

Business Information Server for ClearPath OS 2200

Software Release Announcement

Business Information Server for ClearPath OS 2200 Release 50R1

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Section 1

General Description

This Software Release Announcement describes the Business Information Server for ClearPath OS 2200 level 50R1.

The Business Information Server is an enterprise decision-support system providing information access, analysis, and reporting in an open client/server environment. It is designed for both end-user ad-hoc analysis and the rapid development of sophisticated decision-support applications.

In addition, Business Information Server provides full graphical user interface (GUI) support when you use it in combination with the Graphical Interface for Business Information Server or Business Information Server for Microsoft Windows.

If you are new to the Business Information Server system, refer to the *Business Information Server User's Guide* for some quick steps to getting started with the product. It describes the basic concepts of the Business Information Server system and presents procedures for several common tasks.

Documentation Updates

This document contains all the information that was available at the time of publication. Changes identified after the release of this document are included in problem list entry (PLE) 19270831. To obtain a copy of the PLE, contact your Unisys representative or access the current PLE from the Unisys Product Support Web site:

<http://www.support.unisys.com/all/ple/19270831>

Note: If you are not logged into the Product Support site, you will be asked to do so.

System Features

Business Information Server has several features that make it an efficient and powerful decision-support system and custom application development tool.

Decision Support Capabilities

Business Information Server provides a full range of decision support capabilities, including:

- "What if" analysis and trend analysis
- Data mining
- Complex analysis
- Database querying, graphing, and charting
- Casual browsing of reports

You can accomplish interactive decision-support tasks using more than 145 Business Information Server manual functions to search, display, analyze, and update your business information, as well as to manipulate and manage data reports or results. For more information, see the *Business Information Server User's Guide*.

Simple Data Storage Model

Business Information Server software stores data as folders, containing reports, in drawers of electronic file cabinets—a model or paradigm familiar to anyone with business experience. Data is easy to access and easy to manipulate. Users can quickly focus and refocus data to find the information they need. It also provides users with the capacity to intelligently drill down through successive layers of data to obtain precise information, formatted to best meet their needs.

Powerful Application Development Tools

The Business Information Server system features powerful development tools for building decision-support applications of all sizes and complexity. The development tools make it easy to create full-featured applications that support your enterprise.

Business Information Server Platforms

In addition to Unisys ClearPath OS2200, Business Information Server runs on Microsoft Windows (server and workstation), Red Hat Enterprise Linux and SUSE Linux Enterprise Server.

Networking Capabilities

Business Information Server systems communicate with each other and with other systems and data using TCP/IP. Business Information Server also gives the applications a rich set of features for building robust client/server applications that allow the data and processing to reside where they are most effective. Business Information Server sites can exist on the same host system or on a wide variety of other hosts, including enterprise information hubs, department servers, and multifunction PCs.

Support for a Variety of Relational Databases

Business Information Server features its own integrated high-performance database and also provides access to information residing in a variety of external relational database management systems.

Graphing Capabilities

With built-in graphing facilities, you can create customized color charts for displaying your data on the screen or for output to a printer. You can use several types of charts, including bar, pie, timeline, mixed, and Pareto, for the clearest presentation of your data.

BIS Surround Capabilities

Many customers surround their BIS for OS 2200 environment with BIS for Windows or Linux. These products provide additional capabilities not available in BIS for OS 2200, such as web browser access via Internet Commerce Enabler (ICE) and access to additional relational database types.

For more information on these products, please view:

- BIS for Windows SRA (7846 0268)
- BIS for SUSE™ Linux SRA (4729 2131)
- BIS for Red Hat® Enterprise Linux SRA (3850 8057)

System Facilities

Business Information Server includes the following system administration, connectivity, data access, and workstation client facilities.

System Administration

Business Information Server system administration involves controlling the design, organization, and data processing activity of a Business Information Server system. Business Information Server for ClearPath OS 2200 includes administrative facilities enabling you to:

- Manage Business Information Server site security and user access to Business Information Server data and applications.
- Configure system devices and network resources.
- Register and schedule applications.
- Monitor and analyze system activity.
- Manage backup and recovery.
- Add database files.
- Design and implement a database structure.

Data Access Facilities

Business Information Server includes two facilities that allow you to retrieve data from a number of relational databases using simple interactive menus.

MRI

The Relational Interface (MRI) is an interface that you can use to retrieve and update data in external relational databases using Structured Query Language (SQL). SQL is generated to communicate with the specific data manager. Once the data is retrieved, you can use the full set of Business Information Server commands to manipulate the data. You can access the following database platforms:

- Relational Database Server for ClearPath OS 2200
- MQL
- Oracle
- ODBC-compliant databases
- OLE DB
- MySQL

Note: *Business Information Server cannot directly access all databases on all platforms. You can, however, access these databases remotely by networking to a Business Information Server system that has a local connection to the database.*

Relational Database Interface

The Relational Database Interface (RDI) gives you easy access to your data. RDI is a menu-driven Business Information Server application that allows users to interactively retrieve and modify external data even with a minimum knowledge of SQL. You can capture the SQL syntax generated by your queries and save it in a report for later use.

Workstation Client Software

Business Information Server includes the Graphical Interface for Business Information Server Client and its Business Information Server Graphical Environment.

Graphical Interface for Business Information Server

Graphical Interface for Business Information Server is a user interface for the Windows environment. It supports up to 16 concurrent sessions on a single workstation. In addition, the graphical interface enables you to customize your workstation by specifying display characteristics of screens and by associating icons with applications.

Business Information Server Graphical Environment

The Business Information Server Graphical Environment provides a practical point-and-click interface to many common data access, ad-hoc reporting, and user administration tasks. This environment brings a graphical interface to the character-based manual functions. It consists of two main display screens (shells):

- The Active Screen shell, the equivalent of the active screen, lets you point and click to access existing reports in the database or to create new reports.
- The Report Display shell displays reports and results. It contains point-and-click tools to help you process, update, and analyze report data.

With the Business Information Server Graphical Environment, users and administrators have a choice between the traditional, character-based interface and a point-and-click interface. It is easy to switch between the point-and-click interface and the traditional character-based interface. You can either point to the Native Command edit box and enter a command string or click the Exit to Native Environment toolbar icon to display the active screen. The availability of the traditional character-based interface allows experienced users to perform more complex tasks or to use the advanced data analysis features of the Business Information Server software in a familiar manner.

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The Graphical Environment provides additional features that simplify the work of both end users and administrators:

- **Intuitive Interface**
You can quickly manipulate and analyze business data by clicking a menu command and pressing the mouse button. Since the Graphical Environment uses familiar menus and dialog boxes to display commands and their options, extensive training is not necessary to use the ad-hoc reporting and data analysis features of the software.
- **System Administration**
The Administration display screen consolidates many system administration tasks into a single point-and-click menu system. In addition, many tasks contain drill-down capabilities to help you navigate to related administration tasks and information.
- **Message Center**
This feature enables you to send, receive, and store messages. If you have a message queued to your user or station number, it is displayed when you enter the Message Center.
- **User Preference Options**
You can select a number of options, including automatically starting the Graphical Environment when you log in and displaying detailed screen tips.
- **Online Help**
Help is available by pressing F1 or clicking the Help button in any dialog box.

Section 2

New Features and Enhancements for BIS Level 50R1

Installation Changes (SOLAR and SOLARM)

No changes for this level.

Installation Adjustments (ADJUST)

No changes for this level.

Installation Information (INSTALL/NOTES)

After the SOLAR install is complete (PRODL D FIN), the HLDMAP file will contain an INSTALL/NOTES element. You may want to read this element to see which configuration parameters were added or deleted by the installation.

Time of FAS Tape Creation for PRESTR File Restore

A new configuration parameter, FASTIM, can be used to specify the latest backup tape creation time to be used by PRESTR when restoring files from FAS tapes.

Faster SECURE and PRESTR

The Secure process now writes MAPDAT tapes in the revised FURPUR format using eight tracks per block. The PRESTR program has been updated to read tapes written in the revised format as well as in the original format. These enhancements can result in a significant reduction in the time it takes to save and restore BIS files.

Manual Find Command now Supports Next Find on Same Screen

The Find (F) manual command displays each match rather than the first match on successive screens starting from the first match.

A new option U is added to support the old functionality of displaying the first match on successive screens starting from the first match.

@DIAG Command to Capture Lines from End of Reports

A new L option has been added to the @DIAG command.

The L option ensures the display of first and last lines of the renamed report result.

2028 Date (TDATE\$) Remediation

This feature makes the product completely compliant with the requirements described by the 2028 TDATE\$ Remediation program for the elimination of product references to ER TDATE\$. For BIS 50R1, this includes support for turning on the following Exec configuration parameters:

- std_mfd_modified_swtime (MFDMSWTIME)
- shared_mfd_modified_swtime (MFDSHMSWTIME)
- program_files_modified_swtime (PGMFLMSWTIME)
- er_tdate\$_turned_off (ERTDATE\$OFF)
- initial_r2_modified_swtime (R2MSWTIME)
- accounting_modified_swtime (ACCTMSWTIME)
- freespace_modified_swtime (FSMSWTIME)

Date Format 22 for Date Processing Functions

All of the functions that can process dates (such as DC, CAL, SRH, and so on) can use date format 22. When used as an input format, it accepts dates in the format DD MMM YY (D2) or DDMMYYYY. When used as an output format, the format of the date is determined by the site administrator. The output format is the same format that is seen on the report Date-Line when the report is updated or replaced.

Configuration Parameters

Table 2-1. New Configuration Parameters

Parameter Name	Description
DATE22	Controls the format of the Update Date (column 7) and the Creation Date (column 42) on the Date-Line of a report when the report is updated or created.
FASTIM	This parameter identifies the latest creation time of FAS tapes to be used by PRESTR to restore each file.

Table 2-2. Modified Configuration Parameters

Parameter Name	Description
COMPLV	Changed default from 49 to 50. Changed minimum value accepted from 46 to 47.

Table 2-3. Deleted Configuration Parameters

Parameter Name	Description
LOGFMT	Accounting Log file format.
MAPFIL ACCNTG	Legacy Accounting Log file.

Console Directives

There are no new Console Directives for this level.

There are no modified Console Directives for this level.

Console Messages

Table 2-4. New Console Messages

Number of Messages	Numeric Range	Class Assignment
1	10xx	Initialization
5	19xx	Database Reload (PRESTR)
2	50xx	Audit Trail Long Recovery
3	54xx	Audit Trail Cycle
1	91xx	MAPABT
1	99xx	Abort Message

Table 2-5. Modified Console Messages

Number of Messages	Numeric Range	Class Assignment
1	20xx	Database Initialization (FILINT)
1	50xx	Audit Trail Long Recovery

Table 2–6. Deleted Console Messages

Number of Messages	Numeric Range	Class Assignment
5	11xx	Accounting Log
2	19xx	Database Reload (PRESTR)

New and Updated Library Routines

There are no new Library Routines for this level.

Reserved Words

The following new reserved words are available:

- DATE22\$ – Current date in the format DD MMM YY or DDMMMYYYY. The format is controlled by the Site Administrator.
- DATEFMT\$ – The value set by the Site Administrator for date format 22. 0=format DD MMM YY, 1=format DDMMMYYYY.

Enterprise Manager

This alternative configuration tool has been capped and does not support new features released with BIS 50R1. It will be removed in a future release.

TRAM Audit Trail Utility

TRAM is now an integrated part of the Business Information Server level 50R1 product and is no longer released as a separate product.

Section 3

Release Deliverables

Style Numbers

Business Information Server for ClearPath OS 2200 is offered as a package that includes media for the following products:

- Business Information Server for ClearPath OS 2200 level 50R1
- Business Information Server for ClearPath OS 2200 separately installable features:
 - MRI level 7R1
 - JavaScript Subsystem (BISJVS) level 1R1E
 - Application Programming Interface (BISAPI) level 1R1D
(Includes Java Data Access Server for Business Information Server (JBIS))
 - Business Information Server Resource Adapter for the Java™ Platform (BIS-RA) level 2.2
 - Developer Workshop level 4.1
- Graphical Interface for Business Information Server level 6.1

Note:

- *CSW20-BIS does not include Business Information Server software license or media for: Business Information Server for Microsoft Windows, Business Information Server for Linux, and Business Information Server for Microsoft Windows Client. These products are available for separate purchase.*

Software Styles

Business Information Server for ClearPath OS 2200

The following table lists the current software styles.

Marketing Style	Description	Component Style
CSW20-BIS	Business Information Server software and documentation for ClearPath OS 2200 includes <ul style="list-style-type: none"> • Business Information Server for ClearPath OS 2200 • MRI • Tape Recovery and Maintenance (TRAM) • JavaScript Subsystem (BISJVS) • Application Programming Interface for Java/Java EE (BISAPI) • Enterprise Manager • Developer Workshop • Business Information Server Resource Adapter for the Java™ Platform (BIS-RA) • Graphical Interface Client (MPC) 	6146-CP F6161-00
IXD 1-MPC	Right-to-use license for one additional development user of ClearPath OS 2200 Enterprise systems.	License only*
IXR 1-MPC	Right-to-use license for one additional run-time concurrent user of ClearPath OS 2200 Enterprise systems.	License only*
IXR 100-MPC	Right-to-use license for 100 run-time concurrent users for server access to ClearPath OS 2200 Enterprise systems.	License only*
IXR 500-MPC	Right-to-use license for 500 run-time concurrent users for server access to ClearPath OS 2200 Enterprise systems.	License only*
IXR 1000-MPC	Right-to-use license for 1,000 run-time concurrent users for server access to ClearPath OS 2200 Enterprise systems.	License only*

Marketing Style	Description	Component Style
IXR 2000-MPC	Right-to-use license for 2,000 run-time concurrent users for server access to ClearPath OS 2200 Enterprise systems.	License only*
IXR 9999-MPC	Right-to-use license for unrestricted run-time user access for ClearPath OS 2200 Enterprise systems.	License only*

* Software designated "license only" is licensed to existing licensees of the software only and does not include media or documentation.

A license is required for each named user. Named users are individuals or devices authorized to use the BIS resources regardless of whether the individual is actively accessing BIS resources at any given time. A device is counted as a named user if the device accesses BIS resources.

For example: If one person has three Graphical Interface sessions open, only one named license is required. If ten people are accessing the BIS engine at different times, each person is required to have a license.

Software Subscription Styles

Business Information Server for ClearPath OS 2200

The following table lists the current software subscription styles.

Marketing Style	Description	Component Style
CSU20-BIS	Right to receive future updates to the CSW20-BIS Server components.	License only*
IXU 1-DEV	Right to receive future upgrades to the IXD 1-MPC User access license.	License only*
IXU 1-MPC	Right to receive future upgrades to the IXR 1-MPC User access license.	License only*
IXU 100-MPC	Right to receive future upgrades to the IXR 100-MPC User access license.	License only*
IXU 500-MPC	Right to receive future upgrades to the IXR 500-MPC User access license.	License only*
IXU 1000-MPC	Right to receive future upgrades to the IXR 1000-MPC User access license.	License only*

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Marketing Style	Description	Component Style
IXU 2000-MPC	Right to receive future upgrades to the IXR 2000-MPC User access license.	License only*
IXU 9999-MPC	Right to receive future upgrades to the IXR 9999-MPC User access license.	License only*

* Software designated "license only" is licensed to existing licensees of the software only and does not include media or documentation.

Special Workloads

Ask your Unisys Sales Executive about special workloads that are available on specific ClearPath Dorado servers. BIS Workloads are specialty priced subsets of the IOE that include all of the modules required to support a BIS environment including BIS software. These special workloads do not include user licenses which must be ordered separately.

Tape Labels

Business Information Server for ClearPath OS 2200 level 50R1 is available with key products. You will receive two types of keyed distribution media: conditioned package tapes and key tapes. A key tape is a tape containing product authorizations for a particular site. A key tape is registered through SOLAR. This results in product authorizations being added to the system key table. A summary report produces a listing of all new product authorizations contained on each key tape that is registered. Before a product can be installed, it is verified against the system key table to ensure that your site is authorized for the product or the file.

Packaged Tapes

The following products are included on the Business Information Server for ClearPath OS 2200 level 50R1 packaged tape:

- Business Information Server for ClearPath OS 2200 level 50R1
- MRI level 7R1
- JavaScript Subsystem (BISJVS) level 1R1E
- Application Programming Interface for Java/Java EE (BISAPI and JBIS Server) level 1R1D

Note: All products on the package tape are keyed except for BISJVS and BISAPI.

Media

The Business Information Server for ClearPath OS 2200 Client Software and Documentation CD-ROM includes the following:

- Business Information Server Resource Adapter for the Java Platform (BIS-RA)
- Developer Workshop
- Enterprise Manager
- Graphical Interface
- User Documentation

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Section 4

Product Interdependencies

This section details the hardware and software requirements for use with Business Information Server for ClearPath OS 2200.

Hardware Requirements

This section describes hardware requirements to consider when installing Business Information Server software.

Migration Considerations

Monitor the configuration parameters that control memory and mass storage use (such as MMPBNK, EMPBNK, SPOS, FPOS, MPOS, MAXACT, MAXSTA, IPOS, and UPOS) using administrative functions such as the Current System Statistics (CSS) function. Increase or decrease the amount of memory and mass storage configured, based on your observations.

As with previous levels, failure to configure Business Information Server software properly might result in slow performance, software hangs, or aborts.

Main Storage (Memory)

The 2200 system consists of the following main storage components:

- Static memory banks
- Dynamic memory banks
- From 1 to 2048 Multiple Memory Pool (MMP) banks (depending on the configuration)
- From 2 to 2560 Extended Memory Pool (EMP) banks (depending on the configuration)

Main storage requirements vary according to the following items at each site:

- Number of active stations configured
- Configuration parameters that control memory use

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Mass Storage (Disk Space)

The amount of mass storage (disk space) required to run Business Information Server depends on the size of your files. Files vary in size depending on conditions unique to your site. The following table lists default file sizes for initial installation.

File	Description	Required?	Default Size	Parameter
HLDMAP	Execute file	Yes	600 tracks	NA
MAPER0	Scratch file	Yes	32 positions*	FPOS, MPOS, and SPOS
RCFILE	Recovery file	Yes	15 tracks	NA
AUDHST	Audit history file	Yes	32 tracks	NA
INDFIL	Index file	Yes	10 positions*	IPOS
MUPER1	Update file	Yes	200 positions*	UPOS
MUPER2	Update file	Yes	200 positions*	UPOS
TRMFIL	Terminal configuration file	Yes	18 positions*	MAXSTA or TPOS
AUDTRL	Audit trail disk volumes	No	6400 tracks	**
MAPER1	Database file	Yes	4520 tracks	NA
MAPER2	Database file	Yes	3648 tracks	NA
MAPER n (where n is 3–1024)	Database file	No	57 tracks	NA

* One position equals 64 tracks.

** See the audit trail configuration report.

Peripherals

The following minimum peripherals are required for running the 2200 system:

- One magnetic tape unit
- Mass storage devices with minimum capacities (see “Mass Storage (Disk Space)”).

Communications

For communications, use the OS 2200 TSAM interface to connect your Graphical Interface Workstation or Developer Workshop. To connect your Uniscope terminals and Uniscope terminal emulators, you can also use the more traditional MCB interface (or the CMS 1100 COMPOOL interface). See the *Business Information Server for ClearPath OS 2200 Administration Guide* for a comprehensive list of communications devices.

Business Information Server software runs on the Unisys terminals described in the *ClearPath OS 2200 Systems Software Planning and Migration Overview*.

Business Information Server software supports these IBM CRT devices or controllers:

- 3274
- 3276
- 3278
- 3279

Software Requirements

Business Information Server level 50R1 is supported for general use with ClearPath OS 2200 System Release 18.0 (or higher). Refer to the product information associated with this OS 2200 System Release level for a description of software planning, migration overview information, and hardware platform considerations.

Refer to the *Business Information Server for ClearPath OS 2200 Installation and Systems Analysis Guide* for detailed information on specific OS 2200 software level requirements.

Business Information Server Level 50R1

The following table summarizes the software products required to build, install, and execute the Business Information Server software (optional products are indicated).

Product	Build	Install	Execute
Exec	X	X	X
Symbolic Stream Generator (SSG)	X	X	X
Collector (MAP)	X		
COMUS	X		
Meta-Assembler (MASM)	X		
Procedure Definition Processor (PDP)	X		
System Service Routines Library (SYSLIB)	X		
SOLAR		X	

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Product	Build	Install	Execute
ELT processor	X	X	
Common Internet File System (CIFS)		optional	
Common Mathematical Library (CML)			X
Communications Application Program Interface (COMAPI)			X
Message Control Bank (MCB)			X
Dump Analysis Processor (DAP)	X		optional
Distributed Data Processing (DDP-FJT)			optional
Distributed Data Processing (DDP-PPC)			optional
Flexible User Authentication (FLEX)			optional
Runtime System for Extended Mode Compilers (URTS)			optional
Relational Interface (MRI)			optional
OS 2200 Sort/Merge Package			optional
Remote System Support (RSS)			optional
Tape Recovery and Maintenance (TRAM)			optional
MQ Series for OS 2200			optional
Program-Callable FURPUR (PCFP)	X		X
Extended Language Message System (ELMS)	X		X

MRI Level 7R1

The following table summarizes the software products required to build, install, and execute the MAPPER Relational Interface (MRI).

Product	Build	Install	Execute
Exec	X	X	X
Dump Analysis Processor (DAP)	X		
Collector (MAP)	X		
COMUS	X		
Meta-Assembler (MASM)	X		
Procedure Definition Processor (PDP)	X		
Symbolic Stream Generator (SSG)	X		
System Service Routines Library (SYSLIB)	X		
SOLAR		X	

JavaScript Subsystem

The following table summarizes the software products required to build, install, and execute BISJVS.

Product	Build	Install	Execute
Exec		X	X
SOLAR		X	
Linking System (LINK)			X
Runtime System for Extended Mode Compilers (URTS)			X

Business Information Server Application Programming Interface

The following table summarizes the software products required to build, install, and execute BISAPI.

Product	Build	Install	Execute
Exec		X	X
SOLAR		X	
Linking System (LINK)			X
Runtime System for Extended Mode Compilers (URTS)			X
Communications Application Program Interface (COMAPI)			X
Communications Platform (CPComm)			X
JavaData Access Server to Business Information Server (JBIS)			X
Business Information Server Resource Adapter for the Java™ Platform (BIS-RA)			X
JBoss® Enterprise Application Platform			Optional
Common Internet File System (CIFS)			Optional

Graphical Interface for Business Information Server Level 6.1

Graphical Interface for Business Information Server level 6.1 is the recommended product for connection to Business Information Server from Windows platform (see section 4 Client Platform Requirements for more information on supported Windows platform). Future Unisys application development will support only the graphical interface, primarily using the Business Information Server Graphical Environment. Terminal-compatible applications will gradually be removed in future releases as enhanced GUI forms become available.

Note: This statement applies only to applications supplied with the Business Information Server product. Terminal-compatible applications that you have developed or purchased are unaffected.

Client Platform Requirements

To install and execute the Developer Workshop, or Graphical Interface for BIS in a Windows environment, the following Windows OS are supported:

- Windows 2012 R2 (64-bit)
- Windows 2016 (64-bit)
- Windows 2019 (64-bit)
- Windows 10 Pro or higher (32-bit and 64-bit)

The other BIS client (Resource Adaptor) and documentation can be installed on any Windows platform.

The following Java Runtime Environment (JRE) versions are supported by BIS Resource Adaptor:

- Oracle JDK 11 or OpenJDK 11
You can download and install OpenJDK from Unisys recommended vendor AdoptOpenJDK (<https://adoptopenjdk.net/>).

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Section 5

Restrictions, Limitations, and Considerations

This section describes restrictions, limitations, and installation considerations that apply to Business Information Server for ClearPath OS 2200 level 50R1. It also describes features that have been discontinued. (See Section 4 for compatibility information.)

Restrictions

Business Information Server Recovery Qualifications

A number of issues have been resolved with Long-Recovery in 50R1, 49R1 and 48R1. It is strongly recommended that you apply the following PCRs to the BIS levels that are in use at your site:

- 49R1 – 11341, 11349, 11354
- 48R1 – 10986, 11057, 11150, 11342, 11350, 11366

Following is the recovery matrix indicating the recovery options for all the respective BIS levels:

		TO LEVEL		
		50R1	49R1	48R1
FROM LEVEL	50R1 (COMPLV=50)	Quick-Recovery Long-Recovery No-Recovery	Quick-Recovery No-Recovery	No-Recovery
	50R1 (COMPLV=49)	Quick-Recovery Long-Recovery No-Recovery	Quick-Recovery Long-Recovery No-Recovery	No-Recovery
	50R1 (COMPLV<49)	Quick-Recovery Long-Recovery No-Recovery	Quick-Recovery Long-Recovery No-Recovery	Long-Recovery No-Recovery

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		TO LEVEL		
		50R1	49R1	48R1
FROM LEVEL	49R1 (COMPLV=49)	Quick-Recovery Long-Recovery No-Recovery	Quick-Recovery Long-Recovery No-Recovery	No-Recovery
	49R1 (COMPLV<49)	Quick-Recovery Long-Recovery No-Recovery	Quick-Recovery Long-Recovery No-Recovery	Long-Recovery No-Recovery
	48R1	Long-Recovery No-Recovery	Long-Recovery No-Recovery	Quick-Recovery Long-Recovery No-Recovery

Notes:

- 49R1 cannot do a Quick-Recovery from a 48R1 or 47R1 session (upgrade).
- 48R1 or 47R1 cannot do a Quick-Recovery from a 49R1 session (downgrade).
- 48R1 is the only level that can do a Long-Recovery of 49R1 (COMPLV<49).
- Once COMPLV is set to 49, only 49R1 can do a Long-Recovery.

Business Information Server Script Preprocessing

An output device does not exist for the preprocessing script. Therefore, if a developer chooses to initiate a JavaScript debug session using the Business Information Server script preprocessing, the commands that comprise the preprocessing script cannot contain statements that cause the data to be displayed (for example, @DSP).

Limitations

Report Limits

The expansion beyond 504 characters and 262K lines is supported for FCS and FCSU drawers. LCS drawers will remain at their current limit of 256 characters and 262K lines.

Only certain report width/length combinations will fit in standard program file elements. Large element program files must be used for Business Information Server database files in order to use the maximum width/length reports.

MRI Domain Names

The free-form domain name is limited to 131 characters. There is no method to detect any parsing errors in the IP address or domain name and relay that information back to the end user. Therefore, any improper or invalid user-created entries result in the error message <Error in MRI remote communications> being displayed. The user determines whether the IP address or domain name is actually valid or whether the error is due to the remote connection being unreachable.

MRIDBA cannot accept a complete free-form domain name or the value of *dnr for the site name. A manual update of the network configuration report is needed to utilize a long domain name when using *dnr.

Demo Script

Use of the Demo script is limited to users who have met prerequisites for Workstations with Graphical Interface for Business Information Server. Users who do not fall into this category will not be able to use this script.

Considerations (Installation)

Consider the following before installing Business Information Server level 50R1:

- Use of RSI from Business Information Server Clients
- Keep a Copy of Level 50 PRESTR in case of fallback
- New DATE22 configuration parameter
- AUDHST file format change
- Enhanced Accounting Log file format change
- LGN INFO option changes with MRI 7R1
- Discontinued features of Business Information Server

Use of RSI from Business Information Server Clients

The Remote Symbiont Interface (RSI) function and the RSI statement allow you to start a viewable demand session on an OS 2200 host. However, because of protocol differences, you might experience communication problems if you are in @@CONS mode from an RSI session on a Business Information Server workstation client.

Keep a Copy of Level 50 PRESTR in Case of Fallback

The Secure process in BIS 50 creates MAPDAT tapes using the revised FURPUR standard. These recovery tapes can be read by the BIS level 50 PRESTR program, but not by the earlier levels of PRESTR. It is recommended that customers keep a copy of the BIS level 50 PRESTR program in case they need to revert to a BIS level earlier than 50.

New DATE22 Configuration Parameter

The new DATE22 configuration parameter controls the format of the Update Date (column 7) and the Creation Date (column 42) on the Date-Line of a report when the report is updated or created. Changing the value of DATE22 does not change the Date-Line in a report until the report is updated or replaced. Therefore, you may see a mixture of DATE2 and DATE22 formats when you generate different reports.

WARNING

Your site may have applications (scripts) that test for DATE2 formats on the Date-Line and these scripts could fail to produce the expected results. These scripts require changes to handle both formats before you consider changing this parameter to 1.

AUDHST File Format Change

The Audit History file has a new format, format 1, when running COMPLV set to 50. All other COMPLV values run with Audit History file format 0. BIS level 50 dynamically converts between formats as necessary. Prior BIS levels cannot use Audit History file format 1, but they will convert it to format 0 dynamically if PCRs 11341 and 11349 for BIS 49 and PCRs 11342 and 11350 for BIS 48 have been applied.

Enhanced Accounting Log file format change

The Enhanced Accounting Log has been modified with the following changes:

- Function entries (elClass=0) have been expanded to include the Active-Time and IP-Time in nanoseconds (double words).
- Timestamps continue to be in TDATE\$ format when COMPLV is less than 50.

At COMPLV 50, timestamps are in MAPTIM format and the log record level (elLevel) is changed from 2 to 3.

- The header record (elClass=077) has been expanded to include local site information, such as Qualifier, Filename, and Cycle of the origin log file and the TIMECONFIG\$ values (4 words) of the host site.

Sites using local code to process the accounting log will be affected. For further details, you can contact the Unisys Support Center.

LGN INFO option changes with MRI 7R1

The format of the data that is retrieved from MRI 7R1 for the LGN INFO option has changed. To allow prior levels of BIS to continue to work correctly with MRI 7R1, please apply PCR 11345 to BIS 49 and PCR 11346 to BIS 48.

Discontinued Features of Business Information Server

The COMPLV configuration parameter no longer allows values below 47. All sites should have a plan in place to increase their COMPLV value to the level of their currently executing BIS.

Business Information Server 50R1 no longer writes accounting log files in the original (legacy) format. Only the newer enhanced log format is supported. This change will not affect end users or BIS application developers. However, sites using local code to process legacy accounting log files will be affected.

Future Considerations

DDP networking (NETRMR parameter) and DDP remote run (DDPRMR parameter) functionality will be decommitted in a future release. This does not affect the DDP file commands: DCPR, DCRE, and DPUR. These commands will still be supported. It is recommended that sites use TSAM networking and remote runs (TSMBDI, TSMKAI, TSMKAO, TSMNAM, TSMPRT, TSMPSW, TSMRMR, and TSMRRN parameters). See the *Business Information Server for ClearPath OS 2200 Installation and Systems Analysis Guide* for more information.

In a future release, the Word Processing examples in Drawer H0 will be removed from the database.

Business Information Server 50R1 will not write accounting log files in the original (legacy) format. Only the newer enhanced log format will be supported. This change will not affect end users or BIS application developers. However, sites using local code to process legacy accounting log files will be affected.

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Section 6

Support

Unisys brings together powerful hardware and software, satellite links, multilanguage support, and a multitude of professionals to deliver a round-the-clock, global service. At Unisys, we understand that your business simply cannot afford to wait for support. That is why all Unisys support services are fully integrated to provide you with real-time access to the critical information you need.

Using Support Online (Electronic Support Services)

For any questions or concerns about your Unisys products, turn to Unisys Support Online, your complete information source. Support Online, the Unisys electronic support service portal, provides technical information through the World Wide Web for Unisys customers who are covered under a Support Service Agreement. You can access the Unisys Support Online site at

<http://www.service.unisys.com>

Unisys Support Online puts a wealth of technical information on hardware and software product support services at your fingertips. Unisys technical specialists provide updated symptom and solution information, including frequently asked questions. You can also explore the Unisys Web site to learn more about services designed to add value to your information technology operations.

Contacting the Unisys Support Center

The Unisys Support Center is your information resource for problems that cannot be resolved through Unisys Support Online or your site administrator. Your site administrator can place a Support Request electronically.

The Electronic Support Request interface allows you to pose technical questions, discuss technical issues, and escalate perceived design concerns with the experts at the Unisys Support Center.

When contacting Unisys you need to have the hardware model number available (for example, Dorado 780). In your description, indicate the operating environment (for example, OS 2200, Linux, or Windows) and the software product and level, if any, that are involved.

Obtaining Direct Telephone Support

Direct telephone support is yet another support option offered by Unisys. If you are located within the continental United States or Canada, you can call one of the following toll-free numbers during the times indicated in your service agreement:

- United States 800.328.0440 (prompt 4)
- Canada (English) 800.387.6181
- Canada (French) 800.361.8097

Customers outside the continental United States or Canada should contact their local Unisys office.

Software Support Services

Unisys Support Centers offer Software Support Services, a full complement of technical services to help clients with cost-effective, fast-cycle support. Software Support Services can help you solve your most difficult problems—regardless of your product choice—with packaged services or proposals for addressing your specific needs.

Here are some ways to put Software Support Services to work for you:

- Software Support Ambassador—Obtain attention from a dedicated Unisys Support Center specialist.
- System Generation—Assist in the generation or installation of system software upgrades and enhancements.
- Operating System Migration—Plan and optimize the migration of your systems.
- Performance Review—Evaluate existing systems and networks, and provide tuning recommendations.
- Migration Planning—Assist in the planning of systems migrations and upgrades.
- Communications Systems Enhancements—Assist in the configuration, generation, and installation of communications systems.
- Database Management Consulting—Confirm that proper systems and database backup procedures are being used to promote data recovery.
- 4GLs and Business Information Server—Perform installation and migration, backup procedure review, performance analysis, migration, system build, system installation, recovery tape or audit trail configuration, and administration seminars.

For more information on Unisys Software Support Services, access our Web page in Support Online (<http://www.service.unisys.com>) or call the Unisys Support Center at 800.328.0440 (prompt 4). If your business is located outside the United States, contact your local subsidiary.

Section 7

Ordering Procedures

To order Business Information Server for ClearPath OS 2200 level 50R1, contact your Unisys Sales Executive.

United States clients with a current subscription to Business Information Server and Surety maintenance can order level 50R1 at no cost from Software Services by calling 1.800.829.1313 or sending an e-mail message to SUOA@unisys.com. When contacting Software Services, please provide your name, telephone number, customer name, customer number, and shipping address. (Please do not give a P.O. box number.)

Customers without a subscription service for Business Information Server are required to repurchase Business Information Server. Please contact your Unisys Sales Executive.

Software Release Announcement

Section 8

Product Information

This Software Release Announcement is part of the Business Information Server system library. The following documentation is available to help you use Business Information Server software. The way you use the software determines which documents you need. For example, if you are an experienced scriptwriter or manual function user, you need only refer to the *Command Reference* for complete descriptions, formats, and examples of the system commands. However, if you are configuring and administering a Business Information Server system, you might need to refer to several documents.

General Business Information Server Help Systems

The following Business Information Server documents are delivered as Windows Help systems on the Client Software and Documentation CD-ROM (7846 0797).

Business Information Server Application Portability Quick Reference Help

This help system reference informs users about the unique functions and compatibility differences to consider when writing applications that will be ported to, or used with, various combinations of the software on supported platforms.

Business Information Server Standard Help Library

The Standard Help Library allows for enhanced searching and indexing capabilities across the following four documents:

- ***Command Reference***

This reference provides descriptions, formats, and examples for Business Information Server commands, including manual functions, statements, and many of the released Business Information Server scripts.

- ***Developer's Guide***

This guide contains information about Business Information Server script design. It discusses application development, graphical user interface design, and the creation of external functions.

- ***User's Guide***

This guide contains basic information about using Business Information Server. It presents an overview of the Business Information Server database structure, details about getting started on the system, instructions for communicating requests to the system, and information about Business Information Server security.

- ***MRI Administration and User's Guide***

This guide explains how to administer and use the MRI (MAPPER Relational Interface) software. It describes the MRI and its component software and presents how to access relational databases through the interface.

- ***Business Information Server JavaScript Developer's Help***

This document describes the objects, methods, and functions available to write enhanced JavaScript language scripts or routines that can be executed from a Business Information Server run.

Platform-Specific Documents

The following platform-specific Business Information Server for ClearPath OS 2200 documents are included on the Client Software and Documentation CD-ROM (7846 0797):

Business Information Server for ClearPath OS 2200 Administration Guide (78319415)

This guide provides direction for system administrators. It includes information about system configuration, database management, user and run registration, and configuration of communications links with other systems, as well as day-to-day administration activities.

Business Information Server for ClearPath OS 2200 Installation and Systems Analysis Guide (78319332)

This guide describes hardware and software requirements; contents of the release tape; and procedures used to install, configure, start, verify, and generate Business Information Server. It also lists and describes configuration parameters.

Business Information Server Resource Adapter for the Java™ Platform User Guide (3850 8156)

This guide describes the Business Information Server Resource Adapter for the Java™ Platform (BIS-RA) and Java Data Access Server for Business Information Server (JBIS Server) software products. These products, along with the BIS-BISAPI component of Business Information Server for ClearPath OS 2200 provide a standards-based Java interface to Business Information Server for ClearPath OS 2200.

Business Information Server for ClearPath OS 2200 Operations Guide (78319324)

This guide describes operator tasks and provides assistance to operators working with the Business Information Server. It contains information about starting Business Information Server, using the Business Information Server audit trail, and executing functions to update and copy report databases.

Business Information Server for ClearPath OS 2200 Using an IBM 3270 Terminal (7832 1114)

This document describes how to use the 2200 software from an IBM 3270 series terminal.

Business Information Server for ClearPath OS 2200 SCHDLR Interface Programming Reference Manual (7832 1122)

This manual describes how to use SCHDLR, a set of common banks enabling OS 2200 programs to communicate and exchange data with a Business Information Server application or a Transaction Processing (TIP) program. It also gives examples for modifying COBOL programs to interface with Business Information Server.

Business Information Server for ClearPath OS 2200 Tape Recovery and Maintenance (TRAM) Operations Guide (7850 2408)

This guide explains how TRAM works with Business Information Server audit trail tapes and provides instructions for using TRAM.

Supporting Documents

You can order the following closely related documents from the electronic Unisys Book Store:

ClearPath Enterprise Servers ClearPath OS 2200 Systems Software Planning and Migration Overview (7831 0349)

This overview provides the essential information required for sites moving from previous released operating environments to the most current operating environment. It provides information to plan and migrate your current applications to the newest operating software and hardware.

ClearPath OS 2200 Software Library Administrator (SOLAR) User Reference Manual (78310604)

This manual explains how to use SOLAR to install and maintain software products on an 1100/90 or OS 2200 system.

ClearPath OS 2200 File Administration System (FAS) Operations Guide (7830 7972)

This guide provides information on performing file administration tasks with FAS. It includes instructions on backing up and restoring files, managing file directories, managing media, and obtaining information about files. It also provides reference material necessary to perform these tasks, including descriptions of all FAS commands and a list of messages.

ClearPath OS 2200 Software Products Installation Guide (78310612)

This guide explains how to install SOLAR onto a system. It also describes how to use the SOLAR processor to register Unisys software packages distributed on software package tapes. It also contains product-specific information for those products installed by SOLAR.

ClearPath OS 2200 System Console Messages Reference Manual (7833 3275)

This manual applies to all currently supported systems and contains only system console messages. A system console message is one that appears on the system console or a remote console as a result of general system activity and operations. Exec system error codes and system hardware error messages are also described in this manual.

ClearPath Enterprise Servers Communications Platform Programming Reference Manual (7844 8446)

This manual provides the information that software engineers need to develop programs using the communications services of the Communications Platform. Information provided includes an overview of communications services, TCP/IP services, request for comments (RFC 1006) services, and SNMP services.

