FILE AND FOLDER WATCHER

Trigger Actions When Files Arrive

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File Watcher may be evaluated for a period of 30 days. After this time you must either purchase the registered version (for $24.95) or cease using it.

Please read the file ORDER.PDF for other registration options.

1 Online Web Registration

The registered version of File Watcher can be purchased and received immediately on the Internet, eliminating shipping and handling costs.

Direct URL:

> http://www.datamystic.com/buy/filewatcher.html

2 Benefits

File Watcher continuously monitors a set of folders for any new files. When new files arrive, File Watcher then triggers a custom action, such as running a program with the new files. This can be used to:

- Process incoming FTP files
- Automatically distil PDF files
- Process email attachments when they are saved to disk
- Load new files into a database
- Quickly and easily trigger business processes when files are created
- and much more.

3 Features

- Optionally include subfolders
- Minimal system overhead when watching
- Waits for the file to be fully written before processing it.- perfect for large files
- If a file is created and subsequently renamed, File Watcher detects this and updates its list of files to process accordingly
- The log discards the oldest entries when it reaches 1000 lines.
- Supports Drag and Drop of folders into File Watcher.
- Can be run as a service, see this page for details:
  http://www.datamystic.com/filewatcher.html

4 Folders to Watch Tab
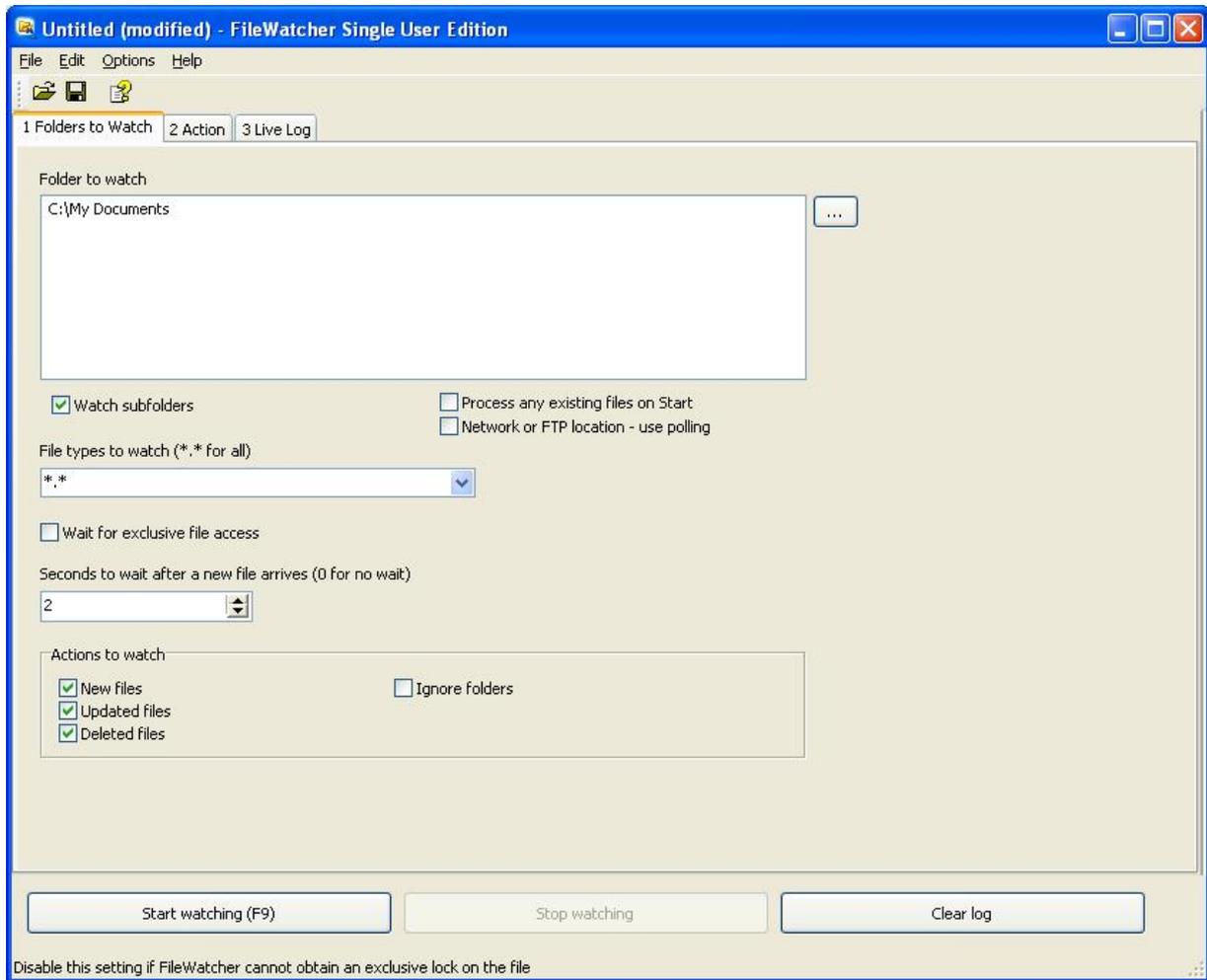
4.1 Folder to watch

This box holds a list of the folders you want to watch. To add a new folder, type its name (one per line), or use the […] folder browse button to add a new folder to the list.

4.1.1 Network locations – trouble shooting

Some network locations will NOT support the commands that File Watcher needs in order to monitor files. If you find that no events ever occur, check the *Network or FTP Location -Use Polling* check box. File Watcher will take a snapshot of files and re-check every minute.

4.1.2 Note: Watching a FTP location

You can watch an FTP location simply by placing the ftp url into the Folder to Watch list:

ftp://ftp.datamystic.com/bigftp/

With username and password

[ftp://*username*:*password*@ftp.datamystic.com/bigftp/](ftp://username:password@ftp.datamystic.com/bigftp/)

File Watcher detects FTP urls from the leading ftp:// path, and automatically turns on polling to monitor these files. Processing of subfolders is not supported.

4.2 Watch subfolders

When checked, FileWatcher will also watch all subfolders of any folder that you specify

4.3 Process any existing files on Start

If you monitor a Network or FTP location, File Watcher may not detect any changes. This is because the network connector does not fully implement the file event functions (API) required by FileWatcher.

To work around this lack of events, check this box. File Watcher will re-examine the target folder every 60 seconds to look for changes. Note that you should **not** specify a folder tree with a huge number of files (e.g. more than 1000), as this is very inefficient to process.

4.4 Network or FTP Location -Use Polling

When FileWatcher starts watching, it can process any matching files in the list of folders that might have arrived while FileWatcher was not active. This is useful to handle restarts.

4.5 File types to watch (*.* for all)

This box specifies which files to watch. By default all files (*.*) are watched. You can watch multiple file types by separating each with semi-colons e.g. *.txt;*.html;*.xml

4.6 Wait for exclusive file access

Normally you want FileWatcher to wait for a file to be completely written to disk before processing it, especially with large files – the default is on.
There are several reasons you might need to use this option:
- Some applications do not close their output files immediately, so FileWatcher can never get an exclusive lock
- If the files being watched are through a read-only share, then FileWatcher again can't get an exclusive lock
- Some combinations of Operating System and File System do not return this information correctly, and so File Watcher is never able to obtain an exclusive lock on the file, which normally indicates that it is still open.

In any of these cases simply uncheck this setting.

4.7 Seconds to wait after a new files arrives

This settings allows files that arrive together to be grouped. To process each file individually, type 0.

Note that this setting has NOTHING to do with waiting for large files to be completely written – FileWatcher handles this automatically. The intention of this setting is to allow multiple files to be processed together.

4.8 Actions to Watch

You can trigger actions based on a number of events
- New files arriving (once the file has been completely written to disk)
- Files being updates (again, once the file has been completely written to disk)
- File deletions
- Ignore folders – check this box to ignore any changes made to folders. Generally you only need to process files, not folders.

Note – if you want to see file deletions, then you must uncheck New Files and File Updates, because otherwise the file deletions are reconciled against the New/Updated file list in order to eliminate files to be processed that actually no longer exist.

5 Action Tab

On the actions tab you specify what you want to happen when a file event occurs (a new file, update or delete).
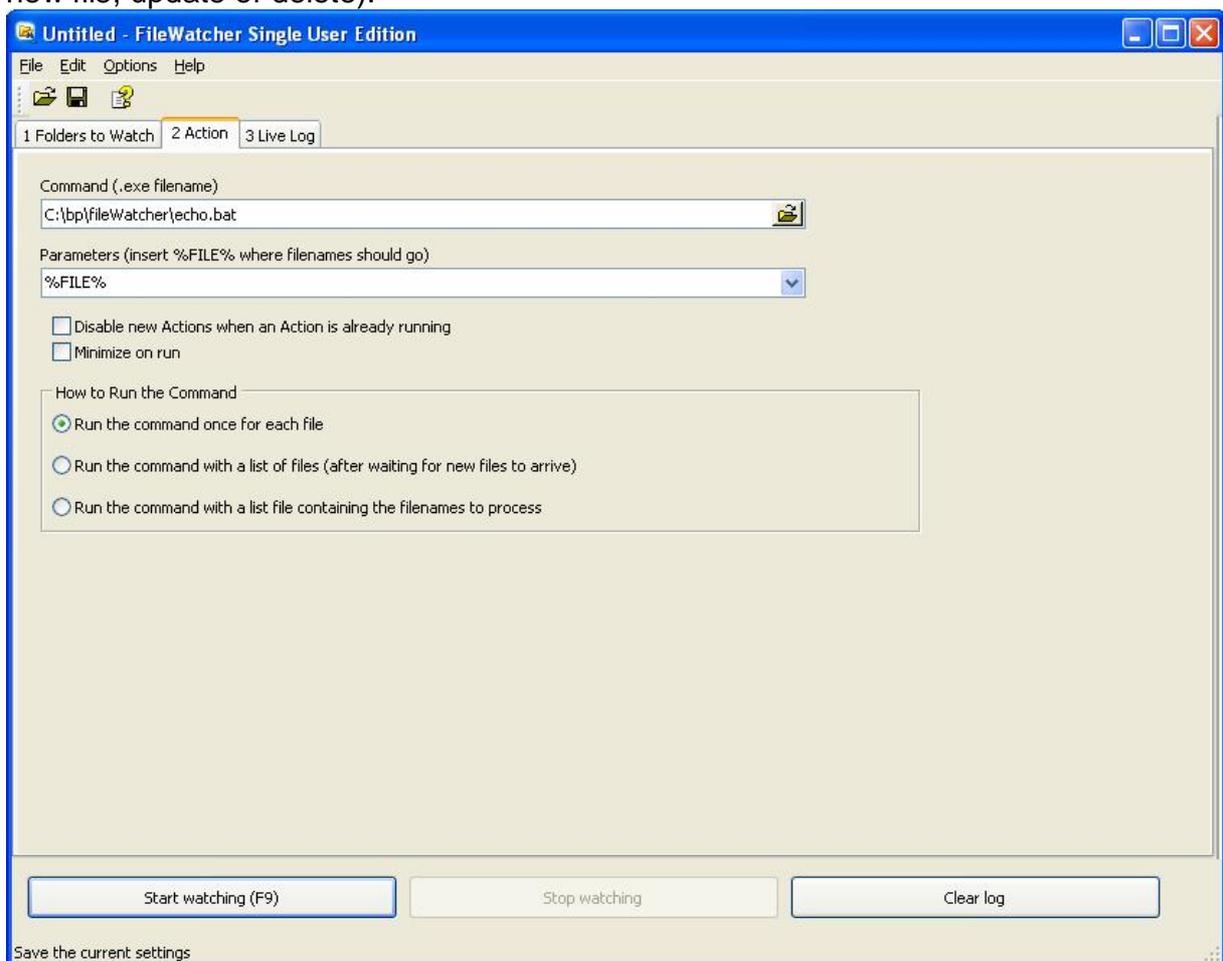
5.1 Command (exe, bat, vbs, js etc)

Here is where you specify the command to be run when the file(s) arrive.

This MUST be a .EXE,.COM or .BAT, .JS, .VBS filename or any other filename understood by Windows to be an executable filename. See the examples below.

5.2 Parameters

These are the parameters to send to the command. Ensure any filenames you specify that might contain spaces are double-quoted. See the Appendix for examples.

%FILE%	Inserts the full filename (and path), surrounded by double-quotes.
%NAME%	Inserts just the filename (no path), surrounded by double-quotes.
%PATH%	Inserts just the file path, surrounded by double-quotes.

If you need the filename both with and without the path, you could specify your parameters like this:
…my_batch_file.bat %FILE% %NAME%

And then within my_batch_file.bat, these will be available as %1 and %2 respectively.

5.3 How to Run the Command

5.3.1 Run the command once for each file

Run the command once for each file. %FILE% and %NAME% contain the name of the file being processed.

5.3.2 Run the command with a list of files (after waiting for new files to arrive)

%FILE% and %NAME% contain a list of filenames, each double-quoted. The command gets run once with a big list of files. If your command is a batch file, each file from this list can be referenced as %1, %2, %3 etc.

5.3.3 Run the command with a list file containing the filenames to process

FileWatcher will create a numbered .txt file containing the list of filenames – and %FILE% and %NAME% contain the name of this file, and %PATH% contains its path.

FileWatcher will delete this file when the command finishes.

5.4 Disable new Actions when an Action is already running

When checked, FileWatcher will wait for an existing Action to finish before it triggers a new one. This is very handy for reducing memory and CPU requirements if many files arrive together.

6 Live Log Tab
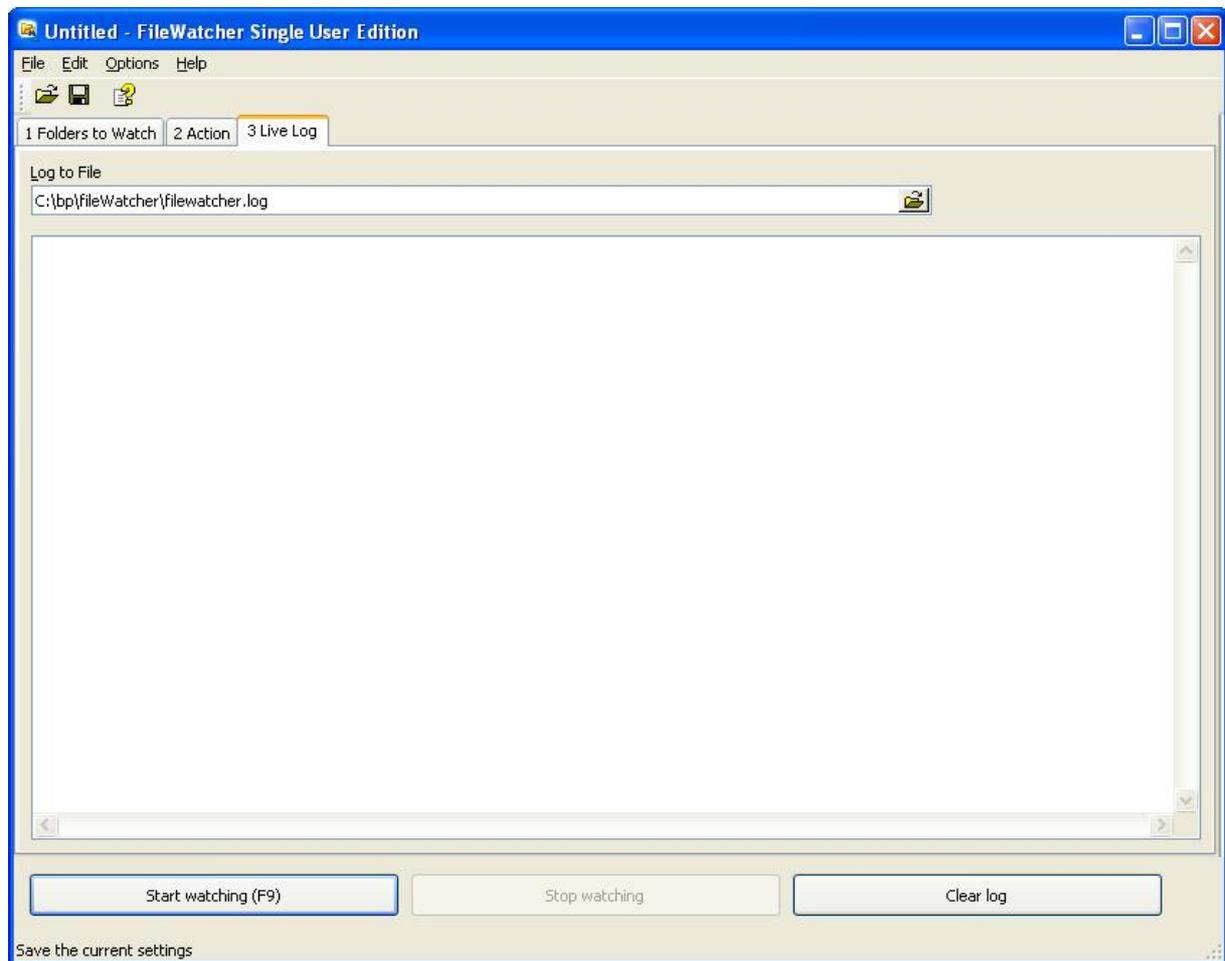
6.1 Log to file

If specified, File Watcher will also log data to the specified log file (appending to the existing contents).

6.2 Live Log

Once File Watcher is started, the Live Log shows you files arriving and the actions that File Watcher is taking for each. The Live Log is limited to showing the 1000 most recent lines.

7 Running File Watcher

When started from the Start Menu, File Watcher displays a window for editing settings.

7.1 File Watcher Command Line

Usage:

```
filewatcher.exe [/minimized /hidden ]"/f=settings.fwx" [/g]
```

Where options is one or more of:

```
/f=..        Load a settings file

/g           Begin watching immediately

/minimized   Minimizes the application window

/hidden      Hides FileWatcher to just an icon in the task area
```

Examples:
1. Start File Watcher watching immediately, with the default settings, and reduce it to the task area:

```
filewatcher.exe /hidden /g
```

2. Start File Watcher watching immediately, with saved settings, and minimize it:

```
filewatcher.exe "/f=c:\my_settings.fwx" /minimize /g
```

7.2 Running File Watcher as a Service

File Watcher does not yet run as a service, but it can be run in the background using the /minimized or /hidden command line options.

To run File Watcher as a service, please see the details at:

http://www.datamystic.com/filewatcher.html

7.3 Running File Watcher on Reboot

To run File Watcher on reboot, just copy the FileWatcher shortcut to the Programs\Start Up folder, and customize the start-up parameters. You can also copy in the Programs\Start Up folder a .bat file, with the start-up parameters

```
"C:\programs\DataMystic\Filewatcher\filewatcher.exe" /hidden /g
```

7.4 Multiple Actions

Yes, you can have a different set of actions for different folders by running separate copies of FileWatcher.

8 Watching Network Folders

Yes, File Watcher DOES support monitoring of network folders. However it does depend if the target file system supports it. If the network redirector or the target file system does not support this operation, File Watcher fails with ERROR_INVALID_FUNCTION.

9 Contact Information

We are always happy to hear your comments! If you use and like File Watcher, or have any suggestions for improvements, please drop us a line! Other user's suggestions have made it what it is today.

```
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          5 Bond St
          Mt Waverley
```

Victoria 3149
AUSTRALIA
Phone: +61-3 9913-0595 (GMT+10 hours)
Fax: +61-3 8610-1234
Web: http://www.datamystic.com

10 Appendix A. Example Scenarios

The following scenarios explain how to use FileWatcher's settings to achieve the results you need. We use the following Example Events in each case:

Time	Event
10:00:00	File A.doc arrives
10:01:00	File B.doc arrives
10:02:00	File C.doc arrives

10.1 Scenario 1 – Each file processed as it arrives

Command: echo.bat
Parameters: %FILE%
How To Run: Run the command once for each file
Seconds to wait after a new files arrives: 1 second

```
10:00:00   File A.doc arrives
10:00:01   echo.bat A.doc
10:01:00   File B.doc arrives
10:01:01   echo.bat B.doc
10:02:00   File C.doc arrives
10:02:01   echo.bat C.doc
```

Summary: No waiting- each file is processed as it arrives

10.2 Scenario 2 – Files arriving together are processed sequentially

Command: echo.bat
Parameters: %FILE%
How To Run: Run the command once for each file
Seconds to wait after a new files arrives: 70 seconds

```
10:00:00   File A.doc arrives
10:00:00   …waiting 70 seconds….
10:01:00   File B.doc arrives
10:01:00   …waiting another 10 seconds….
10:01:10   echo.bat A.doc
           echo.bat B.doc
```

10:02:00   File C.doc arrives
10:02:00   …waiting 70 seconds….
10:03:10   echo.bat C.doc

Summary: Files A.doc and B.doc are handled together

10.3 Scenario 3 - Files arriving together are processed together

Command: echoparams.bat
Parameters: %FILE%
How To Run: Run the command with a list of files (after waiting for new files to arrive)
Seconds to wait after a new files arrives: 70 seconds

10:00:00   File A.doc arrives
10:00:00   …waiting 70 seconds….
10:01:00   File B.doc arrives
10:01:00   …waiting another 10 seconds….
10:01:10   echoparams.bat A.doc B.doc
10:02:00   File C.doc arrives
10:02:00   …waiting 70 seconds….
10:03:10   echoparams.bat C.doc

Summary: Note how a.doc and b.doc are processed together

10.4 Scenario 4 – Files are processed with a list file

Command: echolist.bat
Parameters: %FILE%
How To Run: Run the command with a list file containing the filenames to process
Seconds to wait after a new files arrives: 70 seconds

10:00:00   File A.doc arrives
10:00:00   …waiting 70 seconds….
10:01:00   File B.doc arrives
10:01:00   …waiting another 10 seconds….
10:01:10   echolist.bat filelist1.txt
10:02:00   File C.doc arrives
10:02:00   …waiting 70 seconds….
10:03:10   echolist.bat filelist2.txt

Summary: This is similar to Scenario 3 except that a file is used to hold the list to process. This is particularly useful for large lists of files.

11 Appendix B. Samples

11.1 Batch Files

.BAT files are run via the command interpreter CMD.EXE (formerly COMMAND.COM). Specify the full path to the batch file in the *Command* field, and the parameters in the *Parameters* field.

Examples:

To..	Set Command to	Set Parameters to
Copy each file to a new location	`<complete path\>copy.bat`	`%FILE%`

Note: to retain the original folder structure, use the DOS xcopy command.	Create a batch file called copy.bat, and copy the text below into it:
	
	`@echo off`
	
	`rem Used with FileWatcher's command line and the %FILE% macro`
	
	`rem copy each file to a new location`
	
	`copy "%1" c:\location1`	

Copy one file to multiple locations	`<complete path\>copy_multiple.bat`	`%FILE%`

	Create a batch file called copy_multiple.bat, and copy the text below into it:
	
	`@echo off`
	
	`rem Used with FileWatcher's command line and the %FILE% macro`
	
	`rem copy each file to multiple locations`
	
	`copy "%1" c:\location1`
	
	`copy "%1" c:\location2`
	
	`copy "%1" c:\location3`
	
	`copy "%1" c:\location4`	

Show the name of the file being processed	`<complete path\>echo.bat`	`%FILE%`

	Create a batch file called echo.bat, and copy the text below into it:
	
	`@echo off`
	
	`echo File %1 has arrived and is ready for processing`
	
	`pause`	

Log the file being processed	`<complete path\>log.bat`	`%FILE%`

	Create a batch file called log.bat, and copy the text below into it:
	
	`@echo off`
	`date /t >> c:\logfile.log`
	`time /t >> c:\logfile.log`
	`echo %1 >> c:\logfile.log`	

Show a list of files being	`<complete path\>`	`%FILE%`

To..	Set Command to	Set Parameters to
processed as one group – all on the one command line	`echoparams.bat`	

	Create a batch file called echoparams.bat, and copy the text below into it:
	
	`@echo off`
	`echo Command line parameters`
	`echo Used with FileWatcher's command line and the %FILE% macro`
	`echo %%1 %1`
	`echo %%2 %2`
	`echo %%3 %3`
	`echo %%4 %4`
	`echo %%5 %5`
	`echo %%6 %6`
	`echo %%7 %7`
	`echo %%8 %8`
	`echo %%9 %9`
	`pause`	

Show a list of files being processed as one group	`<complete path\>echolist.bat`	`%FILE%`

	Create a batch file called echolist.bat, and copy the text below into it:
	
	`@echo off`
	`echo List file is %1`
	`echo Used with FileWatcher's command line and the %FILE% macro`
	`echo --[Contents]-----------------------`
	`type "%1"`
	`echo --[End]-----------------------`
	`pause`	

Move each file to a new folder	`<complete path\>move.bat`	`%FILE%`

	Create a batch file called move.bat, and copy the text below into it:
	
	`@echo off`
	`rem Used with FileWatcher's command line and the %FILE% macro`
	`rem Move an incoming file`
	`move "%1" c:\location1`	

Play a sound when a file arrives	`<complete path\>play_sound.bat`	`%FILE%`
	Create a batch file called play_sound.bat, and copy the text below into it: `@echo off`	

To..	Set Command to	Set Parameters to
	`start sound.wav`	
Print each file	`<complete path\>print`.bat	`%FILE%`

	Create a batch file called print.bat, and copy the text below into it:
	
	`@echo off`
	
	`rem Used with FileWatcher's command line and the %FILE% macro`
	
	`echo Printing %1`
	
	`print %1`
	
	`echo Complete`	

View (display) each file	`<complete path\>view`.bat	`%FILE%`

	Create a batch file called view.bat, and copy the text below into it:
	
	`@echo off`
	
	`rem Used with FileWatcher's command line and the %FILE% macro`
	
	`echo Viewing %1`
	
	`start %1`
	
	`echo Complete`	

Send email with file as attachment	`<complete path\>sendmail`.bat	`%FILE%`

	You need to download a command line sendmail program – try http://www.downloadpipe.com/business/review-absoluteTools-SendMail-CMD-Single-computer-license-42668ToolsSendMa-1176122.html
	
	Note: free versions of sendmail.exe on the web often have viruses and other malware.
	
	Create a batch file called sendmail.bat, and copy the text below into it:
	
	`@echo off`
	
	`rem Used with FileWatcher's command line and the %FILE% macro`
	
	`rem Send mail with this file as the attachment`
	
	`rem`
	
	`rem You need to make sure that sendmail.exe is on your system – test this with`
	
	`rem  sendmail -subject='Test message' yourname@yourdomain.com`
	
	`sendmail -subject='File arrived %1' -attach='%1' yourname@yourdomain.com`	

Schedule a job if a file arrives	`<complete path\>schedule`.bat	`%FILE%`

	`@echo off`
	
	`rem Used with FileWatcher's command line and the %FILE% macro`	

To..	Set Command to	Set Parameters to
| | ```
rem Schedule a process with the file that arrives

rem The Schedule service must be running to use the AT command.



at 1730 /interactive "echo %1"



echo Scheduling Complete
``` | |

11.2 Windows Script (.VBS or .JS files)

VBScript and Jscript offer a lot of power for custom processing. To use these, set the *Command* field to the full path to *wscript.exe*, and set the *Parameters* field to the path to your script, plus any parameters you need to add.

To..	Set Command to	Set Parameters to
Display the filename using VBScript	*<complete path\>*wscript.exe	*display_filename.vbs* %FILE%
| | Create a batch file called display_filename.vbs, and copy the text below into it:<br>```
Option Explicit


dim objArgs


'Set a reference to the arguments
Set objArgs = Wscript.Arguments


'display the first argument
MsgBox objArgs(0), vbOk
``` | |

11.3 DOS Commands

Note that the Windows 'start' command is a feature of CMD.EXE. To make use of it, you need to create a batch file that uses 'start'.

11.4 How to Send an Email

Also see the batch file examples above.

To send an email from File Watcher, you need to use a command-line email program. We STRONGLY recommend you do NOT search for a free download of sendmail.exe - these are 99% guaranteed to contain a virus. Instead, please download from our partner at Absolute Tools.

You can easily get this to trigger an email with the filename, use this command line

```
sendmail.exe -subject='File arrived %file%' yourname@yourhost.com
```

Or even send the file to you:

```
sendmail.exe -subject='File arrived %file%' -attach='%file%'
yourname@yourhost.com
```