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1.   BEFORE INSTALLING DB2 EE

1.1   Make sure to you have extra packages necessary installed on your machine. Please refer to the individual distribution's setup instructions for exact packages needed.

1.2   Configure kernel parameters. Please refer to the individual distribution's setup instructions for how to do this.

2.   INSTALLING DB2 USING DB2SETUP

The main purpose of this section is to walk you through a typical install of db2 v7.2 on Linux. For in-depth information on the components offered by DB2 Version 7.2, consult the following documents:

- *DB2 Enterprise - Extended Edition for Unix Quick Beginnings:*
    http://www-4.ibm.com/cgi-bin/db2www/data/db2/udb/winos2unix/support/v7pubs.d2w/en_main

- *DB2 Personal Edition for Linux Quick Beginnings*
- *DB2 Connect Personal Edition for Linux*

INSTALLATION STEPS:

2.1   Mount cdrom:

bash#   mount /media/cdrom

> **Tip**: Some distributions disable execute privileges on CD-ROM devices by default. To mount a CD-ROM with execute permission at mount point /media/cdrom, issue the following command as root:
>   *bash#   mount -o exec /media/cdrom*

2.2.   In the CD-ROM directory, use the db2setup setup command for DB2 Version 7.2 installation:

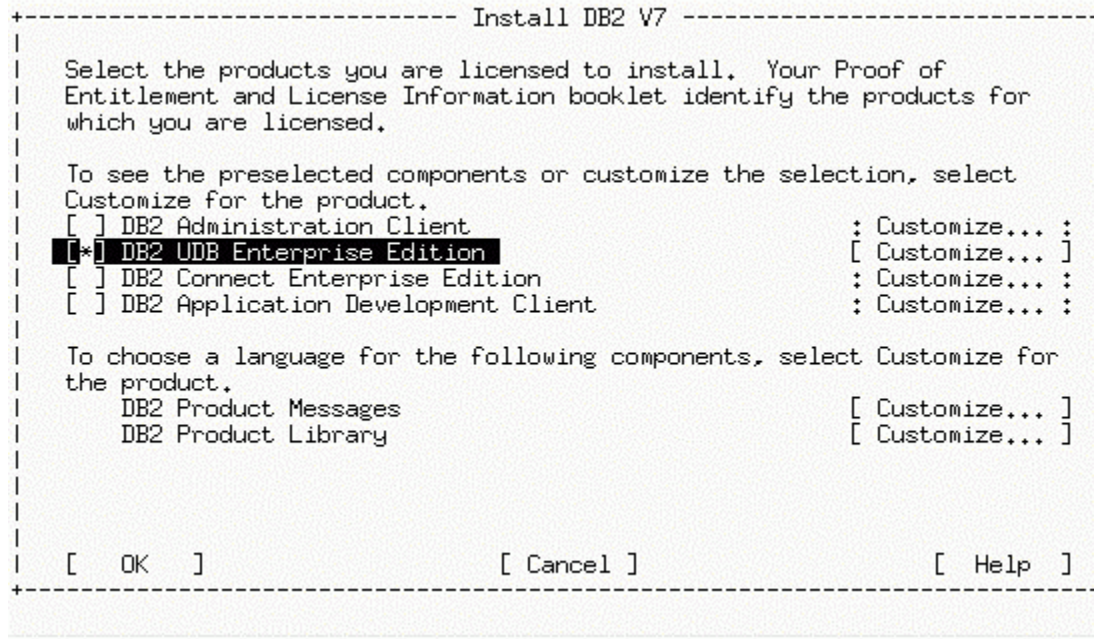*./db2setup*

2.3.   The dialog box shown in the Figure 1 will appear asking which product you wish to install.

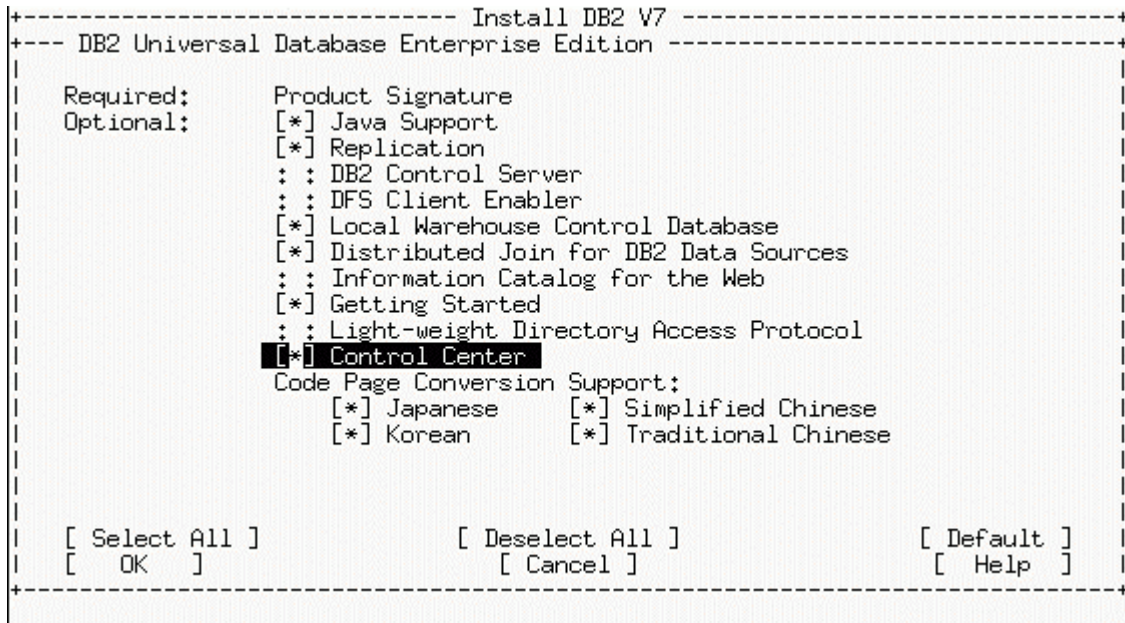For the database install you will choose DB2 UDB Enterprise Edition.

To select or deselect a component, highlight the component using the cursor keys and press Enter.

Figure 1.

```
+------------------------------ Install DB2 V7 ------------------------------
|
|   Select the products you are licensed to install.  Your Proof of
|   Entitlement and License Information booklet identify the products for
|   which you are licensed.
|
|   To see the preselected components or customize the selection, select
|   Customize for the product.
|   [ ] DB2 Administration Client                          : Customize... :
|   [*] DB2 UDB Enterprise Edition                         [ Customize... ]
|   [ ] DB2 Connect Enterprise Edition                     : Customize... :
|   [ ] DB2 Application Development Client                 : Customize... :
|
|   To choose a language for the following components, select Customize for
|   the product.
|      DB2 Product Messages                                [ Customize... ]
|      DB2 Product Library                                 [ Customize... ]
|
|
|
|
|   [   OK   ]                    [ Cancel ]                    [  Help  ]
+----------------------------------------------------------------------------
```

2.4   To select or deselect optional components for DB2 products you would like to install select **[Customize]**
       option. For example, if you would like to install Control Center, choose **[Customize]** then select Control
       Center as Optional component.

Figure 2.

```
+------------------------------ Install DB2 V7 ------------------------------+
+--- DB2 Universal Database Enterprise Edition ------------------------------+
|                                                                            |
|   Required:        Product Signature                                       |
|   Optional:        [*] Java Support                                        |
|                    [*] Replication                                         |
|                    : : DB2 Control Server                                  |
|                    : : DFS Client Enabler                                  |
|                    [*] Local Warehouse Control Database                    |
|                    [*] Distributed Join for DB2 Data Sources               |
|                    : : Information Catalog for the Web                      |
|                    [*] Getting Started                                     |
|                    : : Light-weight Directory Access Protocol              |
|                    [*] Control Center                                      |
|                    Code Page Conversion Support:                           |
|                       [*] Japanese      [*] Simplified Chinese             |
|                       [*] Korean        [*] Traditional Chinese           |
|                                                                            |
|                                                                            |
|                                                                            |
|   [ Select All ]               [ Deselect All ]            [ Default ]   |
|   [   OK   ]                    [ Cancel ]                   [  Help  ]   |
+----------------------------------------------------------------------------+
```

2.5   Create group and user ID's for instance owner.

Figure 3.

```
------------------------------ Create DB2 Services ----------------------------+
+--- DB2 Instance ----------------------------------------------------------+|
|                                                                           ||
|   Authentication:                                                         ||
|        Enter User ID, Group ID, Home Directory and Password that will be  ||
|        used for the DB2 Instance.                                         ||
|                                                                           ||
|        User Name              [db2inst1]                                  ||
|        User ID                :        :              [*] Use default UID ||
|        Group Name             [db2iadm1]                                  ||
|        Group ID               :        :              [*] Use default GID ||
|        Home Directory         [/home/db2inst1  ]                          ||
|        Password               [******        ]                           ||
|        Verify Password        [******        ]                           ||
|                                                                           ||
|   Select Properties to view or change more            [ Properties... ]   ||
|   options.                                                                ||
|                                                                           ||
|   Select Default to restore all default                    [ Default ]   ||
|   settings.                                                               ||
|                                                                           ||
|   [   OK   ]                      [ Cancel ]                  [  Help  ]   ||
+---------------------------------------------------------------------------+|
+---------------------------------------------------------------------------++
```

2.6   If you would like to create a sample database during the install choose **[Properties...]** and then select

'Create a sample database for DB2 Instance' as optional component.

Figure 4.

```
+-+--- DB2 Instance Properties ----------------------------------------------+-+
|+|                                                                          |+|
|||   Authentication Type:                                                   |||
|||       Select one of the following types of authentication for           |||
|||       the DB2 Instance.                                                  |||
|||       (*) Server                                                         |||
|||       ( ) Client                                                         |||
|||       ( ) DCS                                                            |||
|||       ( ) DCE                                                            |||
|||       ( ) Server Encrypt                                                 |||
|||       ( ) DCS Encrypt                                                    |||
|||       ( ) DCE Server Encrypt                                             |||
|||                                                                          |||
|||   Communication Protocols:                                              |||
|||       Select protocols and then select Properties to modify             |||
|||       the protocol values.                                              |||
|||       [*] TCP/IP   Detected                         [ Properties... ]   |||
|||                                                                          |||
|||   [*] Auto start DB2 Instance at system boot.                           |||
|||   [*] Create a sample database for DB2 Instance.                        |||
|||                                                                          |||
|||   [   OK   ]                      [ Cancel ]                [  Help  ]   |||
```

2.7   Create group and user ID's for fenced user defined functions (UDF) and stored procedures

Figure 5.

```
·+--- Fenced User ------------------------------------------------------------+
 |                                                                            |
 |    Fenced user defined functions (UDFs) and stored procedures will         |
 |    execute under this user and group.                                      |
 |                                                                            |
 |                                                                            |
 |    Authentication:                                                         |
 |        Enter User ID, Group ID, Home Directory and Password that will be   |
 |        used for the Fenced User.                                           |
 |                                                                            |
 |        User Name            [db2fenc1]                                     |
 |        User ID              :         :              [*] Use default UID   |
 |        Group Name           [db2fadm1]                                     |
 |        Group ID             :         :              [*] Use default GID   |
 |        Home Directory       [/home/db2fenc1  ]                             |
 |        Password             [******          ]                            |
 |        Verify Password      [******          ]                            |
 |                                                                            |
 |    Select Default to restore all default                    [ Default ]   |
 |    settings.                                                               |
 |                                                                            |
 |    [    OK    ]                     [ Cancel ]              [  Help  ]      |
 ·+--------------------------------------------------------------------------+
```

2.8   DB2 Warehouse control database is not supported on Linux, so it can be skipped.

2.9   Configure Administration Server

The Administration Server component is necessary before Control Center can be run. However, if you selected not to create the Administration server in the db2setup utility, you have to create Administration Server using **dasicrt** command before you can start the Control Center.

Figure 6.

```
++--- Administration Server --------------------------------------------------++|
||                                                                            ||
||   Authentication:                                                          ||
||      Enter User ID, Group ID, Home Directory and Password that will be     ||
||      used for the Administration Server.                                   ||
||      User Name              [db2as    ]                                    ||
||      User ID                :        :              [*] Use default UID    ||
||      Group Name             [db2asgrp]                                     ||
||      Group ID               :        :              [*] Use default GID    ||
||      Home Directory         [/home/db2as      ]                            ||
||      Password               [*****            ]                            ||
||      Verify Password        [*****    ]                                    ||
||                                                                            ||
||   Select Properties to view or change more              [ Properties... ]  ||
||   options.                                                                 ||
||                                                                            ||
||   Select Default to restore all default                    [ Default ]     ||
||   settings.                                                                ||
||                                                                            ||
||                                                                            ||
||   Note: It is not recommended to use the DB2 Instance user ID for          ||
||         security reasons.                                                  ||
+|    [  OK  ]                     [ Cancel ]                  [  Help  ]    |+|
 +---------------------------------------------------------------------------+|
```

3.   CREATING THE DATABASE

To verify that the DB2 Enterprise Edition is installed correctly create the sample database and try to access data from the database.

3.1.   Log on to the system as user with the system administrative authority (SYSADM) (by default the username you created for instance owner - **db2inst1)**

3.2.   Enter the following command to create sample database

   INSTHOME/sqllib/bin/db2sampl

where:

   INSTHOME is home directory of instance owner

3.3.   Start database manager by entering the db2start command

3.4.   Enter the following commands to connect to SAMPLE database, list tables select list of all employees that work in department 20, and then reset database connection.

   db2 connect to sample

   db2 list tables

   *db2 'select * from staff where dept = 20'*

   db2 connect reset

3.5.   After you verified installation you can remove sample database to free up disk space. Enter the following command to drop the SAMPLE database:

   db2 drop db sample

4.   RUNNING CONTROL CENTER

4.1. INSTALL JDK AND JAVA ENVIRONMENT

If you are running SUSE Linux:
a) IBM Development Kit for Java, version 1.3 is part of the SuSE v 7.2 install CD. If you have not intalled it with the OS install, install it by issuing the following command as root:

    bash#   rpm -ivh IBMJava2-SDK-1.3-81.i386.rpm

b) Append the following line to your /etc/profile file to set up the Java environment for all users:

    export PATH=$PATH:/usr/lib/java/jre/bin

If you are running REDHAT or TURBOLINUX:

a) Download the IBM Development Kit for Java, version 1.3, from the IBM Java Developer's Kit downloads web site. I'll assume that you downloaded the RPM package of the IBM Development Kit for Java.

b) Install the IBM Developer Kit for Java by issuing the following command as root:
    bash#   rpm -ivh IBMJava2-SDK-1.3-9.0.i386.rpm

c) Append the following lines to your /etc/profile file to set up the Java environment for all users:
    export PATH=$PATH:/opt/IBMJava2-13/jre/bin

4.2. IBM JDK 1.3 does away with the jre command, even if you install the IBM JRE 1.3 package. However, the db2cc script calls the jre command. The easiest solution is to create a link called jre to the java executable in the /usr/lib/java/bin directory by issuing the following command as root.

SuSE:

    bash# ln -sf /usr/lib/java/jre/bin/java /usr/lib/java/jre/bin/jre

Red Hat, Turbo Linux

    bash# ln -sf /opt/IBMJava2-13/jre/bin/jre   /opt/IBMJava2-13/jre/bin/jre

4.2. The db2cc script calls the jre command with the -nojit argument, which is not supported in IBM JDK 1.3. Remove the option by changing line 44 of /sqllib/bin/db2cc to the following:

    JRE_OPTIONS="-ss256k -mx128m -Ddb2path=$DB2PATH"

4.4. Before starting the Control Center, ensure you are logged on to your Linux workstation using either the DB2 Administration Server user ID or the DB2 instance user ID. If you use the su command to become the user, ensure you include the -l parameter to initialize the environment for the user.

4.5.   Start JDBC listener on port and then Issue the **db2cc** command to start the DB2 Control Center. Depending on the speed of your system, it may take a few seconds for the splash screen to appear, and longer before the full DB2 Control Center appears.

> *bash#   db2jstrt   6790*

> *bash#   db2cc   6790*

Note: The most recent build, cx130-20010626, tested successfully with SuSE v 7.2, Red Hat v 7.2, Turbo Linux v72. To see which build of the IBM JDK you are using, issue the java -fullversion