Upgrading to Micro-Cap 9

When upgrading to a new version of Micro-Cap, the user will typically want to import data from their previous version of Micro-Cap. The type of data may consist of files such as schematics, macro circuits, and libraries, schematic information for components, shapes, and packages, or user defined settings and preferences. The following sections will provide tips and methods for how to make a smooth upgrade between versions of Micro-Cap.

Installation Location

Do not install Micro-Cap 9 in the same folder as a previous version of Micro-Cap. Install Micro-Cap 9 in a new folder. This folder may be located anywhere on the hard drive. Installing in the same folder as a previous version could overwrite files that may still be needed for specific simulations. It may even prevent a user from being able to run the older version if necessary. Keeping the older version in a separate directory provides a nice, simple backup as Micro-Cap 9 will convert files to an updated format when they are loaded in the program.

Migrate Wizard

The Migrate Wizard is available as a command under the File menu. The wizard provides a method that lets you migrate selected files from an earlier version of Micro-Cap. After you specify the location of an older MCAP.DAT file, MC9 reads it and makes a list of appropriate files that can be optionally copied to suitable Micro-Cap 9 locations. The migration process will have options to bring over user settings, component, shape, and package information, library files, and macro files. Upon launching the Migrate wizard, the dialog box in Figure 1 will appear.

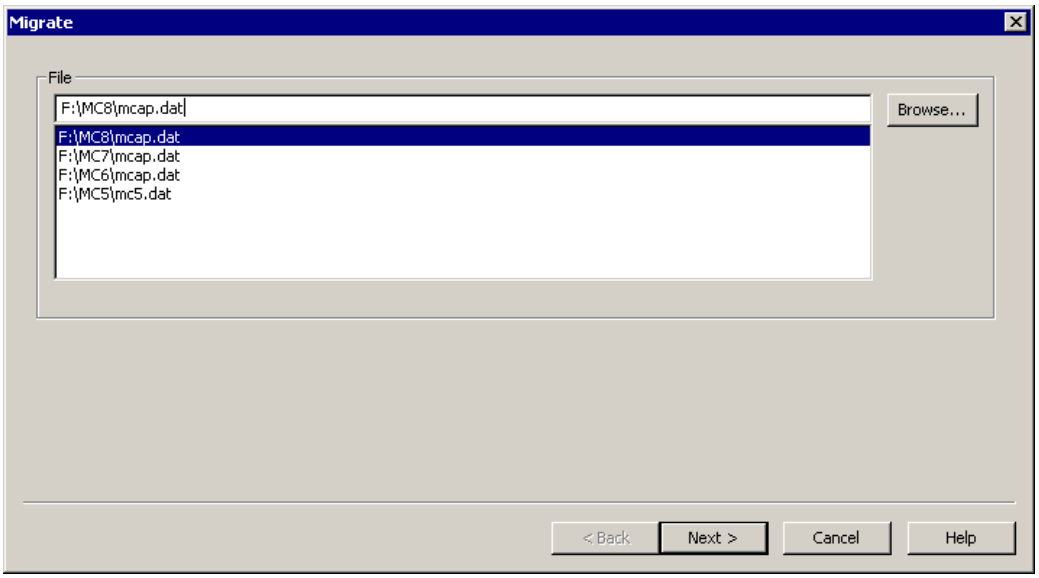

Fig. 1 - Migrate File dialog box

Micro-Cap performs a quick scan for previous MCAP.DAT files (MC5.DAT if upgrading from Micro-Cap 5) in common locations. If the .DAT file that you want to use is not shown in the list, use the Browse feature or manually type in the path and file name. Select or input the .DAT file from the version that you want to migrate from. Click Next. The dialog box in Figure 2 will appear which gives you the option to select which user settings, component, shape, package, library, or macro files to migrate over.

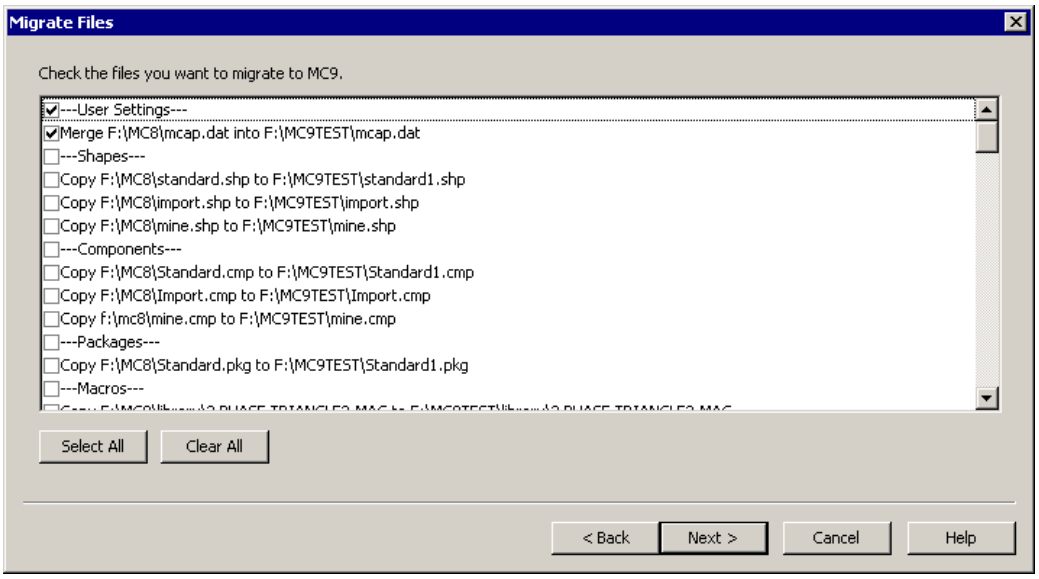

Fig. 2 - List of files that can be migrated over

The list of displayed files is broken up into the following sections: User Settings, Shapes, Components, Packages, Macros, and Libraries. A check mark in the check box enables that specific file for migration. The checkbox for the section headers will enable/disable all files for the section.

User Settings
The User Settings section displays the .DAT file that was selected. Enabling the .DAT file for migration will transfer general program information for Micro-Cap including default colors and fonts, toolbar settings, and Preferences option settings and values.

Shapes, Components, and Packages
If you are migrating component files over to MC9, and have created your own shapes for these components in the previous version of Micro-Cap, then you must also migrate the corresponding shape files. Otherwise, the shape that your component references will not exist in MC9 and you will get a default shape such as a battery. Similarly, when migrating packages, the corresponding component files also need to be migrated.

For .Cmp, .Shp, and .Pkg files that share the name of the files distributed with Micro-Cap (Standard.Cmp, Standard.Shp, and Standard.Pkg), the Migrate will take all entries from the previous version that do not match a name in the current version and copy them to a new file such as Standard1.Cmp. When this occurs, it is likely that you will see two instances of the main groups such as Analog Library or Digital Library in the Component menu. This is due to the fact that both the Standard.Cmp that was already present in MC9, and the Standard1.Cmp that was created through the Migrate both contain a main level group with that name. The parts may be moved or the groups renamed within the Component Editor.

For .Cmp, .Shp, and .Pkg files that share a name of a file in the current Micro-Cap 9 directory, any entries that do not match a name in the current version will be merged from the old file into the file of the same name currently in the Micro-Cap 9 folder. A common example of this would be with the file Import.Cmp.

For .Cmp, .Shp, and .Pkg files where the file does not exist in the folder of Micro-Cap 9, a corresponding file with the same name will be created in the Micro-Cap 9 folder and any entries from the old file that do not match a name in the current version would be copied into it. For example, if you had a file in a previous version called Myparts.Cmp, a new file would be created in MC9 called Myparts.Cmp that would contain all parts from the old file that do not exist in MC9.

Macro Files

For macro files, the Migrate wizard will scan all folders referenced in the Model Library field of the Paths dialog box in the previous version to find all files with the extension .MAC that do not match a name of a macro file currently in MC9. Depending on the location of the macro files, there are a few things that may happen to the macro files.

If the macro is in the normal Library folder of the old version, then Migrate will copy that over to the Library folder of Micro-Cap 9.

If the macro is in a subdirectory off of the main Micro-Cap folder of the old version, then Migrate will create this subdirectory under the Micro-Cap 9 folder if needed and copy the macro file over to it.

If the macro is in a directory not off of the main Micro-Cap folder of the old version, then Migrate will leave the macro in that location.

For the last two cases with the macro, the path to these directories containing the macro files would need to be manually added into the Model Library field in the Paths dialog box in MC9. The Paths dialog box can be accessed under the File menu.

Library Files

For library files, the Migrate wizard will scan the Nom.lib file of the old version, and add to the Nom.lib file in Micro-Cap 9 any files that are not currently referenced. Depending on the location of the library files, there are a few procedures that may happen to the actual library files.

If the file is in the normal Library folder of the old version, then Migrate will copy that over to the Library folder of Micro-Cap 9.

If the file is in a subdirectory off of the main Micro-Cap folder of the old version, then Migrate will create this subdirectory under the Micro-Cap 9 folder if needed and copy the library file over to it. For example, if the MyNPN.Lib file was stored in a folder such as C:\MC7\MYLIB\ then Migrate would create a folder called MYLIB under the MC9 folder (unless it already exists) and copy the MyNPN.LIB file over to that folder. This path would then be hardcoded into the MyNPN.Lib reference in the MC9 Nom.lib.

If the file is in a directory not off of the main Micro-Cap folder of the old version, then Migrate will leave the file in that location. The library file will have this path hardcoded into its reference in the MC9 Nom.lib file. For example, if the ADiodes.Lib file was stored in a folder such as D:\MYPARTS\ then Migrate would leave the library file in that folder and add the reference .lib "D:\MYPARTS\ADiodes.Lib" into the MC9 Nom.lib file.

Upon clicking Next on this screen, the selected actions will be run and the information migrated to MC9. A results screen will appear that summarizes the migration operation such as the one in Figure 3.

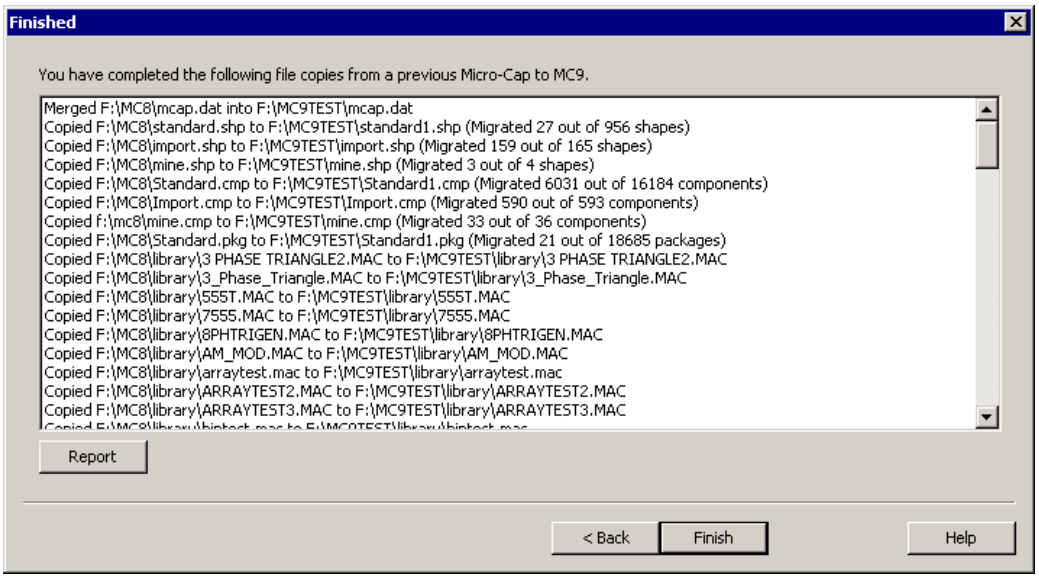

Fig. 3 - Migration operation results

The Migrate operation does not deal with all possible Micro-Cap files. The following groups of files need to be manually transferred.

Circuit Files

The circuit files should be transferred over to the data directory of Micro-Cap 9. The data directory will be specified in the Data field of the Path dialog box under the File menu. The default data path upon installation will be:

<drive>:\MC9\DATA\

The conversion of a schematic file to the new Micro-Cap 9 format will occur when the file is initially loaded into Micro-Cap 9 but will only be permanently converted when the schematic file is saved. For those users who need to convert a schematic back to an older format, the File menu contains a Translate option that will let a schematic file be converted into an older Micro-Cap format.

User Definitions

The User Definitions are stored in the MCAP.INC file (DEF.MC5 for Micro-Cap 5) that resides in the main Micro-Cap directory. This file is easily accessible by going to the Options menu and selecting User Definitions. This file contains user defined command statements that will automatically be included whenever a simulation is entered. Typically, the command statements are .define statements but other statements are also valid. The easiest method for transferring this information is through a copy and paste operation. Load both the old and new MCAP.INC files in a text editor or their respective versions of Micro-Cap. Then just copy and paste the information that needs to be transferred. If none of the command statements in the installed MCAP.INC are of interest, then the file can also be overwritten.

Miscellaneous Files

There are other files that may need to be brought over to Micro-Cap 9, but that may not be crucial in running most simulations. These files should be copied to the appropriate library or data directory. Files such as Model (.MDL) or filter impedance files (.RES, .IND, .CAP) should be placed in the library directory. Files such as State Variable (.TOP), S Parameter (.S2P), User Source (.USR), or Digital File Stimulus files (.STM) should be placed in the data directory.