

# Script Logging

## What

For scripts added to FileWave Filesets using the Script view, logging is enabled by default.

The screenshot shows the FileWave Script view interface. At the top, there is a 'Revision:' dropdown menu set to '<default> (Initial Revision)' and a 'Manage Revisions' button. Below this is a 'Scripts' section with a search bar containing 'Search...'. The main area is divided into several categories: 'Requirement Scripts' (empty), 'Preflight Scripts' (empty), 'Activation Scripts' (containing 'amazing\_script.sh'), and 'Postflight Scripts' (empty). At the bottom, there is a checkbox labeled 'Re-run requirement scripts on change and uninstall active Fileset if they failed' which is currently unchecked.

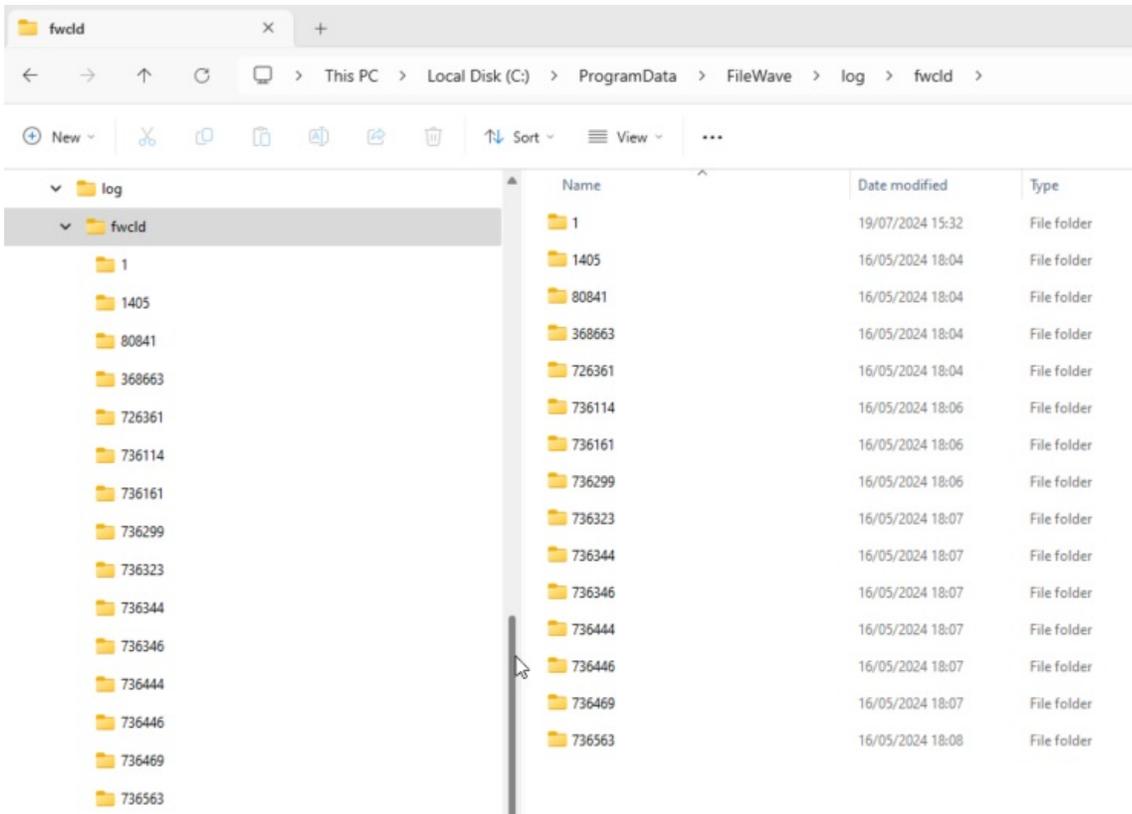
## When

Each time a Script (as built above) is actioned on a device, a log file is created or added to, with anything that the script outputs. The logs of these Scripts are located in the following directories, within subfolders named after the Fileset ID:

### macOS

```
# ls -al /private/var/log/fwcl/  
total 0  
drwxrwxrwx 17 root  wheel  544 Mar  5 16:01 .  
drwxr-xr-x 83 root  wheel 2656 Jul 31 08:27 ..  
drwxrwxrwx  3 root  wheel   96 Aug  1 2023 1  
drwxrwxrwx  5 root  wheel  160 Sep 25 2023 54231  
drwxrwxrwx  6 root  wheel  192 Sep 26 2023 54235  
drwxrwxrwx  3 root  wheel   96 Nov  9 2023 54367  
drwxrwxrwx  3 root  wheel   96 Nov  9 2023 54368  
drwxrwxrwx  3 root  wheel   96 Nov  9 2023 54374  
drwxrwxrwx  3 root  wheel   96 Nov  9 2023 54379  
drwxrwxrwx  3 root  wheel   96 Nov 10 2023 54384  
drwxrwxrwx  3 root  wheel   96 Nov 10 2023 54396  
drwxrwxrwx  3 root  wheel   96 Nov 10 2023 54401  
drwxrwxrwx  3 root  wheel   96 Nov 10 2023 54406  
drwxrwxrwx  3 root  wheel   96 Dec 15 2023 54417  
drwxrwxrwx  3 root  wheel   96 Dec 15 2023 54419  
drwxrwxrwx  3 root  wheel   96 Dec 15 2023 54421  
drwxrwxrwx  3 root  wheel   96 Mar  5 16:01 55188
```

### Windows



## Example:

macOS example, but the principle is the same for Windows.

Consider this simple shell script that runs a command to output the username that ran the command:

```

whoami.sh

#!/bin/zsh
whoami
exit 0

```

On running the command, the user running the command will be reported. For example, running this locally on a device might reply:

```

% whoami
sholden

```

Viewing the log generated by FileWave:

```

# cat /private/var/log/fwcd/54421/whoami.sh.log
----- HEADER - Date: (Fri Dec 15 2023) - Time: (16:40:21) -----
root
----- FOOTER - Date: (Fri Dec 15 2023) - Time: (16:40:22) - Exit code: (0) -----
--

```

The output presents:

- Header and Footer with timestamps
- Footer with exit code value
- Any output from the script between the Header and Footer

## Improvement

The Script may or may not provide output, depending upon the command used. However, why not add additional echo commands (or similar) to output extra details to provide more information from the script running.

Here is an example of a Fileset Requirement Script, waiting for confirmation of a Profile to be installed before activating the Fileset:

```
#!/bin/zsh

found_profile=""
|
while [ $# -gt 0 ]
do
    found_profile=$(profiles list all | awk -v search=$1 '$0 ~ search {print $NF}')
    if [ ! -z $found_profile ]
    then
        echo "Found installed profile: $found_profile"
        exit 0
    else
        echo "Did not find $1"
    fi
    shift
done
exit 1
```

The script is outputting additional information, showing the ID of the Profile, found or not. On success, exit 0, else exit 1.

Requirement Scripts will retry every 2 minutes, until successful, unless coded otherwise

```
----- HEADER - Date: (Thu Jul 31 2024) - Time: (11:03:12) -----
Did not find ml1063.local.aa0bd493-960d-4dc0-9631-a3fea189191e.Configuration.aa0bd493-960d-4dc0-9631-a3fea189191e
Did not find ml1063.local.5a57bcb9-7293-4cba-a20b-126eb2660b25.Configuration.5a57bcb9-7293-4cba-a20b-126eb2660b25
----- FOOTER - Date: (Thu Jul 31 2024) - Time: (11:03:12) - Exit code: (1) -----
--

----- HEADER - Date: (Thu Jul 31 2024) - Time: (11:05:12) -----
Found installed profile: ml1063.local.aa0bd493-960d-4dc0-9631-a3fea189191e.Configuration.aa0bd493-960d-4dc0-9631-
a3fea189191e
----- FOOTER - Date: (Thu Jul 31 2024) - Time: (11:05:12) - Exit code: (0) -----
--
```

On first attempt, the log shows two Profiles were searched and not found, with the script exiting a value of 1. On second attempt, the first Profile ID is now showing as installed and the script exited with a value of 0.

## No Logs

Some scripts ran through FileWave, e.g. Policy Blocker Scripts, do not provide logs, with some mention in the Client Log alone, that the Script ran.

However, it is entirely possible to choose to create a custom log file within a script, for any script, and echo any output desired to provide additional logging.

✔ Consider how the script will grow and how to either overwrite or append appropriately.

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