

SIMPLIFIED 2'S COMMAND LINE COMPILER

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INTRODUCTION

Ultamation's Command Line Compiler is a companion program to SIMPLified 2 and allows you to compile a Crestron simple windows program with a single command in the command prompt. There are also options to create a program archive, clean the SPIs folder, and write the output to a log file.

REQUIREMENTS

To use the SIMPL Command Line Compiler you must have SIMPLified 2 installed on your computer with an active Productivity entitlement for SIMPLified 2. Both can be found on Ultamation's online shop. The tool must be run under administrator privileges for the Command Line Compiler to work properly. If you run the command line compiler from a console prompt, please ensure that this prompt is running as administrator, otherwise the tool will launch a new, elevated, console window which will close as soon as the program terminates - you will not see the output in this case. Any automated build tools will also need to call the Command Line Compiler with elevated privileges in order to call the Crestron libraries properly.

Your environment must also have SIMPL Windows, Toolbox, the SIMPL+ Compiler and Crestron & Device Databases installed. If there is an issue with your Crestron development environment, then the command line tool will also fail to compile.

The tool makes use of Crestron's own libraries for program compilation. A side effect of this is that a compilation progress window will be created on the desktop environment. This cannot be avoided, but will disappear after compilation is complete.

USING THE COMMAND LINE COMPILER

Setup

Open a command prompt window as administrator, and navigate to the folder where the Command Line Compiler program is located. (C:\Program Files (x86)\Ultamation\SIMPLified 2)

Type `usc.exe` to run the program. If you have an invalid or inactive licence you will see the below error message when the program loads. Using SIMPLified 2, please check your licence key is correct and active if this occurs.

```
-----  
Ultamation SIMPL Command Line Compiler  
Version      : 1.0.42.0  
Working Directory : C:\ExampleFolder  
-----  
Error: The licence is invalid or inactive - 00000-AAAAA-BBBBBB-CCCCC-DDDDD
```

If the licence check is successful there's no error message. In this case, as the compiler was run without any arguments, we will see an error that there's no input:

```
C:\Users\Emily\Desktop\ExampleFolder>usc.exe  
-----  
Ultamation SIMPL Command Line Compiler  
Version      : 1.0.44.0  
Working Directory : C:\Users\Emily\Desktop\ExampleFolder  
-----  
Error: A SIMPL program file must be specified as input.
```

The SIMPLified 2 executable location (containing `usc.exe` and dependent libraries) can be added to you PATH environment variable to make invocation of the tool more convenient.

Commands and Arguments

For a full list of options and their commands type `usc.exe --help` which will output the list below with a description of each option. Use these to customise how you run the compiler:

```
C:\Users\Emily\Desktop\ExampleFolder>usc.exe --help
-----
Ultamation SIMPL Command Line Compiler
Version      : 1.0.44.0
Working Directory : C:\Users\Emily\Desktop\ExampleFolder
-----

Usage: [options]

Options:
-v | --verbose      Verbose output
-i | --input <smw_filename> An existing smw input filename.
-x | --clean        Clean the SPIsWork folder prior to build (this may resolve build issues)
-c | --compile      Compile the program
-a | --archive      Generate a program archive
-l | --log          Write output to a log file
-? | -h | --help   Show help information
```

Example Run

Add the commands you want as arguments after `usc.exe`. For example, to compile a program called 'ExampleInput.smw' use: `usc.exe -i ExampleInput.smw -c`

Where `-i ExampleInput.smw` is providing the input file, and `-c` is the command to compile it. The compiled program will appear in the same folder as the input file.

This is the output when using the above command:

```
C:\Users\Emily\Desktop\ExampleFolder>usc.exe -i ExampleInput.smw -c
-----
Ultamation SIMPL Command Line Compiler
Version      : 1.0.47.0
Working Directory : C:\Users\Emily\Desktop\ExampleFolder
-----
Notice: Initialising Crestron SIMPL libraries...
```

If you want more information, add `-v` to the command and the output will show more detailed output about the compile process: `usc.exe -i ExampleInput.smw -c -v`

```
C:\Users\Emily\Desktop\ExampleFolder>usc.exe -i ExampleInput.smw -c -v
-----
Ultamation SIMPL Command Line Compiler
Version      : 1.0.47.0
Working Directory : C:\Users\Emily\Desktop\ExampleFolder
-----
Notice: Initialising Crestron SIMPL libraries...
Info: Crestron SIMPL libraries ready
Info: Opening program: ExampleInput.smw => C:\Users\Emily\Desktop\ExampleFolder\ExampleInput.smw
Info: Program loaded from C:\Users\Emily\Desktop\ExampleFolder\ExampleInput.smw
Info: Compiling program...
Info: Program Compiled
Info: Complete - Success
```

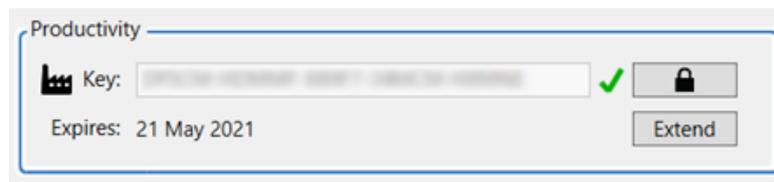
ERROR MESSAGES

"Unable to validate licence"

There was a problem validating the productivity licence key. Try running the program again, if the problem persists check your licence key is correct and active (more information below)

"The licence is invalid or inactive - 0000-0000-0000-0000-0000"

This occurs when the SIMPLified 2 Productivity licence key is invalid, or inactive. To check your licence, open SIMPLified 2, go to 'Help' then 'Register..'. This will show your keys and their expiry date. Also ensure the padlock symbol is locked and not open, meaning the key is active and locked to your current device.



"Argument error."

There was an issue with one or more of the arguments included in the command. Check your input command was correct and try again. For more information about the different arguments use '--help' for a list of the options and how to use them.

"A SIMPL program file must be specified as input."

The input argument did not include a file name to be used. Make sure you include a file name when using the '-input' argument. This should include the path if it's not in the same folder as the command line compiler program, plus the file extension.

"Terminating"

There was a problem initiating the SIMPL Windows Libraries, try running the command again. This may reflect an issue with your Crestron environment (you must have SIMPL, Toolbox and the Crestron Databases installed). Ensure you run the tool as Administrator.

"Unable to initialise SIMPL windows: <exception message>"

As above, there was an exception while loading the SIMPL Windows Libraries. Try running the program again.

"Terminating" or "SIMPL load error: <exception message>"

There was a problem with the given input file. Check the specified smw file is valid and try again.

"You must specify an input file in order to compile"

The '-compile' argument was used with no input file specified. Make sure to include '-input <filename>' with the compile argument

"Compilation errors."

There were errors in the smw program when trying to compile. Check the specified input program for errors and try again.

"Archive generation failed"

There was a problem creating the program archive. Try running the command again.

If any of the issues above persist, or you have other problems with the Command Line Compiler, email Support@ultamation.com with information about your problem and we will be in touch to help. Please check your SIMPL program in the standard SIMPL windows environment. If it fails to compile here, it will certainly fail to compile from the Command Line Tool.