodes.pdf	ETAC Compilation and Run-time Error Codes
ETACCodeGenerator.pdf	ETAC Code Generator
ETACCodeGen.chm	ETAC Code Generator Help
FunctionsETACScriptLib.pdf	Functions ETAC Script Library

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Document Conventions

The following symbolic conventions are used in this document.

<u>Symbol</u>	<u>Meaning</u>
$\langle x \rangle$	separates x as a unit of information from the surrounding text.
...	represents omitted text (as usual).
<u>text</u>	underlined green text is a link into the document.
<i>text</i>	maroon coloured italic text is a link to the text's definition.

ETAC Source Files

This document is for version **3-ena** of the **ETACSource** text script files for the ETAC programming language, installed in the default path ‘ETACDevelopment 3-ena’ by the ‘ETACSource_3-ena_Installer.exe’ installer.

(Australian English)

1. Introduction

The *ETAC text script* source files for the ETAC™ system, and also for the ETAC utilities, are installed by the ‘ETACSource_3-ena_Installer.exe’ installer. The contents of ‘ETACSource_3-ena_Installer.exe’ are concordant with the contents of ‘RunETAC_3-0-6-ena_Installer.exe’. No C++ files are installed by the installer — the C++ files in which ETAC is written are not for public release. The ETAC system source files are *ETAC text script* files released for debugging and informational purposes; they should not normally be modified. The one exception is the ‘RunETAC.etc’ *loader script* which can be modified by the ETAC programmer, although such modification is unlikely to be required. The ETAC utilities source code, which is not necessary for the functioning of ETAC, would also not normally be modified. In any case, a backup of the modified source files should always be made in case they are overwritten by latter installers.

‘SetNewLoc.etc’ (located in the folder ‘General’ of the installation folder) should be executed by the ETAC programmer when the ETAC source file folder is first created (via <ETACSource_..._Installer.exe>) after **Run ETAC Files** has been installed (via <RunETAC_..._Installer.exe>), and thereafter whenever the said folder is renamed or moved. Note that ‘SetNewLoc.etc’ need not be executed if the ETAC source files are merely to be inspected.

The ETAC source file folder can be uninstalled simply by deleting it. <ETACSource_..._Installer.exe> does not insert entries in the system registry.

The ETAC source file installer installs *ETAC text script* files in the following folders: ‘ETACApps’, ‘ETACLibraries’, ‘General’, and ‘Include’. The ETAC programmer can add their own files to those folders. The *ETAC text script* files have been adapted to Unicode® where required. The installed contents of those folders is described in the following sections.

Changes from Previous Publication

The following section indicates the changes made in this publication from the previous publication (14 January 2019). Most of the changes are adaptations to Unicode®. In particular, Unicode files are written in the UTF-8 encoding scheme with a BOM signature, while Windows-1252 data is written as Windows-1252 files.

Enhanced Items

[DialogBoxMaker](#) - [ETACCodeGenerator](#) - [InstallProjectFiles](#) - [InteractiveETAC](#) - [KeywordArgsToy](#)

2. The ETACApps Folder

This folder contains the source files for all the ETAC utilities, and also for the *loader script*. If the **ETAC Compiler** program is installed (via <ETACCompiler_..._Installer.exe>), those utilities can be compiled into *ETAC binary files*, although such compilation is not necessary. The <...R.ecarg> files (“R” stands for “Release”) in each subfolder is used by the **ETAC Compiler** program to compile the source files into the ‘Release’ folder. The ETAC programmer can add their own ETAC projects to this folder. A summary of the installed contents of this folder follows.

2.1 CheckETACFile

This program does a thorough syntax check on a selected *ETAC text script* file. Note that this program requires the **ETAC Compiler** program. See the document ‘ETACCompiler.pdf’ for more details.

2.2 DialogBoxMaker

Produces a dialog box resource data file (*.res) and an *ETAC text script* file (*.etac) from a user-designed text-based visual layout of a dialog box and its controls. Both files are used in an *ETAC text script* file for displaying a dialog box. See the document ‘DBMHelp.pdf’ in the ‘Help’ folder for more details.

2.3 DlgResViewer

Shows the basic contents of the dialog box specifications existing in a resource file (*.res), displaying the dialog boxes and named control events triggered by the user. See the document ‘DRVHelp.pdf’ in the ‘Help’ folder for more details.

2.4 ETACCodeGenerator

This is a substantial ETAC program. This program uses programmable template text files containing special descriptive codes and text to generate and maintain text files. The **ETAC Code Generator** is ideally suited to generate and maintain source code for computer programs, but is completely universal. It is therefore able to generate any text file from text template files.

The **ETAC Code Generator** is released in two implementations. Officially, the **ETAC Code Generator** is released as a compiled *ETAC binary file* named ‘ETACCodeGen.btac’, along with the ETAC source files. The **ETAC Code Generator** is also released as a self-contained executable program named ‘ETACCodeGen.exe’, which does not require the **Run ETAC Scripts** package.

See the document *ETAC Code Generator* (‘ETACCodeGenerator.pdf’) for full details of the **ETAC Code Generator**.

2.5 InstallProjectFiles

Copies or moves files from source to destination with or without backup. All transfers are specified in a text file (the “installation file”). *ETAC code* can be specified to be activated before and after the transfer of each file. The default installation file, ‘InstallProjectFiles.txt’, contains the specifications to transfer the desired files. The installation file exists in the Data folder. See the document ‘IPFHelp.pdf’ in the ‘Help’ folder for more details.

This program is intended to release the <*.btac> and other files to the **Run ETAC Files** installation folder by default. Note, however, that the said files do not need to be changed, and so this program would not normally be used for the said purpose. There may be rare cases where the designer of ETAC may issue instructions which require the use of this program.

Alternatively, the ETAC programmer can use this program with their own installation file to release their own ETAC programs.

2.6 InteractiveETAC

An implementation of a simple interactive ETAC interpreter which accepts and runs ETAC statements from the console window. This program is mainly for illustration purposes, but can be adapted to suit the user if desired.

The console window may not display some characters correctly. If such is the case, the font properties of the console window may need to be altered to a TrueType or OpenType font via the pop-up menu (click the menu mouse button on the title bar).

Some new commands have been added; type “-cmds” in the console window to display the list of commands.

2.7 KeywordArgsToy

A program for entering and testing keyword-argument formats which can be used in *ETAC text script*. See **Appendix A: Keyword-arguments Specifications** in the document ‘ETACProgLang(Official).pdf’. for more details on keyword-argument formats.

2.8 ParseStringToy

A program for entering and testing string pattern matching formats which can be used in *ETAC text script*. See `parse_str` in the document ‘ETACProgLang(Official).pdf’ for more details on string pattern formats.

2.9 RunETAC

This folder contains the source code for the *loader script*. Running ‘RunETAC.etac’ by itself has no effect because the file is used by ‘RunETAC.exe’ and ‘AppETAC.dll’ to set up the ETAC environment for executing *ETAC code* files. If the file ‘RunETAC.etac’ is modified and compiled, the resultant ‘RunETAC.btac’ should replace the existing one in the ‘System’ subfolder of the ‘RunETAC’ folder where **Run ETAC Scripts** is installed.

2.10 RunTACFiles

A program that presents a file dialog box for the user to select an *ETAC code* file to run. Note that `<*.TAC>` and `<*.ptac>` files are typically used for inclusions in *ETAC text script*, and therefore may not function correctly if run standalone. If the file ‘RunTACFiles.etac’ is modified and compiled, the resultant ‘RunTACFiles.btac’ should replace the existing one in the ‘System’ subfolder of the ‘RunETAC’ folder where **Run ETAC Scripts** is installed.

3. The ETACLibraries Folder

This folder contains ETAC script library code, some of which is **not yet released**. However, some ETAC utilities do use the script library code in the form of `<*.ptac>` files. The ETAC programmer should not himself use the library code in this folder until the library code is formally released with documentation (the library code could change without notice before it is formally released). When the library code is released at a later time, the `<*.ptac>` files will be replaced with `<*.etac>` files containing the *ETAC text script* of the library code. A summary of the installed contents of this folder follows.

3.1 The Functions Folder

This folder contains the source code of the **Functions ETAC Script Library** (the “Functions Library”) in the file ‘etacFunctions.etac’. The functions in the Functions Library are not defined for any particular purpose, and are for general use. See the document ‘FunctionsETACScriptLib.pdf’ for more details.

4. The General Folder

This folder contains ‘TACGlobal.ecarg’ which is the argument file used by the **ETAC Compiler** program for producing ‘TACGlobal.PTAC’. The folder also contains ‘SetNewLoc.etac’ which is used whenever the ETAC source file folder is renamed or moved (which should not happen too often).

‘TACGlobal.ecarg’ is used by the **ETAC Compiler** program to combine ‘TACSystemDefs.TAC’ and ‘TACGeneralIncl.TAC’ to produce ‘TACGlobal.PTAC’ into the inclusion folder (Include). After compilation, ‘TACGlobal.PTAC’ would need to be copied to the RunETAC\Include installation folder of **Run ETAC Scripts**. Note that the said compilation need never be performed unless instructed to by the designer of ETAC.

‘SetNewLoc.etac’ updates the installation file ‘InstallProjectFiles.txt’ with the paths of the installation folders of **Run ETAC Files** and of the ETAC source files. The installation file is then automatically copied to the `<...\RunETAC\Scripts\InstallProjectFiles\Data>` folder (if it exists) where **Run ETAC Files** is installed. In addition, ‘SetNewLoc.etac’ also updates the paths of the inclusion directories in the file ‘InclDirList.txt’ (existing in the folder `<...\RunETAC\Data>`) where **Run ETAC Files** is installed. Note that ‘SetNewLoc.etac’ may need to be run from an administration account to update the **Run ETAC Files** files.

5. The Include Folder

This folder contains ‘TACSystemDefs.TAC’ and ‘TACGeneralIncl.TAC’ which are both incorporated into ‘TACGlobal.PTAC’. It also contains ‘ETACDefs.etac’ and ‘ETACLibDefs.ptac’ which are both incorporated into the *loader script* ‘RunETAC.btac’. ‘ETACDefs.etac’ exists mainly for debugging and informational purposes and should not be modified.

Glossary

E

ETAC binary file

A file containing a binary form of *ETAC text script*. An *ETAC binary file* typically has an extension of btac.

ETAC code

Any code executable by the ETAC interpreter. A file containing *ETAC code* typically has an extension of etac, tac, ptac, or btac.

ETAC text script

ETAC program code that is in human readable and writable text form. A file containing *ETAC text script* typically has an extension of etac (or tac if the file contains only TAC text script).

Note that the term “ETAC text script” is used in the same sense as the word “code”, as in “ETAC text script code”.

L

loader script

This is an automatically loaded *ETAC code* file typically used to set up the ETAC environment before the specified *ETAC code* files are executed. The file name for the default *loader script* is RunETAC.btac or RunETAC.etac. The default location of the *loader script* is in the System directory under the installed RunETAC directory.