

Remote Installation for Windows



Introduction

- Requirements
 - Remote Installation
 - Scheduling Jobs
 - Silent Installation
- Tools Explored
 - PsExec
 - RemoteExec

PsExec Features

- Features
 - Free utility and light weight
 - Support Windows XP and Higher
 - Enable interactive command prompt
 - Not required to manually install client software
- Configuration and install
 - Download from
<http://technet.microsoft.com/en-us/sysinternals/bb897553.aspx>
 - Add path system variables.

Using PsExec example

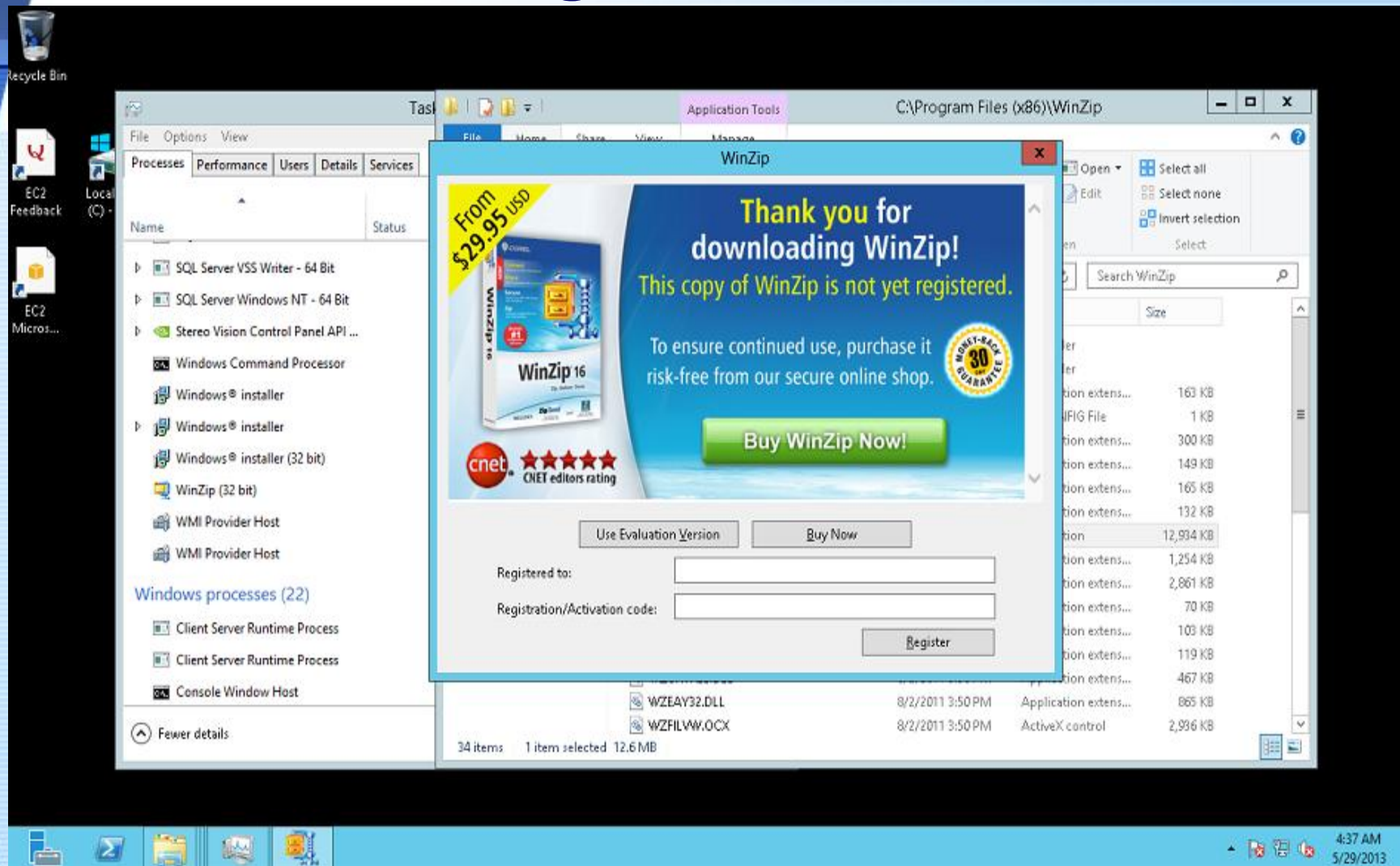
installWinzip.bat

```
net use \\192.168.0.101\share passw0rd/user:ramakrishna  
psexec.exe \\192.168.0.102 -u intellectport\Administrator -p pass123 -c  
\\192.168.0.101\share\winzip.bat
```

Winzip.bat

```
net use \\192.168.0.101\share passw0rd/user:ramakrishna  
msiexec /i \\192.168.0.101\share\winzip155.msi TARGETDIR=C:\vlead /q
```

After executing batch



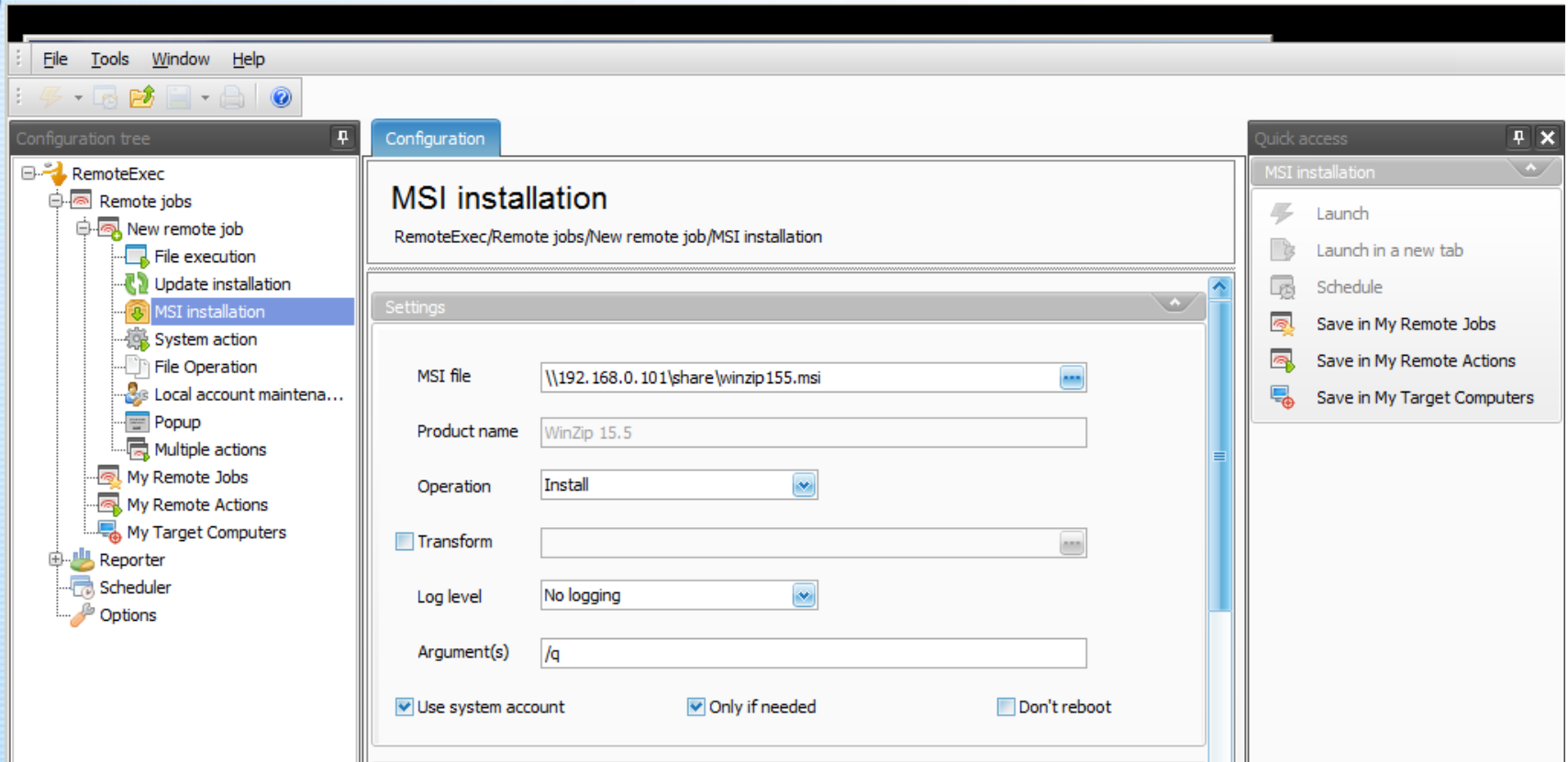
PsExec Security

- User credentials sent in clear text
- You need to make sure that ports 445 and 139 are opened up between the computers.
- Firewall need to open for TCP protocol.
- We can configure the firewall on remote system to restricts only execution of specific programs and also only from a few hosts.
- Locally logged on user require admin credentials of remote machine to install software.
- Winexe is open source utility similar to psexec to access windows machines from Linux

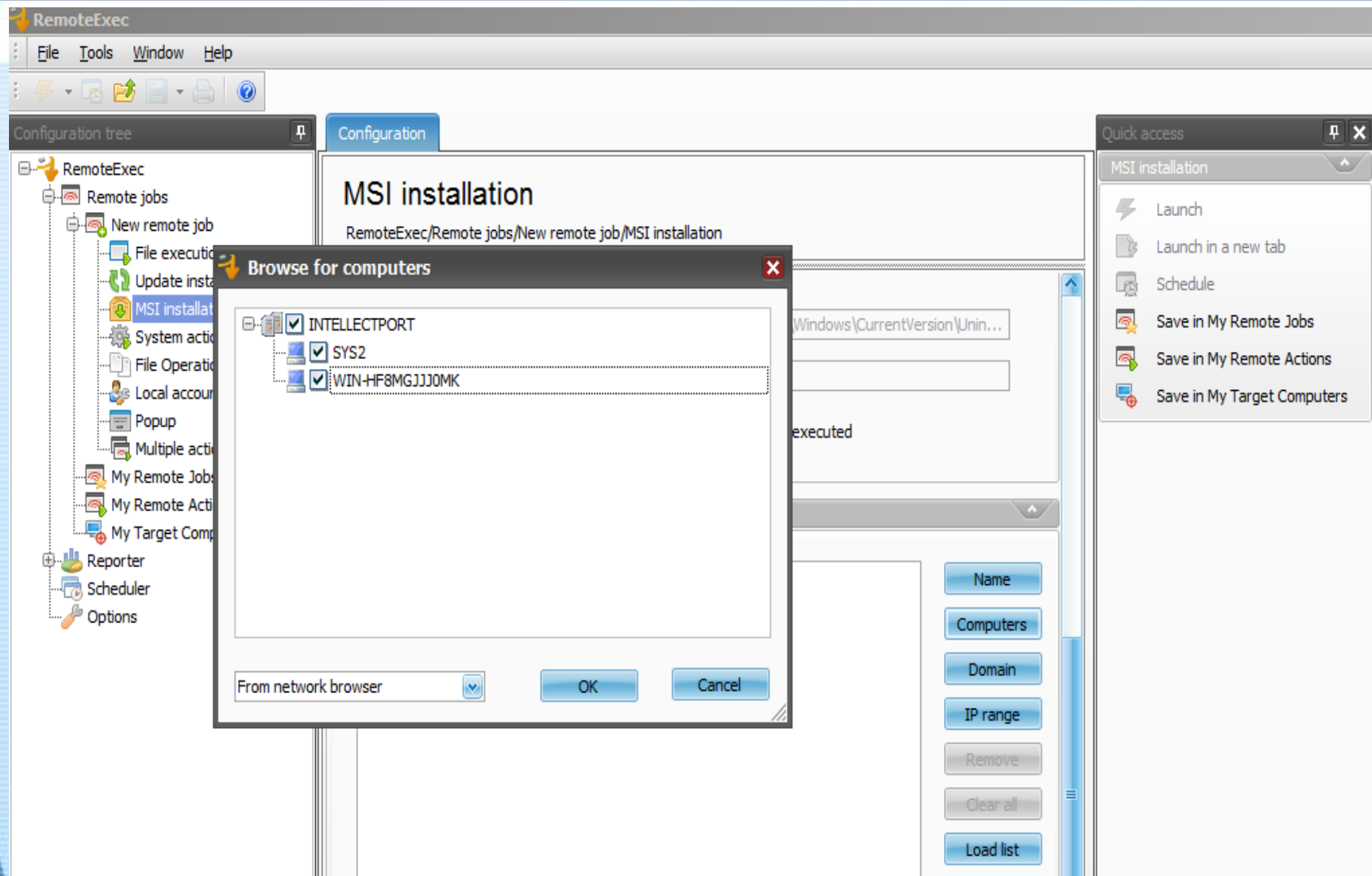
RemoteExec Featurs

- Run executable files: *.exe, *.bat, *.cmd, *.vbs, *.js...
- Install all packages with a silent installation mode.
- Install .msi packages.
- Deploy Hotfixes and Service Packs on your Windows network.
- Execute scripts on many computers
- Interact remotely with a console program like a telnet.
- Update the registry with .reg files
- Browse or filter target computers
- Display a popup to users.
- Power off or restart remote computers.
- Scheduling jobs
- Save remote jobs and execute on different remote machines.
- Generate reports and statistics
- Send report files by e-mail.

Create Remote Job



Select Target Computers



Remote Job Launch results

The screenshot displays the RemoteExec application window. The interface includes a menu bar (File, Tools, Execution, Window, Help), a toolbar with icons for file operations and status (Information, Warnings, Errors, Kill process), and a main workspace divided into three panes.

Configuration tree (Left Pane): A hierarchical tree view showing the application's structure. The 'Remote jobs' folder is expanded, revealing sub-items like 'New remote job', 'File execution', 'Update installation', 'MSI installation', 'System action', 'File Operation', 'Local account maintena...', 'Popup', 'Multiple actions', 'My Remote Jobs', 'install winzip', 'My Remote Actions', and 'My Target Computers'. The 'Reporter' folder is also visible, containing 'Reports', 'Execution results', 'Console output', 'Execution statistics', 'Job statistics', 'Tables', 'Scheduler', and 'Options'.

Configuration (Middle Pane): A tabbed interface with 'Configuration' and 'Executing - 0/1'. The 'Executing - 0/1' tab is active, displaying a table of execution results.

Thread	Computer	State	Information
0	SYS2	Starting	
1		Ready	
2		Ready	
3		Ready	
4		Ready	
5		Ready	
6		Ready	
7		Ready	
8		Ready	
9		Ready	
10		Ready	
11		Ready	
12		Ready	
13		Ready	
14		Ready	
15		Ready	
16		Ready	
17		Ready	
18		Ready	
19		Ready	
20		Ready	
21		Ready	
22		Ready	

Quick access (Right Pane): A panel titled 'Quick access' containing several action buttons: 'Restart on failed computers', 'Restart on all computers', 'Schedule...', 'Save in my remote jobs...', and 'Use in a new remote job'.

PsExec Vs RemoteExec

RemoteExec	PsExec
RemoteExec is commercial product from isDecisions	Light weight free ware from microsoft
Graphical user interface and user friendly	Command line interface
RemoteExec logs execution history and results allowing administrators to reload remote actions and generate reports	Logging feature is not available
Uses fully multi-threading technology	Single threaded, Execute script on target machines sequentially.
Schedule the jobs and invoke the script when ever remote machines are available.	Tough to work on large network where remote machines are not available,
Log all remote executions and automatically generates graphical, printable reports	PsExec only provides you with a console output and a return code.
Scheduling and conditional execution integrated	This feature not available
RemoteExec gives you the ability to save Remote Action configurations in a favorite folder	Only save the script files and execute where ever required.
RemoteExec's communications are encrypted	when you use a specific user account, PsExec passes credentials in the clear to the remote workstation

Future Work & References

- Future Work

- Write Java API which internally uses psexec and overcome drawback(clear text password and Multi-threading).
- Include scheduling in API.

- References

- <http://technet.microsoft.com/en-us/sysinternals/bb897553.aspx>
- <http://www.isdecisions.com/products/remotexec/>
- <http://www.isdecisions.com/products/remotexec/psexec-vs-remotexec.htm>
- <http://download.isdecisions.com/download/remotexec/RemoteExec%20Getting%20Started%20Guide.pdf>

Thank You