



# Teradata<sup>®</sup> Database

## Base System Release Definition

V2R5.0

B035-1725-122K  
April 2003

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# About This Document

## Supported Software Release

This document supports Teradata Database V2R5.0 running on NCR UNIX MP-RAS and Microsoft Windows 2000 operating systems.

## New Features

This document includes the following changes in support of V2R5.0:

Date	Description
December 2002	<ul style="list-style-type: none"> <li>Initial release</li> </ul>
April 2003	<ul style="list-style-type: none"> <li>Corrected Product ID number for <i>Release Summary</i> in the User Documentation table on page 38.</li> </ul>

## Audience

This document is intended for NCR field engineers (FEs), support staff, and customers interested in the features, requirements, dependencies, and support resources for Teradata Database.

## How This Document Is Organized

This document is divided into the following sections:

The Section titled...	Contains information about...
<a href="#">“Release Description” on page 8</a>	<ul style="list-style-type: none"> <li>Media supplied with this release</li> <li>Software Bill of Materials</li> <li>Teradata Tools and Utilities release certified with this Teradata Database release</li> </ul>
<a href="#">“Hardware Requirements” on page 12</a>	<ul style="list-style-type: none"> <li>Platforms and peripherals</li> <li>Coexistence and coresidence requirements</li> <li>Hardware support for mixed OS</li> <li>Disk arrays and node memory</li> </ul>
<a href="#">“Software Requirements” on page 21</a>	<ul style="list-style-type: none"> <li>Requirements and restrictions</li> <li>Software maintenance schedule</li> </ul>
<a href="#">“Software Restrictions” on page 24</a>	<ul style="list-style-type: none"> <li>Dependencies</li> </ul>

## About This Document

The Section titled...	Contains information about...
<a href="#">"Windows 2000 Registry File Maintenance" on page 25</a>	<ul style="list-style-type: none"><li>• Special maintenance required on the registry system file in Windows 2000</li></ul>
<a href="#">"Installation, Upgrade, and Migration (IUM)" on page 27</a>	<ul style="list-style-type: none"><li>• IUM preparation</li><li>• Access to patches</li></ul>
<a href="#">"System Performance" on page 31</a>	<ul style="list-style-type: none"><li>• Benchmarks</li><li>• Performance considerations</li></ul>
<a href="#">"Customer Support" on page 34</a>	<ul style="list-style-type: none"><li>• Support Options</li><li>• Software Maintenance</li></ul>
<a href="#">"User Documentation" on page 38</a>	<ul style="list-style-type: none"><li>• Documentation available</li><li>• How to access documentation</li><li>• Discrepancy reports (DRs)</li></ul>
<a href="#">"Customer Education" on page 41</a>	<ul style="list-style-type: none"><li>• USA training</li><li>• International training</li><li>• Web-based training</li></ul>

## List of Acronyms

The following acronyms are used in this document:

ASF2	Archive Storage Facility 2
AWS	Administration Work Station
BTEQ	Basic Teradata Query Language
BAR	Backup and Restore
BC	Business Critical
CLI	Call-level Interface
DR	Discrepancy Report
DUL	Dump Unload/Load
EBCA	EISA Bus Channel Adapter
EMEA	Europe, Middle East, Africa
FE	Field Engineer
GB	Gigabyte
GCA	General Customer Availability
GSC	Global Support Center
GSS	Global Sales Support

HAS	High Availability Server (System)
IUM	Installation, Upgrade, and Migration
LAN	Local Area Network
LUN	Logical Unit
MCCA	Micro-Channel Channel Adapter
MDS	Meta Data Services
MPP	Massively Parallel Processing
MSC	Managed Service Center
N/A	Not Applicable
NSC	NCR Storage Cabinet
OS	Operating System
PDE	Parallel Database Extensions
PDF	Portable Document Format
PIN	Personal Identification Number
PM/API	Performance Monitor / Applications Programmer Interface
PQS	Parallel Quad SCSI Adapter
PUT	Parallel Upgrade Tool
RAID	Redundant Array of Inexpensive Drives
RAM	Random Access Memory
RDBMS	Relational Database Management System
RFC	Requests for Change
SMP	Symmetric Multi-processor
SUPR	Single Unified Procedures Repository
TPA	Trusted Parallel Application
TSCS-RSC	Teradata Solutions Customer Services Remote Services Center
TSGSC	Teradata Solutions Global Support Center
TUP	Teradata Utilities Pak
TUVT	Teradata Utilities Verification Tool
WES	WorldMark Enterprise Storage

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# Release Description

## Features of This Release

Teradata Database V2R5.0 contains a large number of new and revised features.

For a full description of V2R5.0 features, see *Teradata RDBMS Release Summary* for V2R5.0.

To access the Release Summary, as well as this Release Definition and other Teradata documentation online, do the following:

Step	Action
1	Go to <a href="http://www.info.ncr.com/">http://www.info.ncr.com/</a>
2	From the left menu, select <b>Teradata Data Warehousing</b> .
3	From the menu on the right, select <b>Teradata Database</b> .
4	From the menu on the right under <b>Releases</b> , click on <b>V2R5.0</b> to select the current release.
5	Click on <i>Teradata RDBMS Release Summary</i> , from the displayed list. Other available user documentation may be accessed from the same list.

## Contents of This Release

The following items are included with Teradata Database V2R5.0:

- Teradata Utility Pak software CD-ROM**  
 Teradata Utility Pak (TUP) provides a basic set of utilities necessary to the operation of V2R5.0. Purchase of TUP is required with each V2R5.0 order. For detailed information on TUP, and other optional tools and utilities, see *Teradata Tools and Utilities Release 07.00.00 Definition*, B035-2029-122C. This document is also available from the NCR Information website at:  
  
<http://www.info.ncr.com>.
- Meta Data Services for Teradata software CD-ROM**  
 Meta Data Services (MDS) 5.0 software is provided free with each order of V2R5.0. MDS provides the ability for users to create and store *metadata*, data about the structure, origin, and revision history of the data in their Teradata database. For a list of publications on the installation and use of MDS, see *Teradata Meta Data Services Release 05.00.00 Definition*, B035-3034-122C. This document is also available from the NCR Information website at:  
  
<http://www.info.ncr.com>.
- Teradata RDBMS software CD-ROM**

The table that follows provides a bill of materials for the major modules and applications that are automatically included on the V2R5.0 CD. It also lists optional V2R5.0 packages, which must be purchased separately.

The Teradata RDBMS V2R5.0 CD includes the software modules listed in the following table:

Package Name	Description	MP-RAS Version	Windows 2000 Version
<b>Base System Software:</b> The following major software modules are included with Teradata Database V2R5.0. (See Notes 1 through 7) at the end of this table.)			
adept	Adaptive Disk Error Prediction Tool	01.02.00.01	01.02.00.00_081502
AWS	Administrative Workstation Application	N/A	3.1.1.7
AWS Node	Administrative Workstation Node Application	N/A	2.1.0.6
bteq	Teradata BTEQ Application	08.02.00.00 <b>See Note 6</b>	08.02.00.00
BootDiskMon	Teradata Boot Disk Monitor Utility	N/A	2.0
BYNET	Teradata BYNET Application	2.2.3.1 <b>See Note 1</b>	2.2.3.1 <b>See Note 1</b>
Check_Parity	Teradata Parity Check Utility	N/A	1.0
CLiv2	Teradata Call Level Interface Application	04.07.00.00 <b>See Note 6</b>	04.07.00.00 <b>See Note 6</b>
CLiv2so	Teradata Call Level Interface Shared Objects	04.07.00.00 <b>See Note 6</b>	N/A
DSSP	NCR DSSP Utility	N/A	2.1.0.2
dul	Teradata Dump Unload/Load Utility ( <b>See Note 3</b> )	05.01.00.00	5.1.0
dultape	NCR Dump Unload/Load Tape Utility ( <b>See Note 3</b> )	07.01.00.00	7.1.0
EMC_Qlogic	QLogic Fibre Channel driver certified for the EMC Fibre Channel Disk Arrays. For LSI, this includes the WES 5.0 (4774 controller) disk arrays.	N/A	08.00.08.01
FaultDetector	Fault Detector for Windows 2000	N/A	1.1.0.0
FSizeMon	Registry File Size Monitor Utility	N/A	2.0_01.02.12.10
LSI_Qlogic	QLogic Fibre Channel driver certified for the LSI Fibre Channel disk arrays	N/A	08.00.09.07
MEL	NCR Major Event Log Application	N/A	01.00.00.00
NCRput	Teradata Parallel Upgrade Tool (PUT) for UNIX MP-RAS	03.02.00.11	N/A
nodescsf	Fault Detector for MP-RAS	02.01.04.15	N/A

## Release Description

Package Name	Description	MP-RAS Version	Windows 2000 Version
PDE	Parallel Database Extensions	05.00.00.00	N/A
piom	Teradata Access Module API	02.00.00.00	N/A
pqs	Parallel Quad SCSI Adapter	N/A	5.19
PUT	Parallel Upgrade Tool	N/A	2.0.4.12
SANCHK	NCR MPRAS Large System component validation checker	01.03.02	N/A
SMRemote	Remote Support Application	N/A	3.2.0.20
TDBMS	Teradata Data Base Management System	05.00.00.00	05.00.00.00
tgw	NCR PDE Gateway for MP-RAS	05.00.00.00	N/A
TNT	Teradata for Windows	N/A	05.00.00.00
TUVT	Teradata Utilities Verification Tool	01.00.04.00	N/A

**Optional V2R5.0 Software Packages:** The following packages are not included with the base system software, but may be purchased separately.

ebcafw	EBCA Firmware Update (System 4300/4700)	73.0.0.0	N/A
host	PDE MCCA Host Channel Driver	05.00.00.00	N/A
mccadiag	MCCA Diagnostics (System 3500/5100)	05.00.00.00	N/A
mccafw	MCCA Firmware Update (System 3550/5100)	4.12.0.0	N/A
pbcafw	PBCA Firmware Update (System 4300/4700)	2.6.0.0	N/A
pbsa4fw	PBSA Firmware Update (System 4300/4700)	1.4.0.0	1.4.0.0
pbsafw	PBSA Firmware Update (System 4300/4700)	3.5.0.0	3.5.0.0
tchndiag	Teradata Channel Diagnostics	05.00.00.00	N/A
tchneipc	PDE Teradata Channel Interface Driver	05.00.00.00	N/A

### Notes

- 1 BYNET will be shipped along with MP-RAS on the UNIX core CD-ROM for all MP-RAS systems.
- 2 A C++ compiler is included on the UNIX Core CD for all MP-RAS systems. For information about compiler requirements for Windows 2000 systems, see [“Compilers” on page 21](#).
- 3 For MP-RAS systems, either dul or dultape is required to unload the CRASHDUMPS database.
- 4 The Teradata Archive/Recovery Utility (ARC) used to backup and restore system files is not included with the Base System license, but is an optional part of Teradata Tools and Utilities 7.0, and must be purchased separately.

- 5 **AUTORUN.INF:** This package has been included on all Teradata RDBMS for Windows 2000 CDs to auto-load the contents of the CD onto your system.
- 6 Although the BTEQ and CLIV2 packages are part of the TUP, for MP-RAS systems they are shipped on the Teradata RDBSM V2R5.0 CD. For W2K systems, they are shipped on a separate CD-ROM with other TUP packages.
- 7 A number of conversion scripts must be run to convert data stored on previous releases of Teradata Database to the new formats required for V2R5.0. These scripts are not included on the Teradata RDBMS V2R5.0 software CD-ROM, but are available on the SUPR web site. For details on access to and use of these scripts, see [“Installation, Upgrade, and Migration \(IUM\)” on page 27.](#)
- 8 **Teradata Database Documentation:** User documentation is provided with initial orders or upgrades of the V2R5.0 software, on a CD-ROM entitled *“Teradata Database V2R5.0 and Teradata Tools and Utilities 7.0 User Documentation.”* For a list of documents that support V2R5.0, see [“User Documentation” on page 38.](#)

## Certified Teradata Tools and Utilities Release

Teradata Database V2R5.0 has been certified with Teradata Tools and Utilities Release 7.0. We recommend that users upgrading to V2R5.0 also upgrade to this Teradata Tools and Utilities release.

For detailed information on the full range of tools and utilities, see *Teradata Tools and Utilities Release 07.00.00 Definition, B035-2029-122C*. This document is available from the NCR Information website at:

<http://www.info.ncr.com>.

# Hardware Requirements

## Supported NCR Hardware Platforms

Teradata Database V2R5.0 is supported on the following NCR platforms:

V2R5.0 Supported Platforms		
System Type	UNIX MP-RAS	Windows 2000
NCR SMP Systems	4300, 4400, 4455, 4470, 4475	4400, 4455, 4470, 4475
NCR MPP Systems	5100M, 4700, 5150, 4800, 4850, 4851, 4855, 4900, 4950, 5200, 5250, 5251, 5255, 5300, 5350	4850, 4851, 4855, 4900, 4950, 5250, 5251, 5255, 5300, 5350

## Third-Party Hardware Platforms

In addition to the NCR platforms listed in the preceding table, you may run V2R5.0 software on selected third-party platforms that meet specified requirements.

**Important:** All procurement and support of third-party hardware is the responsibility of the customer.

V2R5.0 is supported on Symmetric Multi-Processor (SMP) hardware running Windows 2000 that meets the following specifications:

Component	Requirement
<b>Memory</b>	1 to 4 GB ( <b>See Note 1</b> )
<b>Processors</b>	<ul style="list-style-type: none"> <li>• 2-, 4-, and 8-way Pentium III Xeon</li> <li>• 2-way Pentium IV Xeon</li> </ul>
<b>System Disk requirements for systems with:</b>	
<ul style="list-style-type: none"> <li>• 1-3 GB of memory</li> </ul>	At least 2 x 9 GB mirrored sets (4 disks), or 1 x 18 GB mirrored set (2 disks)
<ul style="list-style-type: none"> <li>• 4 GB of memory</li> </ul>	At least 2 x 18 GB mirrored sets (4 disks), or 1 x 36 GB mirrored set (2 disks)
<b>Database Disk</b>	HW Raid 1 or 5 at least 10 GB

Component	Requirement
<b>Operating System Requirements</b>	For information on operating system requirements, see “Software Requirements” on page 21.
<b>Authorized Hardware</b>	Hardware must be authorized as compatible with Windows 2000 ( <b>See Note 2</b> ).

**Notes:**

- 1 Systems with more than four GB of memory may be usable. For information on how to contact Teradata Global Sales Support (GSS) about this and other support issues, see “Customer Support” on page 34.
- 2 To view the Microsoft authorized Windows 2000 hardware compatibility list (HCL), go to the Microsoft support web site:

Step	Action
<b>1</b>	Log onto: <a href="http://www.microsoft.com/hwdq/hcl/search.asp">http://www.microsoft.com/hwdq/hcl/search.asp</a>
<b>2</b>	Enter your desired platform, such as <b>Dell Power Edge</b> , in the <b>Search for</b> dialog box
<b>3</b>	Select <b>All Product Categories</b> in the <b>In</b> dialog box
<b>4</b>	Click on the <b>Search Now</b> button to see if your desired platform is listed

For disk setup parameters, see “Rules for Windows 2000 Disk Array Setup” on page 19.

## Coexistence and Coresidence Systems

You may already have a Teradata system and wish to add more nodes at the same time you upgrade to V2R5.0. Systems employing a mixture of older and newer model hardware are referred to as “coexistence” or “coresidence” systems.

Determining whether a node can coexist or coreside with another node depends on the performance class, the operating system, and the installed version of BYNET on each one.

Performance classes are defined as follows:

Performance Class	Processor Speed	Model
1	450 MHz, 500 MHz, 550 MHz	4800, 5200
2	700 MHz	4850, 4851, 5250, 5251
	900 MHz	4855, 5255

## Hardware Requirements

Performance Class	Processor Speed	Model
3	1.4 GHz	4900, 5300
4	2.8 GHz	4950, 5350

### Notes:

- A coresidence system consists of nodes from one performance class.
- A coexistence system consists of nodes from two different performance classes.
- Some older model nodes can also be incorporated as part of expanded coexistence systems, but may be limited by BYNET version requirements and availability of some allowable coexistence models.

The following tables define hardware combinations that may coexist or coreside while running Teradata Database V2R5.0. If you have further questions, contact your sales representative.

### Coexistence Systems

Existing System Hardware Model	Allowable Coexistence Models	Required Operating System	Required BYNET Version	Maximum Allowable Nodes
4300	N/A	N/A	N/A	N/A
4400	N/A	N/A	N/A	N/A
4455	N/A	N/A	N/A	N/A
4470	N/A	N/A	N/A	N/A
4475	N/A	N/A	N/A	N/A
4700	4800, 4850, and/or 5100M	MP-RAS	V1	8
4800	4850	MP-RAS	V1	4
4800	5150	MP-RAS	V1	128
4800	4850, 4851, and/or 4855	MP-RAS	V2	4
4850	4800	MP-RAS	V1	4
4850	5150	MP-RAS	V1	128
4850	4800, 4851, and/or 4855	MP-RAS	V2	4
4900	4850, 4851, and/or 4855	MP-RAS or Windows 2000	V2	4

Existing System Hardware Model	Allowable Coexistence Models	Required Operating System	Required BYNET Version	Maximum Allowable Nodes
4950	4850, 4851, 4855, and/or 4900	MP-RAS or Windows 2000	V2	4
5100M	5150	MP-RAS	V1	8
5150	5100M	MP-RAS	V1	8
5150	4800	MP-RAS	V1	48 (See Note)
5150	4850	MP-RAS	V1	42 (See Note)
5200	5250, 5251, and/or 5255	MP-RAS	V2	512
5250	5200, 5251, and/or 5255	MP-RAS	V2	512
5300	5250, 5251, and/or 5255	MP-RAS or Windows 2000	V2	512
5350	5250, 5251, 5255, and/or 5300	MP-RAS or Windows 2000	V2	512

**Note:** When adding 4800 or 4850 nodes to an existing 5150 system, the maximum number of nodes in the resulting coexistence system is figured in terms of “5150 node equivalents,” with a maximum of 96 allowed. The number of allowable nodes shown in the table is stated in terms of “actual” 4800 or 4850 nodes, where 1 4800 node = 2 5150 nodes, and 1 4850 node = 2.25 5150 nodes.

### Coexistence Systems

Existing System Hardware Model	Allowable Coexistence Model	Required Operating System	Required BYNET Version	Maximum Allowable Nodes
4300	N/A	N/A	N/A	N/A
4400	N/A	N/A	N/A	N/A
4455	N/A	N/A	N/A	N/A
4470	N/A	N/A	N/A	N/A
4475	N/A	N/A	N/A	N/A
4700	N/A	N/A	N/A	N/A

## Hardware Requirements

Existing System Hardware Model	Allowable Coresidence Model	Required Operating System	Required BYNET Version	Maximum Allowable Nodes
4800	4800 running at 450MHz, 500 MHz, or 550 MHz	MP-RAS	V1	4
4850	4851 or 4855	MP-RAS or Windows 2000	V2	4
5100M	N/A	N/A	N/A	N/A
5150	N/A	N/A	N/A	N/A
5200	5200 running at 450MHz, 500 MHz, or 550 MHz	MP-RAS	V2	512
5250	5251 or 5255	MP-RAS	V2	512
5250	5251 or 5255	Windows 2000	V2	64

## Hardware Support for Mixed OS

A Mixed OS system includes both Trusted Parallel Application (TPA) nodes and non-TPA nodes. The “Mixed OS” function allows non-TPA nodes to run Windows 2000 within an MP-RAS system. A mixture of Windows 2000 and MP-RAS non-TPA nodes is also permitted. Existing MP-RAS non-TPA nodes can be converted to Windows 2000 or replaced by new Windows 2000 non-TPA nodes.

Basic system requirements for Mixed OS are as follows:

- Mixed OS allows use of two consecutive generations of nodes/storage across TPA and/or non-TPA nodes.
- All external storage must be from the same vendor.
- BYNET must be V2.
- Windows 2000-based Administrative Work Station (AWS S28 or later) is required.

Mixed OS is supported on the following NCR hardware platforms:

- 4800, 4850, 4851, 4855
- 4900, 4950
- 5200, 5250, 5251, 5255
- 5300, 5350

Allowable platform combinations are the same as those shown in the Coexistence Systems Table on pages 14 and 15. Mixed OS is not supported on earlier models because they do not support AWS for Windows 2000.

For associated software requirements, see [“Software Requirements for Mixed OS” on page 22](#).

## Platform Upgrades

Some platforms can be upgraded to achieve higher performance. The following upgrade paths are approved for NCR hardware:

Platform model...	Can be upgraded to a model...
4700	5150 (BYNET must be upgraded from version 1 to version 2)
4800	5200 (BYNET must be upgraded from version 1 to version 2) 4850
4850	5250
4851	4855, 5251
4900	N/A
5200	5250
5250	N/A
5251	5255
5300	N/A

## Node Memory Size

Teradata Database V2R5.0 supports the same database configuration on the nodes with the same amount of node memory space as V2R4.0.x and V2R4.1.x.

Each node must have a minimum one Gigabyte (GB) of Random Access Memory (RAM). Additional memory may improve performance, depending upon your:

- Particular workload mix
- Desired level of system availability
- Specific operating environment

See the following table for node memory size specifications:

## Hardware Requirements

System Type	Minimum RAM	Recommended RAM	Maximum RAM
SMP	1 GB	2 GB	4 GB
MPP	1 GB	2 to 4 GB	4 GB

### Notes:

- The amounts listed in Minimum and Maximum RAM columns are per node.
- Older systems such as the 4300 and 5100M may be limited to a maximum of 2 GB of RAM.
- Nodes using the optional stored procedures feature, which requires a C++ compiler, should have a minimum of 2GB of RAM to protect against degradations in performance.

## Disk Arrays

Teradata Database V2R5.0 supports the following disk arrays:

- WES 6282 Deskside - RAID 1 and 5
- WES 6283 Deskside (Windows 2000 only) - RAID 1 and 5
- NSC 6285 - RAID 1 and 5
- WES 6288 (MP-RAS only) - RAID 1 and 5
- WES 6840 (MP-RAS only) - RAID 1 and 5
- WES 6289 (Windows 200 only) - RAID 1 and 5
- EMC2 6273 and 6274 RAID 1 and 5
- EMC2 6276 and 6278 - RAID 1
- EMC2 6290-843X - RAID 1
- EMC2 6290-853X - RAID 1

**Note:** Where an operating system is not specified, the array supports both MP-RAS and Windows 2000.

Internal disk arrays are not available for the 5100S or 5100M, and are not supported with Teradata on the following platforms:

- 4300
- 4700/5150
- 4800/5200
- 4850/5250
- 4900/5300
- 4950/5350

The amount of disk storage supportable at desired performance levels depends on the workload and the system configuration.

## Verify Adequate Free Space

The general recommendations for free space on systems running V2R5.0 are the same as for previous versions. A system should have a minimum of 10% percent free cylinders, with 20 to 30% free cylinders recommended for normal operation. Any system that is close to zero percent free cylinders needs adjustment, for both normal operations and for upgrading to V2R5.0.

Since upgrading to V2R5.0 expands the cylinder index, large tightly packed tables need to be unpacked prior to the upgrade. If you do not unpack these tables before the upgrade, the upgrade will complete correctly, but the system could be adversely affected in the following ways:

- the upgrade will run much slower
- the upgrade might deplete free cylinders
- the upgrade might repack tables much more loosely than is optimal

For detailed instructions on determining whether your system has adequate free space, see the following publications:

- *Teradata RDBMS Upgrading to V2R5.0 on UNIX MP-RAS Systems*
- *Teradata RDBMS Upgrading to V2R5.0 on Windows 2000 Systems*

For instructions on accessing these documents, see [“Installation, Upgrade, and Migration Documents” on page 27](#).

## Rules for Windows 2000 Disk Array Setup

The following rules apply to setting up disk arrays for Teradata Database:

- They must be basic disks (not Windows 2000 dynamic disks)
- When beginning installation of Teradata Database, the disks must not:
  - Have a drive letter
  - Be the target of a mount point
  - Have a file system on the partition
- Do not write signatures to the disks or upgrade them to dynamic disks
- For WES and NCR arrays, PUT will automatically configure LUNs to adhere to the stated rules.

## AWS Configuration

Contact Global Sales Support to configure an appropriately sized Administration Workstation (AWS) for your MPP system.

**Note:** The AWS is used on WorkMark MPP platforms only. It is not used on the following:

- NCR platforms:
  - 4300

## Hardware Requirements

- 4400
- 4455
- 4470
- 4475
- Any third-party platform

## CD-ROM Drives Required

One CD-ROM drive is required per cabinet, for installing software on the following MPP systems:

- 5100M
- 4700/5150 system
- 4800/5200
- 4850/5250
- 4851/5251
- 4855/5255
- 4900/5300
- 4950/5350

**Note:** In a dual-node 5100 cabinet, the CD-ROM drive must be accessible by both nodes.

A CD-ROM drive is also required on the following SMP systems:

- 4300
- 4400
- 4455
- 4470
- 4475

## Tape Back Up for Crash Dumps

An internal read/write tape device is required to store crash dumps for remote dump analysis and for software updates. The tape should have at least as much capacity as the amount of RAM on the node. A tape drive is required for each node; in a dual-node 5100 cabinet, the drive must be accessible by both nodes.

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# Software Requirements

## Operating Systems

Teradata Database V2R5.0 is compatible with the following operating systems:

- NCR UNIX MP-RAS release 3.02.00 or higher
- Microsoft Windows 2000 Advanced Server

## Windows 2000 Support Software

### Microsoft Windows 2000 Service Pack 3

All systems running V2R5.0 on Windows 2000 must have Windows Service Pack 3 installed. If you have already installed Windows Service Pack 1 or 2, install Windows Service Pack 3 on top of it.

### Microsoft Windows 2000 Resource Kit

A copy of the Microsoft Windows 2000 Resource Kit, included on the Windows 2000 CD, must be installed on all nodes of Windows 2000 systems running V2R5.0. When upgrading to V2R5.0 on Windows 2000 systems, you don't need to reinstall the Resource Kit.

### Microsoft Windows 2000 Customer Support and Diagnostic Tool

The Microsoft Windows 2000 Customer Support and Diagnostic Tool contains symbol sets and debugging tools used in analyzing dumps. A copy of the Tool must be installed on the AWS of Windows 2000 systems running V2R5.0.

For information on installation of Windows 2000 support software, see:

- *WorldMark 4475 Software Installation Guide for Microsoft Windows 2000*
- *Teradata RDBMS Upgrading to V2R5.0 on Windows 2000 Systems*

For information on accessing these documents, see [“Installation, Upgrade, and Migration Documents”](#) on page 27.

## Compilers

If you are using the optional Stored Procedures feature with V2R5.0, you must use a C++ compiler.

- **For MP-RAS Systems:** A compiler is included on the UNIX Core CD for all MP-RAS systems.
- **For Windows 2000 Systems:** You must purchase the C++ compiler separately for all Windows 2000 systems. The authorized compiler is Microsoft Visual C++ Compiler.Net Standard Edition. Customers that have already installed a previous version of Visual C++ (Version 5.0 or later), should purchase the Visual Studio.Net Professional Upgrade.

## Approved Backup and Restore Software

Archive Storage Facility 2 (ASF2), the Teradata backup and restore (BAR) utility, is no longer available. V2R5.0 is not compatible with existing versions of ASF2.

The following software packages may be used to fulfill your V2R5.0 BAR needs:

- NetVault Version 6.5.1, a product of BakBone Software (minimum version)
- Net Vault Version 6.5.3, a product of BakBone Software (preferred version)

NCR recommends that ASF2-to-NetVault BAR migration planning, delivery, and mentoring should be implemented at least one to three months in advance of a planned upgrade to V2R5.0. Please contact your Account Executive, Teradata Support Consultant, or Teradata Operational Services to initiate a BAR migration.

For details on BAR options, see *Open Teradata Backup Release Definition for Teradata Tools and Utilities Release 07.00.00*, B035-3114-122C. This document is available from the NCR Information website at:

<http://www.info.ncr.com>.

## Teradata Utility Pak

Teradata Utility Pak (TUP) is required to be purchased with each V2R5.0 order. For detailed information on TUP, and other optional tools and utilities, see *Teradata Tools and Utilities Release 07.00.00 Definition*, B035-2029-122C.

This document is available from the NCR Information website at:

<http://www.info.ncr.com>.

## Software Requirements for Mixed OS

A Mixed OS system includes both Trusted Parallel Application (TPA) nodes and non-TPA nodes. Teradata Database provides the option of running Windows 2000 non-TPA nodes within an MP-RAS system. A mixture of Windows 2000 and MP-RAS non-TPA nodes is also permitted. Existing MP-RAS non-TPA nodes can be converted to Windows 2000 or replaced by new Windows 2000 non-TPA nodes.

A Mixed OS environment is configured using the minimum software versions shown in the following:

Node Type	OS Requirements	Other Requirements
TPA	MP-RAS	<ul style="list-style-type: none"> <li>• PUT 3.02.00.11</li> </ul>
Non-TPA	<ul style="list-style-type: none"> <li>• Windows 2000</li> <li>• A combination of Windows 2000 and MP-RAS</li> </ul>	<ul style="list-style-type: none"> <li>• PUT 2.0.4.12</li> <li>• AWS 3.1.1.7</li> </ul>

In addition to the software provided with your order, the following patch is required for Mixed OS support:

- PBYNET102.02.06.17.16 or later (MP-RAS only)

These patches are not on the software CD. They must be downloaded from the NCR TSCE patch server. For instructions on downloading patches, see [“Patch Server Web Site”](#) on page 29.

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# Software Restrictions

## Teradata Database Restrictions

The following software dependencies and restrictions apply to Teradata Database V2R5.0:

- Only one instance of the Teradata Database is supported on a system.
- The Client utility software, including utilities running on Client mainframes, must be installed at or upgraded to Teradata Tools and Utilities 7.0 to take advantage of some of the new V2R5.0 features and functions.
- Teradata client software is licensed on a per-node basis. A license for Teradata Tools and Utilities software should be purchased for each node that has a Teradata Database license.
- For coexistence and coresidence systems, all nodes within a single Massively Parallel Processing (MPP) system must run the same version of the operating system and the Teradata Database software, including AWS. For other dependencies in a coexistence/coresidence system, including detailed platform coexistence/coresidence guides, go to the Single Unified Procedures Repository site at:

<http://iesvr1.sandiegoca.ncr.com/supr/>

**Note:** This site is accessible only by NCR employees. A subset of User Documentation is accessible from the NCR Information website at:

<http://www.info.ncr.com>

For details on how to access and use this site, see “User Documentation” on page 38.

- For additional restrictions, dependencies, and performance considerations when running the Teradata Database with other applications, see “Running Teradata Database With Other Applications” on page 31.
- Backup and restore management utilities are not provided as part of Teradata Database, but are available as separate products. For further information, see “Approved Backup and Restore Software” on page 22.
- A maximum of 1200 concurrent sessions from Local Area Network (LAN) connections are allowed per node. With Micro-Channel Channel Adapter (MCCA) and EISA Bus Channel Adapter (EBCA) Bus & Tag Channel Connection solution, a maximum of 120 sessions per channel connection are allowed with a limit of 8 channel connections per node; this may be further limited by the number of available MCA slots.

## Stored Procedures Restrictions

Stored procedures created for V2R4.x are not compatible with V2R5.0. Scripts are provided with the V2R5.0 software that may be used during upgrade to

recompile stored procedures and make them compatible with V2R5.0, while leaving the procedures unchanged.

The automatic recompile cannot be used for stored procedures that do not have their source code saved in the system. For example, stored procedures from a third party vendor might not have the source code included. The only way to make such a stored procedure compatible is to obtain the source code and recompile it manually.

V2R5.0 is provided with a second set of scripts that you can run to identify stored procedures that do not have source code saved with them. You should run the script before the upgrade to determine which stored procedures need manual recompiling.

For further information on identifying and converting incompatible stored procedures, see:

- *Teradata RDBMS Upgrading to V2R5.0 on UNIX MP-RAS Systems*
- *Teradata RDBMS Upgrading to V2R5.0 on Windows 2000 Systems.*

For instruction on how to access these documents, see [“Installation, Upgrade, and Migration Documents”](#) on page 27

## Windows 2000 Registry File Maintenance

A problem in the Windows 2000 operating system prevents the system from booting up if the registry reaches a certain size. The registry, `\WINNT\system32\config\System`, is a dynamic file that can grow each time a system change is made.

Teradata uses the registry extensively. Installing Teradata Database software, modifying configurations, or even re-cabling or reconfiguring the disk arrays, accelerates the growth of this critical file. When the file size exceeds certain limits, subsequent attempts to boot the system are terminated. Microsoft has acknowledged this shortcoming (Incident SRX000706602268) and has worked with NCR to devise a solution.

Teradata Database includes the NCR FSizeMonSvc utility and a Microsoft “file-scrubber” utility to assist users when the registry exceeds recommended limits. This is how it works:

## Software Restrictions

IF the registry exceeds the...	THEN the FSizeMonSvc utility displays a...
recommended safe maximum size of 8.5 MB	message warning the administrator of the condition:  Error--This node's system file exceeds the recommended size
10.3 MB file size limit	second error message:  CRITICAL--This node's system file exceeds the critical size. DO NOT REBOOT THIS NODE!(It will fail)

**Note:** If you receive either of these error messages, arrange “downtime” for the database as soon as possible and contact the Teradata Global Support Center (GSC) for assistance. The GSC will help run the scrubber utility to remove obsolete entries which can help reduce the registry to an acceptable size. See [“ESS-Enhanced or Business Critical Support” on page 34](#) contact information.

For details on installation and use of this feature, see *WorldMark 4475 Software Installation Guide for Microsoft Windows 2000*.

For instructions on accessing documentation on Installation, Upgrade and Migration procedures, see [“Installation, Upgrade, and Migration Documents” on page 27](#).

# Installation, Upgrade, and Migration (IUM)

New installation of Teradata Database V2R5.0, upgrade from a previous Teradata version to V2R5.0, or migration of the database to a new platform running V2R5.0 should be done only with the assistance of qualified NCR field personnel.

Contact your sales or customer support representative to initiate these processes.

## Parallel Upgrade Tool

The Parallel Upgrade Tool (PUT) is an automated tool used to aid installation or upgrade of Teradata Database, and supporting software such as AWS, BYNET, SM/Remote, DSDE, and the other software options listed in “[Contents of This Release](#)” on page 8. PUT is provided with each copy of V2R5.0.

Use one of the two current versions of PUT, depending upon your operating system. Use the detailed planning information included in the PUT user documentation to plan your upgrade or migration to V2R5.0. Instructions on the use of PUT are contained in the following publications:

System Type	Documentation Title
UNIX MP-RAS	<i>Parallel Upgrade Tool (PUT) for MP-RAS User Guide, Release 3.02.00.11</i>
Windows 2000	<i>Parallel Upgrade Tool (PUT) for Microsoft Windows User Guide, Release 2.0.4.12</i>

### Notes:

- PUT supports all platforms certified for use with V2R5.0. For information on approved platforms, see “[Hardware Requirements](#)” on page 12.
- PUT is required to support all coexistence and coresidence systems.
- Be sure to download the latest version of PUT before beginning an upgrade to V2R5.0.

## Installation, Upgrade, and Migration Documents

For user documentation on Installation, Upgrade, and Migration, go to the NCR SUPR site according to the following instructions:

Step	Action
1	Go to <a href="http://www.info.ncr.com/">http://www.info.ncr.com/</a>
2	From the left menu, select <b>Teradata Data Warehousing</b>

Step	Action
3	From the menu on the right, select <b>Installation, Upgrade, and Migration Single Unified Procedures Repository (SUPR)</b>
4	Click on the title of the document you want to access

## Installation, Upgrade, and Migration Planning

An exhaustive planning section is included in each IUM manual. Please refer to it and do all preparatory activities before beginning any IUM procedure. Here are some specific things to consider before beginning an IUM procedure:

- Some Installation, Upgrade, and Migration procedures are operating system-specific. Be sure to download the IUM document appropriate to your operating system.
- To assist the planning process, an Upgrade Estimator Tool is available from SUPR to estimate how much time is required to do an upgrade from V2R4.0.1 or V2R4.1 to V2R5.0 on your system.
- SUPR also provides copies of other items required IUM procedures:
  - Reserved words scripts
  - Stored procedure evaluation scripts
  - User documentation for the Parallel Upgrade Tool (PUT)
- A number of file conversion scripts must be run to convert data stored on previous releases of Teradata Database to the new formats required for V2R5.0. These scripts are provided with Teradata RDBMS V2R5.0. For details on accessing and using the file conversion scripts, see the upgrade or migration user document appropriate for your system listed below.

The IUM documents available for Teradata Database V2R5.0 are shown in the following table:

Operating System	Product ID	Title
<b>MP-RAS</b>	Not Applicable	Not applicable All MP-RAS systems are factory installed
	B035-1107-122K	<i>Teradata RDBMS Upgrading to V2R5.0 on UNIX MP-RAS Systems</i>
<b>Windows 2000</b>	B035-1112-061K	<i>WorldMark 4475 Software Installation Guide for Microsoft Windows 2000</i>
	B035-1113-122K	<i>Teradata RDBMS Upgrading to V2R5.0 on Windows 2000 Systems</i>
<b>MP-RAS and Windows 2000</b>	B035-1114-122K	<i>Teradata RDBMS Migrating Data to V2R5.0</i>

## Patch Server Web Site

To check for the most current patches, go to the section of the Teradata Solutions Global Support Center (TSGSC) patch server for your operating system:

Operating System	TSGSC Patch Server Address
MP-RAS	<a href="http://gspatch.sandiegoca.ncr.com/ftp/SOFTWARE/">http://gspatch.sandiegoca.ncr.com/ftp/SOFTWARE/</a>
Windows 2000	<a href="http://gspatch.sandiegoca.ncr.com/ftp/SOFTWARE/NT">http://gspatch.sandiegoca.ncr.com/ftp/SOFTWARE/NT</a>

Access specific patches as shown in the following table:

To download patches for...	Select...
UNIX	MPRAS 30200 Other patches for this revision of MP-RAS are listed individually.
Teradata Database for UNIX	<b>1</b> Teradata <b>2</b> Follow the instructions on the page.
Windows 2000	WIN2000/NTFW
Teradata for Windows 2000	WIN2000/TNT, then TNT 5.0 <b>Note:</b> Other useful patches are listed individually in the main directory with WIN2000/prefixes.

Customers with support agreements can access the patch server web site. All others should contact their sales or support team.

### Notes on patches for MP-RAS Systems:

- If you are upgrading to V2R5.0 or migrating Teradata Database from a 4300 to a 4400 series system, at a minimum you **must** download PKERN302 version 02.07.17.15 or later.
- Only the PBYNET102.02.06.17.16 patch is certified with the current version of Parallel Database Extension (PDE) for use on both standard and mixed OS systems.
- The SCSIII driver has been updated for V2R5.0. You must download PSCSI302 version 02.07.17.15 or later for full functionality.
- Additional patches are required for Mixed OS systems. For details on these requirements, see [“Software Requirements for Mixed OS” on page 22](#).

## PDE

In previous releases, PDE had to be installed on all nodes of an MPP system so that BYNET multicast service requests from other nodes were sent the correct response. This included both Trusted Parallel Application (TPA) nodes (nodes running the Teradata Database) and non-TPA nodes (nodes not running the Teradata Database).

For V2R5.0, follow these guidelines regarding PDE installation:

IF you are...	THEN...
upgrading to V2R5.0	remove PDE from non-TPA nodes before upgrading to V2R5.0.
performing a new installation	do not install PDE on non-TPA nodes.

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# System Performance

Overall system performance has been enhanced for V2R5.0, with some areas showing significant performance increases. See your sales representative for specific benchmarks that apply to your type of system.

## Known Regressions

Minor performance regressions between V2R4.x and V2R5.0 have been detected in a few areas. NCR expects these regressions to be fixed in early 2003. To find out the latest information on where the regressions are and how they may affect your system, you can do one of the following:

- Use NCR@Your Service and My Support Link to access any Tech Alerts issued for V2R5.0 To access My Support Link:
  - Go to: <http://www.my.ncr.com>
  - Click on NCR@Your Service
  - Click on My Support Link
  - Click on Tech Alerts
- If you have not registered for NCR @ Your Service, please contact your sales or customer support representative

## Running Teradata Database With Other Applications

Other applications (including Teradata applications) *may* execute concurrently with the Teradata Database on approved system platforms. However, this is not encouraged, as it may impact the expected throughput and response time performance of the Teradata Database or its availability.

It is highly recommended that you do not run applications that are large consumers of system resources (such as other databases) concurrently without understanding the performance and availability impact to both the applications and the Teradata Database.

If you do run applications on the same system or node as the Teradata Database:

- The system or node may need additional hardware (for example, memory) to support the applications.
- Monitoring and tuning the system may be more complex.
- Compromises (for example, in the settings of tuning parameters) may need to be made to provide satisfactory and consistent performance for both Teradata Database and applications.
- If a problem does occur, it may be necessary to determine whether the problem also occurs in isolation.

## System Performance

If an application does not run properly or interferes with Teradata Database, it may be necessary to move it to another node or system. For instance, such applications may:

- Require a different version of the operating system.
- Require a different set of operating system-level patches.
- Require different settings of tuning parameters.
- Be unable to obtain adequate system resources, or obtain too many system resources due to UNIX scheduler or other OS-specific resource limitations.
- Adversely affect performance.
- Require significant use of the BYNET bandwidth.

Reliability and availability may be a concern if an application failure tends to bring down UNIX and thereby bring down Teradata Database, or vice versa.

By default, the Teradata memory allocation algorithms are based on Teradata Database using 100% of the amount of memory on a node. If other applications use a significant amount of memory on the node, you may need to add memory, and you should adjust the option controlling this percentage. For these reasons, avoid running non-Teradata applications on nodes running Teradata, if at all possible, as outlined in the table that follows.

Software Type	Runs on Nodes Running Teradata Database?	Considerations
Non-Teradata applications	No	Run on nodes that are not running Teradata Database, or run on a separate client or server, so that: <ul style="list-style-type: none"><li>• Expected throughput, expected response time, and parallel efficiency are not impacted.</li><li>• Detrimental impact on the system is reduced.</li><li>• Problems can be more easily isolated.</li><li>• Fixes needed by one application can be made without having to apply them to nodes that do not need those fixes (or for which those fixes are detrimental).</li></ul>
Teradata applications and Teradata client software	Yes	Run on nodes running Teradata Database if the software: <ul style="list-style-type: none"><li>• Puts a very small load on a system.</li><li>• Evenly distributes the workload across the nodes.</li><li>• Is used periodically for system maintenance.</li><li>• Has an impact that is well-understood and acceptable.</li></ul>

**Note:** Even if applications *are* run on separate nodes (non-TPA nodes), they may still share the BYNET and thereby potentially interfere with Teradata Database or vice versa.

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## Customer Support

Technical support is available seven days a week, 24 hours a day, through the NCR Managed Service Centers (MSCs) or the Teradata Solutions Customer Services Remote Services Center (TSCS-RSC).

### Managed Service Centers

Customers with the following support status must contact an MSC to request support:

- No maintenance contract
- Under warranty
- Standard maintenance contract
- “Time and Materials” contract

(The MSCs may also be known as Care Centers and were formerly called RCCs.) The four existing MSCs are:

MSC	Address	Phone
<b>EMEA MSC - Amsterdam</b>	NCR EMEA Regional Care Center B.V. Laarderhoogtweg 25 P.O. Box 22705 NL-1100 DE AMSTERDAM	Phone: 31 (0)20 342 1421 FAX: 31 (0)20 342 1399
<b>Americas MSC - Atlanta</b>	1346 Oakbrook Drive Suite 170 Norcross, GA 30093	VP: 447-4800 Phone: 1-800-262-7782 or 1-770-734-4800
<b>Pacific Rim MSC -Australia</b>	Level 12, 8 - 20 Napier Street North Sydney NSW 2060, Australia	Phone: 1-612-9935-3970 FAX: 1-612-9935-3966
<b>Japan MSC - Japan</b>	NCR Japan, Ltd. Large Computer Systems Support 2-2-1 Chigasaki-minami Tsuzuki-Ku, Yokohama-shi Japan, 224-0037	Phone: (81) 45 945-3163 FAX: (81) 45 945-3044

### ESS-Enhanced or Business Critical Support

ESS-Enhanced or Business Critical customers must contact the Global Support Center (GSC) to request support, as follows:

Customer Location	Call	Fax	E-mail
U.S.	1-800-531-2222 (requires PIN access)	1-619-485-3666	dwgsc@ncr.com
Outside U.S.	1-858-485-3700 (no PIN required)	N/A	Same as above

If a PIN is misplaced, the customer should contact their high availability server (HAS) or account representative.

## TSCS-RSC Call Management and Phone Number Changes

The following details apply to the contact information given above:

- United States Standard, T&M, warranty, and no-contract customers are required to call the MSC at 1-800-262-7782. The MSC will generate an incident and perform entitlement checking, then transfer the call live to TSCS-RSC (utilizing a designated path).
- U.S. Enhanced and Business Critical customers are required to call 1-800-531-2222, and enter their PIN number. They will be routed to RSC (utilizing a designated path).
- All NCR internal calls (from field staff or GSC staff not having local access) should be made to 1-800-446-2344 (PIN# 1611). The caller will then be given an option to enter the four-digit extension of the person they are trying to reach, or will be directed to the RSC main menu.
- Callers outside the U.S. can reach the RSC by dialing 1-858-485-3700.

Please direct any questions and/or issues to the TSCS-RSC by calling the telephone numbers in the preceding list.

## Operational Services

In addition to annual maintenance contract services already mentioned, help is also available from Teradata Operational Services. Operational Services provides one-time service delivery of infrastructure services in the following areas:

- BAR (Backup, Archive, and Restore) strategies, software installations, and mentoring
- Operational Mentoring: Interactive training in Teradata system architecture, system monitoring, available tools, roles and responsibilities, system administration
- Performance and Capacity Planning/Management
- Data Migration Services: NPARC
- Project Management: Hardware and software changes; system relocations
- Business Continuity Services: Disaster recovery services

## Software Maintenance Schedule

Purchasers of Teradata Database software are entitled to continuing support after initial installation or upgrade. A Teradata Database maintenance schedule is shown as an example.

For V2R3.0.3 and higher-numbered releases, the basic period of support is:

- Ten months of certified e-fix support
- One additional month of e-fix support
- Three additional months of support without fixes

A longer period of support may be offered depending upon the schedule for subsequent releases and whether these releases are delayed.

**NOTE THAT THIS IS AN EXAMPLE ONLY AND IS SUBJECT TO CHANGE.**

The current Teradata Database Version 2 maintenance schedule is similar to the following:

Release	GCA Date	Certified E-Fix	Final E-Fix	Last Crash Dump Analysis	Note	OS
V2R3.0.2	8/13/1999	ended 4/28/2000	ended 5/26/2000	ended 8/25/2000		A
V2R3.0.3	2/1/2000	ended 1/31/2002	ended 2/28/2002	ended 5/31/2002		A
V2R4.0.0	7/6/2000	ended 5/11/2001	ended 6/8/2001	ended 9/7/2001		B
V2R4.0.1	11/1/2000	ended 9/6/2001	ended 10/6/2001	ended 1/6/2002		B
V2R4.0.2	3/20/2001	ended 1/20/2002	ended 2/20/2002	ended 5/20/2002		B
V2R4.0.3	7/31/2001	ended 6/1/2002	V2R5.1.0 GCA	V2R5.1.0 GCA+1mo		B
V2R4.1.0	7/30/2001	ended 5/3/2002	ended 6/3/2002	ended 9/30/2002		C
V2R4.1.1	12/10/2001	ended 10/10/2002	ended 11/10/2002	2/10/03		C
V2R4.1.2	3/14/2002	1/14/03	2/14/03	5/14/03		C
V2R4.1.3	7/12/2002	5/12/03	V2R5.1.0 GCA	V2R5.1.0 GCA + 1 mo		C
V2R4.2.0	12/20/2002	V2R4.2.0 GCA + 10 mo	V2R4.2.0 GCA + 11 mo	V2R4.2.0 GCA + 14 mo	1	D
V2R5.0.0	12/20/2002	V2R5.0.0 GCA + 10 mo	V2R5.0.0 GCA + 11 mo	V2R5.0.0 GCA + 14 mo		C

### Notes:

- 1 V2R4.2.0 is 64 bit HP-UX only and not a valid migration path for V2R4.1 or V2R5.0
- 2 O/S (operating systems) supported:
  - A= MP-RAS
  - B= MP-RAS and Windows NT
  - C= MP-RAS and Windows 2000

– D=HP-UX-64

The following definitions apply to the Teradata Database maintenance schedule:

Column Heading	Meaning
Code cutoff	The last date for unrestricted acceptance of a fix for a release. Fixes after that date are reviewed on a case-by-case basis.
GCA	Date at which the release achieved (or is expected to achieve) General Customer Availability.
Final E-fix	Last date that a known fix will be considered as an emergency fix (back-port candidate). Emergency fixes are certified until approximately the date specified in the Certified E-fix column.
Final Service	Last date for support of the release.

## Accessing Updated Maintenance Schedule

The maintenance schedule is subject to change. For the latest update, customers with support agreements can access the web site at the address in the following table. All other customers should contact their sales or support team for a current copy of this information.

To view the current maintenance schedule:

Step	Action
<b>1</b>	Go to <a href="http://www.my.ncr.com">http://www.my.ncr.com</a>
<b>2</b>	Log on. If you do not have a login name and password, contact your account service manager.
<b>3</b>	Select <b>My Support Link</b> .
<b>4</b>	Select <b>V2 Maintenance Roadmap</b> (from the left-hand navigator or the main table) on the My Support Link home page.

# User Documentation

All user documentation for Teradata Database is available on the web. For a detailed description of the documentation retrieval process, see [“Features of This Release” on page 8](#).

The following user documents support Teradata Database V2R5.0:

Product ID	Title	Printed Copy Shipped with Software
B035-1000-500S	Teradata V2R5.0 Book Set (order this item to receive all printed documents)	
B035-1092-122A	<i>Data Dictionary</i>	
B035-1093-122A	<i>Database Administration</i>	X
B035-1094-122A	<i>Database Design</i>	
B035-1095-122A	<i>Database Window</i>	
B035-1025-122A	<i>International Character Set Support</i>	
B035-1091-122A	<i>Introduction to Teradata RDBMS</i>	
B035-1096-122A	<i>Messages</i>	X
B035-1090-122A	<i>PM/API Reference</i>	
B035-1097-122A	<i>Performance Optimization (Available in May, 2003)</i>	
B035-1098-122A	<i>Release Summary</i>	
B035-1099-122A	<i>Resource Usage Macros and Tables</i>	
B035-1100-122A	<i>Security Administration</i>	
B035-1510-122B	<i>SQL/Data Dictionary Quick Reference</i>	X
B035-1101-122A	<i>SQL Reference</i>	
	Volume 1 - Fundamentals	X
	Volume 2 - Statement and Transaction Processing	X
	Volume 3 - Data Types and Literals	X
	Volume 4 - Data Definition Statements	X
	Volume 5 - Functions and Operators	X
	Volume 6 - Data Manipulation Statements	X

Product ID	Title	Printed Copy Shipped with Software
B035-1103-122A	<i>SystemFE Macros</i>	
B035-1102-122A	<i>Utilities</i>	
	Volume 1 A - F	
	Volume 2 G - S	
	Volume 3 T - Z	
B035-1511-122B	<i>Utilities Quick Reference</i>	X
	<b>Release Definitions</b>	
B035-1725-122K	<i>Base System Release Definition</i>	
B035-1726-122K	<i>Channel Connect Product Release Definition (UNIX MP-RAS)</i>	
B035-1728-122K	<i>Channel Connect Product Release Definition (Windows)</i>	
	<b>CD-ROM</b>	
B035-1909-122D	<i>Teradata Database V2R5.0, Teradata Tools and Utilities 7.0 User Documentation CD</i>	

**Note:** Printed books and CD-ROM will be available on January 31, 2003.

## Documentation Entitlement

Software orders include, free of charge, the following:

- Access to PDF versions of all user documents through the Information Products web site at:  
<http://www.info.ncr.com/>
- Up to four fully indexed and searchable CD-ROMs (dependent on system size).
- Printed copies of the most widely used documents, as specified in the preceding table.

Customers can order additional copies of printed books and CD-ROMs at a nominal cost from Information Products Publishing through the following channels:

- Web site located at:  
<http://www.info.ncr.com/>  
For a detailed description of the documentation retrieval process, see [“Features of This Release”](#) on page 8.
- Toll-free telephone number (customers in the U.S. and Canada only):

## User Documentation

1-800-543-2010 (*choose option 1 to order Teradata documentation*)

- Account teams (customers outside the U.S. or Canada).

**Note:** Documentation on Installation, Upgrade and Migration (IUM) is not part of the standard user documentation and is *only* available on the web. For information on accessing IUM documents, see "[Installation, Upgrade, and Migration \(IUM\)](#)" on page 27.

## DRs and RFCs

Discrepancy Reports (DRs) document areas of the Teradata Database software that require change. DRs are written for two basic reasons:

- To fix an identified software problem
- To record a Request for Change (RFC) that adds a new feature to the software

*Teradata Database Discrepancy Reports Summary, V2R5.0* lists the DRs and RFCs that were incorporated into this Teradata release. NCR personnel can access it by doing the following:

Step	Action
1	Go to: <a href="#">\\dayorg1\orgshare\TSG\</a>
2	Open the <b>DR Summary</b> folder
3	Select <b>500DR.doc</b>

Note: This information is only accessible to NCR personnel.

# Customer Education

Training classes are offered through NCR Customer Education. For more information on the latest classes, schedules, and the Teradata Certification Program, go to the Teradata Customer Education web site at:

<http://www.TeradataEducationNetwork.com>

## USA Enrollment

In the US, customers and NCR associates can enroll in a class via:

Method	Use
Online	<a href="http://www.TeradataEducationNetwork.com">http://www.TeradataEducationNetwork.com</a>
Phone	1-800 845-2273 or (248) 836-0431
Fax	1-800 756-2034 or (248) 836-1512
E-mail	customer.education@ncr.com

## Europe, Middle East, and Africa Enrollment

EMEA customers and NCR associates can enroll by contacting:

Country	Contact	Telephone
All of EMEA	Massimo Pellegrino	(39) 02.4790.4567
Central and Eastern Europe	Frank Scheckenbach	+ 49 821-405-330
Iberia	Angel Fernandez	+ 34-91-375-50-61
Northern Europe	Oscar Egbogu Joan Dobb Canan Kuhn	+ 44 (0) 171 725-8413 + 44 121 741-2241 + 44 20 7725-8413
Spain, Italy	Carlos Luis	+ 34 91 375 5131

## Asia/Pacific Enrollment

Asia/Pacific customers and NCR associates can enroll by contacting:

Country	Contact	Telephone
All Asia Pacific	Bryan Wishart	+61-2-9964-8562
Australia	Roger Hartley	+61-2-9964-8108
Korea	Y. H. Yoo	822-3279-4446
New Zealand	Sandra Bodmin	+64-9-356-6721
Taiwan	Ariel Huang	886 2 2514 4591

## Further Contact Information for EMEA and Asia/Pacific

EMEA and Asia/Pacific customers and NCR associates can check the latest course offerings on the Web at:

<http://www.global.ncrducation.com>

Customers and NCR associates in these countries can also enroll by calling the following number:

1-248- 836-0431