APPLIES TO:

Kernel Upgrade

SUMMARY

This article explains how to upgrade the Kernel on Windows Environment 32-Bit Machines

AUTHOR:

K.VENKATA RAMU**.**

COMPANY:

WILLSYS INFOSYSTEMS Pvt. Ltd.,

CREATED ON:

31st October 2011.

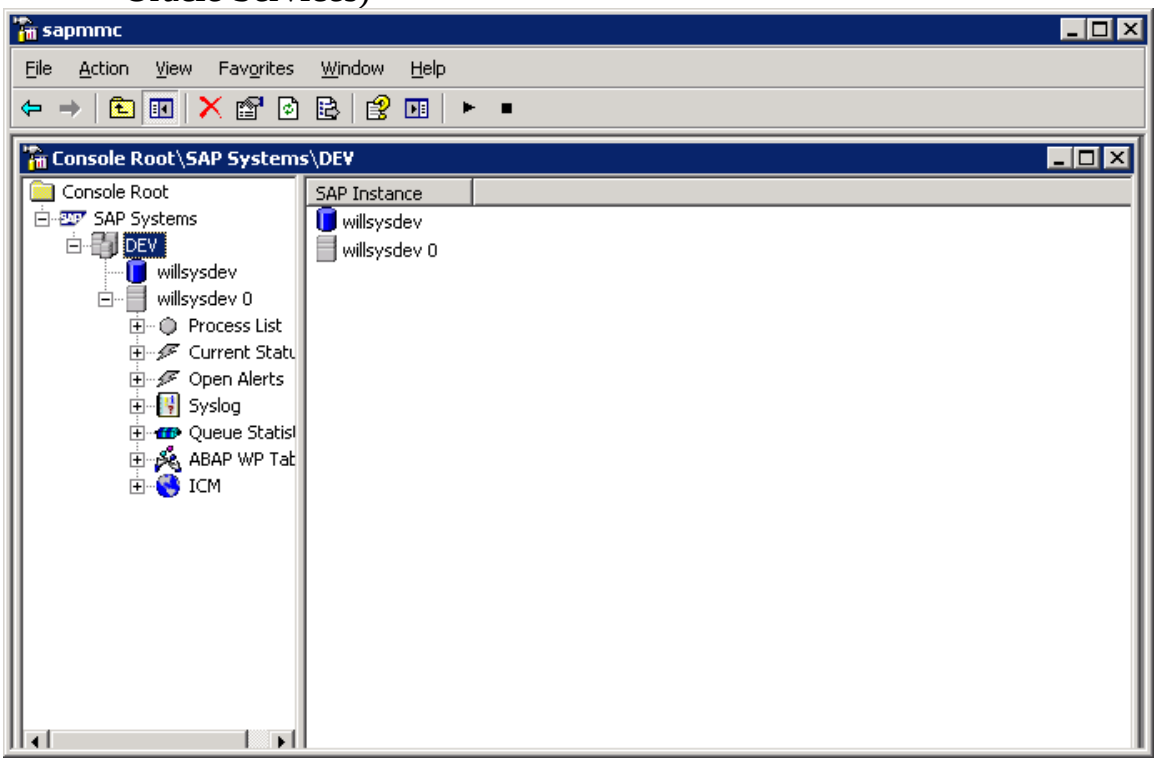
KERNEL UPGRADE

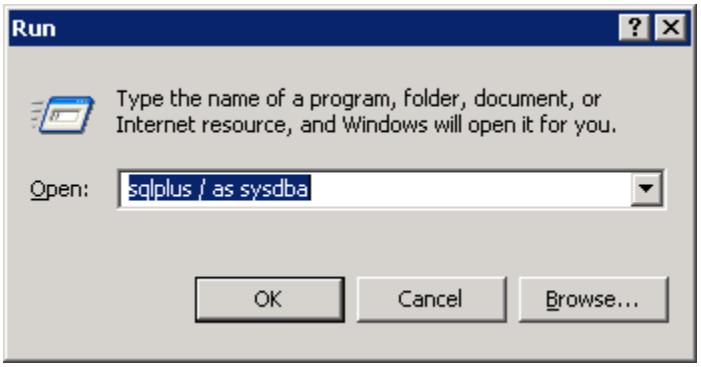
It is used to replace the existing Executables with a new set of executables.
SAP Kernel Resides in /sapmnt/<SID>/exe (or)
/usr/sap/<SID>/SYS/exe/UC/NTI386 for 32bit Machines
/usr/sap/<SID>/SYS/exe/UC/NTAMD64 for 64bit Machines

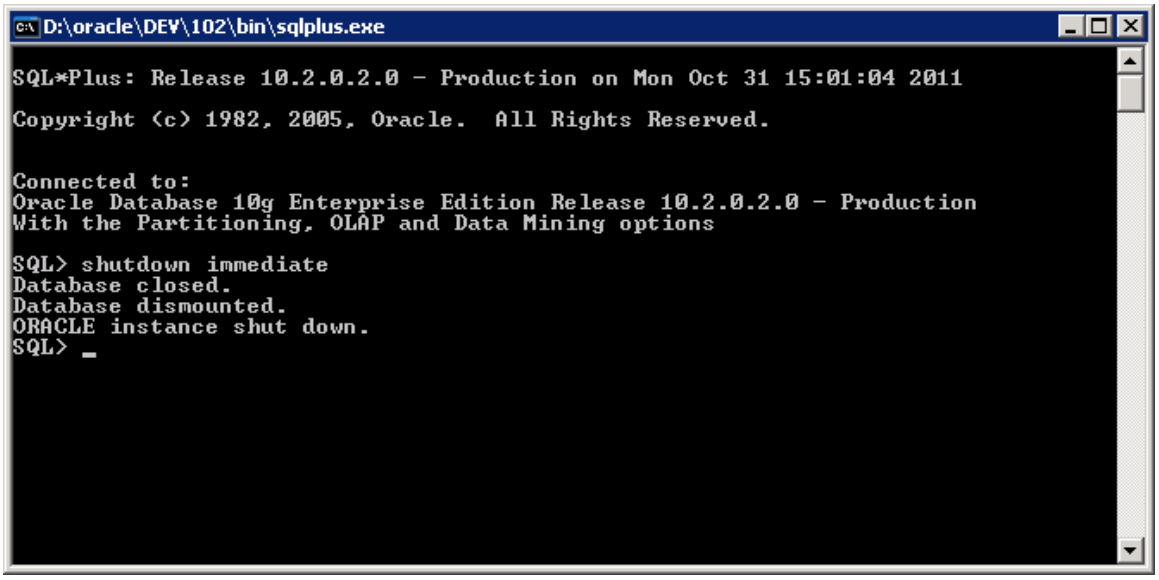
1. While deploying support Packages a Pre-Requisite is Kernel needs to be upgraded.
2. During an SAP OS/DB upgrade (or) patching
3. SAP Recommendations to secure the system (or) Resolve a conflict (or) an issue.
4. we can check the Kernel Version by executing command “disp+work” cmd→disp+work on Windows Environment

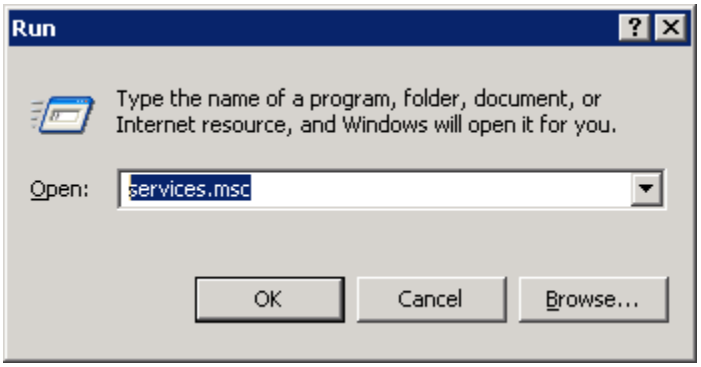
PROCESS:

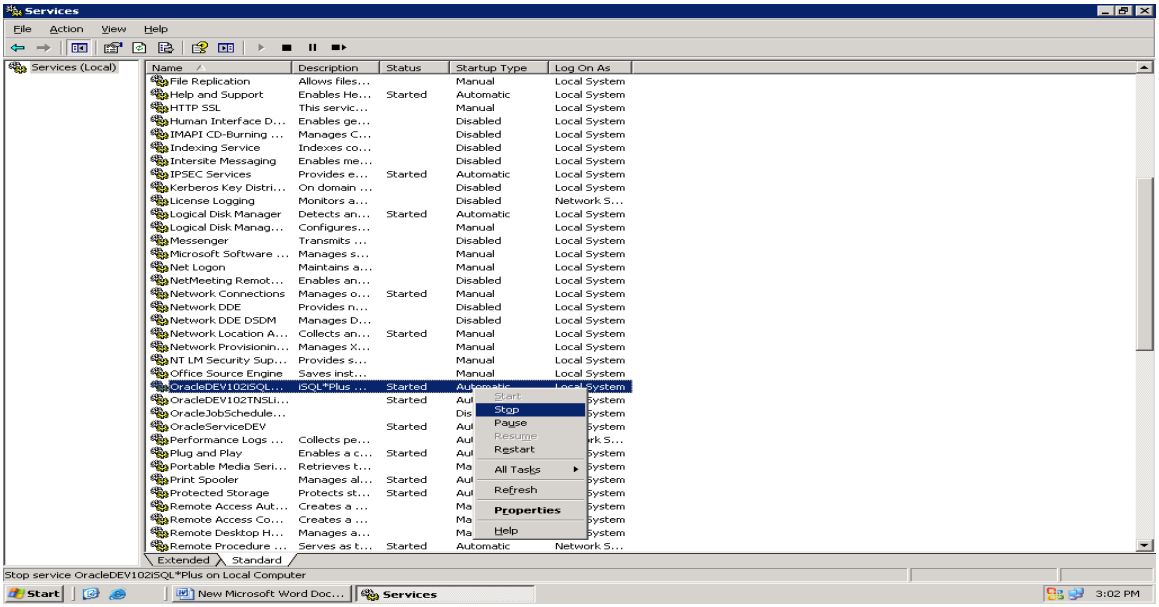
1. Stop SAP System, Stop Services (SAPOSCOL, SAP<SID>_00, All Oracle Services)

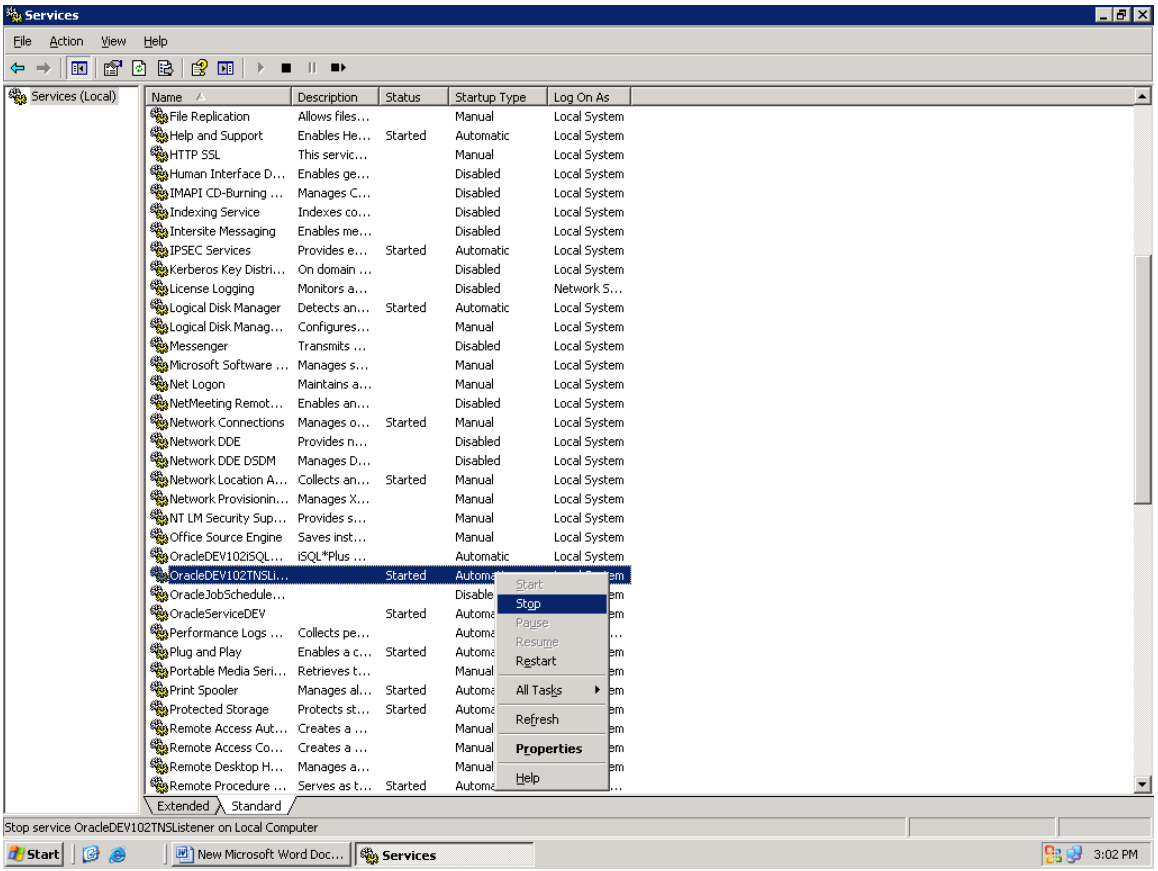


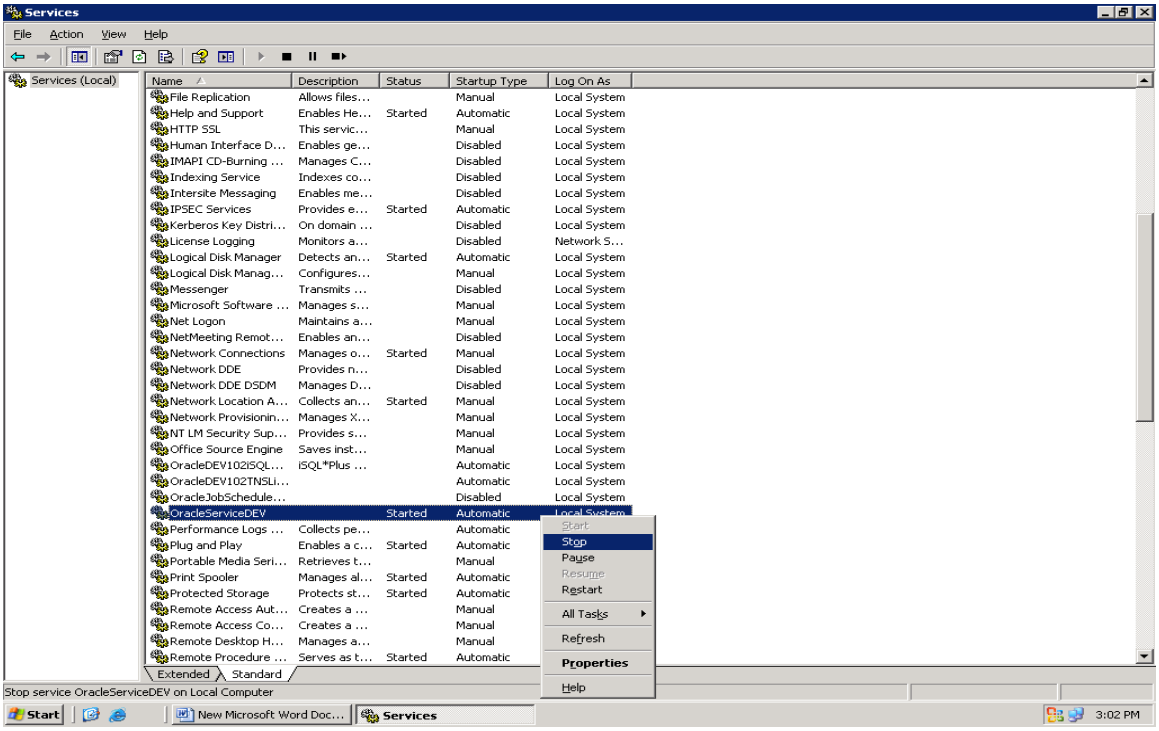

Run
Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:
sqlplus / as sysdba
OK
Cancel
Browse...

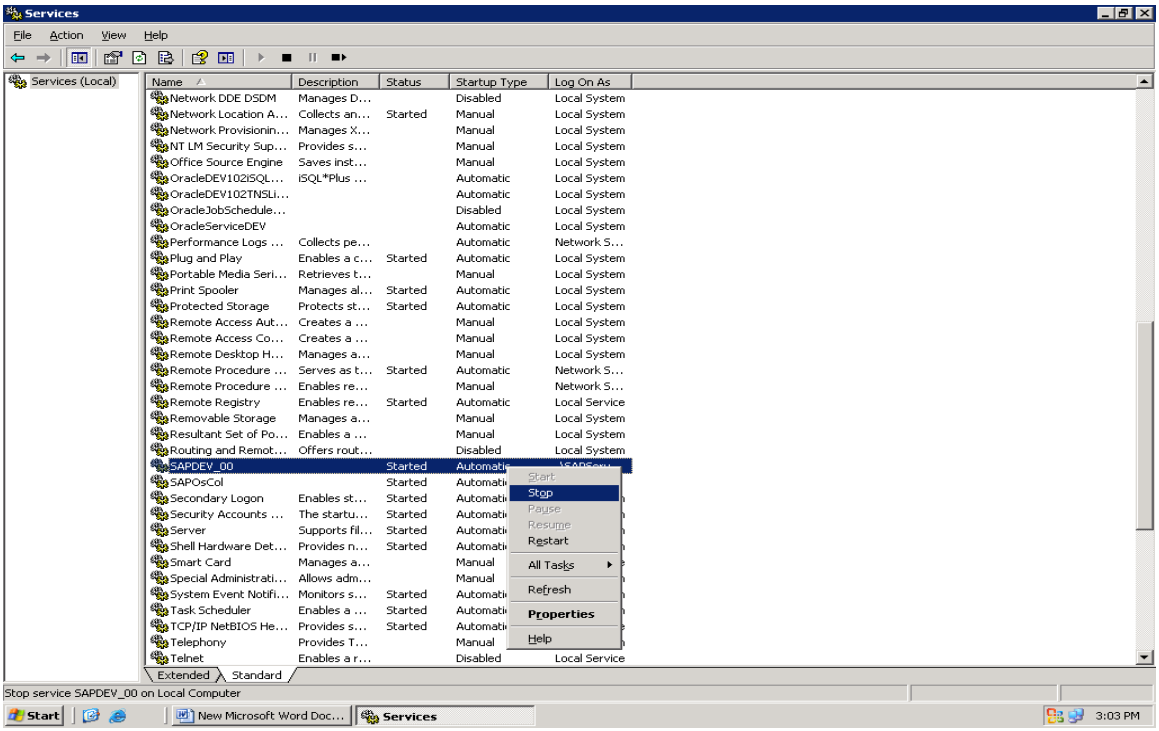

D:\oracle\DEV\102\bin\sqlplus.exe
SQL*Plus: Release 10.2.0.2.0 - Production on Mon Oct 31 15:01:04 2011
Copyright (c) 1982, 2005, Oracle. All Rights Reserved.
Connected to:
Oracle Database 10g Enterprise Edition Release 10.2.0.2.0 - Production
With the Partitioning, OLAP and Data Mining options
SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL>

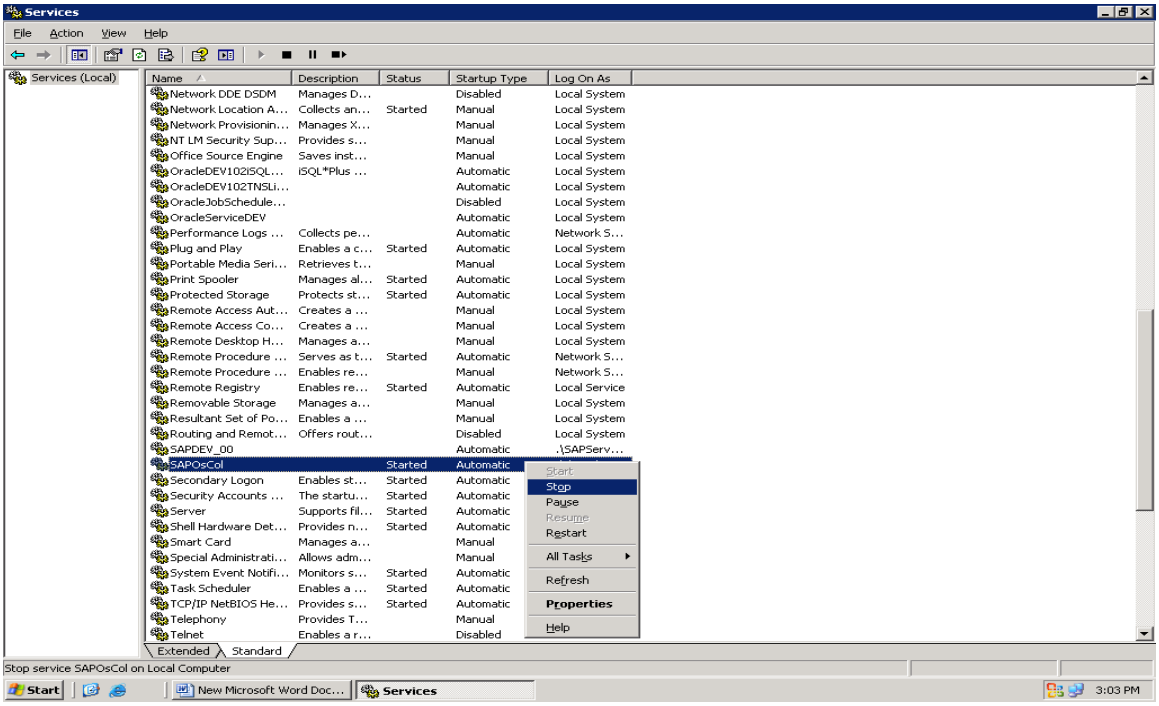

Run
Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:
services.msc
OK
Cancel
Browse...


Services
File Action View Help
Services (Local)
Name Description Status Startup Type Log On As
Start
Stop
Pause
Resume
Restart
All Tasks
Refresh
Properties
Help
Extended Standard
Stop service OracleDEV102iSQL*Plus on Local Computer
Start
New Microsoft Word Doc...
Services
3:02 PM

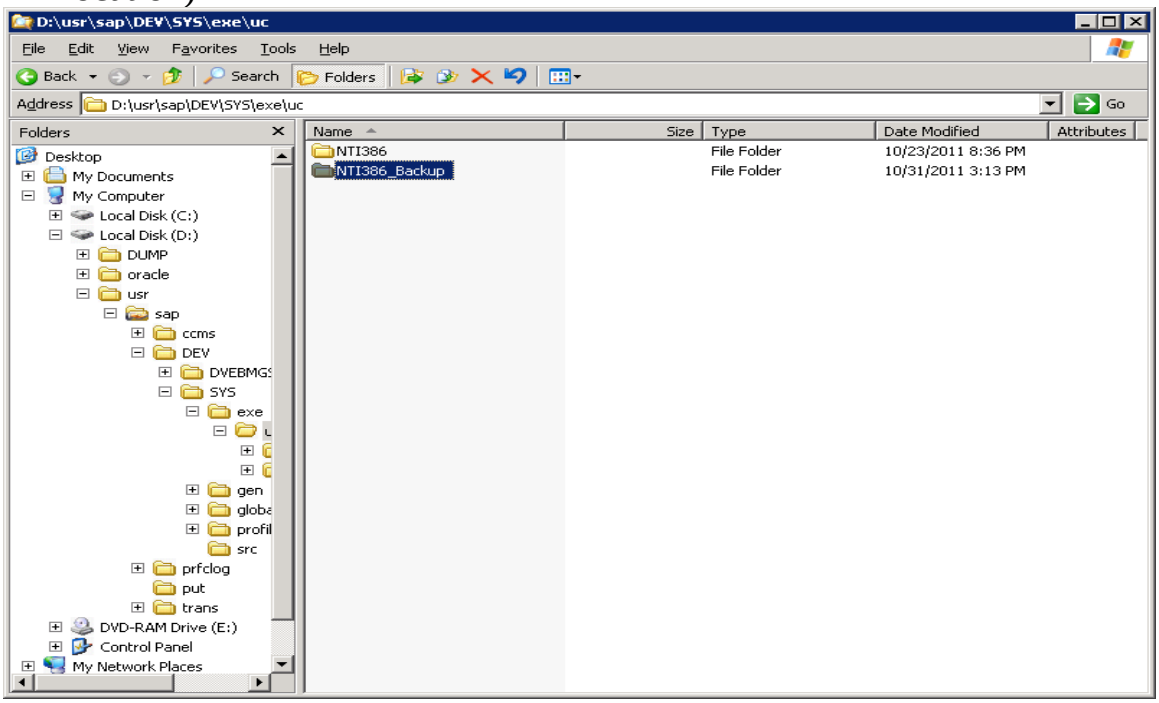

Services
File Action View Help
Services (Local)
Name Description Status Startup Type Log On As
Start
Stop
Pause
Resume
Restart
All Tasks
Refresh
Properties
Help
Extended Standard
Stop service OracleDEV102TNSListener on Local Computer
Start
New Microsoft Word Doc...
Services
3:02 PM


Services
File Action View Help
Services (Local)
Name Description Status Startup Type Log On As
File Replication Allows files... Manual Local System
Help and Support Enables He... Started Automatic Local System
HTTP SSL This servic... Manual Local System
Human Interface D... Enables ge... Disabled Local System
IMAPI CD-Burning ... Manages C... Disabled Local System
Indexing Service Indexes co... Disabled Local System
Intersite Messaging Enables me... Disabled Local System
IPSEC Services Provides e... Started Automatic Local System
Kerberos Key Distri... On domain ... Disabled Local System
License Logging Monitors a... Disabled Network S...
Logical Disk Manager Detects an... Started Automatic Local System
Logical Disk Manag... Configures... Manual Local System
Messenger Transmits ... Disabled Local System
Microsoft Software ... Manages s... Manual Local System
Net Logon Maintains a... Manual Local System
NetMeeting Remot... Enables an... Disabled Local System
Network Connections Manages o... Started Manual Local System
Network DDE Provides n... Disabled Local System
Network DDE DSDM Manages D... Disabled Local System
Network Location A... Collects an... Started Manual Local System
Network Provisionin... Manages X... Manual Local System
NT LM Security Sup... Provides s... Manual Local System
Office Source Engine Saves inst... Manual Local System
OracleDEV102iSQL... iSQL*Plus ... Automatic Local System
OracleDEV102TNSLi... Automatic Local System
OracleJobSchedule... Disabled Local System
OracleServiceDEV Started Automatic Local System
Performance Logs ... Collects pe... Automatic
Plug and Play Enables a c... Started Automatic
Portable Media Seri... Retrieves t... Manual
Print Spooler Manages al... Started Automatic
Protected Storage Protects st... Started Automatic
Remote Access Aut... Creates a ... Manual
Remote Access Co... Creates a ... Manual
Remote Desktop H... Manages a... Manual
Remote Procedure ... Serves as t... Started Automatic
Start
Stop
Pause
Resume
Restart
All Tasks
Refresh
Properties
Help
Extended Standard
Stop service OracleServiceDEV on Local Computer
Start New Microsoft Word Doc... Services 3:02 PM

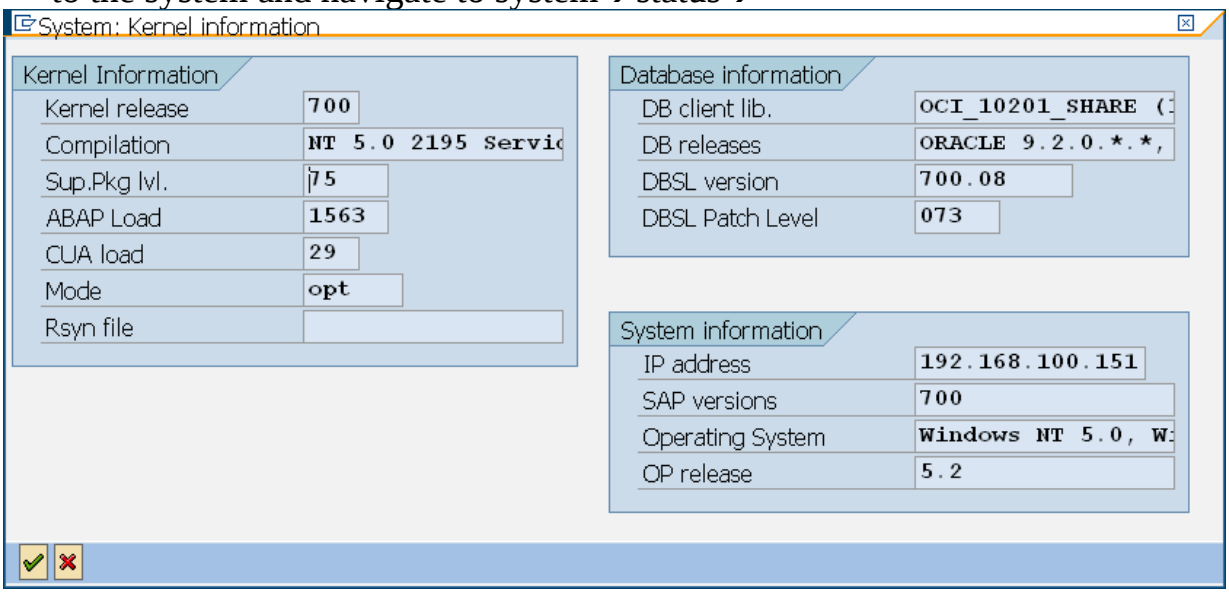

Services
File Action View Help
Services (Local)
Name Description Status Startup Type Log On As
Network DDE DSDM Manages D... Disabled Local System
Network Location A... Collects an... Started Manual Local System
Network Provisionin... Manages X... Manual Local System
NT LM Security Sup... Provides s... Manual Local System
Office Source Engine Saves inst... Manual Local System
OracleDEV102iSQL... iSQL*Plus ... Automatic Local System
OracleDEV102TNSLi... Automatic Local System
OracleJobSchedule... Disabled Local System
OracleServiceDEV Automatic Local System
Performance Logs ... Collects pe... Automatic Network S...
Plug and Play Enables a c... Started Automatic Local System
Portable Media Seri... Retrieves t... Manual Local System
Print Spooler Manages al... Started Automatic Local System
Protected Storage Protects st... Started Automatic Local System
Remote Access Aut... Creates a ... Manual Local System
Remote Access Co... Creates a ... Manual Local System
Remote Desktop H... Manages a... Manual Local System
Remote Procedure ... Serves as t... Started Automatic Network S...
Remote Procedure ... Enables re... Manual Network S...
Remote Registry Enables re... Started Automatic Local Service
Removable Storage Manages a... Manual Local System
Resultant Set of Po... Enables a ... Manual Local System
Routing and Remot... Offers rout... Disabled Local System
SAPDEV_00 Started Automatic
SAPOsCol Started Automatic
Secondary Logon Enables st... Started Automatic
Security Accounts ... The startu... Started Automatic
Server Supports fil... Started Automatic
Shell Hardware Det... Provides n... Started Automatic
Smart Card Manages a... Manual
Special Administrati... Allows adm... Manual
System Event Notifi... Monitors s... Started Automatic
Task Scheduler Enables a ... Started Automatic
TCP/IP NetBIOS He... Provides s... Started Automatic
Telephony Provides T... Manual
Telnet Enables a r... Disabled Local Service
Start
Stop
Pause
Resume
Restart
All Tasks
Refresh
Properties
Help
Extended Standard
Stop service SAPDEV_00 on Local Computer
Start New Microsoft Word Doc... Services 3:03 PM

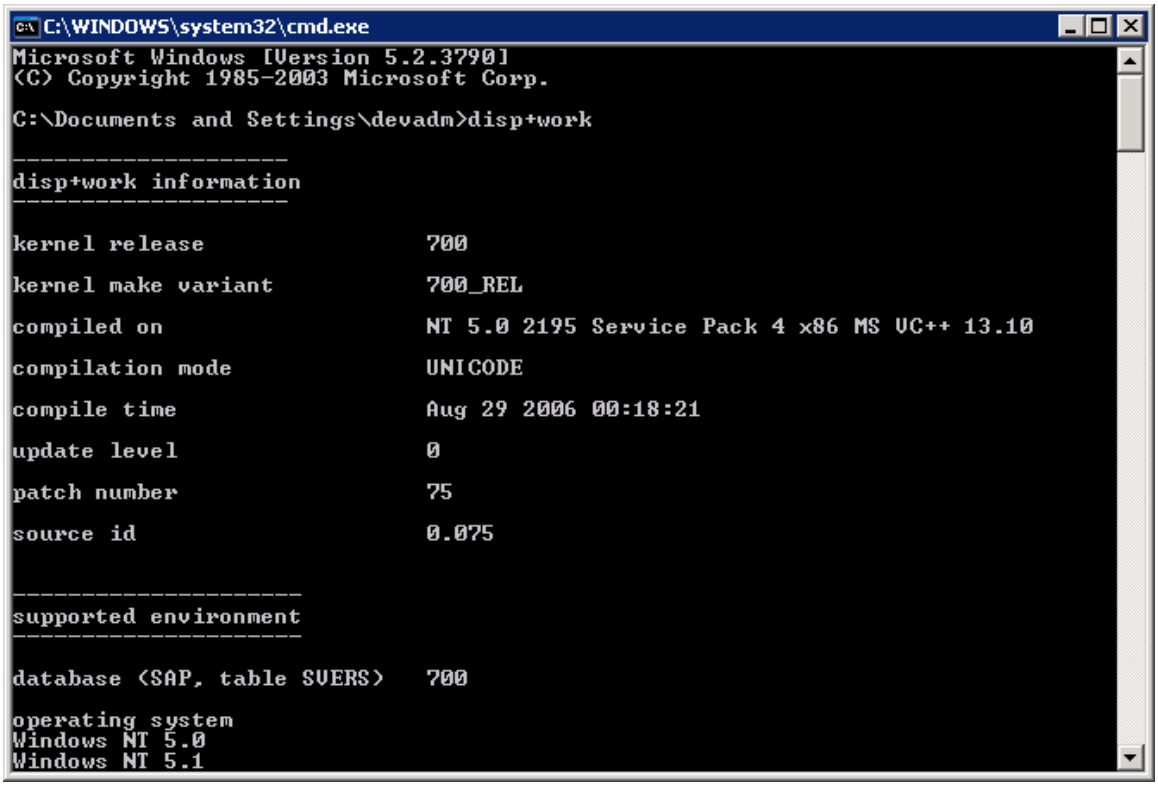


2. Backup The Kernel Directory for Rollback in any inconsistencies with the new kernel. (Copy the NTI386 or NTAMD64 folder into different Location)



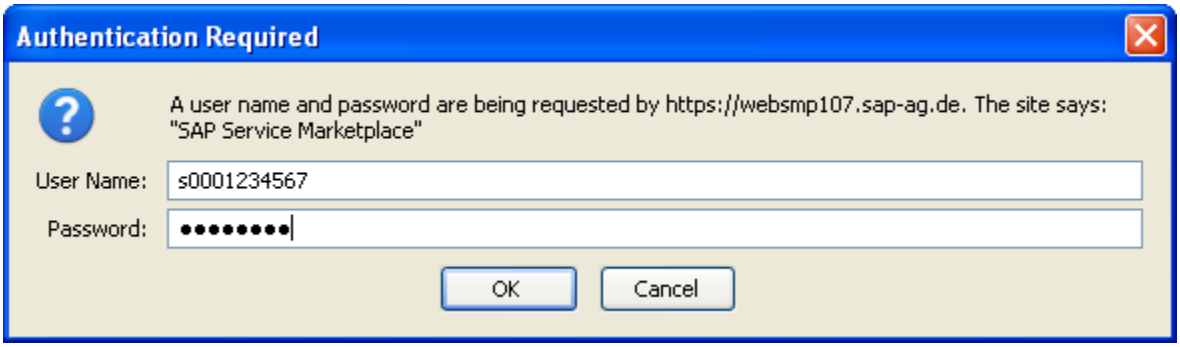
3. Check the present kernel Patch level by executing disp+work (or) login to the system and navigate to system→status→



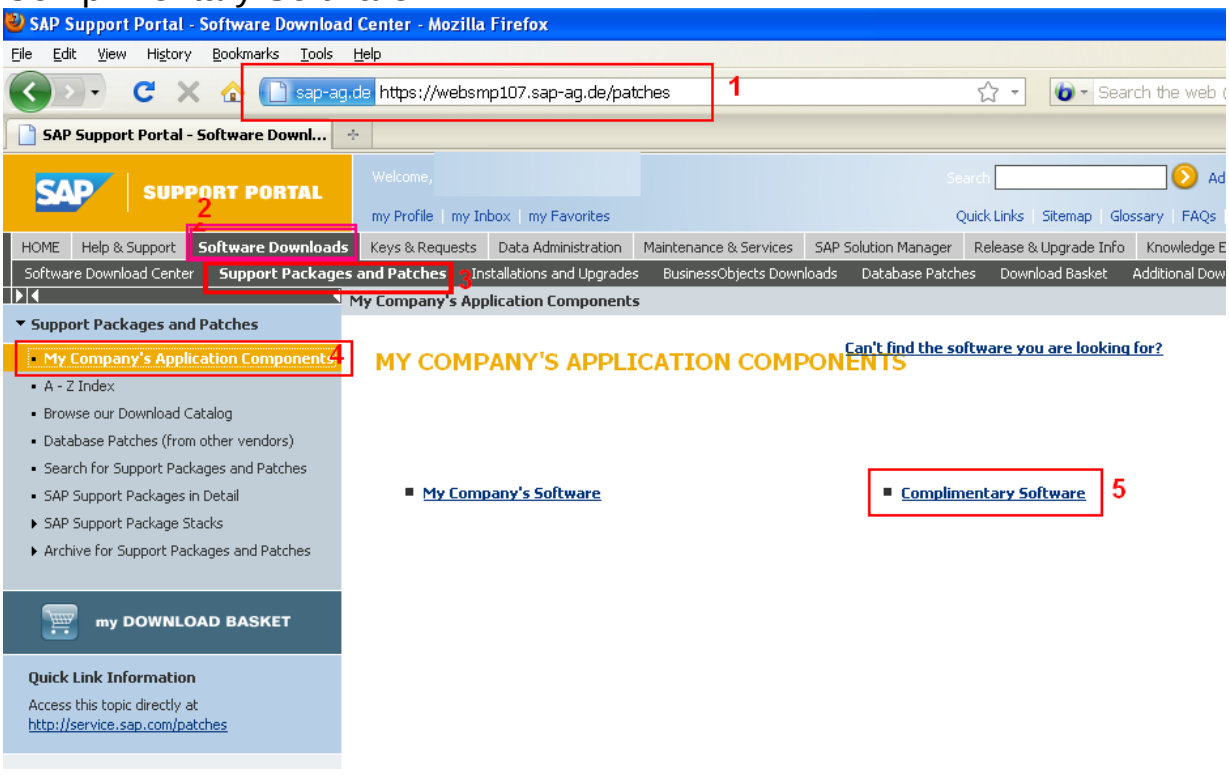


4. Download the Latest Kernel from SAP Service Market Place (SMP) specific to Release, OS, DB, Hardware and Unicode/Non-Unicode

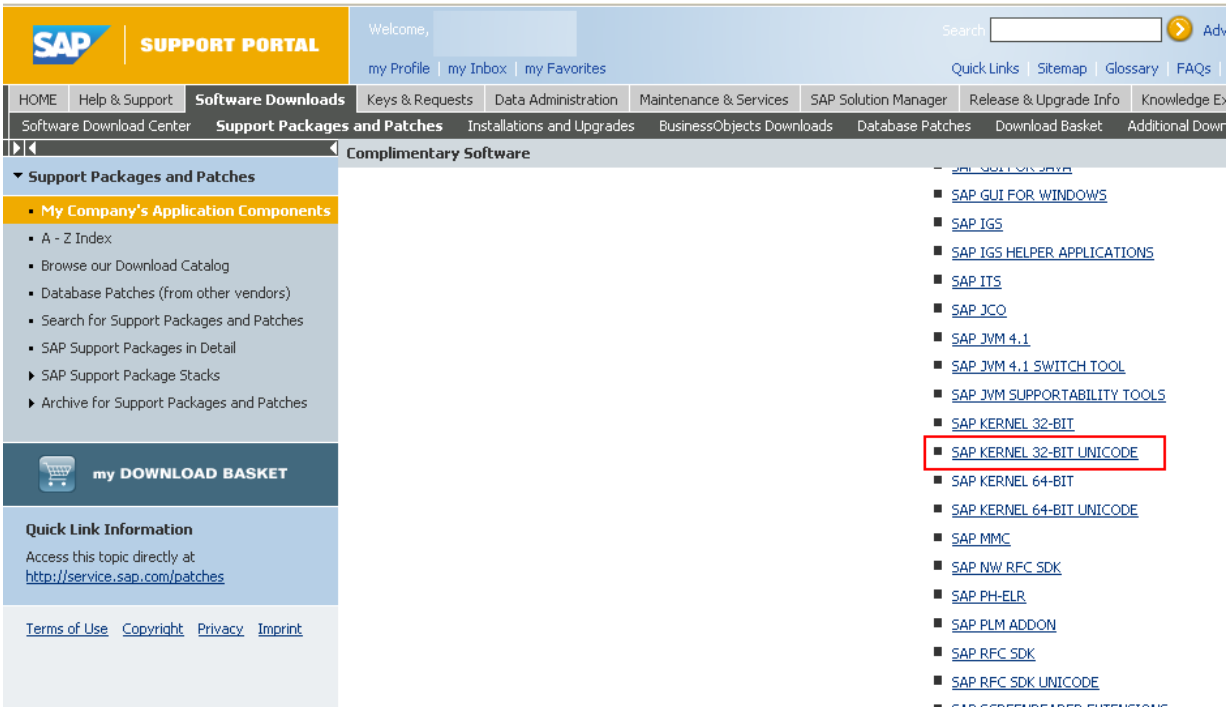
Execute the URL www.service.sap.com/patches to download the latest kernel and specify the S-USERID and Password

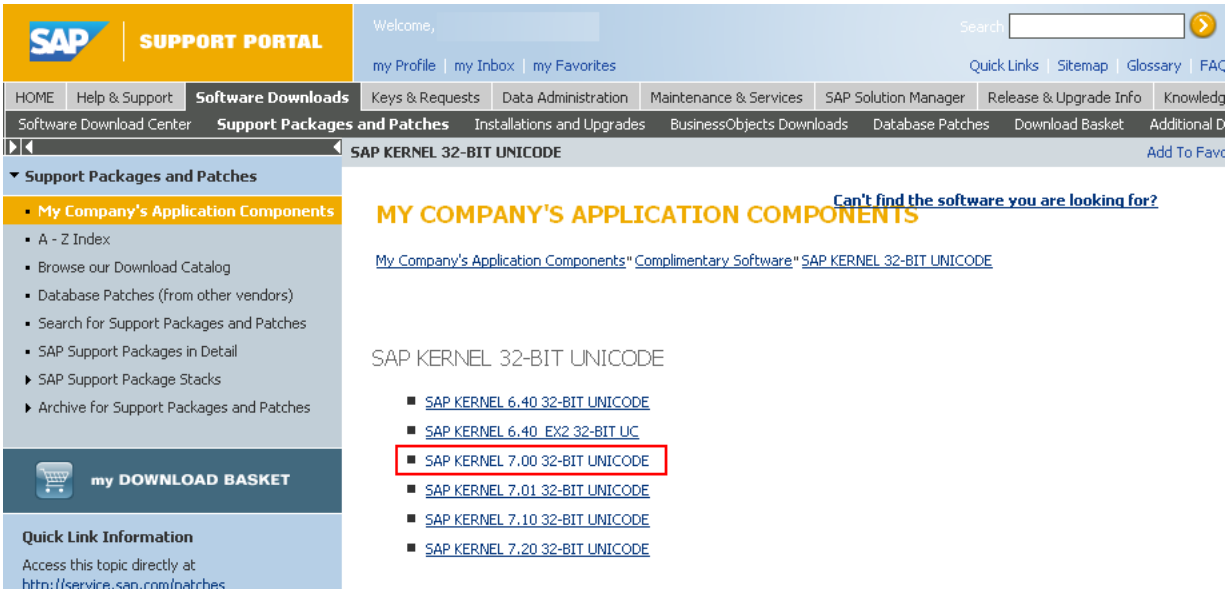


Navigate to software Downloads→support packages and patches→My Company Application Components→Click on Complimentary Software→

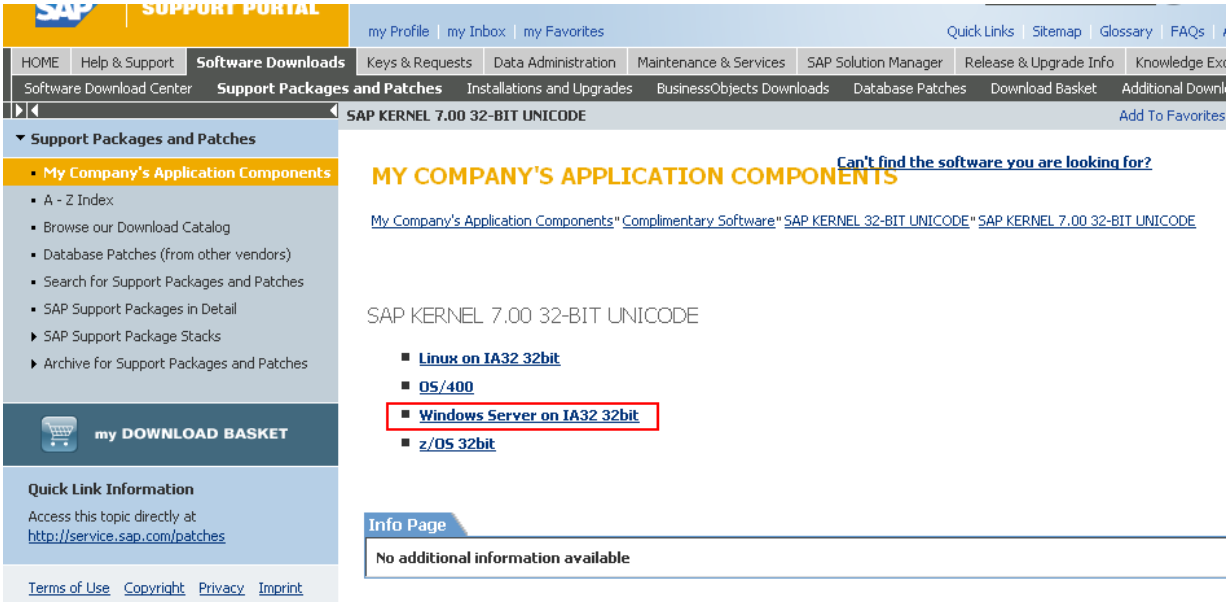


Now select the kernel based on 32/64bit and Unicode/Non-Unicode



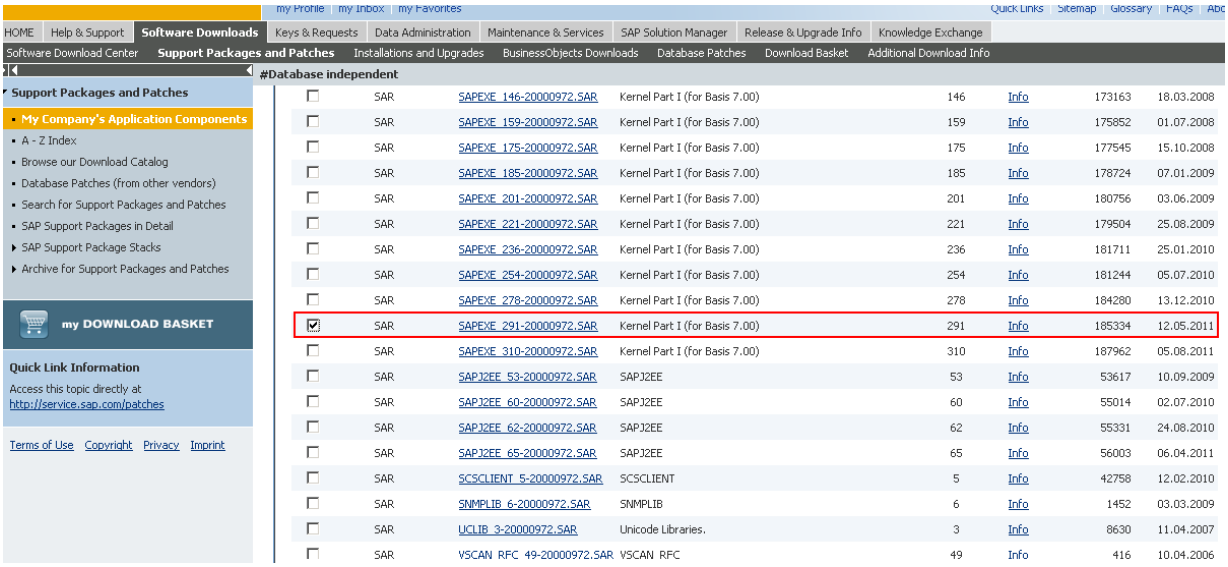


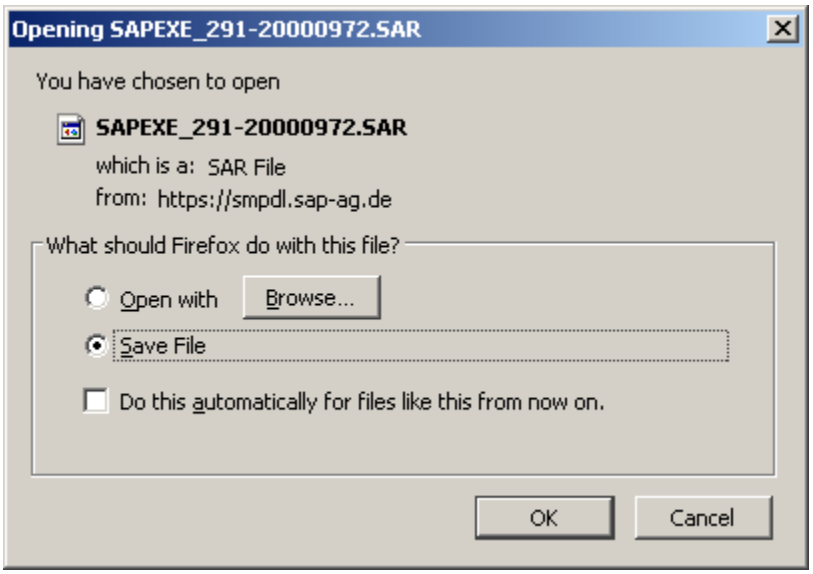
Select the “windows server on IA32 32bit”→


SUPPORT PORTAL
my Profile | my Inbox | my Favorites
Quick Links | Sitemap | Glossary | FAQs
HOME | Help & Support | Software Downloads | Keys & Requests | Data Administration | Maintenance & Services | SAP Solution Manager | Release & Upgrade Info | Knowledge Exc
Software Download Center | Support Packages and Patches | Installations and Upgrades | BusinessObjects Downloads | Database Patches | Download Basket | Additional Downl
SAP KERNEL 7.00 32-BIT UNICODE
Add To Favorites
Support Packages and Patches
My Company's Application Components
A - Z Index
Browse our Download Catalog
Database Patches (from other vendors)
Search for Support Packages and Patches
SAP Support Packages in Detail
SAP Support Package Stacks
Archive for Support Packages and Patches
my DOWNLOAD BASKET
Quick Link Information
Access this topic directly at
http://service.sap.com/patches
Terms of Use Copyright Privacy Imprint
Can't find the software you are looking for?
MY COMPANY'S APPLICATION COMPONENTS
My Company's Application Components" Complimentary Software" SAP KERNEL 32-BIT UNICODE" SAP KERNEL 7.00 32-BIT UNICODE
SAP KERNEL 7.00 32-BIT UNICODE
Linux on IA32 32bit
OS/400
Windows Server on IA32 32bit
z/OS 32bit
Info Page
No additional information available

Support Packages and Patches
My Company's Application Components
A - Z Index
Browse our Download Catalog
Database Patches (from other vendors)
Search for Support Packages and Patches
SAP Support Packages in Detail
SAP Support Package Stacks
Archive for Support Packages and Patches
my DOWNLOAD BASKET
Quick Link Information
Access this topic directly at
http://service.sap.com/patches
Terms of Use Copyright Privacy Imprint
Can't find the software you are looking for?
MY COMPANY'S APPLICATION COMPONENTS
My Company's Application Components" Complimentary Software" SAP KERNEL 32-BIT UNICODE" SAP KERNEL 7.00 32-BIT UNICODE
SAP KERNEL 7.00 32-BIT UNICODE
Linux on IA32 32bit
OS/400
Windows Server on IA32 32bit
#Database independent
DB2 UDB
DB2/390
DB2/400
MS SQL SERVER
MaxDB
ORACLE
z/OS 32bit

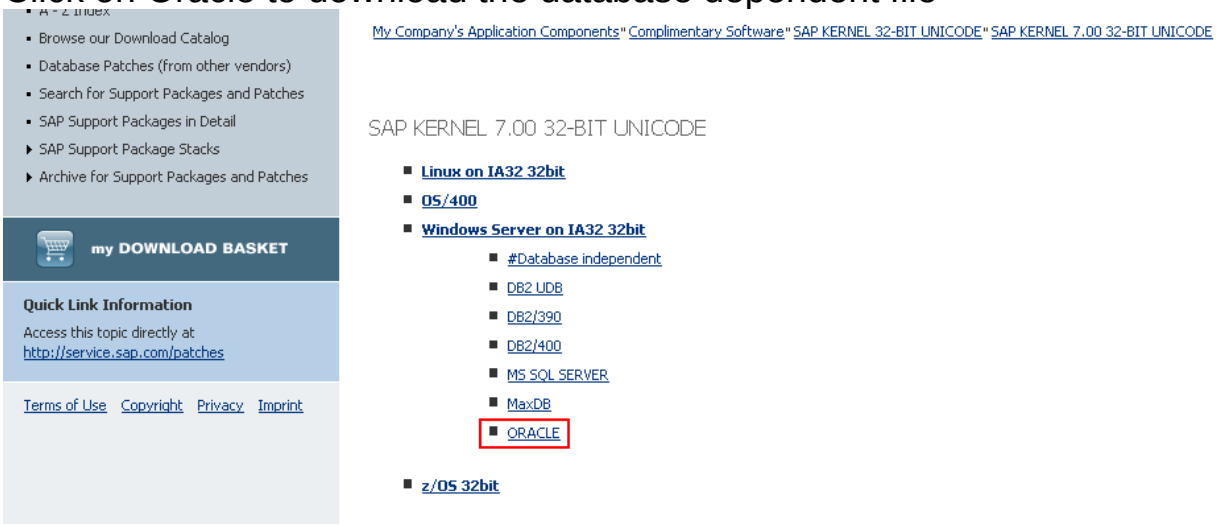
Select the Database Independent and download the kernel files “SAPEXE_291-20000972.SAR” file and click on add to Download Basket



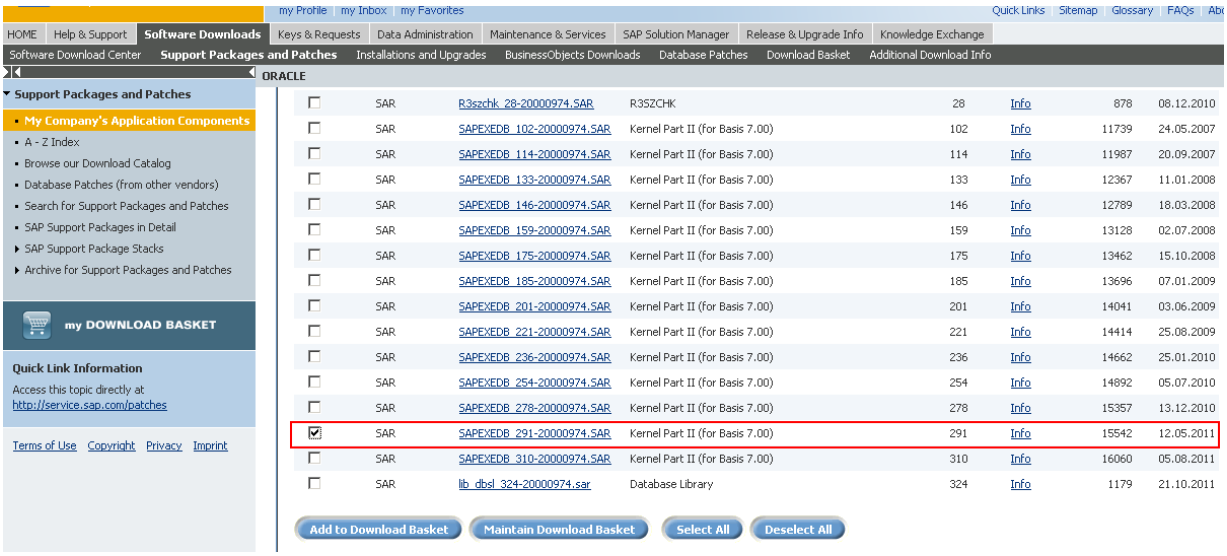


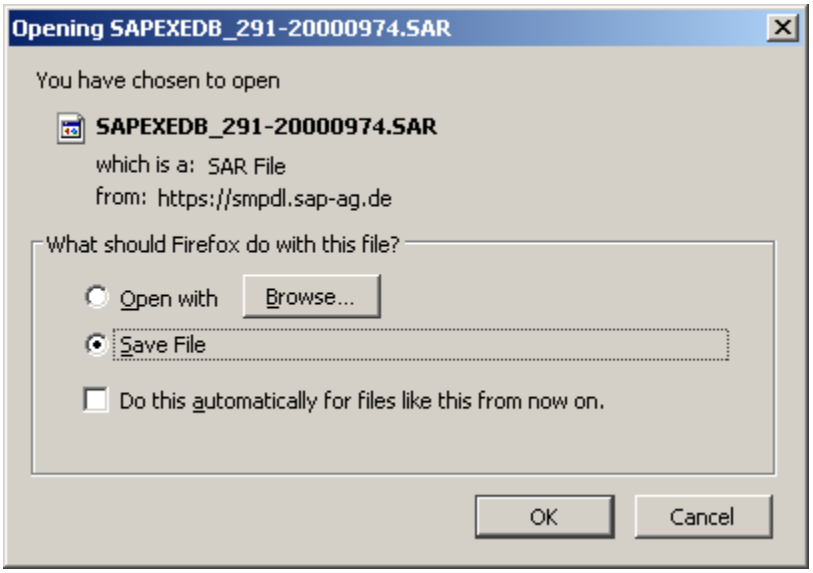
Click on the database

Click on Oracle to download the database dependent file



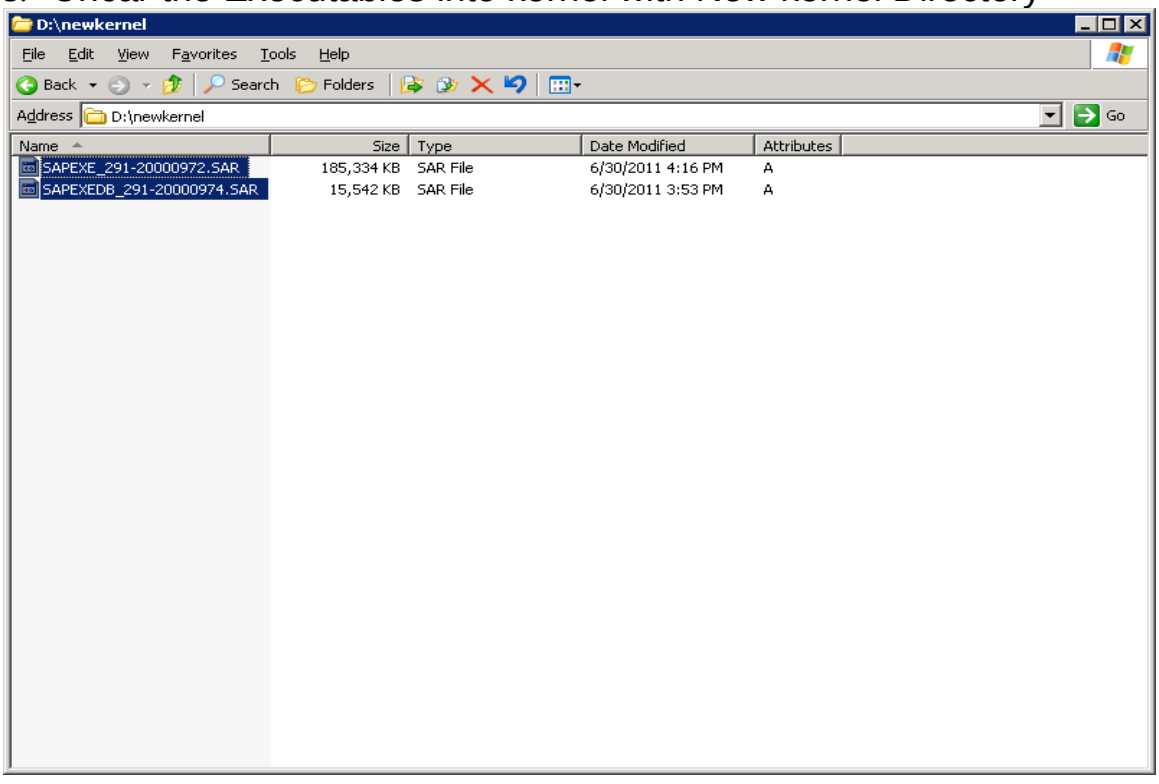
Select the Database Dependent and download the kernel files “SAPEXEDB_291-20000972.SAR” file and click on add to Download Basket

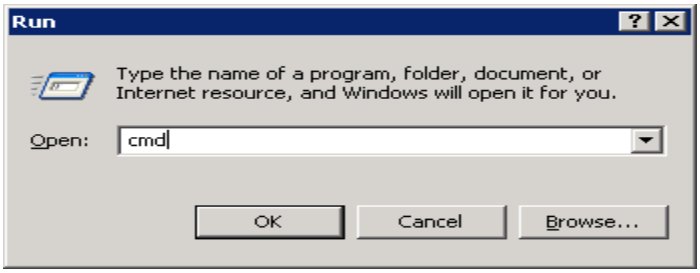


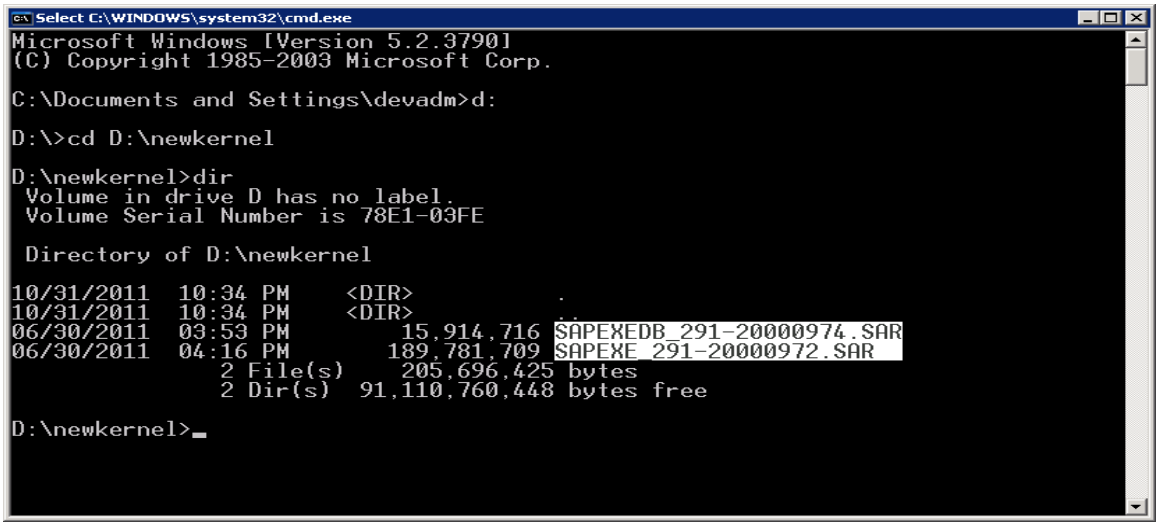


After Successfully Downloading the kernel files Uncar the kernel files

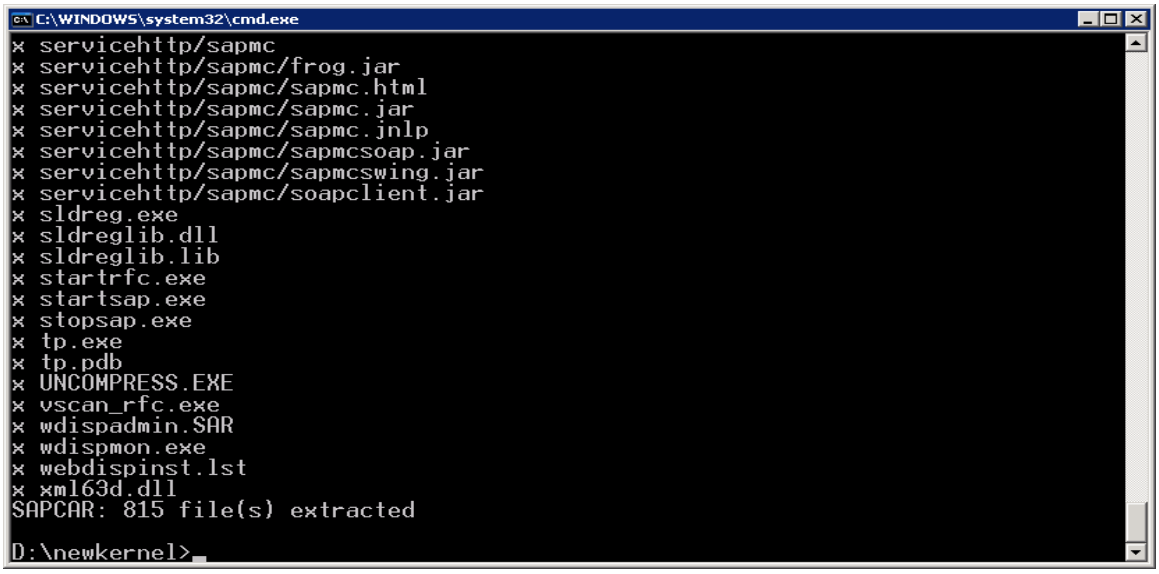
5. Uncar the Executables into kernel with New kernel Directory

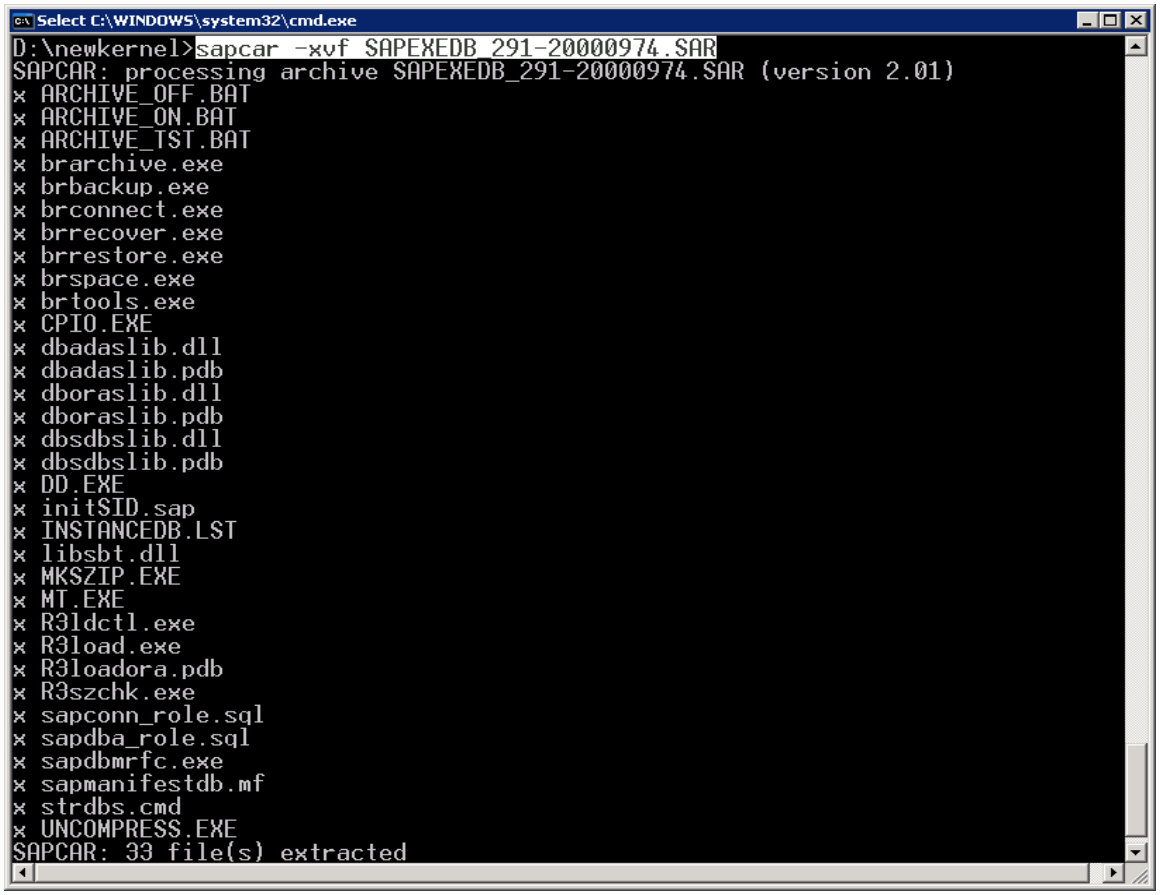



Run
Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:
cmd
OK
Cancel
Browse...

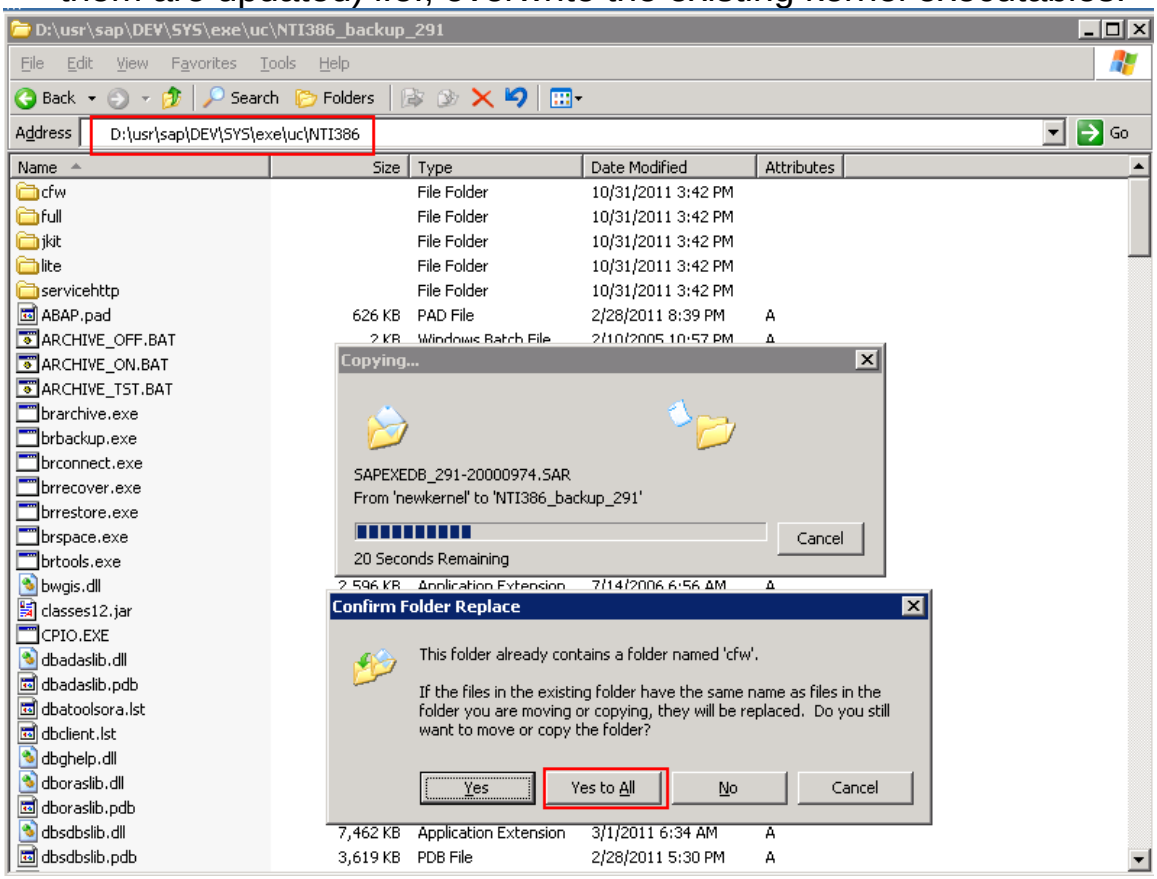

Select C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.
C:\Documents and Settings\devadm>d:
D:\>cd D:\newkernel
D:\newkernel>dir
Volume in drive D has no label.
Volume Serial Number is 78E1-03FE
Directory of D:\newkernel
10/31/2011 10:34 PM <DIR> .
10/31/2011 10:34 PM <DIR> ..
06/30/2011 03:53 PM 15,914,716 SAPEXEDB_291-20000974.SAR
06/30/2011 04:16 PM 189,781,709 SAPEXE_291-20000972.SAR
2 File(s) 205,696,425 bytes
2 Dir(s) 91,110,760,448 bytes free
D:\newkernel>

Select C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.
C:\Documents and Settings\devadm>d:
D:\>cd D:\newkernel
D:\newkernel>dir
Volume in drive D has no label.
Volume Serial Number is 78E1-03FE
Directory of D:\newkernel
10/31/2011 10:34 PM <DIR> .
10/31/2011 10:34 PM <DIR> ..
06/30/2011 03:53 PM 15,914,716 SAPEXEDB_291-20000974.SAR
06/30/2011 04:16 PM 189,781,709 SAPEXE_291-20000972.SAR
2 File(s) 205,696,425 bytes
2 Dir(s) 91,110,760,448 bytes free
D:\newkernel>sapcar -xvf SAPEXE_291-20000972.SAR


C:\WINDOWS\system32\cmd.exe
x servicehttp/sapmc
x servicehttp/sapmc/frog.jar
x servicehttp/sapmc/sapmc.html
x servicehttp/sapmc/sapmc.jar
x servicehttp/sapmc/sapmc.jnlp
x servicehttp/sapmc/sapmcsoap.jar
x servicehttp/sapmc/sapmcswing.jar
x servicehttp/sapmc/soapclient.jar
x sldreg.exe
x sldreglib.dll
x sldreglib.lib
x startrfc.exe
x startsap.exe
x stopsap.exe
x tp.exe
x tp.pdb
x UNCOMPRESS.EXE
x vscan_rfc.exe
x wdispadmin.SAR
x wdispmon.exe
x webdispinst.lst
x xml63d.dll
SAPCAR: 815 file(s) extracted
D:\newkernel>


Select C:\WINDOWS\system32\cmd.exe
D:\newkernel>sapcar -xvf SAPEXEDB_291-20000974.SAR
SAPCAR: processing archive SAPEXEDB_291-20000974.SAR (version 2.01)
x ARCHIVE_OFF.BAT
x ARCHIVE_ON.BAT
x ARCHIVE_TST.BAT
x brarchive.exe
x brbackup.exe
x brconnect.exe
x brrecover.exe
x brrestore.exe
x brspace.exe
x brtools.exe
x CPIO.EXE
x dbadaslib.dll
x dbadaslib.pdb
x dboraslib.dll
x dboraslib.pdb
x dbsdbslib.dll
x dbsdbslib.pdb
x DD.EXE
x initSID.sap
x INSTANCEDB.LST
x libsbt.dll
x MKSZIP.EXE
x MT.EXE
x R3ldctl.exe
x R3load.exe
x R3loadora.pdb
x R3szchk.exe
x sapconn_role.sql
x sapdba_role.sql
x sapdbmrfc.exe
x sapmanifestdb.mf
x strdbs.cmd
x UNCOMPRESS.EXE
SAPCAR: 33 file(s) extracted

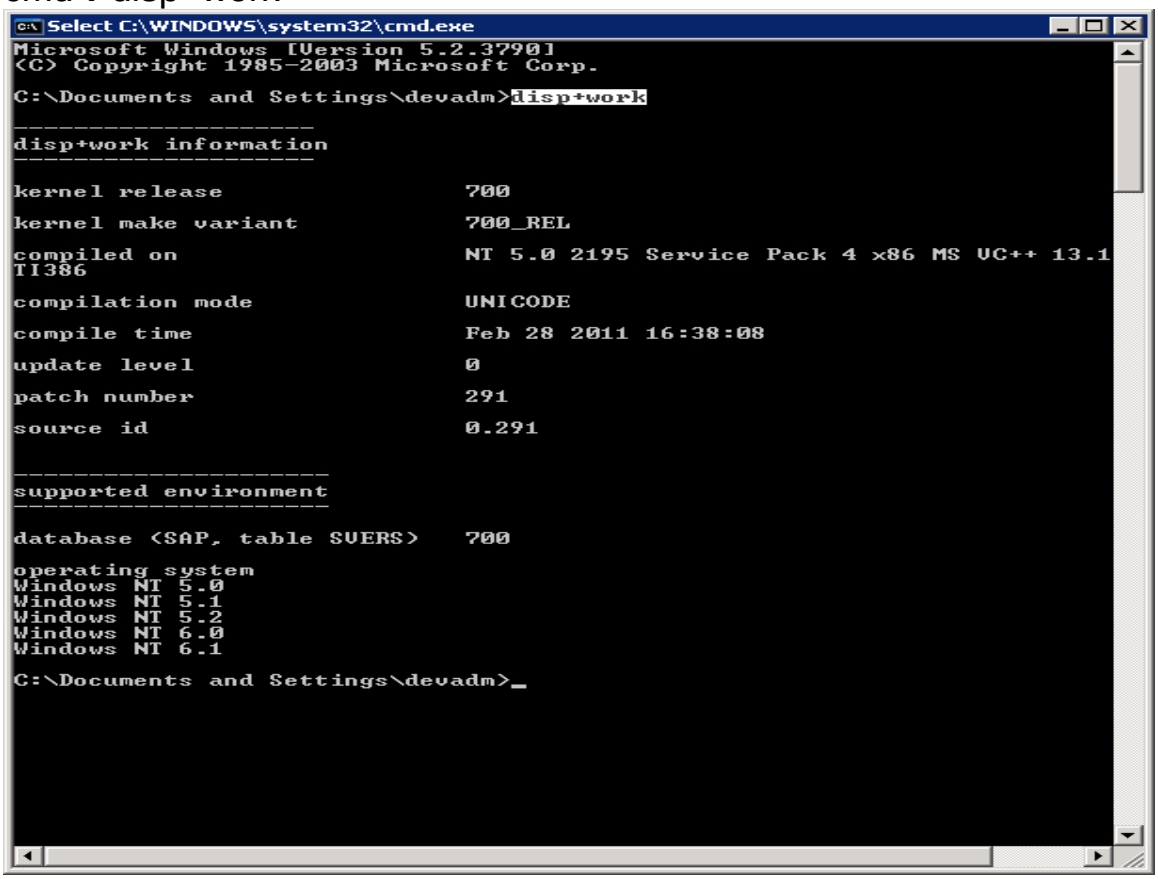
6. Copy the executables into existing kernel (because only few of them are updated) i.e., overwrite the existing kernel executables.

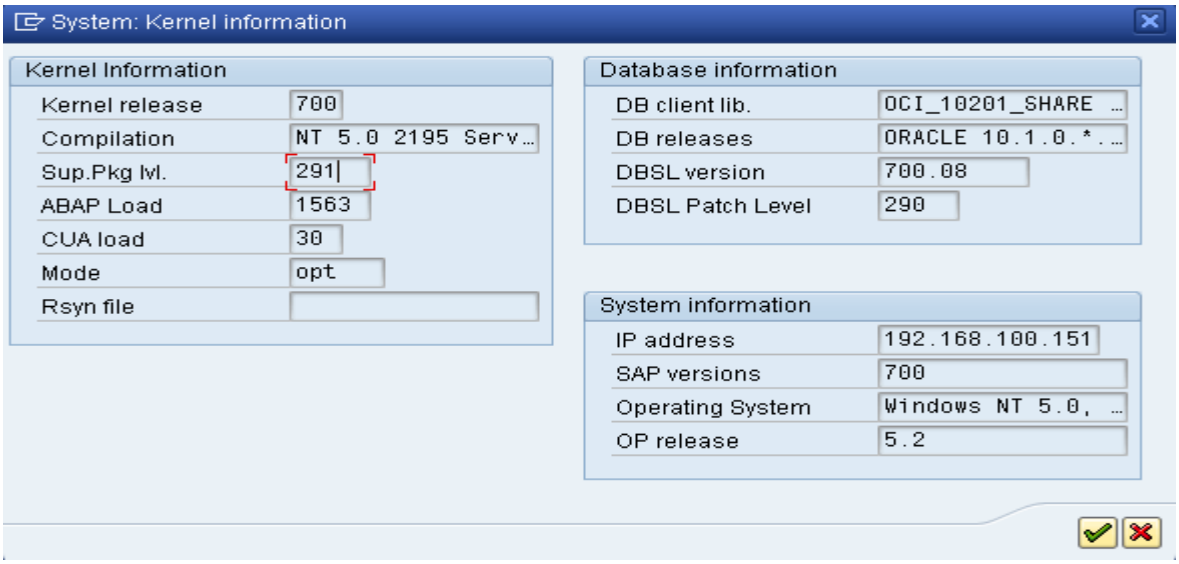


7. Restart the services and SAP system i.e., start all the services that is mentioned in step1.

8. Check the kernel version by executing command ‘disp+work’ in command window/login in to system and check in system→status

cmd→disp+work





Kernel Upgrade is Done Successfully.

Related Content:

www.help.sap.com

www.sdn.sap.com/irj/sdn/index.

Disclaimer and Liability Notice:

WILLSYS will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

WILLSYS offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by WILLSYS. You agree that you will not hold, or seek to hold, WILLSYS responsible or liable with respect to the content of this document.