

Automated Software Delivery System (ASDS)

Version 2.0.0

Developed and Programmed by

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Technical Overview

Automated Software Delivery System (ASDS) was developed as an interim solution to enhance current software delivery efforts. By adopting ASDS, the need for desktop support technicians to physically visit each desktop for software installation or updates can be dramatically reduced, thereby freeing up resources for other tasks. With further development, ASDS has the potential to evolve into a robust and scalable system for automated software delivery.

ASDS leverages existing network resources by executing installation or update packages during the network logon process through Novell NetWare login scripts; it can also use Windows NT login scripts for platform independence. By setting up groups in NDS, software installations or updates can be successfully delivered to desktops, with the success of each delivery auditable through ASDS log files.

Install and update package files are created with Wise InstallMaster v8.14 and saved as setup.exe. ASDS searches for these files in their respective subfolders under the network location `\\CSFI\Programs\AutoInst`, executing them based on the particular software package intended for delivery to the desktop.

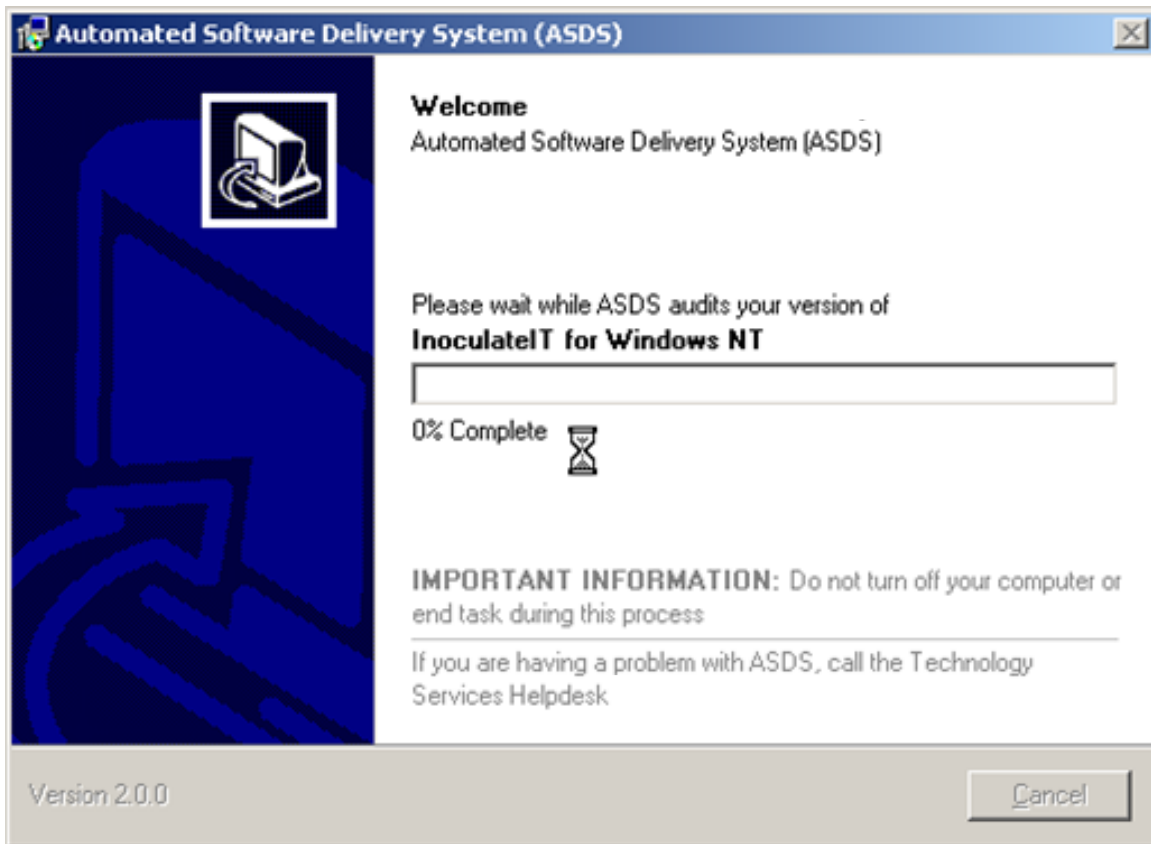
ASDS log files are used to track and audit which workstations receive a particular install or update. The following location is where all ASDS log files are written to:

`\\CSFI\Programs\AutoInst\Audit` and saved with the file extension .asd.

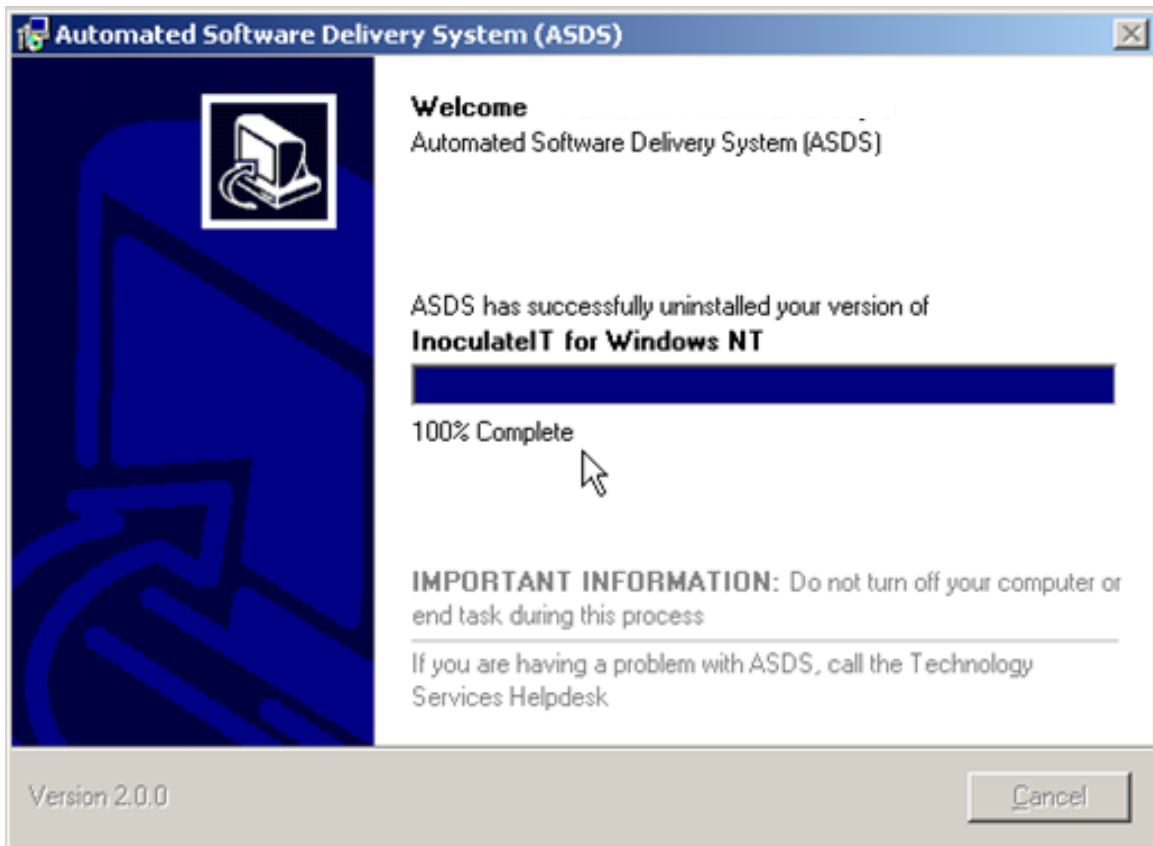
ASDS was developed using Microsoft Visual Basic v6.0 SP5 and compiled into the executables ASDSMain.exe and ASDS.exe. These files are bundled with the necessary VB runtime DLL to ensure compatibility with desktops lacking this file.

Screen Shot Images

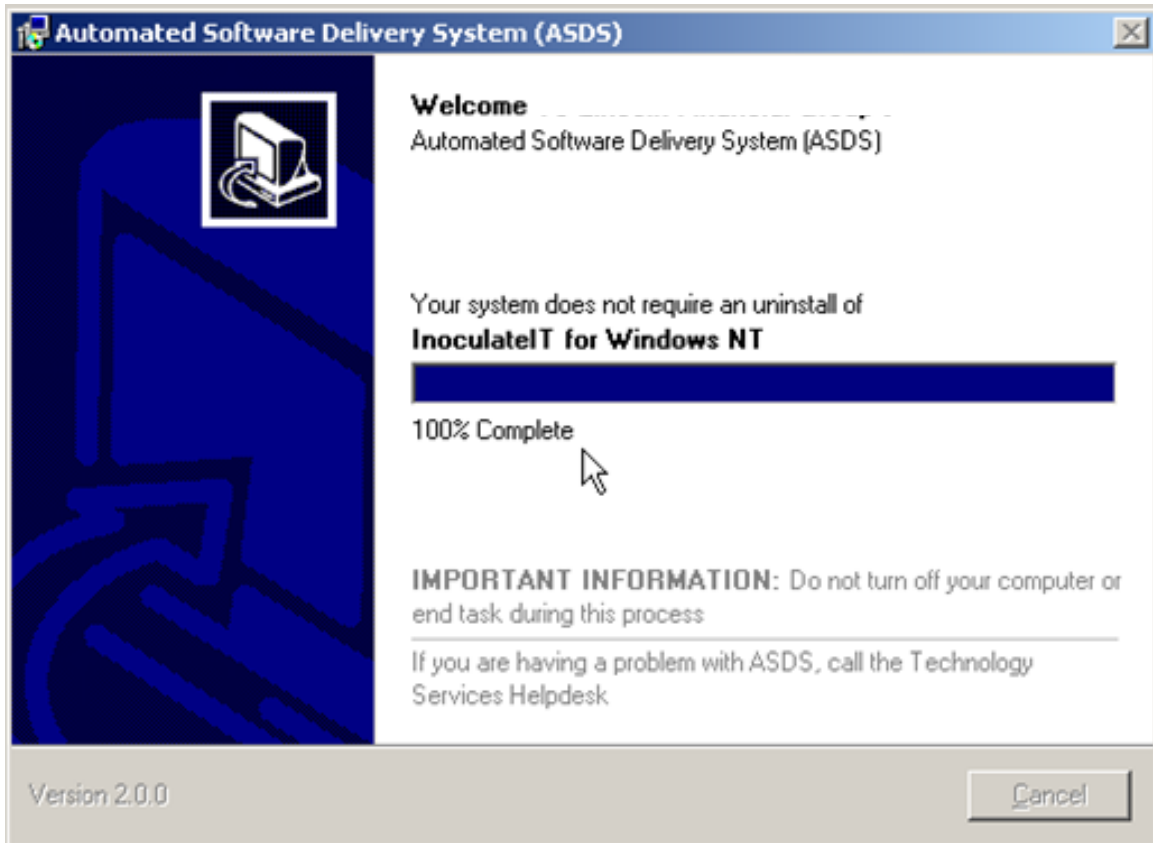
The following screen is the first one presented to users selected to receive an install or update package. In this case, InoculateIT for Windows NT is being uninstalled from the desktop as part of an Enterprise-Wide Symantec Anti-Virus initiative. Behind the scenes, the Automated System Deployment Service (ASDS) checks the system registry and file system for InoculateIT for Windows NT. If found, ASDS executes an uninstall routine as detailed in Appendix A.



The following screen is presented to a user after a successful uninstall.



The following screen is presented to the user when a condition defined in the code is met, indicating that neither an installation nor an update is required.



Troubleshooting ASDS

Below is a list of error codes and their meanings:

Error Code 53: File Not Found.

This error message occurs if a file(s) defined in code for a particular condition cannot be found. Debugging code is necessary in this event.

Error Code 76: Path Not Found.

This error message occurs if a path(s) defined in code for a particular condition cannot be found. Debugging code is necessary in this event.

Error Code 1010: Cannot find the file 'setup.exe' to execute.

This error message occurs if the network login script executes a setup.bat file for a particular install or update but a setup.exe file does not exist in the same folder.

Error Code 1011: Cannot write to the server log file.

This error message occurs if ASDS is unable to write / append the computer name to the server log file.

Error Code 1012: Cannot create the workstation log file.

This error message occurs if ASDS is unable to write the status of the install or update to the workstation log file.

Error Code 1013: Not enough disk space.

This error message occurs if ASDS is unable to deliver an install or update package due to the local hard drive not having enough disk space.

Appendix A (InoculateIT for Windows NT uninstall sub procedure)

```
Private Sub UninstallAntiVirus()
```

```
On Error Goto PROC_ERR
```

```
Dim strBatchFileName As String
Dim ShellExecute As CShellExecute
Dim lngResult As EnumShellExecuteErrors
Set ShellExecute = New CShellExecute
Dim dwMilliseconds As Long
```

'JF - Commented below code and utilized "Kill" & "Rmdir" in order to support 'older "Ole32.dll" file. Received GPF with older ole32.dll file.

```
'Dim FileSystem As Object
'Set FileSystem = CreateObject("Scripting.FileSystemObject")
'FileSystem.DeleteFolder "c:\Inoculan", True
'FileSystem.DeleteFolder "C:\WINDOWS\Start
Menu\Programs\Cheyenne AntiVirus for Windows 95", True
'FileSystem.DeleteFile "C:\WINDOWS\Desktop\Cheyenne AntiVirus for
Windows 95", True
```

```
Select Case mstrGetLFGOperatingSystem
Case "Windows 95", "Windows 98", "Windows Me"
'Uninstall Cheyenne AntiVirus for Windows 95, Windows 98, and
Windows Me Users
g_strKillAppName = "realmon.exe"
KillApp True
g_strKillAppName = "isrv95.exe"
KillApp True
dwMilliseconds = 4000
sleep dwMilliseconds
lblStatusBar.left = -2400
lblProgBarStatus.Caption = "50% Complete"
frmMain.Refresh
mstrTextFileName = "c:\autoexec.bat"
mstrTextToDelete = "SET INOCULAN=C:\INOCULAN"
DeleteLines
mstrTextFileName = "c:\autoexec.bat"
```

```

    mstrTextToDelete = "SET INOCULAN=C:\PROGRAM
FILES\CHEYENNE\ANTIVIRUS"
    DeleteLines
    mstrTextFileName = "c:\autoexec.bat"
    mstrTextToDelete = "SET
INOCULAN=C:\PROGRA~1\CHEYENNE\ANTIVI~1"
    DeleteLines
    mstrTextFileName = "c:\autoexec.bat"
    mstrTextToDelete = "C:\INOCULAN\EXAMINE.EXE /Q /S /N /A"
    DeleteLines
    mstrTextFileName = "c:\autoexec.bat"
    mstrTextToDelete = "C:\PROGRAM
FILES\CHEYENNE\ANTIVIRUS\EXAMINE.EXE /Q /S /N /A"
    DeleteLines
    mstrTextFileName = "c:\autoexec.bat"
    mstrTextToDelete =
"C:\PROGRA~1\CHEYENNE\ANTIVI~1\EXAMINE.EXE /Q /S /N /A"
    DeleteLines
    mstrTextFileName = "c:\autoexec.bat"
    mstrTextToDelete = "C:\INOCULAN\EXAMINE.EXE"
    DeleteLines
    mstrTextFileName = "c:\autoexec.bat"
    mstrTextToDelete = "C:\PROGRAM
FILES\CHEYENNE\ANTIVIRUS\EXAMINE.EXE"
    DeleteLines
    mstrTextFileName = "c:\autoexec.bat"
    mstrTextToDelete =
"C:\PROGRA~1\CHEYENNE\ANTIVI~1\EXAMINE.EXE"
    DeleteLines
    lblStatusBar.left = -1080
    lblProgBarStatus.Caption = "75% Complete"
    frmMain.Refresh
    Call DeleteKey(HKEY_LOCAL_MACHINE,
"SOFTWARE\Cheyenne")
    Call DeleteValue(HKEY_LOCAL_MACHINE,
"SOFTWARE\Microsoft\Windows\CurrentVersion\Run", "Cheyenne
AutoDownload")
    Call DeleteValue(HKEY_LOCAL_MACHINE,
"SOFTWARE\Microsoft\Windows\CurrentVersion\Run", "Cheyenne
Realtime Monitor")

```



```

    Call DeleteValue(HKEY_LOCAL_MACHINE,
"SOFTWARE\Microsoft\Windows\CurrentVersion\Run", "Cheyenne
Scanning Service")
    Call DeleteKey(HKEY_CLASSES_ROOT, "CLSID\{fafa7900-e9fa-
11ce-92e9-00805f7455c0}")
    Call DeleteKey(HKEY_LOCAL_MACHINE,
"SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\Cheyenne
AntiVirus")
    Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\CurrentControlSet\Services\VxD\Wimmun32")
    Call DeleteKey(HKEY_USERS,
".Default\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\Menu
Order\Start Menu\&Programs\Cheyenne AntiVirus for Windows 95")
    Call DeleteKey(HKEY_CURRENT_USER,
"SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\MenuOrder\St
art Menu\&Programs\Cheyenne AntiVirus for Windows 95")
    strBatchFileName = "C:\avwin9x.pif"
    lngResult = ShellExecute.LaunchProgram(Me.hwnd,
strBatchFileName, strBatchFileName, _
"", sesSW_SHOWDEFAULT)
    If lngResult = seeNoError Then
        Do While ShellExecute.StillExecuting
            DoEvents
        Loop
    End If
    Kill "C:\avwin9x.bat"
    Kill "C:\avwin9x.pif"
    Case "Windows NT", "Windows 2000", "Windows XP"
        'Uninstall InoculateIT for Windows NT, Windows 2000, and Windows
XP Users
        dwMilliseconds = 4000
        sleep dwMilliseconds
        lblStatusBar.left = -2400
        lblProgBarStatus.Caption = "50% Complete"
        frmMain.Refresh
        'Run Through Twice
        Dim strPassAgain As String
        strPassAgain = "1st Pass"
        'Stop the AntiVirus Processes & Services
        vbStopService mstrGetLFGComputerName, "AutoDownload
Server"

```

```

vbStopService mstrGetLFGComputerName, "Cheyenne Alert
Notification Server"
vbStopService mstrGetLFGComputerName, "InoculateIT Server"
vbStopService mstrGetLFGComputerName, "InoculateIT E-mail
Server"
vbStopService mstrGetLFGComputerName, "Event Log Watch"
vbStopService mstrGetLFGComputerName, "LogWatch"
Dim IRealmon As Long
IRealmon = FindWindow(vbNullString, "InoculateIT Realtime
Manager")
WindowHandle IRealmon, 0
IRealmon = FindWindow(vbNullString, "Event Log Watch")
WindowHandle IRealmon, 0
IRealmon = FindWindow(vbNullString, "LogWatch")
WindowHandle IRealmon, 0
mstrKillAppName = "realmon.exe"
KillApp True
mstrKillAppName = "inojobsv.exe"
KillApp True
mstrKillAppName = "LogWatNT.exe"
KillApp True
'
Call DeleteValue(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet001\Control\Session Manager\Environment",
"InocuLAN")
Call DeleteValue(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet002\Control\Session Manager\Environment",
"InocuLAN")
Call DeleteValue(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet003\Control\Session Manager\Environment",
"InocuLAN")
Call DeleteValue(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet004\Control\Session Manager\Environment",
"InocuLAN")
Call DeleteValue(HKEY_LOCAL_MACHINE,
"SYSTEM\CurrentControlSet\Control\Session Manager\Environment",
"InocuLAN")
'
Call DeleteKey(HKEY_LOCAL_MACHINE,
"SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\InoculateIT
for Windows NT")

```

DeleteKeyAdvanced HKEY_LOCAL_MACHINE,
"SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\InoculateIT
for Windows NT"

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet001\Services\EventLog\Application\InoculateIT
Server")

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet002\Services\EventLog\Application\InoculateIT
Server")

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet003\Services\EventLog\Application\InoculateIT
Server")

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet004\Services\EventLog\Application\InoculateIT
Server")

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\CurrentControlSet\Services\EventLog\Application\InoculateIT
Server")

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet001\Services\EventLog\Application\Cheyenne Alert
Notification Server")

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet002\Services\EventLog\Application\Cheyenne Alert
Notification Server")

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet003\Services\EventLog\Application\Cheyenne Alert
Notification Server")

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet004\Services\EventLog\Application\Cheyenne Alert
Notification Server")

Call DeleteKey(HKEY_LOCAL_MACHINE,
"SYSTEM\CurrentControlSet\Services\EventLog\Application\Cheyenne
Alert Notification Server")

DeleteKeyAdvanced HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet001\Services\EventLog\Application\InoculateIT
Server"

DeleteKeyAdvanced HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet002\Services\EventLog\Application\InoculateIT
Server"

```

DeleteKeyAdvanced HKEY_LOCAL_MACHINE,
"SYSTEM\ControlSet003\Services\EventLog\Application\InoculateIT
Server"

```

```

'Delete Files, Folders, & Shortcuts
Dim FileSystem As Object
Set FileSystem = CreateObject("Scripting.FileSystemObject")
If strPassAgain = "1st Pass" Then
    dwMilliseconds = 2000
    sleep dwMilliseconds
    Kill "c:\Inoculan\*.*)"
    lblStatusBar.left = -1080
    lblProgBarStatus.Caption = "75% Complete"
    frmMain.Refresh
    dwMilliseconds = 2000
    sleep dwMilliseconds
Else
    lblStatusBar.left = -480
    lblProgBarStatus.Caption = "90% Complete"
    frmMain.Refresh
    dwMilliseconds = 2000
    sleep dwMilliseconds
    Kill "c:\Inoculan\*.*)"
    dwMilliseconds = 2000
    sleep dwMilliseconds
End If
FileSystem.DeleteFolder "c:\Alert", True
Kill "c:\Alert\*.*)"
Rmdir "c:\Alert"
FileSystem.DeleteFolder "c:\Alert", True
FileSystem.DeleteFolder "c:\Ca_lic", True
Kill "c:\ca_lic\*.*)"
Rmdir "c:\ca_lic"
FileSystem.DeleteFolder "c:\Ca_lic", True
FileSystem.DeleteFolder "c:\Inoculan", True
'ASDSTempID User Profile
Dim strLFGUserName As String

```

```

PROC_EXIT:
    strBatchFileName = ""
Exit Sub

```

PROC_ERR:

 DisplayLogErrorMessage "frmMain Sub UninstallAntiVirus", True
 Resume PROC_EXIT

End Sub