

BlastWin Help

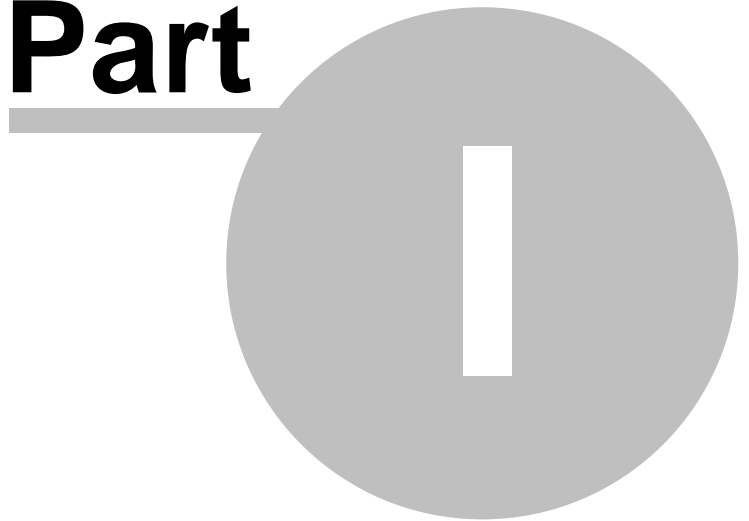
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Table of Contents

Foreword	0
Part I BlastWin	4
1 Overview	4
Part II The File Menu	6
1 Creating New Files.....	6
2 Opening Existing Files.....	6
3 Saving Files.....	7
4 Saving Files under Different Names (Save As).....	7
5 Setting Up the Printer.....	7
6 Printing Files.....	8
7 Print Preview.....	8
8 Browsing Text Files.....	8
9 Exiting the Program.....	9
Part III The Input Menu	11
1 Project Description.....	11
2 Burden Calculations.....	11
3 Blast Calculations.....	12
4 Vibrations.....	12
Part IV The Utilities Menu	14
1 Settings.....	14
BlastWin.INI	16
2 Options.....	16
3 Unit Conversions.....	17
4 File Conversion.....	18
Part V The Help Menu	20
1 About BlastWin.....	20
2 References.....	20
3 HelpButton.....	20
Part VI List of Figures	22
Index	23

Part



1 BlastWin

[Overview](#)

[The File Menu](#)

[The Input Menu](#)

[The Utilities Menu](#)

[The Help Menu](#)

[References](#)

[About BlastWin](#)

Help File Updated: Wednesday, August 17, 2022.

1.1 Overview

Part



2 The File Menu

Description:

Use the File menu option to access various file management operations such as:

[Creating New Files](#)

[Opening Existing Files](#)

[Saving Files](#)

[Saving Files under Different Names \(Save As\)](#)

[Setting up the Printer](#)

[Printing Files](#)

[Print Preview](#)

[Browsing Text Files](#)

[Exiting the Program](#)

2.1 Creating New Files

Description:

Use the New option to erase the existing dataset (if any) from memory and create a new (blank) dataset. All related entries are set to their initial values.

Notes:

- The program will prompt you whether to save the current file to disk.

2.2 Opening Existing Files

Description:

Use the open option to load a file (dataset) from the disk into program memory.

To use Open:

- Select the Open option from the File menu. The program displays a listing of the available files in the current data directory.
- Optionally, select a different drive or directory using the mouse or the cursor control keys.
- Select or enter a filename.

Notes:

- If the file extension is omitted, the default extension will be appended.
- If the current dataset is not saved, the program will prompt whether to save

changes or not before discarding the current dataset.

2.3 Saving Files

Description:

Use the Save option to save an existing file (dataset) to the drive or directory from which it was originally loaded. Any changes that were made since the last time the file was saved will be saved on the disk. The filename stays the same and the file remains in memory.

To use Save:

Select the Save option from the File menu.

Notes:

- If the file has never been saved using the Save As option, choosing Save automatically displays the Save As dialogue box, which prompts for a filename before saving it.

2.4 Saving Files under Different Names (Save As)

Description:

Use the Save As option to save a file and give it a new name.

To use Save As:

- Select the Save As option from the File menu. The program displays a listing of the available files in the current data directory.
- Optionally, select a different drive or directory.
- Select or enter a filename.

Notes:

- If the file exists, the program will prompt whether to overwrite the existing file.
- Use Save for a faster save operation.

2.5 Setting Up the Printer

Description:

Use this option to select the Printer to use for printing output and graphics. This printer becomes the Windows default printer.

To use this option:

Select the Printer from the drop-down list and click on OK.

2.6 Printing Files

Description:

Use the Print option to print the current dataset (file) from program memory to the default windows printer. The default printer may be set using the [Setting Up the Printer](#) menu option.

Notes:

- The file is send directly to the printer, without preview. Use the [Print Preview](#) option to preview the file and then send it to the printer.

2.7 Print Preview

Description:

The user may navigate through the Print Preview Window by using the vertical scroll bar.

The text in the window can be send directly to the printer, or it can be copied to the Windows clipboard for use in other applications.

Notes:

- This operation does not send any control characters to the printer. All output is ASCII text. The text prints in "Courier" or "Courier New" font in size 9. If these fonts are not available to the printer, then printed text will appear in the default printer font.
- Each printed page is formatted with preset margins as follows:
 - ✓ left margin = 1 inch
 - ✓ top margin = 1 inch
 - ✓ bottom margin = 1 inch
 - ✓ right margin = variable

2.8 Browsing Text Files

Description:

Use the browse option to view a text (ASCII) file in a specified directory. No editing is allowed during browsing.

Use the pattern field to specify a file pattern (i.e. *.txt). The file window will be reset to conform to the specified pattern. The default pattern is *.ALP. More than one patterns can be applied using “,” as delimiter (e.g. *.txt;*.dxf).

Use the *Set Font* command button to specify the type and size of font for the displayed text. These settings are saved in the [BlastWin.INI](#) file.

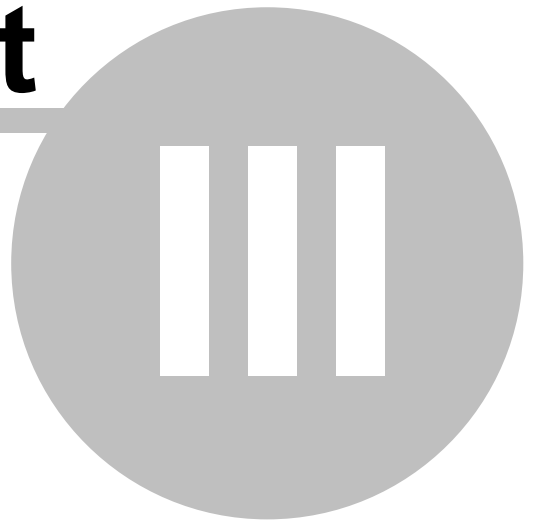
Use the cursor control keys to move within the browse window.

2.9 Exiting the Program

Description:

Use the Exit option when ready to exit this program and return to the original environment. The program will prompt you to save the current file to disk, if not already saved.

Part



3 The Input Menu

Description:

Use the Edit menu option to access various parameter input/edit forms such as:

[Project Description](#)

[Burden Calculations](#) (this includes a number of options categorized thematically)

[Blast Calculations](#)

[Vibrations](#)

3.1 Project Description

Description:

This is an arbitrary 300 character description of the model being generated. It is recommended to make this a fairly detailed description of the specifics of the input file. This text may be a single line of characters or may contain "carriage return characters".

The user can also set the type of units that will be used in the current project. The program is designed to use mixed set of units, i.e. either English (i.e. ft, in) or Metric (m, mm).

Note that calculations performed in many of the forms in this program are unitless, i.e. they work the same for any unit.

3.2 Burden Calculations

Description:

Use this menu to access a number of different burden calculation equations. The units used in each case are the original units applied in each case. Blastwin can currently calculate burden using the following formulations:

- Anderson Equation
- Ash Equation
- Fraenkel Equation
- Konya Equation
- Langefors Equation
- Pearse Equation
- Jimeno Equation

3.3 Blast Calculations

Description:

This option allows the user to calculate several parameters used for blast design. The burden can be either calculated through any of the burden calculation formulations or entered by the user.

Parameters directly depending on burden such as stemming and subdrilling can be calculated either as a function of blasthole diameter or as a function of burden.

The program will calculate the optimum blasthole configuration based on the minimum difference between the desired production value and the actual production value.

3.4 Vibrations

Description:

This menu option allows the user the potential damage of the due to vibrations based on a number of international specifications.

Part

IV

4 The Utilities Menu

[Settings](#)

[Options](#)

[Unit Conversions](#)

[File Conversion](#)

Clear History Window

This option clears the history (activity) window.

Close/Restore History Window

This option closes or restores the history (activity) window according to the current window status.

Copy History Window

This option copies the contents of the history window to the clipboard. You can then paste them to any text handling program for further processing.

4.1 Settings

Description:

This form is used to define a number of default parameters and settings for the BlastWin program:

Default Units:

This setting controls the default units for a new or blank project file by configuring the Units field in the Project Description form. Upon entering and accepting project input parameters the default setting in the Project Description form can not be changed. This setting is saved in the [BlastWin.INI](#) file.

Default File Extension for Input Files:

This setting is the default 3-letter extension used in the Open and Save dialog boxes in the File Menu. This setting is saved in the [BlastWin.INI](#) file.

Data Path:

This setting is the default path used in the Open and Save dialog boxes in the File Menu. This setting is saved in the [BlastWin.INI](#) file.

Show Disclaimer:

This parameter controls whether the disclaimer message will be displayed when loading the BlastWin program. This setting is saved in the [BlastWin.INI](#) file.

Maximize Main Menu Window:

This parameter controls whether the main menu window will be maximized when loading the BlastWin program. This setting is saved in the [BlastWin.INI](#) file.

Keep Recent Filelist:

This parameter controls whether the program will keep the four (4) recently accessed data files (opened or saved) as menu items in the File Menu. This setting is saved in the [BlastWin.INI](#) file.

Reminder of Annual Updates:

This parameter controls whether the program will display a warning that a year has elapsed since the last update of the program. The update date is internally stored and it is not related with the install date. Annual updates ensure that any bugs that have been discovered are fixed regularly. This setting is saved in the [BlastWin.INI](#) file.

Display Command History Window:

This parameter controls whether the program will display recently executed commands (and their resulting actions). This setting is saved in the [BlastWin.INI](#) file.

Maximum Characters in Command History Window:

This parameter sets the maximum number of characters displayed in the command history window, before it is cleared. This setting is enabled only if the Display Command History Window option is enabled. This setting is saved in the [BlastWin.INI](#) file.

History Font:

This button sets the type and size of font used in the command history window. This setting is enabled only if the Display Command History Window option is enabled. This setting is saved in the [BlastWin.INI](#) file.

Enable Toolbar:

This settings controls whether the program will display a toolbar under the main menu options or not. The toolbar is not editable. This setting is saved in the [BlastWin.INI](#) file.

Short Names in Filelist:

This parameter controls whether the program will display the filenames in the recently accessed list in a short or long format (i.e. including the whole path). This setting is saved in the [BlastWin.INI](#) file.

Load Last Input File:

When this setting is enabled, the program will automatically load the most recently saved datafile (i.e. the top in the recently accessed files). This setting is saved in the [BlastWin.INI](#) file.

Copy Example Files:

When this setting is enabled, the program will automatically copy all example files from the "Program Files" directory to the user home directory (i.e. MyDocuments/MyTUC). This procedure runs upon every program invocation unless disabled. The modified files will not be overridden, but missing files will be replaced. This setting is saved in the [BlastWin.INI](#) file.

External ASCII Viewer:

The user can set the application name of an external ASCII viewer for viewing reports and other ASCII files generated by the program. The default viewer is NOTEPAD.EXE supplied with the windows operating system. Note that prior to Windows2000, NOTEPAD.EXE could only edit / display files up to 64K. This setting is saved in the

[BlastWin.INI](#) file.

4.1.1 BlastWin.INI

Description:

This file is automatically created by the BlastWin program the first time it is executed. It should reside in the home directory of the BlastWin program, i.e. \BlastWin. It contains the following entries (the sequence and parameter values may be different in the actual file):

```
[Settings]
DefaultUnits=0
DisplayActionWin=1
MaxDisplaySize=300
KeepFileNames=1
ShowDisclaim=0
DataPath=C:\BlastWin\
FileExtension=RMT
```

```
[FileMenu]
MaxLastFiles=4
LastFile1=C:\BlastWin\S1.WBT
LastFile2=C:\BlastWin\S2.WBT
LastFile3=C:\BlastWin\S3.WBT
LastFile4=C:\BlastWin\S4.WBT
```

```
[TextBrowse]
BrowseFontName=Courier New
BrowseFontSize=10
BrowseFontBold=0
BrowseFontItalic=0
```

Notes:

- If this file is deleted, it will be automatically reconstructed the next time the program is executed but the various settings will default to their original values.

4.2 Options

Description:

This form is used to define a number of default parameters and settings for the BlastWin program:

Edit Options

English Menus

If this option is enabled program menus and messages will be in English. These settings are saved in the [BlastWin.INI](#) file.

Print Options

Print Module Version Information

If this option is enabled, then whenever the input data are printed, a three-line header is prepended with the program version, filename, etc. These settings are saved in the [BlastWin.INI](#) file.

Solution Options

Show all Blast Design Solutions

If this option is enabled then the program will display all blast design solution instead of just the optimum. These settings are saved in the [BlastWin.INI](#) file.

Warnings

Warning about Burden Calculation Parameters

If this option is enabled, whenever a burden calculation formulation is accessed through the blast design menu item, a warning will be displayed. These settings are saved in the [BlastWin.INI](#) file.

Advanced

Create a File Association

Use this option to create an association between the program executable and the extension of the project files. Thus, double-clicking on a project file, will invoke the BlastWin program. These settings are saved in the [BlastWin.INI](#) file.

Debug

Show Internal Coordinates in Graphs

When this option is enabled the program displays the internal graph coordinates. This can be used for debugging. These settings are saved in the [BlastWin.INI](#) file.

4.3 Unit Conversions

Description:

This utility can be used to convert between English and metric units for 4 types of units:

Pressure

Conversion between psi (pounds per square inch), Pa (Pascals) and MPa (MegaPascals) is supported.

Length

Conversion between feet, inches, meters and centimeters is supported.

Stress (Pressure) Gradient

Conversion between psi/ft (psi per foot), psi/in (psi per inch), MPa/m (MegaPascal per meter) and Pa/m (Pascal per meter) is supported.

Load Gradient

Conversion between lbs/ft (pounds per foot), lbs/in (pounds per inch), kN/m (kiloNewton per meter) and MN/m (MegaNewton per meter) is supported.

Notes:

- 1 Pa = 1 Newton per square meter

- 1 psi = 1 pound per square inch

4.4 File Conversion

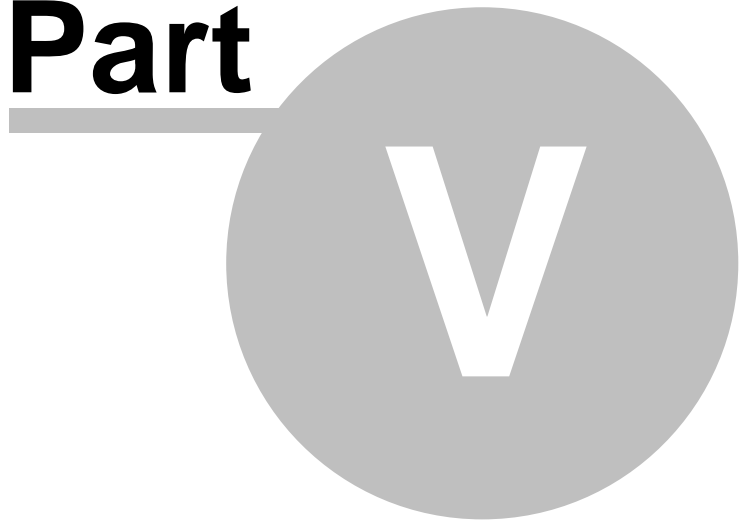
Description:

This utility can be used to convert the **current** file to a different set of units. If the file is in English units, then it can only be converted to metric and vice versa.

Notes:

- The current file should already be saved before accessing the conversion option.
- The current file is then substituted with the converted file.
- A prefix is added to the name of the converted file.

Part



5 The Help Menu

Use the Help menu option to access various help options, the Disclaimer screen, as well as information regarding the current version of the program.

Disclaimer:

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See Also: [About BlastWin](#)

5.1 About BlastWin

The BlastWin program was originally created by Thomas Vallas and Professor Zach Agioutantis at the Technical University of Crete.

5.2 References

Jimeno, C.L., Jimeno E.L. and Carcedo, F.J.A., Drilling and blasting of rocks, Balkema, Rotterdam (1995).

5.3 HelpButton

Position the cursor on any item on the form and press F1 for context sensitive help.

Part

VI

6 List of Figures

Index

- A -

Agioutantis, Zach 20

- B -

BlastWin.INI 16
Browsing Text Files 8

- C -

Creating New Files 6

- E -

Exiting the Program 9

- F -

File Conversion 18

- H -

HelpButton 20

- O -

Opening Existing Files 6
Options 16
Overview 4

- P -

Print Preview 8
Printing Files 8
Project Description 11

- R -

References 20
RockWin 4

- S -

Saving Files 7
Setting Up the Printer 7
Settings 14

- T -

The File Menu 6
The Help Menu 20
The Input Menu 11
The Utilities Menu 14

- U -

Unit Conversions 17