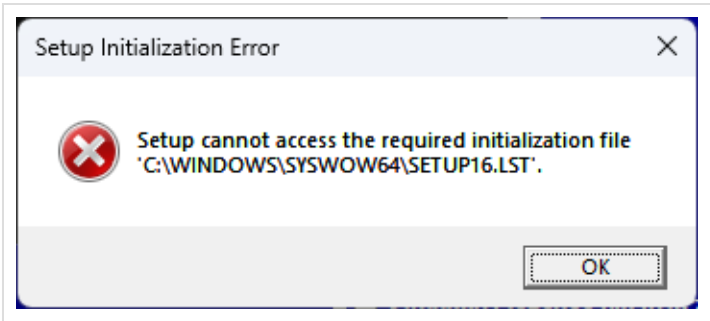


# The Sweet16 – the oldbin lolbin called setup16.exe

I don't even know how to start. I wrote about old [InstallShield](#) setup before, and today's topic is very similar – the old, yet still present setup file residing (on Win10, 11) in the following location:

```
c:\windows\SysWOW64\setup16.exe
```

Running it gives us this misleading message box #1:

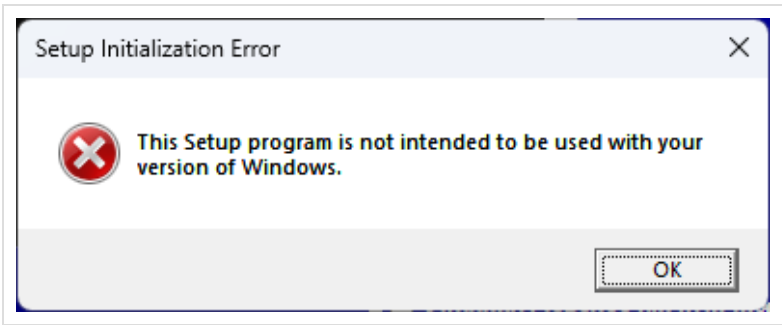


After quick study of setup16.exe code I was able to determine what command line arguments it needed and then craft a simple example LST config to act as my setup file.

The program accepts the switch -m that allows us to pass a name of an alternative LST file to it, so we can run a command like this:

```
c:\windows\SysWOW64\setup16.exe -m c:\test\test.lst
```

Creating a dummy file c:\test\test.lst and running the test we get this misleading message box #2:



After analyzing the code a bit more and then looking at some very old examples of LST files that can be found online I was able to quickly create a test file that worked...

Additionally, I discovered that we can use -QT argument to run the program in a QUIET mode (no dialog box, no error messages).

```
c:\windows\SysWOW64\setup16.exe -m c:\test\test.lst -QT
```

This is the first working LST I have created:

- c:\test\test1.lst

```
[Params]
TmpDirName = foo
TmpDirSize = 100000
FirstCabNum = 1
LastCabNum = 1
DrvWinClass = foo
CmdLine = foo
WndTitle = foo
WndMess = foo
CabinetFile = foo
InsertCDMsg = foo
InsertDiskMsg = foo
Background = ..\..\..\windows\system32\calc.exe
```

This is not a proper config per se, because it just provides a number of mandatory fields that are filled-in with dummy values, and it does not have the ‘Files’ section that is kinda mandatory, because it lists ‘installable’ files. The reason it still works is, because it leverages a ‘background’ feature that forces the setup16.exe program to relaunch a new setup program using a command specified in a ‘background’ field, and in this case, our new setup is just a Windows Calculator.

There is obviously more ways to launch programs via the LST file f.ex. by using the snippet similar to the one shown below. This time we rely on a ‘proper’ program execution field which is ‘CmdLine’. It is important to mention that the value of this field is interpreted as a relative path to the path of the working directory of the installer, so I added a few ‘..\’ to traverse the path back to the root of the drive, so we can then use a full path to reference Windows Calculator we launch for testing purposes.

Here’s the content of file:

- c:\test\test2.lst

```
[Params]
TmpDirName = foo
TmpDirSize = 100000
FirstCabNum = 1
LastCabNum = 1
DrvWinClass = foo
CmdLine = ..\..\..\windows\system32\calc.exe
WndTitle = foo
WndMess = foo
CabinetFile = foo
InsertCDMsg = foo
InsertDiskMsg = foo
[Files]
test2.lst = test2.lst
```

The animation of two scenarios in action is shown below:



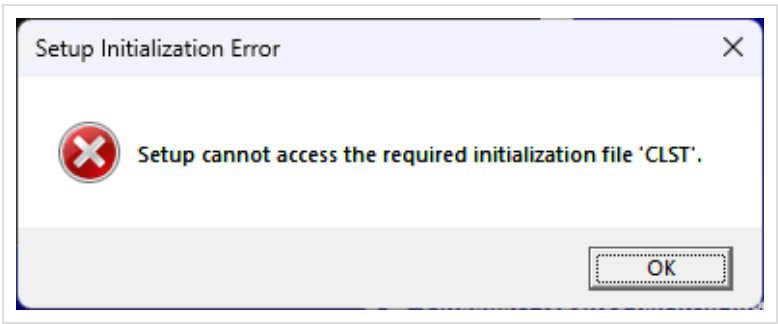
It's worth covering a few more quirks of this program.

One is the silly way it appends the 'LST' to the file names passed to the program via the -m command line argument.

When we invoke the program like this:

```
c:\windows\SysWOW64\setup16.exe -m c:\test\foo
```

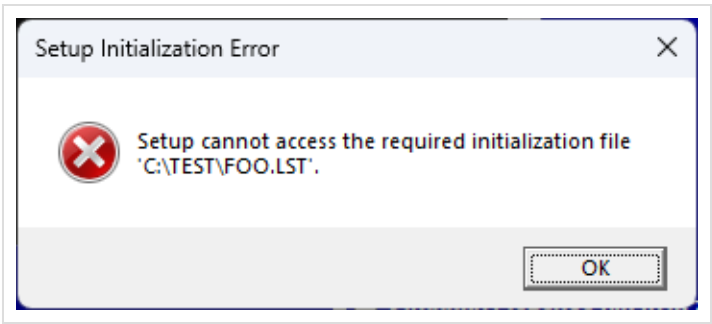
we will get a very confusing message #3:



For a similar invocation:

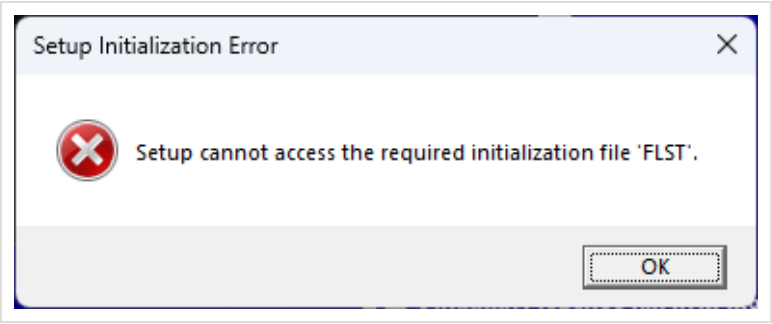
```
c:\windows\SysWOW64\setup16.exe -m c:\test\foo.
```

we get a less confusing message #4:



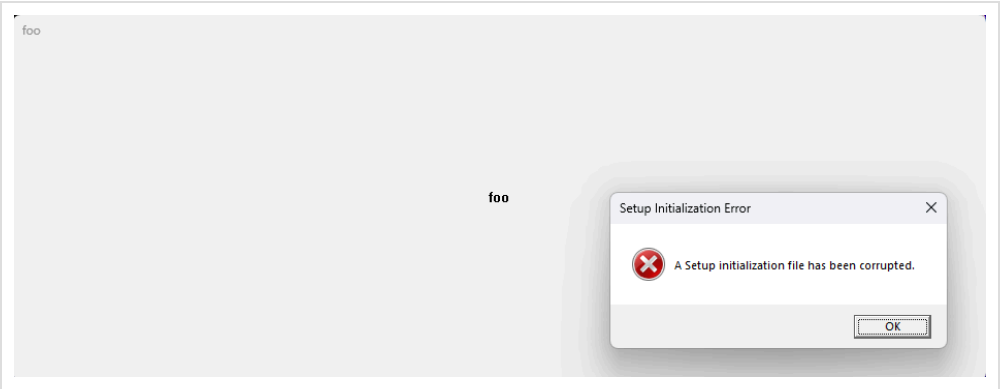
And another one:

```
c:\windows\SysWOW64\setup16.exe -m foo
```

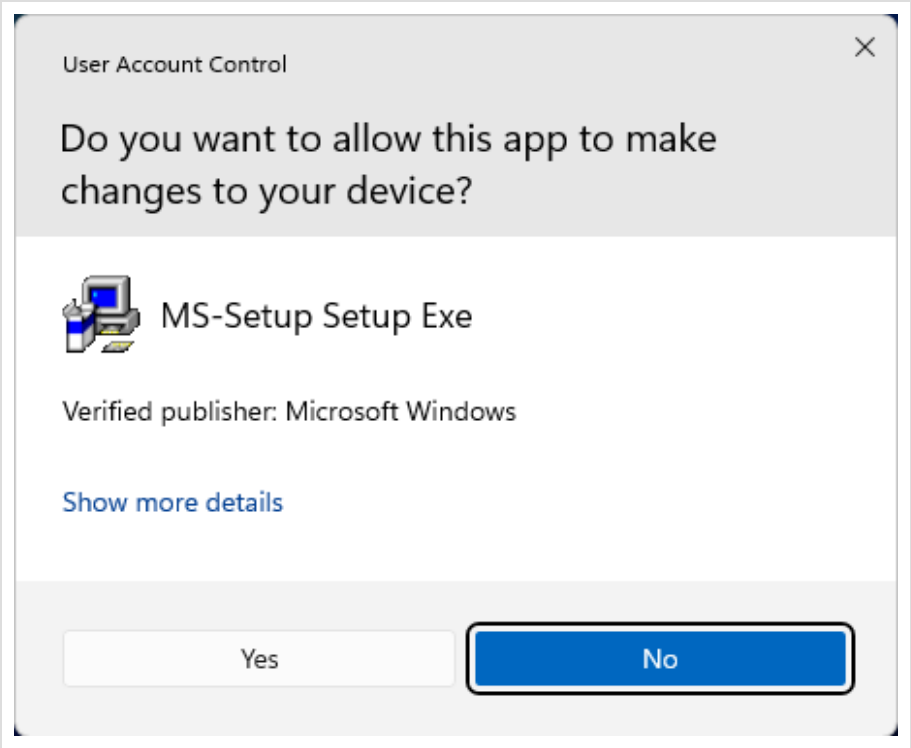


It would seem parsing of the command line arguments and interpreting them is not this program's forte (there are obviously assumptions being made about how the file name passed to the -m command line argument must look like for 'this to work well').

Also, skipping the -QT argument leads to this windows being created (plus a message box signalling an error appearing soon after):



Last, but not least — you need admin right to run this show:



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