

Creating a Windows Print Installer Using NSIS- (Nullsoft Scriptable Install System)



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The Problem:

- Create an installer that Windows users can run to install all printers in all our locations without having to call support.



- Diverse types of systems, Transient Users, On or off domain, win xp - win 10.
- Low impact (non-invasive), Easy to use for anyone Frees up Marine Techs for other Support.



What Is NSIS?

- NSIS is a professional open source system to create Windows installers. It is designed to be as small and flexible as possible.
- NSIS is script-based and allows you to create the logic to handle even the most complex installation tasks.
- Many plug-ins and scripts are already available: you can create web installers, communicate with Windows and other software components, install or update shared components and more.



How to get NSIS

- You can download NSIS from their website as well as any add ons or Plug-ins.
- The Nsis website also contains a page of Code Examples which can be helpful in developing new installers.
- <http://nsis.sourceforge.net/Download>



Windows Printer Installer

- This installer creates a "fat" version of the install that includes all the drivers for the printers and automates all steps.
- Installing a printer through IP from the command-line can be performed remotely by using the "rundll32 printui.dll,PrintUIEntry" command.
- IP printers require a change to the registry that cannot be done remotely (unless done manually via regedit) and then restarting a Windows service. This install gets around this and other issues, such as firewalls, by running on the local machine with Administrator rights.



Windows Printer Installer

Installing printers
requires three
steps:



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Step 1

Add TCP/IP ports to Registry

Using a plug in called Reg2nsis I was able to translate the Registry entries for installed Printers into a script.



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WriteRegStr HKEY_LOCAL_MACHINE "SYSTEM\CurrentControlSet\Control\Print\Monitors\Standard TCP/IP Port\Ports\x.x.x.x" "HostName" "x.x.x.x"

WriteRegStr HKEY_LOCAL_MACHINE "SYSTEM\CurrentControlSet\Control\Print\Monitors\Standard TCP/IP Port\Ports\x.x.x.x" "IPAddress" "x.x.x.x"

WriteRegStr HKEY_LOCAL_MACHINE "SYSTEM\CurrentControlSet\Control\Print\Monitors\Standard TCP/IP Port\Ports\x.x.x.x" "HWAddress" ""

WriteRegDWORD HKEY_LOCAL_MACHINE "SYSTEM\CurrentControlSet\Control\Print\Monitors\Standard TCP/IP Port\Ports\x.x.x.x" "PortNumber" 0x203

WriteRegStr HKEY_LOCAL_MACHINE "SYSTEM\CurrentControlSet\Control\Print\Monitors\Standard TCP/IP Port\Ports\x.x.x.x" "SNMP Community" "public"

WriteRegDWORD HKEY_LOCAL_MACHINE "SYSTEM\CurrentControlSet\Control\Print\Monitors\Standard TCP/IP Port\Ports\x.x.x.x" "SNMP Enabled" 0x1



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Step 2

Restart Print Spooler to use new ports

The print spooler is a system 32 service in the Microsoft Windows operating system. It is responsible for the management of the jobs that have been sent to the printer or the print server of a network.



Step 3

Install printers (drivers and entries into Printers Folder)

The Print drivers are included in the program and unpacked in the windows\temp folder for install.



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Once compiled the .exe automates these steps and makes it easy for anyone to install the available printers with just a few clicks of a button.



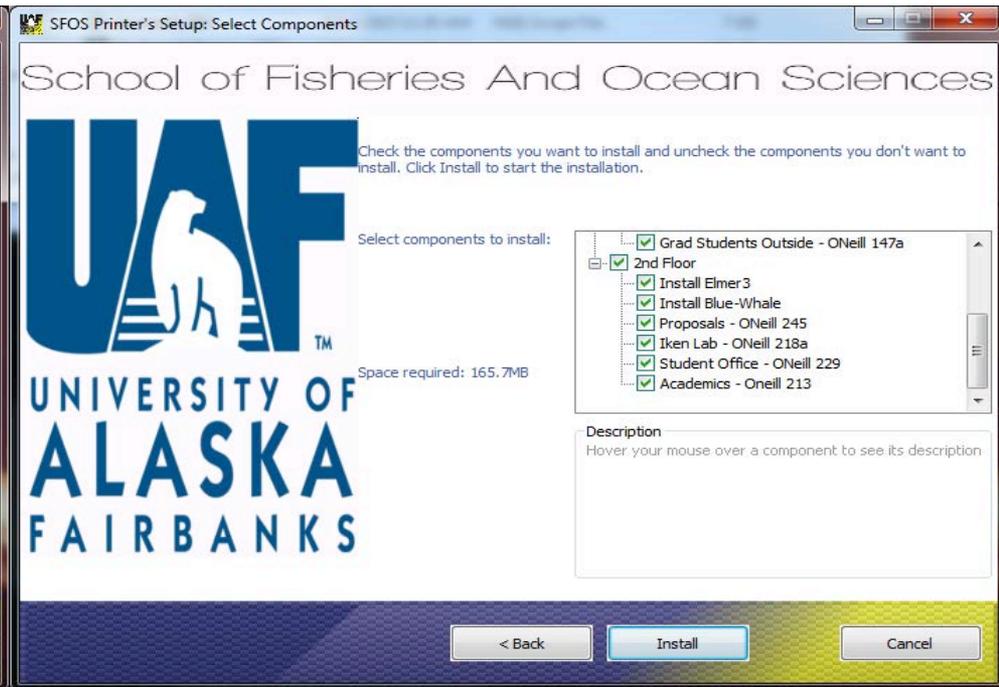
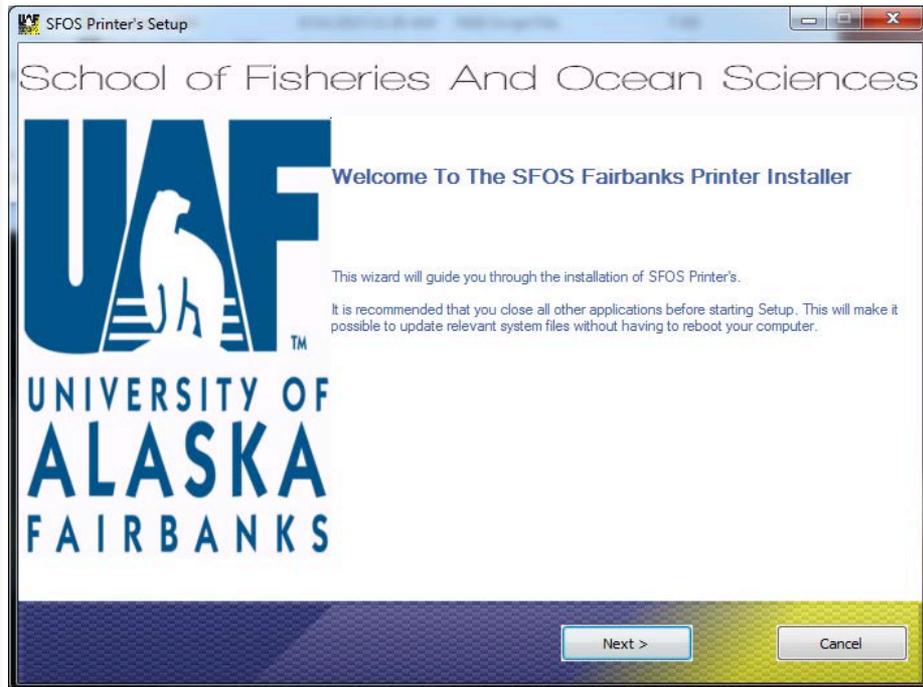
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The .Exe



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As you can see the installer allows the user to choose which printers to install and which ones they do not need.

This presentation and a Template of the code used to make this installer can be accessed at the following website:

<https://www.sikuliahq.alaska.edu/ops/?q=node/207>



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