How to save money on Oracle Java Client Licenses

Oracle has multiple software for Java Clients. You can use the Enterprise version (JEE), but also the Runtime Engine (JRE). There is one big difference: you have to pay for the commercial use of the JEE. But I will give a work around that will save you money!

1. On the Licensing and Distribution FAQs you find additional license information about the Java Runtime Engine:

   I am an administrator. Can I install Java on all the computers at my company?
   Yes, you may make unlimited copies for internal use for the purpose of running applications on Java-enabled general purpose desktop computers and servers.

   Yes, you may make unlimited copies for internal use for the purpose of running applications on Java-enabled general purpose desktop computers and servers.

   Do I need to purchase a license if I need the Java Runtime Environment for multiple users in my company?
   No, you may make unlimited copies for internal use for the purpose of running applications on Java-enabled general purpose desktop computers and servers.

   No, you may make unlimited copies for internal use for the purpose of running applications on Java-enabled general purpose desktop computers and servers.

2. However, the JEE has different license conditions. It is mentioned on the Java Platform, Standard Edition MSI Enterprise JRE Installer Guide:

   > **Note:**
   > The MSI Enterprise JRE Installer requires a commercial license for use in production. To learn more about commercial features and how to enable them, see Oracle Java SE Advanced & Suite Products.

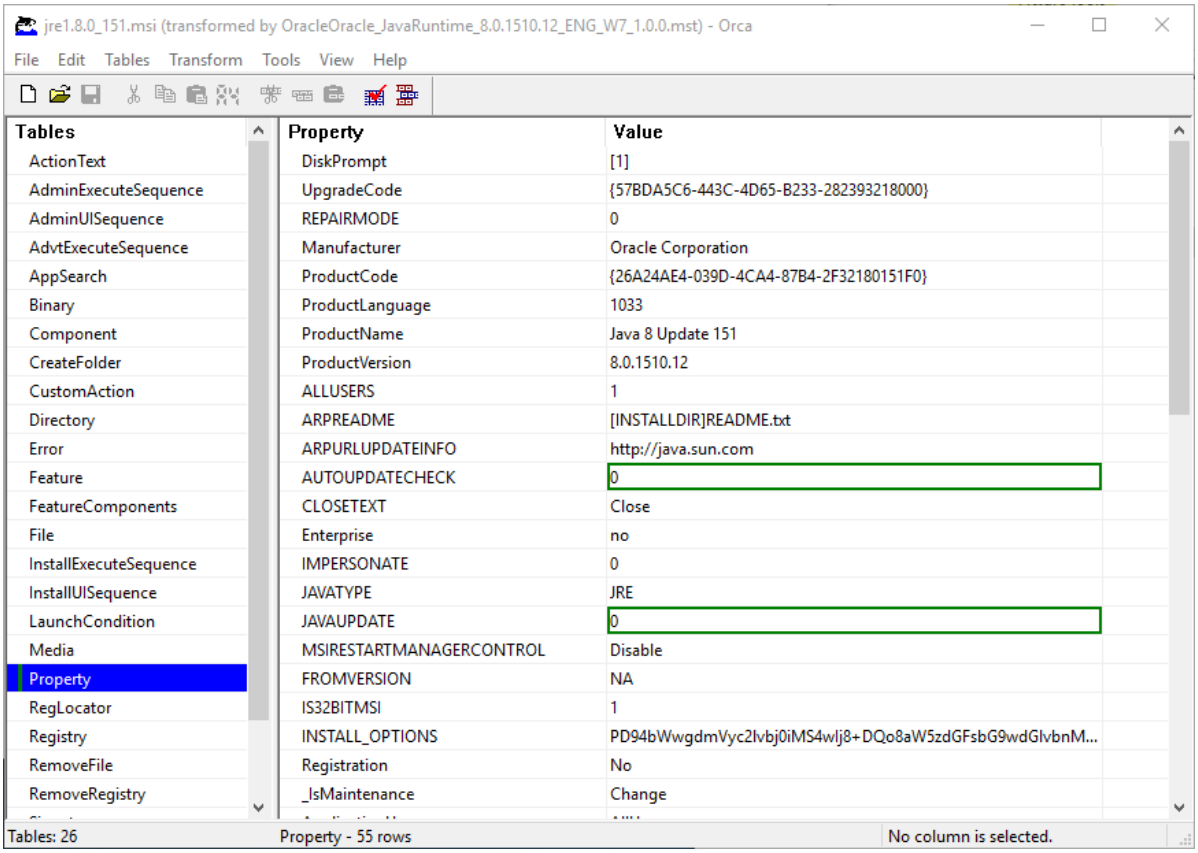
   The MSI Enterprise JRE Installer requires a commercial license for use in production.

However, there is a work around. Use the regular JRE installation instead.

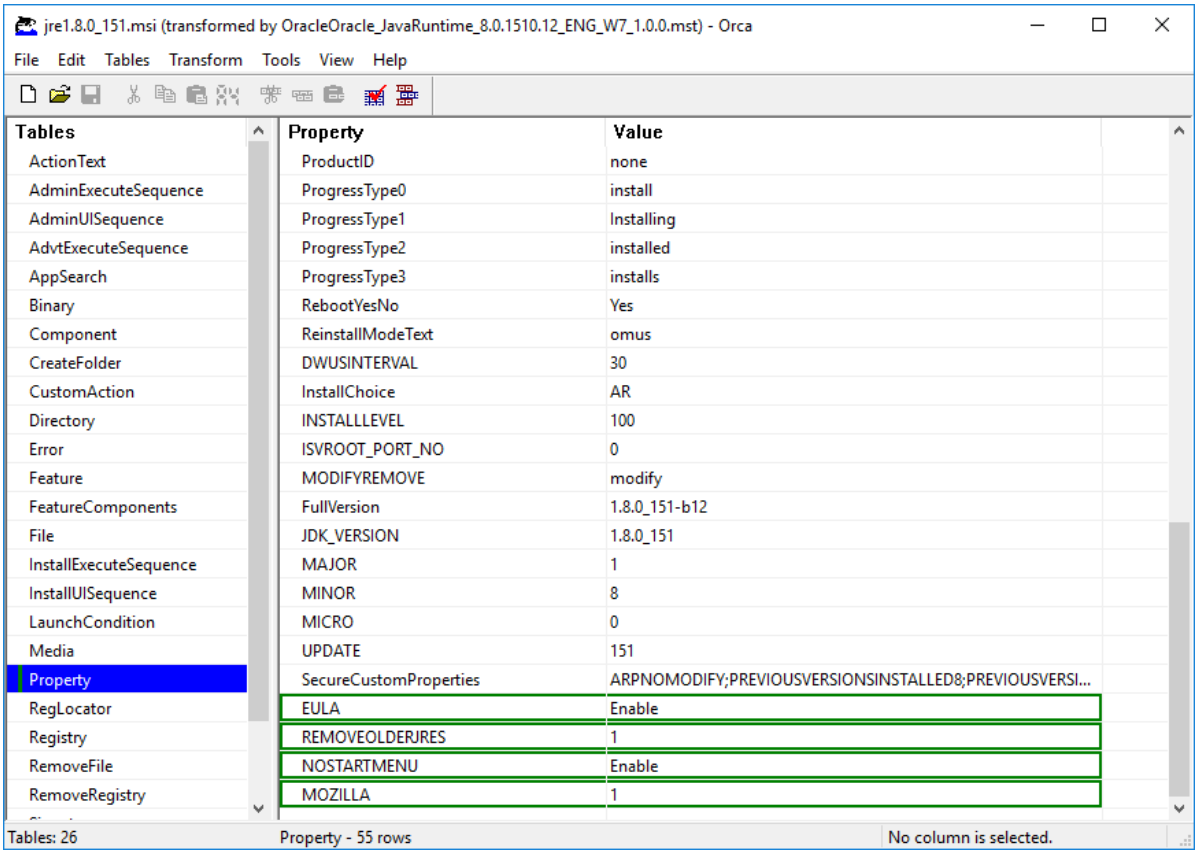
1. Download the latest JRE from Java Downloads for All Operating Systems.
2. Run the installer, but stop when this screen appears:

Installation screen

3. The MSI is extracted from the installer in one of the subfolders of *C:\Users\%UserName%\AppData\LocalLow\Oracle\Java*.
4. Quit the installer.
5. Use Orca to create a transform file, based on the MSI. In this case it is jre1.8.0_151.msi.


jre1.8.0_151.msi (transformed by OracleOracle_JavaRuntime_8.0.1510.12_ENG_W7_1.0.0.mst) - Orca
File Edit Tables Transform Tools View Help
Tables
ActionText
AdminExecuteSequence
AdminUISequence
AdvtExecuteSequence
AppSearch
Binary
Component
CreateFolder
CustomAction
Directory
Error
Feature
FeatureComponents
File
InstallExecuteSequence
InstallUISequence
LaunchCondition
Media
Property
RegLocator
Registry
RemoveFile
RemoveRegistry
Property
Value
DiskPrompt
[1]
UpgradeCode
{57BDA5C6-443C-4D65-B233-282393218000}
REPAIRMODE
0
Manufacturer
Oracle Corporation
ProductCode
{26A24AE4-039D-4CA4-87B4-2F32180151F0}
ProductLanguage
1033
ProductName
Java 8 Update 151
ProductVersion
8.0.1510.12
ALLUSERS
1
ARPREADME
[INSTALLDIR]README.txt
ARPURLUPDATEINFO
http://java.sun.com
AUTOUPDATECHECK
0
CLOSETEXT
Close
Enterprise
no
IMPERSONATE
0
JAVATYPE
JRE
JAVAUPDATE
0
MSIRESTARTMANAGERCONTROL
Disable
FROMVERSION
NA
IS32BITMSI
1
INSTALL_OPTIONS
PD94bWwgdmVyc2lvbj0iMS4wIj8+DQo8aW5zdGFsbG9wdGlvbnM...
Registration
No
_IsMaintenance
Change
Tables: 26
Property - 55 rows
No column is selected.

Orca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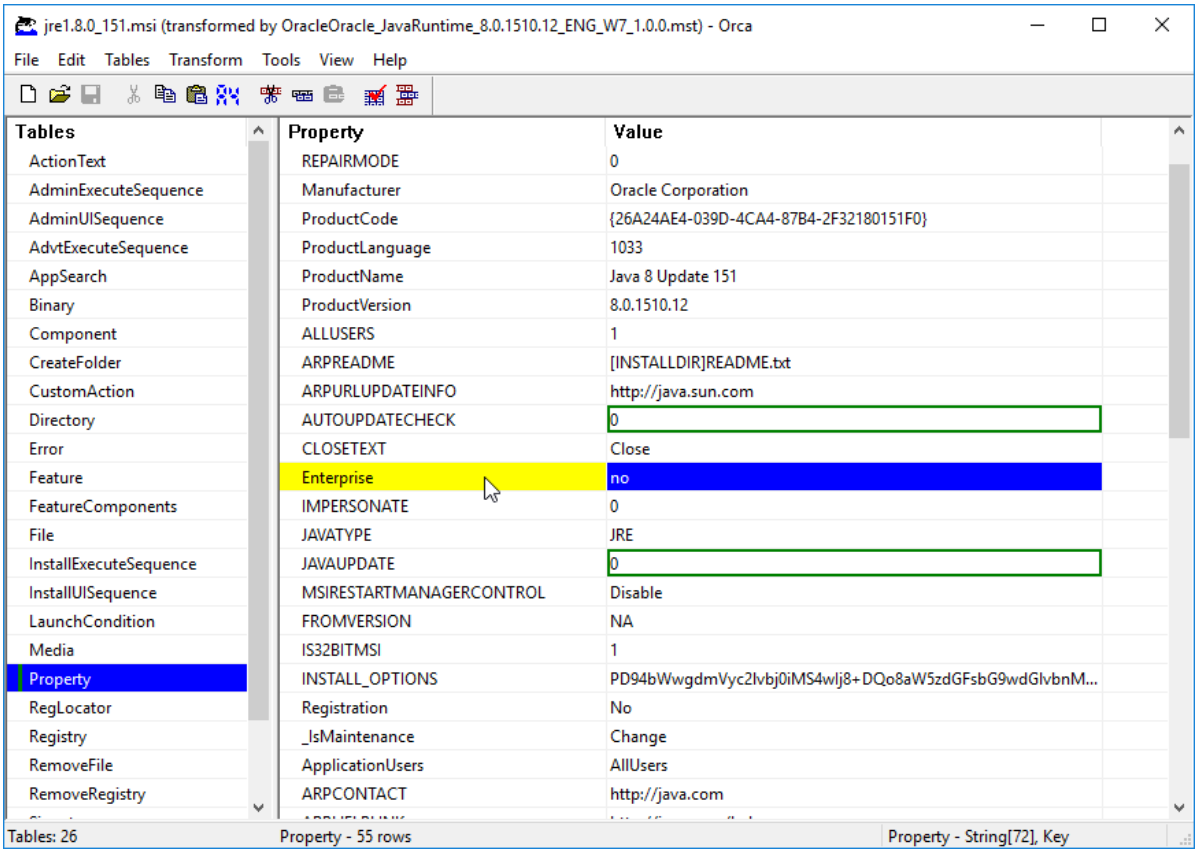
RegLocator
Registry
RemoveFile
RemoveRegistry
Property
Value
ProductID
none
ProgressType0
install
ProgressType1
Installing
ProgressType2
installed
ProgressType3
installs
RebootYesNo
Yes
ReinstallModeText
omus
DWUSINTERVAL
30
InstallChoice
AR
INSTALLLEVEL
100
ISVROOT_PORT_NO
0
MODIFYREMOVE
modify
FullVersion
1.8.0_151-b12
JDK_VERSION
1.8.0_151
MAJOR
1
MINOR
8
MICRO
0
UPDATE
151
SecureCustomProperties
ARPNOMODIFY;PREVIOUSVERSIONSINSTALLED8;PREVIOUSVERSI...
EULA
Enable
REMOVEOLDERJRES
1
NOSTARTMENU
Enable
MOZILLA
1
Tables: 26
Property - 55 rows
No column is selected.

Orca

6. And the enterprise version is not used:



Orca – enterprise no.

A vbscript to uninstall previous versions and install the latest version

```
'
'==========================================================
'==========================================
' Installs Java Runtime 8 Update 151
' Created by Willem-Jan Vroom
' Version history:
'
' 1.0.0
'   Initial version
'
'
'==========================================================
'==========================================


' ----------------------------------------------------------
```

```
----------------------------------------
' Declare the most variables.
' ------------------------------------------------
----------------------------------------

  Option Explicit

  Dim objShell                              : set objShell
= WScript.CreateObject("WScript.Shell")
  Dim objNetWork                           : set objNetWork
= Wscript.CreateObject("WScript.Network")
   Dim objLogFileFSO                                : Set
objLogFileFSO                                         =
CreateObject("Scripting.FileSystemObject")
  Dim objFSO                                : Set objFSO
= CreateObject("Scripting.FileSystemObject")
   Dim objProcessEnv                                : Set
objProcessEnv                                         =
objShell.Environment("PROCESS")
  Dim objFolder
  Dim objFile
  Dim colFiles
   Dim objWMIService                                : Set
objWMIService                                         =
GetObject("winmgmts:{impersonationLevel=impersonate}!\\.
\root\cimv2")
   Dim fn_objWMIService                             : Set
fn_objWMIService                                      =
GetObject("winmgmts:{impersonationLevel=impersonate}!\\.
\root\cimv2")
  Dim objReg                                : Set objReg
=
GetObject("winmgmts:{impersonationLevel=impersonate}!\\.
\root\default:StdRegProv")
  Dim objLogFile
  Dim colListOfServices
  Dim objService
  Dim strCurrentDir                        : strCurrentDir
=                   Left(Wscript.ScriptFullname,
InstrRev(Wscript.ScriptFullname, "\"))
                                            strCurrentDir
```

```
= Left(strCurrentDir,len(strCurrentDir)-1)
   Dim strcomputerName                                  :
strcomputerName                                         =
objProcessEnv("COMPUTERNAME")
  Dim strLogLocation                        : strLogLocation
= "C:\WINDOWS\system32\Logfiles"
  Dim strOutputFile                          : strOutputFile
=  strLogLocation  &  "\"  &  strcomputerName  &
"_JavaRuntime1.8.0_151_Install_"                        &
Replace(FormatDateTime(Now(), 2),"/","-") & ".log"
  Dim strCurrentUser                        : strCurrentUser
= ""
   Dim strCurrentUserSID                                :
strCurrentUserSID                          = ""
  Dim strOS                                      : strOS
= ""
  Dim strValueName                          : strValueName
= ""
  Dim strValue                                 : strValue
= ""
   Dim strArchitecture                                  :
strArchitecture                            = ""
  Dim strMSI                                     : strMSI
= ""
  Dim strMST                                     : strMST
= ""
  Dim strMSILogFile                         : strMSILogFile
= ""
  Dim strCommand                              : strCommand
= ""
   Dim strSoftwareName                                  :
strSoftwareName                     = "%Java 6 %,%Java 7
%,%Java 8 %"
   Dim arrSoftwareToUninstall                           :
arrSoftwareToUninstall                                  =
split(strSoftwareName,",")
   Dim strFileNamesToKill                               :
strFileNamesToKill                                      =
"iexplore.exe,chrome.exe,firefox.exe,javaw.exe,webstart.
exe"
   Dim arrFileNamesToKill                               :
```

```
arrFileNamesToKill                                    =
split(strFileNamesToKill,",")
  Dim objSoftwareToUninstall
   Dim arrValues,arrSubKeys, arrArguments, strFileName,
strCommonPrograms

  Dim colProcess, objProcess
  Dim valResult, valOSBuildNumber, valCounter
  Dim objSubfolder
  Dim objItem, colItems
  Dim strKeyPath

  Const ForWriting          = 2
  Const ForReading          = 1
  Const ForAppending        = 8
  Const OverWriteFiles      = True
  const HKEY_CURRENT_USER   = &H80000001
  const HKEY_LOCAL_MACHINE  = &H80000002
  Const HKEY_USERS          = &H80000003

' ----------------------------------------------------
----------------------------------------
' Create the log location (if not exists)
' Open the logfile.
' ----------------------------------------------------
----------------------------------------

  CreateFolderStructure(strLogLocation)
  OpenLogFile()
  WriteToLog "- ACTION: script started."

' ----------------------------------------------------
----------------------------------------
' Detect the current OS.
' ----------------------------------------------------
----------------------------------------

   Set colItems = objWMIService.ExecQuery("Select
Caption,BuildNumber from Win32_OperatingSystem")
  For Each objItem in colItems
      strOS           = objItem.Caption
```

```
      valOSBuildNumber = objItem.BuildNumber
  next

' ------------------------------------------------------
------------------------------------------
' Detect the current processor architecture.
' ------------------------------------------------------
------------------------------------------

                                                    if
objFSO.FolderExists(objShell.ExpandEnvironmentStrings("%
windir%") & "\SysWOW64\Config") then
     strArchitecture = "x64"
       else
     strArchitecture = "x86"
  end if

   WriteToLog("########## Details regarding operating
system and logged on user          ##########")
  WriteToLog("Found Operating System:    " & strOS)
   WriteToLog("Found architecture:           " &
strArchitecture)

' ------------------------------------------------------
------------------------------------------
' Find pending reboots and write it to the log file.
' ------------------------------------------------------
------------------------------------------

  if PendingRebootRequired Then
     WriteToLog("Pending restarts:          Yes")
       else
     WriteToLog("Pending restarts:          No")
  End if
  WriteToLog("########## End details regarding operating
system and logged on user    ##########")
  WriteToLog(" ")

' ------------------------------------------------------
------------------------------------------
' Sets SEE_MASK_NOZONECHECKS to 1.
```

```
' That will avoid a screen that asks for permission to
run an application from
' a share or mapped drive.
' ------------------------------------------------------
----------------------------------------

  objProcessEnv("SEE_MASK_NOZONECHECKS") = 1

' ------------------------------------------------------
----------------------------------------
' Check if the parameter /uninstall is given.
' In that case: remove the product and quit.
' ------------------------------------------------------
----------------------------------------

  if wscript.arguments.count > 0 Then
     Set arrArguments = wscript.arguments
     for valCounter = 0 to wscript.arguments.count - 1
                                                      if
instr(lcase(arrArguments(valCounter)),"/uninstall") > 0
or instr(lcase(arrArguments(valCounter)),"/remove") > 0
Then
            UninstallJavaAllVersions
            CloseLogFile()
            wscript.Quit(0)
         end if
     next
  end if

  KillProcess()

  UninstallJavaAllVersions

' ------------------------------------------------------
----------------------------------------
' Install Java 8 (x86 version only)
' ------------------------------------------------------
----------------------------------------

   strMSI=FindFileInTheFolder(strCurrentDir & "\x86",
"msi")
```

```
   strMST=FindFileInTheFolder(strCurrentDir & "\x86",
"mst")

  KillProcess()
   strMSILogFile = left(strMST,len(strMST)-4) & "
('x86').log"

  WriteToLog("########## Start installing Java 8.0.151.
##########")
  WriteToLog(" ")
  strCommand = "msiexec /i " & chr(34) & strCurrentDir &
"\x86\" & strMSI & chr(34)
  strCommand = strcommand & " TRANSFORMS=" & chr(34) &
strCurrentDir & "\x86\" & strMST & chr(34)
  strCommand = strCommand & " /qn /l*v " & chr(34) &
strLogLocation & "\" & strMSILogFile & chr(34)
  WriteToLog ("Running command: " & strCommand)
  valResult = objShell.Run(strCommand,6,True)
  WriteToLog ("Result: " & valResult)
  WriteToLog(" ")
   WriteToLog("########## End installing Java 8.0.151.
##########")
  WriteToLog(" ")


' ------------------------------------------------------
----------------------------------------
' Uninstall the Automatic Update function (msi)
' ------------------------------------------------------
----------------------------------------

   WriteToLog("########## Start uninstalling the Java
Update Manager.                    ##########")
  WriteToLog(" ")

  strMSI        = "au.msi"
         strMST                                    =
"Oracle_JavaRuntime_DisableAutomaticUpdate_8.0.1510.1_EN
G_W7_1.0.0.mst"
  strMSILogFile = left(strMST,len(strMST)-4) & ".log"
```

```
  strCommand = "msiexec /x " & chr(34) & strCurrentDir &
"\AutoUpdater\" & strMSI & chr(34)
  strCommand = strCommand & " /qn /l*v " & chr(34) &
strLogLocation & "\" & strMSILogFile & chr(34)
  WriteToLog ("Running command: " & strCommand)
  valResult = objShell.Run(strCommand,6,True)

  if valResult = 1605 then
     valResult = 0  ' 1605 -> This action is only valid
for products that are currently installed.
  end if

  WriteToLog ("Result: " & valResult)
  WriteToLog(" ")
   WriteToLog("########## End uninstalling the Java
Update Manager.                          ##########")
  WriteToLog(" ")

  ModifyIcons()

  CloseLogFile()

'
=================================================
=======================================
' All the subroutines and functions.
'
=================================================
=======================================

Function fnKillProcess(strProcessName)

' -----------------------------------------------
-----------------------------------------
' Function: fnKillProcess(strProcessName)
' Terminates the given processname.
' -----------------------------------------------
-----------------------------------------

  Set colProcess = fn_objWMIService.ExecQuery ("Select *
From Win32_Process")
```

```
  For Each objProcess In colProcess
                                                    If
Instr(LCase(objProcess.Name),LCase(strProcessName)) > 0
Then
          objShell.Run "TASKKILL /F /T /IM " &
objProcess.Name, 0, False
       objProcess.Terminate()
         WriteToLog("Terminating application: " &
objProcess.Name)
    End If
  Next

End Function

Sub OpenLogFile()

' ------------------------------------------------------
----------------------------------------
' Subroutine: OpenLogFile()
' The name of the logfile is mentinoed in the variabele
strOutputFile.
' ------------------------------------------------------
----------------------------------------

  If objLogFileFSO.FileExists(strOutputFile) Then
                            Set     objLogFile     =
objLogFileFSO.OpenTextFile(strOutputFile, ForAppending)
        Else
                            Set     objLogFile     =
objLogFileFSO.CreateTextFile(strOutputFile)
  End If

End Sub

Sub CloseLogFile()

' ------------------------------------------------------
----------------------------------------
' Subroutine: CloseLogFile()
' Close the log file.
' ------------------------------------------------------
```

```
-----------------------------------------
   WriteToLog("########## End installation of Java 8.
##########")
  WriteToLog("- ACTION: script ended.")
  WriteToLog(" ")
  objLogFile.Close
  Set objLogfileFSO = Nothing

End Sub

Function WriteToLog(sLogMessage)

' ----------------------------------------------------
----------------------------------------
' Function: WriteToLog(sLogMessage)
' Writes an entry 'sLogMessage' in the logfile.
' ----------------------------------------------------
----------------------------------------

   if instr(sLogMessage, "- ACTION: ") = 0 then
sLogMessage = "             " & sLogMessage
   objLogFile.WriteLine("Time: " & now & "   " &
sLogMessage)

End Function

Function PendingRebootRequired()

' ----------------------------------------------------
----------------------------------------
' Function: PendingRebootRequired()
' Detects if there are pending reboots by querying the
registry:
'                                                     *
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVer
sion\Component Based Servicing
'   Key: RebootPending    (Only on Vista and above)
'                                                     *
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVer
sion\WindowsUpdate\Auto Update
'   Key: RebootRequired
```

```
'                                                                *
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Sess
ion Manager
'   Value: PendingFileRenameOperations
'
' (C) by Peter Fonk
' ---------------------------------------------------
----------------------------------------

  PendingRebootRequired = False

  If valOSBuildNumber >= 6001 Then
     PendingRebootRequired = KeyExists("RebootPending",
"SOFTWARE\Microsoft\Windows\CurrentVersion\Component
Based Servicing\")
     if PendingRebootRequired Then
        Exit Function
     end if
  End If

   PendingRebootRequired = KeyExists("RebootRequired",
"SOFTWARE\Microsoft\Windows\CurrentVersion\WindowsUpdate
\Auto Update\")
  if PendingRebootRequired Then
     Exit Function
  end if

                  PendingRebootRequired         =
ValueExists("PendingFileRenameOperations",
"SYSTEM\CurrentControlSet\Control\Session Manager\")

End Function


Function KeyExists(Key, KeyPath)

' ---------------------------------------------------
----------------------------------------
' Function: KeyExists(Key, KeyPath)
' Checks to see if the 'Key' in 'KeyPath' exists.
' ---------------------------------------------------
```

```
----------------------------------------

  Dim arrSubKeys
            Dim      oReg:      Set      oReg      =
GetObject("winmgmts:!root/default:StdRegProv")
      Dim   regReadResult   :   regReadResult   =
oReg.EnumKey(HKEY_LOCAL_MACHINE, KeyPath, arrSubKeys)
  Dim i
  KeyExists = False
  If regReadResult = 0 And IsArray(arrSubKeys) Then
     For i = 0 To UBound(arrSubKeys)
         If InStr(arrSubKeys(i), Key) <> 0 Then
            KeyExists = True
            i = UBound(arrSubKeys)
         End If
     Next
  End If
  Set oReg = Nothing

End Function

Function ValueExists(Key, KeyPath)

' ------------------------------------------------------
----------------------------------------
' Function: ValueExists(Key, KeyPath)
' Checks to see if the value 'Key' in 'KeyPath' exists.
' ------------------------------------------------------
----------------------------------------

  Dim arrSubValues
            Dim      oReg:      Set      oReg      =
GetObject("winmgmts:!root/default:StdRegProv")
      Dim   regReadResult   :   regReadResult   =
oReg.EnumValues(HKEY_LOCAL_MACHINE,      KeyPath,
arrSubValues)
  Dim i
  ValueExists = False
  If regReadResult = 0 And IsArray(arrSubValues) Then
     For i = 0 To UBound(arrSubValues)
         If InStr(arrSubValues(i), Key) <> 0 Then
```

```
            ValueExists = True
            i = UBound(arrSubValues)
         End If
      Next
  End If
  Set oReg = Nothing

End Function

Sub CreateFolderStructure(strFolderNameToBeCreated)

' ------------------------------------------------------
----------------------------------------
'                                          Subroutine:
CreateFolderStructure(strFolderNameToBeCreated)
'    Creates    the    map    as    mentioned    in
strFolderNameToBeCreated.
' ------------------------------------------------------
----------------------------------------

   Dim  arrFoldersTMP  :  arrFoldersTMP  =  split
(strFolderNameToBeCreated,"\")
  Dim strFolder  : strFolder  = ""
  Dim objFolderTMP

  For Each objFolderTMP in arrFoldersTMP
      strFolder = strFolder & objFolderTMP
      If NOT objFSO.FolderExists(strFolder) Then
             objFSO.CreateFolder(strFolder)
      end If
      strFolder = strFolder & "\"
  Next

End Sub

Function GetSIDFromUser(UserName)

' ------------------------------------------------------
----------------------------------------
' Function: GetSIDFromUser(UserName)
' Gets the SID from the give username.
```

```
' We use the registry to avoid an empty result if run
under the SYSTEM account.
' ------------------------------------------------------
----------------------------------------

  Dim DomainName, Result, WMIUser

  If InStr(UserName, "\") > 0 Then
    DomainName = Mid(UserName, 1, InStr(UserName, "\") -
1)
    UserName = Mid(UserName, InStr(UserName, "\") + 1)
  Else
                                    DomainName        =
CreateObject("ADSystemInfo").DomainShortName
  End If

  On Error Resume Next
                      Set           WMIUser           =
GetObject("winmgmts:{impersonationlevel=impersonate}!" _
      &  "/root/cimv2:Win32_UserAccount.Domain='"  &
DomainName  &  "'" _
    & ",Name='" & UserName & "'")
  If Err.Number = 0 Then
    Result = WMIUser.SID
  Else
    Result = ""
  End If
  On Error GoTo 0

  GetSIDFromUser = Result

End Function

Function UninstallJavaAllVersions()
        Dim result
        Dim objSoftware
        Dim colSoftware

         WriteToLog("########## Start uninstalling all
previous Java versions.              ##########")
```

```
            For Each objSoftwareToUninstall in
arrSoftwareToUninstall
                                Set   colSoftware   =
objWMIService.ExecQuery("Select * from Win32_Product
Where Name LIKE '" & objSoftwareToUninstall & "'" )
          For Each objSoftware in colSoftware
                WriteToLog "- ACTION: Uninstalling " &
objSoftware.Name & "."
                result = objShell.Run("msiexec.exe /x "
&     objSoftware.IdentifyingNumber     &     "
REBOOT=ReallySuppress /qn /l*v " & chr(34) &
"c:\windows\system32\logfiles\Uninstalling   "   &
objSoftware.Name & ".log" & chr(34),0,True)
                        WriteToLog "- ACTION: " &
objSoftware.Name & " removed." & vbcrlf
          Next
      Next

        WriteToLog("########## End uninstalling all
previous Java versions.                ##########")
      WriteToLog(" ")

      Set objSoftware = Nothing
      Set colSoftware = Nothing
End Function

Function KillProcess()
       Dim objProcess
            Dim colProcess : Set colProcess =
objWMIService.ExecQuery ("Select * from Win32_Process")
       For Each objProcess in colProcess
               Dim strFileName, strTemp
                        For Each strFileName In
arrFileNamesToKill
                    If LCase(objProcess.Name) =
LCase(strFileName) Then
                                On Error Resume Next
                                     objWshShell.Run
"TASKKILL /F /T /IM " & objProcess.Name, 0, False
                                objProcess.Terminate()
                                WriteToLog "- ACTION: "
```

```
& objProcess.Name & " terminated"
                                On Error Goto 0
                        End If
                Next
        Next
        Set objProcess = Nothing
        Set colProcess = Nothing
End Function

Sub ModifyIcons()

' ------------------------------------------------------
----------------------------------------
' Subroutine: ModifyIcons()
' Removes all the Java icons from both the Desktop and
Start Menu and replace it by a modified
' version
' ------------------------------------------------------
----------------------------------------

  WriteToLog(" ")
   WriteToLog("---------- Modify the Start Menu and
remove unneeded icons.               ----------")
  WriteToLog(" ")

         strKeyPath                                    =
"SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\Shel
l Folders"
  strValueName     = "Common Programs"
                              objReg.GetStringValue
HKEY_LOCAL_MACHINE,strKeyPath,strValueName,strCommonProg
rams

   if objFSO.FolderExists(strCommonPrograms & "\Java")
Then
     objFSO.DeleteFolder(strCommonPrograms & "\Java")
      WriteToLog("The folder '" & strCommonPrograms &
"\Java' has been deleted.")
      else
      WriteToLog("The folder '" & strCommonPrograms &
"\Java' does not exists thus not deleted.")
```

```
  End if

  WriteToLog(" ")
   WriteToLog("---------- End modifying Start Menu.
----------")
  WriteToLog(" ")


End Sub

Function      FindFileInTheFolder(strFolderName,
strExtension)

  ' ------------------------------------------------
------------------------------------------------------
-----
   '  Function:  FindFileInTheFolder(strFolderName,
strExtension)
   ' Returns the full file name in the folder
strFolderName and the extension strExtension
  ' ------------------------------------------------
------------------------------------------------------
-----

  Set objFolder = objFSO.GetFolder(strFolderName)
  Set colFiles  = objFolder.Files
  FindFileInTheFolder = ""

  For Each objFile in colFiles
             if  lcase(right(objFile.Name,3))  =
lcase(strExtension) Then
         FindFileInTheFolder  = objFile.Name
      end if
  Next
End Function
```

You can [download the script – excluding the MSI – here](#).