

Sync Handbook

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Overview

The Sync automation command will do a synchronization of a source and destination folder. I.e. it will copy all files that are newer in the source folder than they are in the destination folder, to the destination folder. Any file that exists in the source folder and does not exist in the destination folder will be copied to the destination folder.

To achieve this, it uses an Alias that is in turn translated to the various parameters that are used for the command.

1 Alias File

Translation from an Alias to the actual parameters is done by a lookup in an Alias file. This file is located in the System directory, and is called syncdir32.dat. Thus if W:\Wire is the root directory, then the file would be W:\Wire\System\syncdir32.dat. The format of this file is a list of fields separated by semi-colons. The exact list of fields is:

```
Alias;Destination;Junk;Source;Filename;Speed
```

Where:

"Alias" is the Alias that this line represents.

"Destination" is the fully qualified destination directory.

"Junk" is a field that used to be used, but now is ignored. It can be zero length. However the semi-colon for the field must still be present.

"Source" is the fully qualified source directory.

"Filename" is a filename or file spec that controls what is copied. Asterisks and questions marks are allowed. The filename will be resolved by the OS and so must conform to OS specifications and limitations. This is an optional parameter. If not present, then it will default to *.*.

"Speed" is a number from 1-100 indicating how fast the operation should take place. This is an optional parameter. If it is present, then all previous parameters must also be present. If it is not present, then it will default to 50.

In order to maintain high speed processing of this information, this Alias file will be stored in memory in the app. Hence any changes that are made to the file by applications other than WR will be overwritten the next time WR writes the table out to the file. Therefore if an application other than WR is used to change this file, it should be done when WR is not running.

When the Sync commands executes, the first thing it does is translates it's alias into the correct set of parameters. Since this translation is done every time it executes, any changes made to the Alias table will be seen by the Sync commands even if the change was only made a second before the command started executing. However, once the command starts executing, it will not look at the table again until the next time the command is started. Therefore any changes made while a Sync is executing, will have no effect on the current execution of the command.

2 DOS Import Command

There is a command that did something similar to this command, in the DOS version of WR. It was called Import. The Import command didn't take any parameters, and had a fixed location for both the source and the destination directories.

2.1 Upward Compatibility

In order to maintain upward compatibility, when the playlist is read in, any DOS Import commands will be translated to Sync commands with an alias of "DEFAULT".

2.2 Downward Compatibility

In order to maintain as much downward compatibility as possible, when the playlist is written back out, any Sync commands that use an alias of "DEFAULT" will be written out as Import commands.

3 Operation

When the Sync commands executes, it spreads it's execution out over time so as to not prevent the system from doing other stuff at the same time as well. It synchronizes the directories by doing the following steps in the order listed:

- Translates it's Alias into actual parameters.
- Produces a list of all files in the source directory.
- Produces a list of files that need to be copied.
- Copies each file found in the list of files to be copied.

Each of these steps will be discussed in more detail below.

3.1 Translates It's Alias Into Actual Parameters

This is done by going done the list of aliases in the Alias table and searching for a matching Alias. The search is case insensitive. I.e. "DEFAULT" equals "default" equals "DeFaUlT". The search is stopped either with the first matching alias, or when the entire table has been searched. If the entire table has been searched, and no matching alias has been found, then the command will stop immediately without doing anything.

3.2 Produce A List Of Files In The Source Directory

The next step is to produce a list of all the files in the source directory.

This step is done all at once because if another operation does any directory operations while this one is in the middle, then it will mess up the results. Therefore, even though doing this on a large directory may take some time, this operation is completed in a single step. This is the only step that will not break itself up over time.

3.3 Produce A List Of Files To Copy

This step is done by searching for files in the destination directory that match the files in the source directory. If there isn't any matching file in the destination directory, or the file in the destination directory has an older modification date than the one in the source directory, then the file is added to the list of files to be copied. If the file in the destination directory is newer than, or the same age as, the file in the source directory, then it is not added to the list of files to be copied.

3.4 Copies The Files

Then it will copy the files from the source directory to the destination directory.