



**MultiEx Commander
4.5.0 Release Candidate 1 Alpha**

User's Manual

© 2011 Xentax Foundation

<http://www.xentax.com>

Contents

1. [Introduction](#)
 - [Create custom new support](#)
 - [Registration](#)
 - [Login](#)
2. [Basic Operation](#)
 - [Open](#)
 - [Extract](#)
 - [MultiEx Editor](#)
 - [Options](#)
 - [View](#)
 - [New Archive](#)
 - [Extract table of contents](#)
3. [Advanced Operation](#)
 - [The panels](#)
 - [The Menu Options](#)
 - [The toolbar](#)
 - [Scriptor](#)
 - [Additional Plug-in options](#)
 - [The Creation Wizard](#)
 - [Batch Replacement](#)
 - [EasyMod Creator](#)
4. [EasyMod Stand-alone game mod](#)
5. [Options](#)
 - [Check for overlapping files](#)
 - [Ignore 0 sized files](#)
 - [Extract compressed if fail](#)
 - [Game Extractor plugins](#)
 - [MultiEx Debugger](#)
 - [Debugmode](#)
 - [Importation flag override](#)
 - [Autosave](#)
 - [Find](#)
 - [Visit the discussion forum](#)
 - [Visit the MultiEx Website](#)
 - [The Help menu](#)
 - [Language](#)

6. Additional Options

- **The Tools Menu**

- 1. Set file association preferences**
- 2. View detected plugins**
- 3. Preview**

- **The Scripts Menu**

- 1. Scriptor**
- 2. Run a custom BMS script on an archive**
- 3. Show text interpretation of BMS**

- **The Help menu**

7. Create your own MexCom DLL plugin

8. Create RPM Plugins

9. Troubleshooting

10. Credits, Legal disclaimer

Introduction

MultiEx Commander is a tool that will enable you to open *game resource archives* (GRAs) to examine their content. Games mostly come with GRAs that contain resources, such as sounds, music files, textures and scripts. These archives can be very large files, in most games, but it depends on their specific content. GRAs come in many different formats, depending largely on the authors of the game, and one could try to create a new viewer or extractor for each new GRA encountered. The strength of MultiEx Commander lies in its power to handle a vast amount of different GRA formats (GRAFs) at once. Supporting hundreds and hundreds of different games, of which the majority can also be edited, MultiEx Commander is unique in the world. Note that many if not most of the supported GRAFs have also been applied to pack copyrighted resources in a GRA. What MultiEx Commander does is offer a way to unpack and alter game archives, but does not support in any way illegal unpacking or alteration of GRAs that contain copyrighted material. As a user, you should read the manual of each game carefully, before you use MultiEx Commander to open and possibly alter its archives. Doing so may be forbidden, and the authors of MultiEx Commander will not take responsibility for such actions. Always consult the company that holds the rights to copyrighted material contained in GRAs before you do some public and heavy modding. Please read the [legal disclaimer](#) carefully!

The MultiEx Commander interface is pretty straightforward, with basic operation (viewing, extracting) much in the same way as other archivers around, such as WinRAR, WinZip. Advanced operation (resource replacement and addition, creation of new GRAs) is done from within the **MultiEx Editor**. The **EasyMod** feature will allow the user to create standalone mods to distribute to others!

Create custom new support

Advanced users and programmers can create new GRA support themselves after they take the time to learn *MexScript*, the 'language' that MultiEx uses to process game archives. Alternatively, you can also use QuickBMS scripts (a MexScript derivative). Finally, two other options to support new games are by programming ActiveX DLL plug-ins or Rahly Plugins for MultiEx Commander. The average user, however, need not be concerned with these matters and can just use it to handle already existing supported game archives.

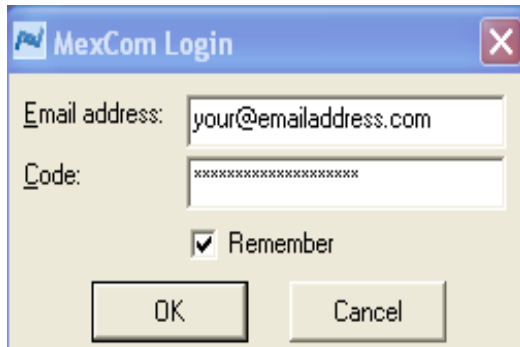
The program allows for previews of graphics, music, text and sound, and can also convert them to certain other types.

Registration

As a registered "Friend of MultiEx" you will receive a personal code that will enable you to download MultiEx Commander. Registration is possible by donation or other support of the project, like pointing out new formats, writing scripts, offering webspace, offering advertisements for MultiEx Commander on your website and more. Donation can occur via PayPal, and you will be send a registration key to your PayPal email address along with a download link. A lot of people have already become a Friend of MultiEx!

Why is registration needed? A lot of time, energy and money are spend to ensure support for new games, maintain the website and create new features for the user. To do this, the Xentax Foundation requires some support from the community.

Login



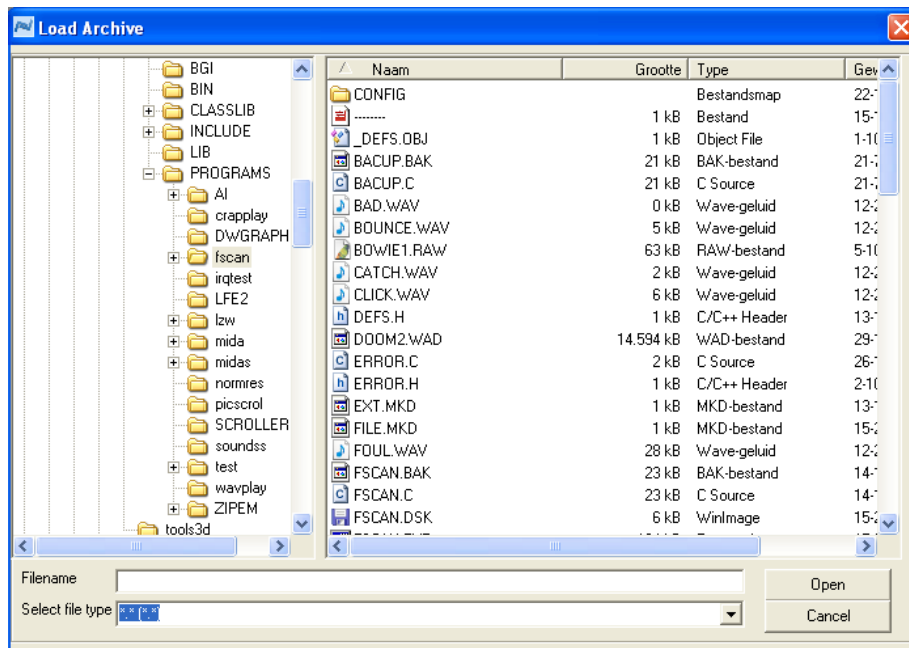
You will see the login window if you start the program. Use the email address you used to donate and the registration code to log on. You will need an internet connection to do this.

Basic Operation

MultiEx Commander operates on two levels. First, there's the basic operation window that is shown upon start-up. Here you can perform simple but effective resource extraction and previewing. At the top of the window you are presented with large buttons. The represent the following actions, from left to right:



1. Open. Clicking on this button will show the **Open Archive** dialog. In this dialog you can browse to a file of interest and select to open it in MultiEx Commander.



Archives are processed via either scripts or plugins. There are two sources of scripts: MexScript (the original multiex script) and QuickBMS. The latter is only supported in a special script window (see *Script*) and not from the Load archive dialog. Now for instance, if you want to open C&C: Generals .BIG files in the *Load Archive* dialog, you open the *Select file type* drop-down menu, and scroll to 'C&C: Generals (.BIG)'. You can also open the menu and press 'C' to quickly go to that letter, to speed up selection. When you have selected the game archive type of your choice, select the file you wish to open. When satisfied, click *Open* to open the file. Note that only those files are shown in the folders that match the chosen format's extension. If you wish to see all files then type *.* in the *Filename* textbox. If you chose (*.*) from the *Select file type* drop-down menu, you will open any file as a single binary in MultiEx Commander (you can do this to completely replace the contents of that file in *MultiEx Editor*) When satisfied, click *Open* to open the file. To abort, click *Cancel*.

2. Extract. When you have opened a file of your choice, the main window will list the contents. You can now press the *Extract* button. Doing this immediately after you have just opened a file will extract ALL files. By default, all files are selected. If you left-click on a resource in the archive (without holding any other keys), only that file will be selected. You can hold down CTRL or SHIFT to select multiple files of your choice. If you are satisfied with your selection, press the *Extract* button to show the *Extract dialog*. You can now point to a directory of your choice, and create a new one if you wish to do so. If you are done, click 'Ok' to start extraction of the currently selected files into the directory you have chosen. You can also 'Cancel' and return to the main window without extraction.

3. MultiEx Editor. If you wish to switch to advanced mode, you use this button. This offers much more handling. See [Advanced Operation](#) for details.

4. Options. You can set a number of options in MultiEx Commander, see [MultiEx Commander Options](#) for details.

5. View. Finally, the last large button in the basic operation window is the 'View' button. Whenever you click on a resource in the archive, MultiEx Commander will perform a check whether files with this particular extension are associated with any program in windows. For instance, if a resource would have the following name, 'scripts.txt', MultiEx Commander would probably find that a file with the extension .txt is associated with Notepad.exe. If and when MultiEx Commander finds that the extension is indeed associated with a program on your computer, the 'View' button will be enabled. Clicking the 'View' button will have the same effect as double-clicking the resource; the resource will be extracted temporarily and opened in the program that is associated with it. In the above mentioned example, MultiEx will start Notepad to show the 'script.txt' resource.

Note: the buttons as discussed may sometimes be disabled. You can see this whenever there is a cross through the button in question. Naturally you cannot extract anything when there's no open GRA, sometimes the **MultiEx Editor** cannot be started because the file in question is not supported by MultiEx Editor and finally, as already mentioned, the 'View' button will be disabled if there's no program associated with a selected resource.

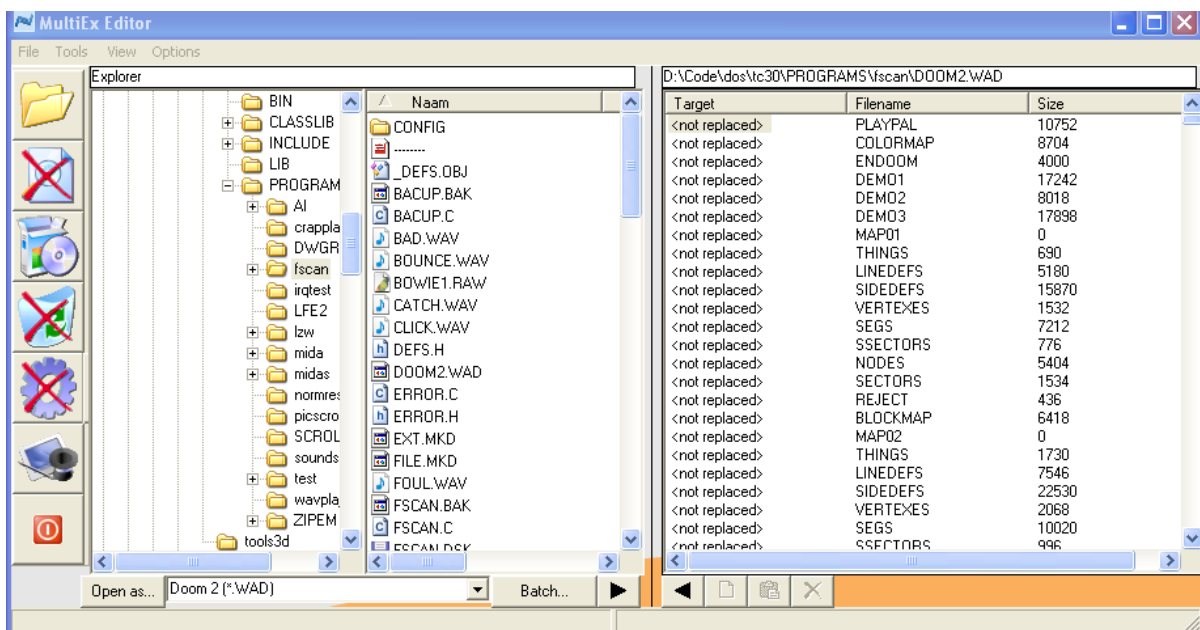
New Archive.

You can create a new game archive (if it is supported for that feature) by going to the *File menu* and selecting *New*. Then follow the on-screen instruction shown by the Wizard to create the new archive. This will be automatically opened in MultiEx Commander after creation.

Extract table of contents.

Whenever you have opened an archive and wish to see a list of its contents any other time outside of MultiEx Commander, go to the *File menu* and choose the *Extract table of contents option*. You will save the TOC as a Tab-delimited text file that you can open in any text editor or spreadsheet. Handy to show others what you found!

Advanced Operation : MultiEx Editor



The panels

When switching to *MultiEx Editor* you will see the tool buttons to the left, and two panels, one file explorer panel, and one panel that will list the contents of an archive (resource panel). You will also notice that two other windows are there: the Preview panel which will present previews of files and resources, and *EasyMod*: the tool to create standalone mods for your games.

Clicking on a file or a resource will start the automatic preview of that item in the *Preview window*. There you will see images, text, or listen to sound and music. You can also save stuff in the Preview window in other file formats (i.e. the images). Music and sound you can play or stop using the Play and Stop buttons that will be displayed whenever audio files are previewed.

Below the two main panels in the MultiEx Editor window you will find quick-operation buttons. The *Target for replacement* button is the rightmost button below the file explorer panel (with an arrow to the right). Any file that is currently selected in the file panel will be used to replace a resource selected in the game archive (the right resource panel) when this button is clicked. You will notice that the resource panel has a number of columns. The first column lists the potential files to be used to replace the item that is listed, typically all read “<not replaced>” when you first start the editor. By double-clicking on the items in this column, or by clicking the *Target for replacement* button you can set the currently selected file to be used as replacement for the currently selected resource item. You first choose all the items to be replaced by files, after which you can start the actual process of replacement. Note that this will only work when the particular archive is supported for replacement (which is different from ‘adding’ a file to an archive).

The *Batch* button will start the Batch dialog that can target multiple resources for replacement by files in a specific folder. And finally, the *Open As* button can be used in conjunction with the file type drop-down box next to it to open a currently selected file in the file explorer panel.

The *Quick-extract* button (an arrow pointing to the left) below the resource panel is used to extract the selected item(s) in the resource panel to the current folder of the file explorer panel.

The menu options

From the top *MultiEx Editor* menu you can choose:

| | | |
|---------|---|--|
| File | → | Open Archive (start the Open Archive dialog) |
| Tools | → | Import batch from folder Scriptor |
| View | → | Show EasyMod window Show Preview window |
| Options | → | Test run editing only |

The toolbar

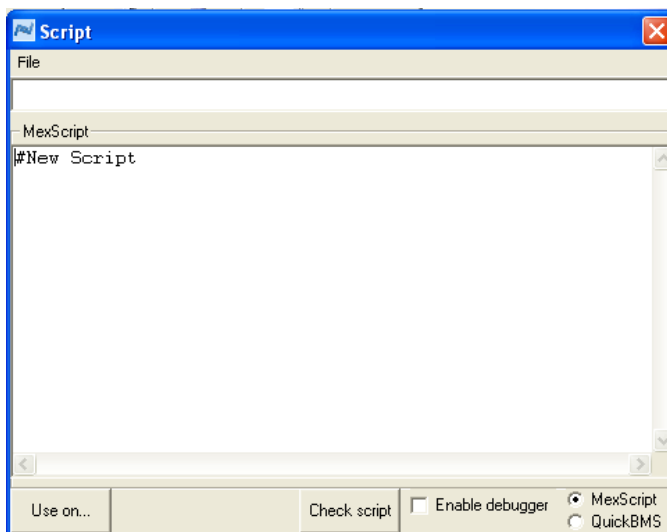
The left part of *MultiEx Editor* comprises of a toolbar with the main controls. Game archives that were opened by multiex.dll, the main processor of archives in MultiEx Commander, can only be altered using these buttons, whilst game archives that

required a dll-plug-in for processing can have additional options. The first button is the *View* button. When you click on any item in the two panels, you not only see a preview of it, when possible, but you may also see the *View* button enabled. This means that files of this type have been associated with some kind of program on your computer and you can open the file in this program. For instance, an item called "myitem.txt" may be opened in a program associated with text files, in many instances NOTEPAD.EXE. By clicking the *View* button you will open "myitem.txt" in that external program. Recall that you can see which program is associated with the item you clicked in the preview window, or at the bottom of MultiEx Editor (shown in the status bar of each panel). The second button on the toolbar is the *Replace current targets* button. Click this when you want to replace existing resources with files you specified in the resource panel (i.e. targets for replacement). Thus, when you are satisfied with the targeting, replacement will commence after you click the button, *but beware that you can simulate this first*. To simulate, go to the *Options* menu and select *Test run editing only*. Now, when you start the replace process, no data will be written to the resource file.

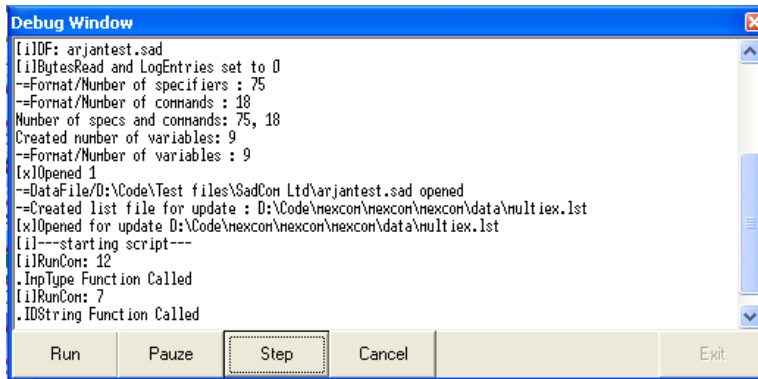
Finally, the *Clear all targets* button will remove any targets in the target column of the GRA panel. If for some reason you wish to start over, click this button, and any resources targeted for replacement will be cleared.

Scriptor

You can start the scriptor from either the Basic Operation window or MultiEx Editor. In MultiEx Editor you select *Tools* from the top menu and then click on *Scriptor*.



With the scriptor, you can write, load and save your own MexScripts to open archives. Or, perhaps someone else wrote a script (like at the Game Research Forum, <http://forum.xentax.com>) and you wish to use it yourself. When you're writing your own script, you can check it for mistakes by clicking the *Check script* button. MultiEx will then be started and a check is done. To really debug your script while running it on an archive, you can check the *Enable debugger* box. To run the script on a file, click on the *Use on* button. Upon successful completion the file will be open in the program and you can extract (and replace if possible) the resources.



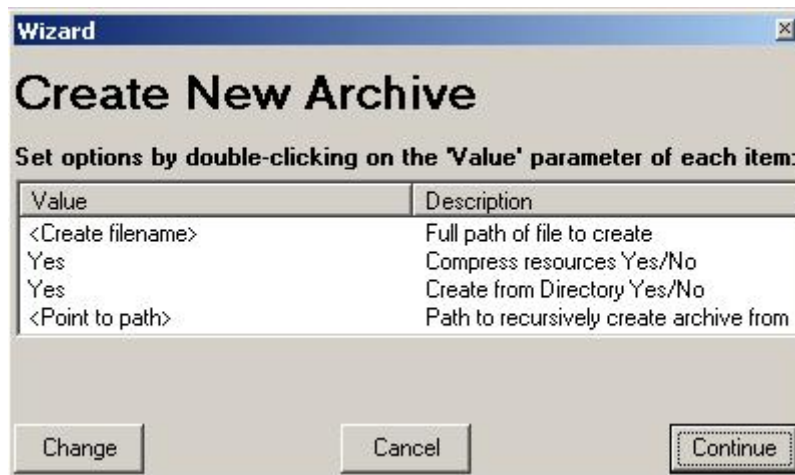
QuickBMS can also be used. *QuickBMS* script is a MexScript derivative by Aluigi. He wrote a command-line tool, *QuickBMS* to open archives. With the Scriptor in MultiEx Commander you can use that script style to open files as well. Make sure you select the *QuickBMS* or *MexScript* option as appropriate.

Additional plug-in options

MultiEx Commander runs largely on *multiex.dll*, a dynamic link library that processes the *multiex* scripts to use on different game archive formats. However, it is possible to write ActiveX/Rahly plug-ins for MultiEx Commander, which can have additional options to alter or work with game archives. For instance, the *Painkiller* PAK game archives are supported by such a DLL, which offers Creation of new PAK files, Addition of resources to existing PAK files and deletion of resources in existing PAK files, besides the basic Replacement of resources and Extraction of resources. Whenever an archive of your choice is processed by such a DLL and there are additional options besides the basic ones, you will notice the *Advanced Options* button is visible in the toolbar. This is a drop down menu from which you may select the options, such as *Create new archive*, *Add selected files to archive* and *Delete selected resources*. For your convenience, quick-tap buttons are also placed right below the archive contents panel. When supported, they will be enabled.

Creation Wizard

By clicking *Creation* you will be presented with a *Creation Wizard* that will ask you to specify creation parameters. These parameters were queried by the DLL, and it needs these specifications before it can successfully complete your request. The Creation Wizard shows you the list of values to specify along with the description of these values (two columns).



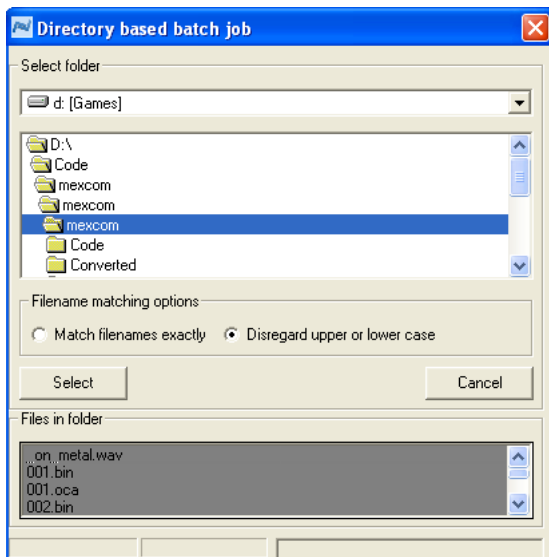
Click on the *Value* items to change them. For instance, you will probably see a value that represents the filename of the archive to create. Click on the value to be presented with a new dialog in which you can specify how you wish to name the new archive. Alternatively, you may click on the *Change* button to alter any values you have currently selected. Values can represent Booleans (Yes/No), Filenames or text strings. When you are satisfied with the set options, you must select the *Continue* button to start the actual creation. You may *Cancel* at any time to abort the creation process.

If supported by the plug-in, you can *Add* files selected in the file panel to the resources in the archive. Note that all the files selected will be inserted *after* the resource currently highlighted in the right resource panel. Alternatively, it may be possible to *Delete* resources from a file. Just select all the resources you wish to delete and select this option. The plug-in will do the rest.

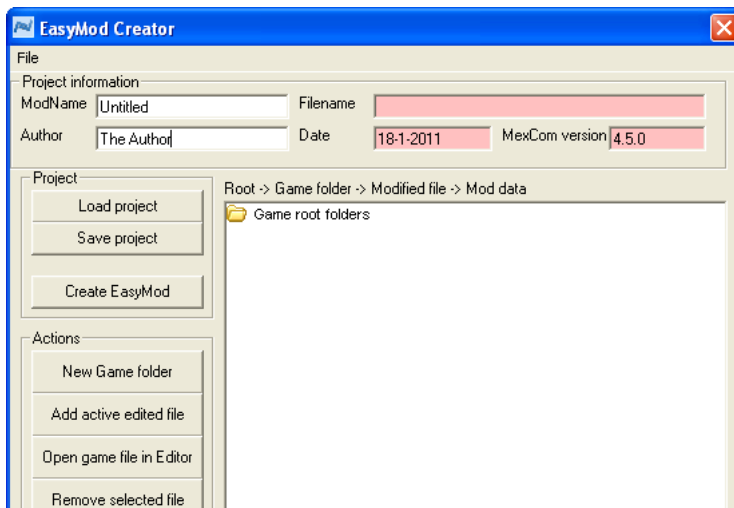
As the plug-in is an external program its process runs independently of MultiEx Commander. It may take a while! MultiEx Commander Ops are suspended until the plug-in completes its task. Please wait until it is done.

Batch replacement

Batch replacement is available from the *Tools* menu or the *Batch* button below the file explorer panel in the MultiEx Editor window. With this tool you can point to a directory of your choice to scan for files identical in name than resources in your archive. Any match will be targeted for replacement by the found file. This can come in handy if you wish to bulk-replace resources you have just edited. More specifically, you can opt to extract all resources of a GRA into a directory of your choice (either using the basic MultiEx Commander window or the MultiEx Editor), open and edit the resource you wish to change using some external program, without changing its name. When you are done editing the resources, you can run the Batch Replacement tool to target the resources in the GRA for replacement with your edited ones. Note that the tool will only set the targets; you will still have to hit the *Replace current targets* button in MultiEx Editor to start the replacement.



EasyMod Creator



With the *EasyMod* Creator you can make a quick stand-alone mod for a game that has archives supported for resource replacement. From the *File* menu you can start a new project (a new is started by default). You can also save and load projects from there or use the buttons.

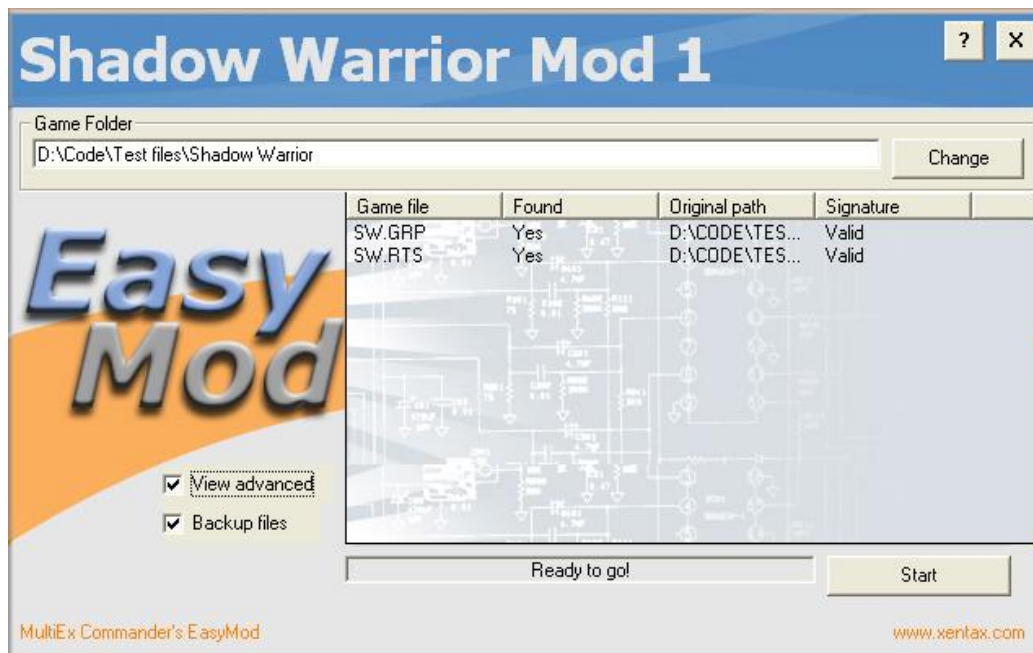
The process is as follows.

1. First of all you need to tell EasyMod what the root folder of the game is. To do so, click on the *Game root folders* node in the window to have it selected, and then click *New Game folder* in the *Actions* frame. You will be presented with a dialog that has you pointing to the main folder of the game. Usually this is where the game's executable is.
2. You then select the newly created *game folder node* and click on *Add active edited file*. This will add the currently open archive in MultiEx Editor along with all the resources that are targeted for replacement to the project. So, make sure you have targeted all resources in the current file that you wish to alter before you click this button. Note that this will NOT change the current

archive at all, it will be like a test run. But the information will be stored in the EasyMod project.

3. You can open another archive of the game and target resources for replacement, and then add that file to the *game folder node* as well. You can repeat this many times.
4. When you are satisfied that this is the mod you wish to create, make sure you fill in the ModName and Author fields. This will be shown in the EasyMod. Then click *Create EasyMod*. Select the folder where you wish to save the EasyMod and click ok. Wait for the process to complete. When it is done, you will have a zip-compressed file at that location that you can distribute to others! It contains a few DLLs, the EasyMod executable and a data file. Users that wish to mod their game with it need only unpack it in the main folder of the game and start *EasyMod.exe*.

EasyMod Stand-alone game mod



A created EasyMod can be run to alter a game's files as intended by the author of the mod. Run it to do so. You will see the EasyMod window where you can click on *View advanced* to see which files will be altered, or to see which file has a problem. Whenever the status frame says *Ready to go!* you can click *Start* to run the modification. By default, *Backup files* is checked and each file is backed-up before change. If something goes wrong and you can no longer start the game in question, run EasyMod again. It will give you the option to restore the files to its original state.

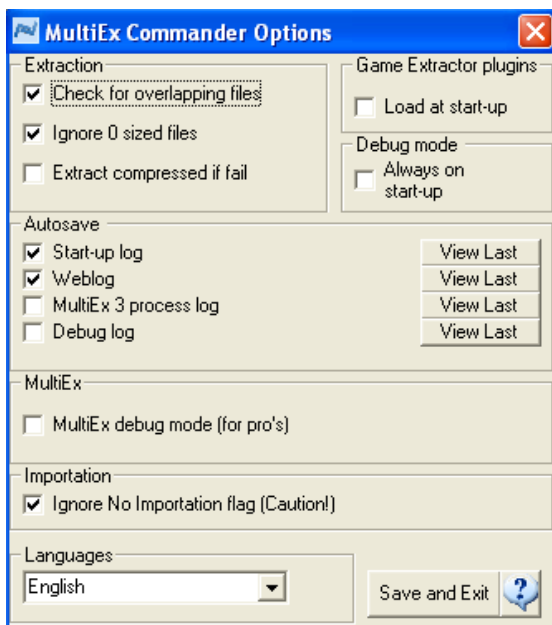
EasyMod runs a check on the files it will change. This is the File Signature of each file in the mod, that was saved when the EasyMod was created. If the Signatures stored do not match the files it finds it will ask for your permission first when you run it.

This is all at your own risk from that point on. The status frame will tell you when a file could not be found, or when a file was found, but the signature invalid.

Note that the signature covers a lot, but may not always show a mismatch with 100% certainty. It is often still advisable to store the files that will be altered somewhere save as a double-backup when something is wrong after you ran EasyMod.

In the event the EasyMod was not unpacked from its ZIP file in the main game folder, it can happen that certain files it wishes to change are not found. You can then click *View Advanced* and select the *Change* button in the *Game Folder* frame to look for the right folder.

Options



There are a number of options you can set in the main options window, but these represent not all options. As you will see, you can choose additional tools and information from the program's main menu.

First the options in the option window.

Check for overlapping files

For extraction and processing of previews, you can tell MultiEx Commander to check whether subsequent files/resources overlap or not. If one resource overlaps the other in a GRA, MultiEx Commander will assume it is corrupt and not extract. Uncheck this if you don't wish MultiEx Commander to do that.

Ignore 0 sized files

Check this to ignore resource entries that are 0 in length. Usually these will be identifiers of directories and need not be extracted.

Extract compressed if fail

When decompression of compressed resources fails, for instance when not all resources are actually compressed, checking this box will step over an error message and extract the resource in its compressed state.

Game extractor plugins

You can chose to have MultiEx Commander look for Game Extractor and use it's plugins to open archives as well. Enable this by checking the box.

MultiEx Debugger

You can turn on the MultiEx debugger when it processes the script to open an archive. However, this is only handy to debug a script.

Debugmode

Check to start or don't start the debug mode on start-up of MultiEx Commander. When started, MultiEx Commander will keep a process log in its "data" directory, which you can also view from the **Log-menu** in the main window, or from the Options window ("View log").

Importation flag override

Check this to ignore the script flag that informs MultiEx Commander whether the script is capable of supporting replacement of resources or not. This should be used with extreme caution as a stupid move on a file that was not supported for resource replacement may corrupt it.

Autosave

You can tell MultiEx Commander to keep additional process logs besides the mentioned Debug-log. Check the ones you wish to keep and/or view them.

Languages

You can select different languages for the main user interface here.

Save and Exit

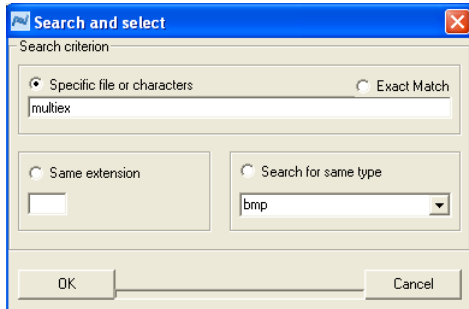
Click to save the current settings and go back to the main window.

Additional Options

In the main window (the Basic operation) there are a number of other things you can do using the following menus on top.

Edit → Find

From here, you can start the *search dialog* that can help you locate and select certain file types. You can give characters to look for, extensions or types. Click Ok to search for those and all matched will automatically be selected when returning to the Basic operations window. Click *Cancel* to go back without searching.



Web →

Check web for new version

Contact the XeNTaX website for news on updates. Update will occur automatically. You must be connected to the internet for this to succeed.

Visit the discussion forum

This will start your internet explorer and go to the MultiEx Forum at <http://forum.xentax.com>

Visit the MultiEx website

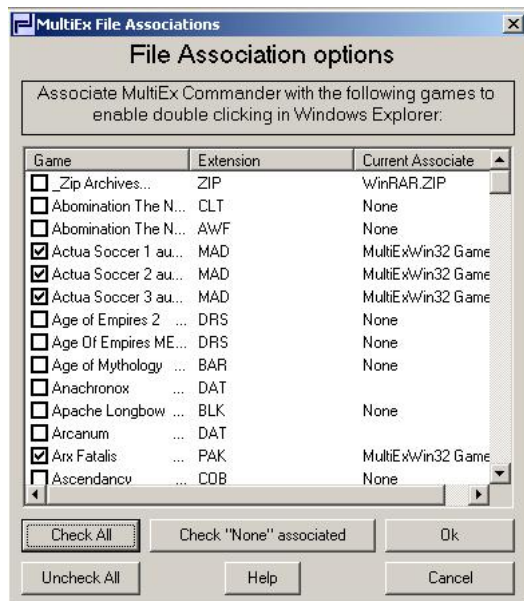
This will start you internet explorer and visit XeNTaX at: <http://multiex.xentax.com>

Tools Menu

The Tools menu offers an important selection of tools.

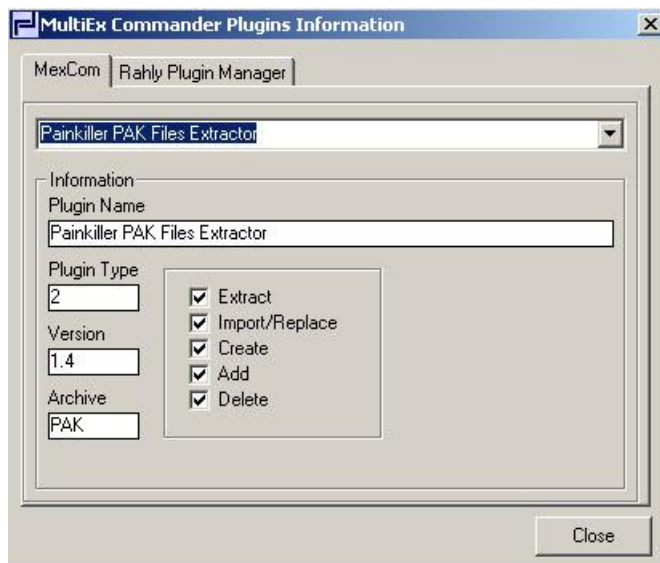
File Association Preferences

In the **Tools menu**, you can edit the file association preferences of MultiEx Commander with files of supported file extensions.



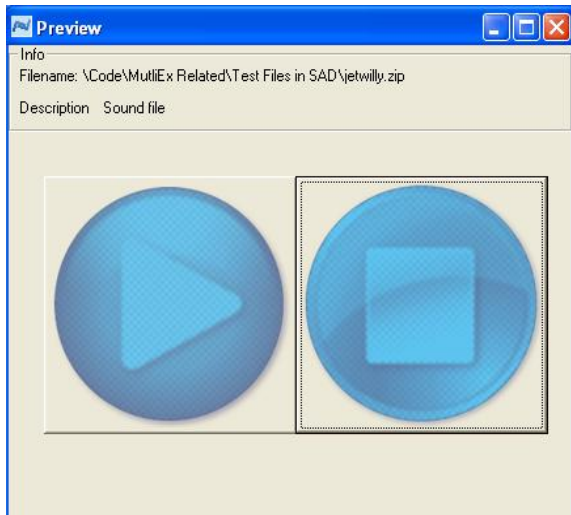
Simply check any and all file types you wish to be able to double-click from windows and automatically send to MultiEx Commander. In addition, You can **Check All** at once, **Uncheck All** at once or **Check** only those that are not associated yet ("none"). Click **Ok** to save these settings in the windows registry, or **Cancel** to abort.

View Detected Plugins



This will show which information about the plugins (MexCom plugins, or Rahly's Pluginmanager plugins) that have been detected. Use the tabs to switch to either plugin type.

Preview



Checking *Autopreview on* in the basic operation window of MultiEx Commander, or from the View menu in MultiEx Editor will show the preview of any picture, sound or text you click in an archive or folder. The picture previews you can use to *convert* the pictures to different picture types (BMP, JPG, PCX, TIF, TGA, SGI, DDS, PNG, OIL, RAW). Sound files you can start and stop using the large buttons in the preview window.

Scripts

From the *Scripts* menu *MexScript* related tools are on offer. MexScript is the main script that is used by MultiEx Commander to process game resource archives. When MexScript *.TXT files are subsequently compiled to a format that is understandable to the interpreter, it becomes Binary MultiEx Script (BMS). Do not mistake this BMS with QuickBMS files. QuickBMS *.BMS files are also text files like MexScript, and not binary files.

Scriptor

This is a handy feature for the pro's among you. It will start the [Scriptor](#). You use this to write your own MexScript or QuickBMS to run on files.

Run Binary MultiEx Script (BMS) on

For those of you that work with MexScriptor, the scripting program was previously used to create scripts that MultiEx uses to process archives there's still the option to open a game resource archive of your choice with the compiled version of MexScript. Simply select the BMS file first, then the archive. Use at your own risk though.

Show text interpretation of Binary MultiEx Script (BMS) file

This will interpret the process of a BMS file and show a file structure of the archive that is opened by that script.

The Help Menu

Finally, the help menu offers a range of information, such as a list of all the formats supported, this help file, the End-user license and the About screen and a note for game developers.

Creating your own ActiveX DLL Plug-in (MexCom Plugin)

As a programmer, you can create your own ActiveX DLL to include additional games for support within MultiEx Commander. Thus, if you know how to handle a GRAF that is not supported yet by MultiEx Commander, you can make one yourself this way.

For MultiEx Commander to be able to work with it there are a number of things that need to be taken care of.

1. Create a directory in the plug-in dir of MultiEx Commander

Create a directory named after the extension of the GRA you wish to support, if it does not exist yet. So, if you want to support a *.LIB file from Game A, you create a dir named "lib" in the plug-in dir. Inside the lib directory you will copy your DLL, that will have the name of the game. So, in the above example you would copy the dll as "gamea.dll".

2. Provide the necessary functions MultiEx Commander wants to call

For MultiEx Commander to work with the DLL it will expect specific functions to call. Here's the list of functions it expects, defined as Visual Basic functions:

The ActiveX DLL Plug-in Functions:

Public Function bnPlug-info(Info() as string)

bnPlugInfo will provide you with details on the plug-in processes.

Info(0) = "Painkiller PAK Files Extractor" ' verbose meaning
Info(1) = "2" ' type = 2 , meaning you can ask it to extract/import
Info(2) = Major.Minor version number
Info(3) = "1" ' allows importation (0 = no importation)
Info(4) = "5" ' How many different variables will be returned
Info(5) = "0" ' is there a resource type variable? (for the columns)
Info(6) = "0" ' Create support (0 = no importation)
Info(7) = "0" ' Delete support (0 = no importation)
Info(8) = "0" ' Add support (0 = no importation)
Info(9) = "0" ' Replace support (0 = no importation)

From Info(10) on come the descriptions of the variables specified in Info(4). Example taken from Painkiller.dll:

'Info(10) = "Filename" ' names of the variables returned (always at this position)
'Info(11) = "Compressed"
'Info(12) = "Offset"
'Info(13) = "Uncompressed"
'Info(14) = "Compression(%)"

Public Function iGetCreateArchiveInfo(CreateInfo() As String) As Long

Will return a list of things you should ask the user before running a iCreateArchive or iCreateFromDir function. The list provides description and type in subsequent entries. So, if a plug-in wants a filename from the user, it would return :

CreateInfo(0) = "Please specify filename"

Createinfo(1) = "filename"

etc.

What the Plug-in can ask for when creating a new archive is really up to the plug-in These things MultiEx Commander can handle :

'boolean' : Will prompt the user for a Yes or No
(and return a 0 or a 1)

'filename' : Will prompt the user to specify a savename
(thus will return a string of the full path)

'text' : Will prompt the user to specify some text

Public Function iList(strPath As String, iType As Integer, iStdList() As String) As Long

Will return a list of all the stuff in the archive.

- you give the path to the archive in strPath,
 - you provide the type of list it needs to return in iStdList(). 1 will be mostly used.
 - you return the contents in a list of strings
- This depends on the type you specify. MultiEx will expect type 1 and ask for type 1:

List of contents Type 1 (iStdList):

An array of strings:

iStdList(0) = Number of files (in string-form, will need to be "File not supported" if the provided path can't be processed by the plug-in)

iStdList(1) = path to the archive

iStdList(2) = the name of the plug-in and its version number

Then follow the actual entries, in sequential order.

the first would be :

iStdList(3) = Name of the resource in the archive (e.g. "textures\me.tga")

iStdList(4) = Size of the resource in the archive (will be the COMPRESSED size in case the resources are compressed)

iStdList(5) = Offset of the resource in the archive

iStdList(6) = Uncompressed size of the resource (this is 0 if there's no compression)

OPTIONAL iStdList(7) = % compression (compressed size/uncompressed size*100)

NOTE that this will not be so in case of uncompressed files.

In case of uncompressed files the next entry will begin at iStdList(7), in case of compression the next entry will begin at iStdList(8).

Public Function iCreateArchive(strDes As String, CreateInfo() As String) As Long

Will create a new archive strDes using the info specified in CreateInfo. Note that the CreateInfo you RETURN to the Plug-in needs only have the values! Do not also return the descriptions!

Public Function iCreateFromDir(strPath As String, CreInfo() As String, Optional strDir As String) As Long

Will create a new archive containing all files below a specified strDir. Provide the CreationInfo as asked for by the Plug-in.

Public Function iDeleteResource(List() as string) As Long

iDeleteResource deletes all resources specified in List(). Make sure you get the name of the resource exact. Note that iDeleteResource expects you to provide the list in order of appearance in the archive, depending on the plug-in.

Public Function iExtract(strRes As String, strDes As String)

iExtract searches for strRes in an archive and extracts it as strDes

Public Function iImport(strRes() As String, strDes As String, Optional Number As Long = 0, Optional OverwriteNames As Boolean = False) As Integer

iImport replaces a given resource matching the full name with the one(s) in the provided list and to the (new file) strDes.

Note that the format of the strRes() is :

- (0) Name in PAK FILE of res1
- (1) Path to file to replace res1
- (2) Name in PAK FILE of res2
- (3) Path to file to replace res2
- etc.

Public Function iAddResource(Where As Long, strPath() As String, strNames() As String) As Long

iAddResource will insert a list of strPaths (files) as strNames at position Where in the archive. (Use strNames if you want to change the name of the file in the archive prior addition).

RPM Type Plugins (Rahly Plugins)

At the time of writing there are no documents yet to explain how to create this type of plugin for MultiEx Commander and sites with examples are down. Just drop by at the forum and ask for support from Rahly.

Troubleshooting

For any issues, bugs and general help we advise you to visit the forums that exist for this purpose. You can find the MultiEx Forums here <http://forum.xentax.com>

Credits

MultiEx Commander is shareware, with some original source code still available at Sourceforge.net (<http://sourceforge.net/projects/mexcom>). It was started in DOS and programmed in Turbo C in 1997 by Mike Zuurman (AKA Mr.Mouse) under the SadCom Ltd and XeNTaX label. In 2001 the first windows version was released, 3.0. 3 years later version 4.0.0 was released. MultiEx Commander is developed from donations.

The latest version is 4.5 (January 2011). MultiEx Commander is developed by the Xentax Foundation.

Code:

Mike W. Zuurman (MexCom)
Jeremy Walton (Pluginmanager)

Additional game support :

Michael Watson
KorNet
PXR

Xentax WIKI (Game File Format Central):

Mike W. Zuurman
Michael Watson
Arjan Dikhoff
Phillip Patriakeas

About Soundbite:

Voice of Duke Nukem: John Saint John
Sound editor & story board: Mike W. Zuurman

Third part components as used by MultiEx Commander:

ZipIt (c) Richsoft
ZLib (C) 1995-1998 Jean-Loup Gailly, Mark Adler
BASS (C) 2003 Ian Luck, un4seen.com
devIL (c) 2003 Denton Woods, imagelib.org, licensed under LGPL 1998-1999
Chilkat XML (C) 2004-2005, Chilkat Software, Inc.
Ariad (R) Explorer Controls (C) 1999-2001 by Ariad Software
PECompact (C) 2006 Bitsum Technologies

The main website of MultiEx Commander is <http://multiex.xentax.com>

Legal disclaimer

The user has agreed to the following terms on usage of MultiEx Commander:

1. The MultiEx Commander product series (past and present) are licensed under a GNU public license. The MultiEx Commander product series will be referred to as all components installed by the MultiEx Commander installer, plus the installer itself, together named "MultiEx Commander" hereafter.
2. The 'user' is from now on defined as every living being (such as humans or other animals) that installs, runs, uses, operates and/or works with MultiEx Commander.
3. The user agrees that Mike Zuurman and third party contributors, together referred to as 'authors' hereafter, are in no way responsible for any physical damage done to anyone's computer hardware, software, physical body and other systems, or any other malicious event, that may or may not have become present after MultiEx Commander was installed and executed.
4. The user agrees that the Xentax Foundation, SadCom Ltd., Sourceforge.net and the authors of MultiEx Commander, together referred to as 'producers' hereafter, cannot in any way be held accountable for any of the malicious events mentioned under (3) exactly as shown above that occur after usage of MultiEx Commander.
5. As a user of MultiEx Commander you will agree to respect the international copyright laws that protect material (sounds, scripts, graphics, binaries, text, interfaces, referred to as 'material' hereafter) contained in the game resource archives (named 'GRAs' hereafter) that can be processed by MultiEx Commander.
6. The user agrees not to use MultiEx Commander to extract, copy, distribute or change copyrighted material from any GRAs without explicit permission from the company that holds the copyrights to that material or to the package format of the GRA.
7. The user agrees to use any legally obtained material mentioned under (5) and (6) for his personal, domestic and non-commercial usage only, unless he has an agreement with the company that holds the copyrights to the material for commercial exploitation.
8. The user agrees not to use MultiEx Commander to alter GRAs supported for processing by MultiEx Commander without specific permission from the holder of those GRAs' copyrights.
9. The user agrees that the producers are not in any way legally responsible for users that process GRAs by MultiEx Commander illegally. Likewise, the producers are not in any way legally

responsible for illegal usage of copyrighted material extracted from GRAs that can be processed by MultiEx Commander. As such, the user agrees that the producers are not alleageable to file lawsuits against.

10. The user takes full legal responsibility for any illegal act he or she may commit using MultiEx Commander and will free the producers of any legal obligation in the event of any law broken by the user.

11. The user has supported the Xentax Foundation by donation, either money or natural resources. As a token of gratitude the user will recieve a personal key that will enable the user to download and use MultiEx Commander. The user becomes a Friend of MultiEx this way. The user agrees to the condition that the thus acquired personal code was not bought, but was a gift from the Xentax Foundation as a return favour for the afore mentioned support that the user has given to to the Xentax Foundation. As such, the user cannot hold the Xentax Foundation responsible for a non-functioning key, or when MultiEx Commander is not to the satisfaction of the user or does not function correctly.

12. The user agrees that he has no rights to claim from the producers by downloading or using MultiEx Commander.