Smart Groups, Inventory and Application Version Numbers

Description

By default, FileWave treats software version numbers as strings. This is because it is legitimate for software versions to contain characters as well as numbers. The below script is designed to assist with Smart Group analysis and Inventory Reporting.

Information

The following script will attempt comparisons between a supplied software version and the version as shown from the bundle Info.plist file. If the version contains characters though, the script will exit.

Output should be one of:

- Newer - version on device is newer than supplied version to compare
- Outdated - version on device is older than the supplied version to compare
- Current - version is the same as the supplied version to compare
- NA - Supplied Application path was not found on device
- Uncomparable - Non numerical characters were found

The script accepts three Launch Arguments:

1. App path
2. Version to compare
3. Key/Value item to collect from Info.plist

Item 3, if not supplied, defaults to: CFBundleShortVersionString

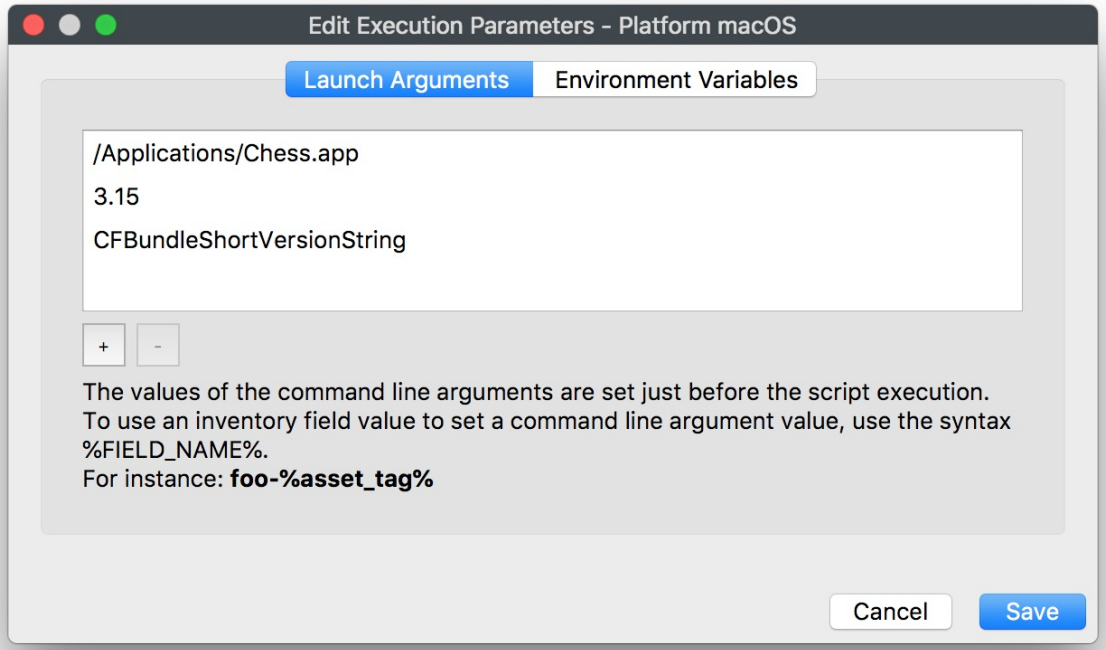
Directions

Create a Custom Field.

- Name the script, e.g. Compare Chess Version
- Provided By: Client Script
- Data Type: String
- Client Script Type: macOS Shell
- Optional: Assign to all devices

Launch Arguments:

1. /Applications/Chess.app
2. 3.15
3. CFBundleShortVersionString



Paste the following into the script window:

```
#!/bin/bash


# Compare version numbers of apps for Inventory Reporting and Smart Groups
# V1.0 -May 2019, sean.holden@filewave.com

# $1 - Application path, e.g: /Applications/Chess.app
# $2 - Version to compare against
# $3 - Version string, e.g.: CFBundleVersion, CFBundleShortVersionString
# Return Newer, Outdated, Current, NA or if non-numerical characters are used Uncomparable.

app_path="$1"

if [ ! -x "$app_path" ]
then
        echo NA
        exit 0
fi

dotted_check_version=$2

if [[ "$3" == "" ]]
then
        # Default if not supplied: CFBundleShortVersionString"
        version_string="CFBundleShortVersionString"
else
        version_string="$3"
fi

dotted_installed_version=$(defaults read "${app_path}/Contents/Info.plist" "$version_string" )

if [[ "$dotted_installed_version" =~ [A-Za-z] ]]
then
        echo "Uncomparable"
        exit 0
fi

function convertVersion {
```

```
        OLDIFS=$IFS
        IFS='.' read -r -a array_add <<< "$1"
        IFS=$OLDIFS
}

function compareVersion {


        array_counter=0

        while [ $# -gt 0 ]
        do
                compare_to_me=${check_version[$array_counter]}

                if [[ $compare_to_me == "" ]]
                then
                        compare_to_me=0
                fi

                if [ $1 -lt $compare_to_me ]
                then
                        echo "Outdated"
                        break
                fi

                if [ $1 -gt $compare_to_me ]
                then
                        echo "Newer"
                        break
                fi

                array_counter=$((array_counter + 1))
                shift

                if [ $# -eq 0 ]
                then
                        echo "Current"
                fi
        done
}

convertVersion "$dotted_installed_version"
declare -a installed_version=("${array_add[@]}")
convertVersion "$dotted_check_version"
declare -a check_version=("${array_add[@]}")

while [ ${#check_version[@]} -gt ${#installed_version[@]} ]
do
        installed_version+=('0')
done


compareVersion ${installed_version[@]}

exit 0
```

Save and then create a Smart Group as required.

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