



IBM Tivoli Monitoring for Web Infrastructure:
WebSphere Application Server, Version 5.1.2
Warehouse Enablement Pack, Version 1.1.0.3
Implementation Guide

For Tivoli Enterprise Data Warehouse, Version 1.1

Note:

Before using this information and the product it supports, read the information in Notices on page 140.

Third Edition (March 2004)

This edition applies IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server, Version 5.1.2 Fix Pack 01 and to all subsequent releases and modifications until otherwise indicated in new editions.

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1 About this document

This document describes the warehouse enablement pack, Version 1.1.0.3 for IBM® Tivoli® Monitoring for Web Infrastructure, Version 5.1.2: WebSphere® Application Server - Fix Pack 01. This warehouse pack is created for Tivoli Enterprise Data Warehouse, Version 1.1. It covers the following topics:

- Installing and configuring the warehouse enablement pack
- The data flow and data structures used by the warehouse pack

With this warehouse pack and the prerequisite IBM Tivoli Monitoring warehouse enablement pack, you can extract data from the IBM Tivoli Monitoring middle layer database into the central data warehouse database. The data is then used to populate data marts to be used for reporting on IBM WebSphere Application Server and its components.

1.1 Who should read this guide

This guide is for people who do any of the following activities:

- Plan for and install the warehouse pack
- Use and maintain the warehouse pack and its reports
- Create new reports
- Create additional warehouse packs that use data from this warehouse pack

Administrators and installers should have the following knowledge or experience:

- Basic system administration and file management of the operating systems on which the components of Tivoli Enterprise Data Warehouse are installed
- An understanding of the basic concepts of relational database management
- Experience administering IBM DB2 Universal Database

Additionally, report designers and warehouse pack creators should have the following knowledge or experience:

- An understanding of the source data and application
- Data warehouse information and design, extract, transform, and load (ETL) processes, and online analytical processing (OLAP)

1.2 Publications

This section lists publications in the Tivoli Enterprise Data Warehouse library and other related documents. It also describes how to access Tivoli publications online and how to order Tivoli publications.

The following sets of documentation are available to help you understand, install, and manage this warehouse pack:

- IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server
- Tivoli Enterprise Data Warehouse
- IBM DB2, DB2 Data Warehouse Center, and DB2 Warehouse Manager
- IBM Redbooks

1.2.1 IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server library

The following documents are available on the Tivoli Software Information Center:

- *IBM Tivoli Monitoring for Web Infrastructure Installation and Setup Guide*, SC32-1435
Provides information about installing and setting up IBM Tivoli Monitoring for Web Infrastructure.
- *IBM Tivoli Monitoring for Web Infrastructure Release Notes*, SC32-1436

Provides a product overview, system requirements, and additional installation information.

- *IBM Tivoli Monitoring for Web Infrastructure Reference Guide*, SC32-1437

Provides detailed programming information about the IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server resource models, tasks, commands, and error messages.

- *IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server User's Guide*, SC23-4705

Provides information about how to monitor WebSphere Application Server resources with IBM Tivoli Monitoring for Business Integration: WebSphere Application Server.

- *IBM Tivoli Monitoring for Web Infrastructure Server Problem Determination Guide*, SC32-1425

Provides information and messages to assist users with troubleshooting problems with the software.

1.2.2 Tivoli Enterprise Data Warehouse library

The following documents are available in the Tivoli Enterprise Data Warehouse library. The library is available on the Tivoli Enterprise Data Warehouse Documentation CD as well as online, as described in Accessing publications online on page 3.

- *Tivoli Enterprise Data Warehouse Release Notes*, SC32-1399

Provides late-breaking information about Tivoli Enterprise Data Warehouse and lists hardware requirements and software prerequisites.

- *Installing and Configuring Tivoli Enterprise Data Warehouse*, GC32-0744

Describes how Tivoli Enterprise Data Warehouse fits into your enterprise, explains how to plan for its deployment, and gives installation and configuration instructions. It contains maintenance procedures and troubleshooting information.

- *Enabling an Application for Tivoli Enterprise Data Warehouse*, GC32-0745

Provides information about connecting an application to Tivoli Enterprise Data Warehouse. This book is for application programmers who use Tivoli Enterprise Data Warehouse to store and report on their application data, data warehousing experts who import Tivoli Enterprise Data Warehouse data into business intelligence applications, and customers who put their local data in Tivoli Enterprise Data Warehouse.

1.2.3 Related publications

The following sections describe additional publications to help you understand and use Tivoli Enterprise Data Warehouse.

1.1.1.1 IBM Redbooks

IBM Redbooks are developed and published by the IBM International Technical Support Organization, the ITSO. They explore integration, implementation, and operation of realistic customer scenarios. The following Redbooks contain information about Tivoli Enterprise Data Warehouse:

- *Introduction to Tivoli Enterprise Data Warehouse*, SG24-6607-00

Provides a broad understanding of Tivoli Enterprise Data Warehouse. Some of the topics that are covered are concepts, architecture, writing your own extract, transform, and load processes (ETLs), and best practices in creating data marts.

- *Planning a Tivoli Enterprise Data Warehouse Project*, SG24-6608-00

Describes the necessary planning you must complete before you can deploy Tivoli Enterprise Data Warehouse. The guide shows how to apply these planning steps in a real-life deployment of a warehouse pack using IBM Tivoli Monitoring. It also contains frequently used Tivoli and DB2 commands and lists troubleshooting tips for Tivoli Enterprise Data Warehouse.

1.1.1.2 IBM DB2, DB2 Data Warehouse Center, and DB2 Warehouse Manager library

The DB2 library contains important information about the database and data warehousing technology provided by IBM DB2, DB2 Data Warehouse Center, and DB2 Warehouse Manager. Refer to the DB2 library for help in installing, configuring, administering, and troubleshooting DB2, which is available on the IBM Web site:

<http://www-3.ibm.com/software/data/db2/library/>

After you install DB2, its library is also available on your system.

The following DB2 documents are particularly relevant for people working with Tivoli Enterprise Data Warehouse:

- *IBM DB2 Universal Database for Windows Quick Beginnings*, GC09-2971
Guides you through the planning, installation, migration (if necessary), and setup of a partitioned database system using the IBM DB2 product on Microsoft Windows.
- *IBM DB2 Universal Database for UNIX Quick Beginnings*, GC09-2970
Guides you through the planning, installation, migration (if necessary), and setup of a partitioned database system using the IBM DB2 product on UNIX.
- *IBM DB2 Universal Database Administration Guide: Implementation*, SC09-2944
Covers the details of implementing your database design. Topics include creating and altering a database, database security, database recovery, and administration using the Control Center, a DB2 graphical user interface.
- *IBM DB2 Universal Database Data Warehouse Center Administration Guide*, SC26-9993
Provides information on how to build and maintain a data warehouse using the Data Warehouse Center.
- *IBM DB2 Warehouse Manager Installation Guide*, GC26-9998
Provides the information to install the following Warehouse Manager components: Information Catalog Manager, warehouse agents, and warehouse transformers.
- *IBM DB2 Universal Database and DB2 Connect Installation and Configuration Supplement*, GC09-2957
Provides advanced installation considerations and guides you through the planning, installation, migration (if necessary), and set up a platform-specific DB2 client. Once the DB2 client is installed, you then configure communications for both the client and server, using the DB2 GUI tools or the Command Line Processor. This supplement also contains information on binding, setting up communications on the server, the DB2 GUI tools, DRDA™ AS, distributed installation, the configuration of distributed requests, and accessing heterogeneous data sources.
- *IBM DB2 Universal Database Message Reference Volume 1*, GC09-2978 and *IBM DB2 Universal Database Message Reference Volume 2*, GC09-2979
Lists the messages and codes issued by DB2, the Information Catalog Manager, and the Data Warehouse Center, and describes the actions you should take.

1.2.4 Accessing publications online

The publications CD or product CD contains the publications that are in the product library. The format of the publications is PDF, HTML, or both.

IBM posts publications for this and all other Tivoli products, as they become available and whenever they are updated, to the Tivoli Software Information Center Web site. The Tivoli Software Information Center is located at the following Web address:

<http://publib.boulder.ibm.com/tividd/td/tdprodlist.html>

Note: If you print PDF documents on other than letter-sized paper, select the **Fit to page** check box in the Adobe Acrobat Print dialog. This option is available when you click **File → Print**. **Fit to page** ensures that the full dimensions of a letter-sized page print on the paper that you are using.

1.2.5 Ordering publications

You can order many Tivoli publications online at the following Web site:

<http://www.elink.ibm.com/public/applications/publications/cgi-bin/pbi.cgi>

You can also order by telephone by calling one of these numbers:

- In the United States: 800-879-2755
- In Canada: 800-426-4968
- In other countries, for a list of telephone numbers, see the following Web site:

<http://www.ibm.com/software/tivoli/order-lit/>

1.3 Accessibility

Accessibility features help users with a physical disability, such as restricted mobility or limited vision, to use software products successfully. For the warehouse pack, you use the interfaces of IBM DB2 and the reporting tool. See those documentation sets for accessibility information.

1.4 Contacting software support

If you have a problem with a Tivoli product, refer to the following IBM Software Support Web site:

<http://www.ibm.com/software/sysmgmt/products/support/>

If you want to contact customer support, see the IBM Software Support Guide at the following Web site:

<http://techsupport.services.ibm.com/guides/handbook.html>

The guide provides information about how to contact IBM Software Support, depending on the severity of your problem, and the following information:

- Registration and eligibility
- Telephone numbers and e-mail addresses, depending on the country in which you are located
- Information you must have before contacting IBM Software Support

1.5 Participating in newsgroups

User groups provide software professionals with a forum for communicating ideas, technical expertise, and experiences related to the product. They are located on the Internet, and are available using standard news reader programs. These groups are primarily intended for user-to-user communication, and are not a replacement for formal support. You can use Web browsers like Netscape Navigator or Microsoft Internet Explorer to view these newsgroups:

Tivoli Enterprise Data Warehouse

<news://news.software.ibm.com/ibm.software.tivoli.enterprise-data-warehouse>

1.6 Typeface conventions

This guide uses the following typeface conventions:

Bold

- Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text

- Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as **Tip** and **Operating system considerations**)
- Column headings in a table
- Keywords and parameters in text

Italic

- Citations (titles of books, diskettes, and CDs)
- Words defined in text
- Emphasis of words (words as words)
- Letters as letters
- New terms in text (except in a definition list)
- Variables and values you must provide

Monospace

- Examples and code examples
- File names, programming keywords, and other elements that are difficult to distinguish from surrounding text
- Message text and prompts addressed to the user
- Text that the user must type
- Values for arguments or command options

2 Overview

The following sections provide an overview of Tivoli Enterprise Data Warehouse and the IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server warehouse pack.

2.1 Overview of Tivoli Enterprise Data Warehouse

Tivoli Enterprise Data Warehouse provides the infrastructure for the following:

- Extract, transform, and load (ETL) processes through the IBM DB2 Data Warehouse Center tool
- Schema generation of the central data warehouse
- Historical reporting

As shown in Figure 1, Tivoli Enterprise Data Warehouse consists of a centralized data store where historical data from many management applications can be stored, aggregated, and correlated.

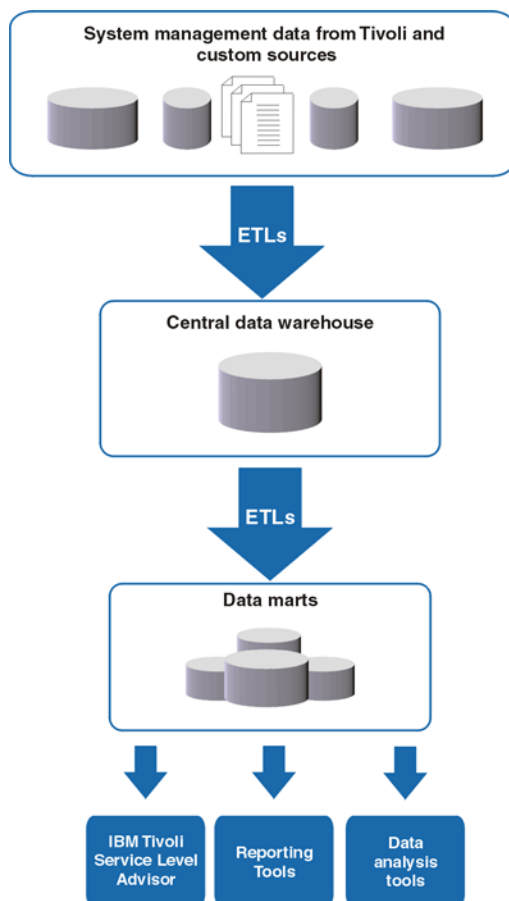


Figure 1. Tivoli Enterprise Data Warehouse overview

The *central data warehouse* uses a generic schema that is the same for all applications. As new components or new applications are added, more data is added to the database; however, no new tables or columns are added in the schema.

A *data mart* is a subset of a data warehouse that contains data tailored and optimized for the specific reporting needs of a department or team.

The *central data warehouse ETL* reads the data from the operational data stores of the application that collects it, verifies the data, makes the data conform to the schema, and places the data into the central data warehouse.

The *data mart ETL* extracts a subset of data from the central data warehouse, transforms it, and loads it into one or more star schemas, which can be included in data marts to answer specific business questions.

A program that provides these ETLs is called a *warehouse enablement pack*, or *warehouse pack*.

The ETLs are typically scheduled to run periodically, usually during non-peak hours. If an ETL encounters data that it cannot correctly transform, it creates an entry in an exception table.

2.2 Overview of IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server warehouse pack

The IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server resource models running on Tivoli endpoints collect and log operational data. The IBM Tivoli Monitoring, Version 5.1.1 warehouse pack uploads and inserts the operational data into a middle layer database.

The warehouse pack for IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server provides metadata to enable the IBM Tivoli Monitoring, Version 5.1.1, warehouse pack central data warehouse ETL to load the operational data into the central data warehouse database. It supports IBM WebSphere Application Server 4.0, including support added for proxy endpoints communicating with IBM WebSphere Application Server on a z/OS system, and IBM WebSphere Application Server 5.0 on distributed platforms. For more information on supported software, see Supported hardware and software on page 8 and for more information on the metadata provided, see Metadata tables for applications that use the resource model ETL on page 77.

This warehouse pack also provides a data mart ETL, which is comprised of two warehouse processes that extract IBM WebSphere Application Server performance and status data from the central data warehouse database and inserts the data into the related star schemas. The star schemas are included in the data mart from which prepackaged reports are provided for IBM WebSphere Application Server performance analysis. See ETL processes on page 26 and Star schemas on page 104 for more information.

You can also use the data mart to create customized reports to meet your specific analytical needs.

3 Installing and configuring the warehouse pack

The following sections provide information about installing and configuring the warehouse pack for IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server.

3.1 Prerequisites

Before installing this warehouse pack, the following prerequisite software must be installed:

- Tivoli Enterprise Data Warehouse, Version 1.1, Fix Pack 3 (1.1-TDW-FP03) and its prerequisite products.
- IBM Tivoli Monitoring 5.1.1, Fix Pack 6 or IBM Tivoli Monitoring 5.1.2
- IBM Tivoli Monitoring Limited Availability Patch 0006 (5.1.2-ITM-0006LA). This patch can be applied against IBM Tivoli Monitoring 5.1.1, Fix Pack 6 or IBM Tivoli Monitoring 5.1.2
- DB2 UDB Version 7.2, Fix Pack 6 with required fix 1.1-TDW-0002, Fix Pack 8, or Fix Pack 10a

You can obtain the Tivoli Enterprise Data Warehouse fix pack from the following Web site:

<http://www.ibm.com/software/sysmgmt/products/support/TivoliDataWarehouse.html>

Click the Downloads link.

- IBM Tivoli Monitoring, Version 5.1.1, warehouse pack, Fix Pack 5.1.1-ITM-FP06, fix 5.1.1-ITM-650LA and its prerequisite products.

You can obtain the fix pack and fix from the following Web site:

ftp://ftp.software.ibm.com/software/tivoli_support/patches/patches_5.1.1

The following products are not an installation prerequisite to the WebSphere Application Server warehouse pack, but are required for the resource models to log and upload data to the middle layer database for this warehouse pack. These products are installed in your Tivoli management region environment:

- IBM Tivoli Monitoring for Web Infrastructure, Version 5.1.2: WebSphere Application Server Fix Pack 01
- IBM Tivoli Monitoring – Tivoli Enterprise Data Warehouse Support, Version 5.1.1, Fix Pack 5.1.1-ITM-FP06.

3.2 Supported hardware and software

IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server warehouse pack, Version 1.1.0.3 supports IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server, Version 5.1.2, Fix Pack 01. It supports all versions of DB2, Informix, Microsoft SQL Server, Oracle, and Sybase database products as documented in the *IBM Tivoli Monitoring 5.1.1 Release Notes*, GI10-5797.

See the *IBM Tivoli Monitoring for Web Infrastructure Installation and Setup Guide*, GC23-4719 for a complete list of the IBM WebSphere Application Server versions supported.

Note: Data from more than one installation of IBM WebSphere Application Server Express on a host will be merged in the warehouse, because by default all of the cells and nodes have the same name (DefaultNode).

For information about the hardware and software requirements of Tivoli Enterprise Data Warehouse, see the *Tivoli Enterprise Data Warehouse Release Notes*.

3.3 Product notes and limitations

This warehouse pack must be installed using the user "db2". If that is not the user name used when installing the Tivoli Enterprise Data Warehouse core application, you must create a user temporary tablespace for use by the installation program. The user temporary tablespace that is created in each central data warehouse database and data mart database during the installation of Tivoli Enterprise Data Warehouse is accessible only to the user that performed the installation.

If you are installing the warehouse pack using the same database user that installed Tivoli Enterprise Data Warehouse, or if your database user has access to another user temporary tablespace in the target databases, no additional action is required.

If you do not know the user name that was used to install Tivoli Enterprise Data Warehouse, you can determine whether the tablespace is accessible by attempting to declare a temporary tablespace while connected to each database as the user that will install the warehouse pack. The following commands are one way to do this:

```
db2 "connect to TWH_CDW user installing_user using password"

db2 "declare global temporary table t1 (c1 char(1))with replace on commit preserve rows
not logged"

db2 "disconnect TWH_CDW"

db2 "connect to TWH_MART user installing_user using password"

db2 "declare global temporary table t1 (c1 char(1))with replace on commit preserve rows
not logged"

db2 "disconnect TWH_MART"
```

The variables in these commands are the following:

installing_user Identifies the database user that will install the warehouse pack.

password Specifies the password for the installing user.

If the **declare** command is successful, the specified database user can install the warehouse pack. No additional action is required.

If the **declare** command fails, run the following DB2 commands to create a new tablespace for the installation in both the central data warehouse database and data mart databases:

```
db2 "connect to TWH_CDW user installing_user using password"

db2 "create user temporary tablespace usertmp2 managed by system using (' usertmp2')"
```

db2 "disconnect TWH_CDW"

```
db2 "connect to TWH_MART user installing_user using password"

db2 "create user temporary tablespace usertmp3 managed by system using (' usertmp3')"
```

db2 "disconnect TWH_MART"

The variables in these commands are the following:

installing_user Identifies the database user that will install the warehouse pack.

password Specifies the password for the installing user.

3.4 Database sizing considerations

Ensure that you have sufficient space in the central data warehouse database for the historical data collected by IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server warehouse pack. To estimate how much space is required, complete the following worksheets for the central data warehouse database and the data mart database.

3.4.1 Central data warehouse database

The following worksheet estimates the required space in megabytes (MB) for the historical IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server data based on the resource models provided. This estimate is based on the number of IBM WebSphere Application Server components inserted into the central data warehouse database and on how many days these components' measurements are stored. This estimate is increased by 20% to accommodate staging tables and temporary tables.

IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server				
Object managed	Number of components	Total components	Component space	Measurements per day space
IBM WebSphere Application Server host	num_hosts	num_hosts	$num_hosts \times 1012$	Not applicable
IBM WebSphere administration server	$num_adminSrv_per_host$	$num_hosts \times num_adminSrv_per_host$	$num_hosts \times num_adminSrv_per_host \times 1434$	$num_hosts \times num_adminSrv_per_host \times 8064$
IBM WebSphere administration server or IBM WebSphere Node ¹	$num_node_per_host$	$num_hosts \times num_node_per_host$	$num_hosts \times num_node_per_host \times 1434$	Not applicable
IBM WebSphere node agent	$num_nodeAgent_per_host$	$num_hosts \times num_node_per_host \times num_nodeAgent_per_host$	$num_hosts \times num_node_per_host \times num_nodeAgent_per_host \times 590$	$num_hosts \times num_node_per_host \times num_nodeAgent_per_host \times 8064$
IBM WebSphere application server	$num_appSrv_per_node$	$num_hosts \times num_node_per_host \times num_appSrv_per_node$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times 28224$
IBM WebSphere data source per WebSphere application server	$num_ds_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv \times 590$	Not applicable
IBM WebSphere connection pool	$Num_connPool_per_ds$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv \times Num_connPool_per_ds$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv \times Num_connPool_per_ds \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv \times Num_connPool_per_ds \times 6048$
IBM WebSphere Enterprise JavaBean	$Num_ejb_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_ejb_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_ejb_per_appSrv \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_ejb_per_appSrv \times 8064$
IBM WebSphere Java Virtual Machine	$Num_jvm_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_jvm_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_jvm_per_appSrv \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_jvm_per_appSrv \times 4032$
IBM WebSphere servlet session	$Num_servletSes_per_appSrv$	$num_hosts \times num_node_per_host \times$	$num_hosts \times num_node_per_host \times$	$num_hosts \times num_node_per_host \times$

¹ This is a J2EE_NODE component for IBM WebSphere Application Server version 5 or an IZY_ADMIN_SERVER for IBM WebSphere Application Server versions 3.5 or 4.

IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server				
Object managed	Number of components	Total components	Component space	Measurements per day space
		$num_appSrv_per_node \times num_servletSss_per_appSrv$	$num_appSrv_per_node \times num_servletSss_per_appSrv \times 590$	$num_appSrv_per_node \times num_servletSes_per_appSrv \times 4032$
IBM WebSphere thread pool	$Num_thrdPl_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_thrdPl_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_thrdPl_per_appSrv \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_thrdPl_per_appSrv \times 2016$
IBM WebSphere transaction manager	$Num_tm_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_tm_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_tm_per_appSrv \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_tm_per_appSrv \times 6048$
IBM WebSphere web application	$Num_wApp_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times 10080$
IBM WebSphere servlets	$Num_servlet$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times num_servlet$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times num_servlet \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times 10080$
IBM WebSphere dynamic cache	$Num_dynaCache$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_dynaCache$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_dynaCache \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_dynaCache \times 2016$
IBM WebSphere J2C connection factory	$Num_J2C_conFact$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_J2C_ConFact$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_J2C_ConFact \times 590$	Not applicable
IBM WebSphere J2C connection pool	$Num_J2C_conPool$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_J2C_conFact \times num_J2C_conPool$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_J2C_conFact \times num_J2C_conPool \times 590$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_J2C_conFact \times num_J2C_conPool \times 2016$
Total		Sum of total components	Sum of components	Sum of measurements

Number of days	num_days
Estimate database size in megabytes	$(Sum\ of\ Components + (Sum\ of\ Measurements \times num_days)) \times 1.2 / 1024000$

In the following example, the estimate is for storing the component information as indicated and 180 days of measurement information.

IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server				
Object managed	Number of components	Total components	Component space	Measurements per day space
IBM WebSphere Application Server host	1	1	1012	Not applicable
IBM WebSphere administration server	1	1	1434	8064
IBM WebSphere node	1	1	1434	Not applicable
IBM WebSphere node agent	1	1	590	8064
IBM WebSphere application server	10	10	5900	322560
IBM WebSphere data source per WebSphere application server	5	50	29460	Not applicable
IBM WebSphere connection pool	10	500	294600	4032000
IBM WebSphere Enterprise JavaBean	20	200	117840	2016000
IBM WebSphere Java Virtual Machine	1	10	5900	40320
IBM WebSphere servlet session	1	10	5900	40320
IBM WebSphere thread pool	2	20	11800	181440
IBM WebSphere transaction manager	1	10	5900	60480
IBM WebSphere web application	10	100	59000	1008000
IBM WebSphere servlets	20	2000	1180000	20160000
IBM WebSphere dynamic cache	1	10	5900	20160
IBM WebSphere J2C connection factory	1	10	5900	Not applicable

IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server				
Object managed	Number of components	Total components	Component space	Measurements per day space
IBM WebSphere J2C connection pool	1	10	5900	20160
Total		2945	1797461	27836928

Number of days	180
Estimate database size in megabytes	5871

3.4.2 Data mart database

The following example shows an estimate of the required space in megabytes (MB) for the extracted WebSphere Application Server data in the fact hour tables. This estimate is based on the number of components inserted into the data mart database and on how many days these components' fact measurements are stored.

Object managed	Total components	Metrics	Dimension space	Fact Hour Space for number of days
IBM WebSphere Application Server host	num_hosts	num_met	$num_hosts \times 320$	Not applicable
IBM WebSphere administration server	$num_hosts \times num_adminSrv_per_host$	num_met	$num_hosts \times num_adminSrv_per_host \times 645$	$num_hosts \times num_adminSrv_per_host \times num_metric \times num_days \times 24 \times 90$
IBM WebSphere node	$num_node_per_host$	num_met	$num_hosts \times num_node_per_host \times 645$	Not applicable
IBM WebSphere node agent	$num_nodeAgent_per_host$	num_met	$num_hosts \times num_node_per_host \times num_nodeAgent_per_host \times 165$	$num_hosts \times num_node_per_host \times num_nodeAgent_per_host \times 8064$
IBM WebSphere application server	$num_hosts \times num_node_per_host \times num_appSrv_per_node$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_metric \times num_days \times 24 \times 95$
IBM WebSphere data source per WebSphere application server	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv \times 185$	Not applicable
IBM WebSphere connection pool	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv \times num_connPool_per_ds$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv \times num_connPool_per_ds \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ds_per_appSrv \times num_connPool_per_ds \times num_metric \times num_days \times 24 \times 100$
IBM WebSphere Enterprise JavaBean	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ejb_per_appSrv$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ejb_per_appSrv \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_ejb_per_appSrv \times num_metric \times num_days \times 24 \times$

Object managed	Total components	Metrics	Dimension space	Fact Hour Space for number of days
				100
IBM WebSphere Java Virtual Machine	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_jvm_per_appSrv$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_jvm_per_appSrv \times 185$	$num_hosts \times num_adminSrv_per_host \times num_appSrv_per_admin \times num_jvm_per_appSrv \times num_metric \times num_days \times 24 \times 100$
IBM WebSphere servlet session	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_servletSess_per_appSrv$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_servletSess_per_appSrv \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_servletSess_per_appSrv \times num_metric \times num_days \times 24 \times 100$
IBM WebSphere thread pool	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_thrdPl_per_appSrv$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_thrdPl_per_appSrv \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_thrdPl_per_appSrv \times num_metric \times num_days \times 24 \times 100$
IBM WebSphere transaction manager	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_tm_per_appSrv$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_tm_per_appSrv \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_tm_per_appSrv \times num_metric \times num_days \times 24 \times 100$
IBM WebSphere web application	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times num_metric \times num_days \times 24 \times 100$
IBM WebSphere servlets	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times num_servlet$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times num_servlets \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_wApp_per_appSrv \times num_metric \times num_days \times 24 \times 100$
IBM WebSphere dynamic cache	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_dynaCache_per_appSrv$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_dynaCache_per_appSrv \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times num_thrdPl_per_appSrv \times num_metric \times num_days \times 24 \times 100$
IBM WebSphere J2C connection factory	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_J2C_conFact$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_J2C_conFact \times 185$	Not applicable
IBM WebSphere J2C connection pool	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_J2C_conFact \times Num_J2C_conPool$	num_met	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_J2C_conFact \times Num_J2C_conPool \times 185$	$num_hosts \times num_node_per_host \times num_appSrv_per_node \times Num_J2C_conFact \times Num_J2C_conPool \times 100$
Total	Sum of total components		Sum of components	Sum of measurements

In the following example, the estimate is for storing component and measurement information for 180 days, based on the data collected by the WebSphere Application Server resource models.

IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server				
Object managed	Number of components	Total components	Component space	Measurements per day space
IBM WebSphere Application Server host	1	1	320	Not applicable
IBM WebSphere administration server	1	1	645	1555200
IBM WebSphere node	1	1	645	Not applicable
IBM WebSphere node agent	1	1	165	1555200
IBM WebSphere application server	10	10	1850	62208000
IBM WebSphere data source per WebSphere application server	5	50	9250	Not applicable
IBM WebSphere connection pool	10	500	92500	77760000
IBM WebSphere Enterprise JavaBean	20	200	37000	972000000
IBM WebSphere Java Virtual Machine	1	10	1850	7776000
IBM WebSphere servlet session	1	10	1850	7776000
IBM WebSphere thread pool	2	20	3700	7776000
IBM WebSphere transaction manager	1	10	1850	34992000
IBM WebSphere web application	10	100	18500	155520000
IBM WebSphere servlets	20	2000	370000	38888000000
IBM WebSphere dynamic cache	1	10	1850	3888000
IBM WebSphere J2C connection factory	1	10	1850	Not applicable
IBM WebSphere	1	10	1850	3888000

IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server				
Object managed	Number of components	Total components	Component space	Measurements per day space
J2C connection pool				
Total		2944	555645	5224694400

Number of days	180
Estimate database size in megabytes	6123

Note: The previous example does not include the fact day, week, or month tables, estimated at an additional 25%.

3.5 Data sources and targets

The warehouse pack for IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server leverages the IBM Tivoli Monitoring, Version 5.1.1, warehouse pack central data warehouse ETL; therefore no additional data sources nor target sources are required for operational data. See the *IBM Tivoli Monitoring Warehouse Enablement Pack Implementation Guide* for more information about configuring the AMX_TWH_CDW_Source and AMX_ITM_RIM_Source warehouse sources and the AMX_TWH_CDW_Target warehouse target.

Warehouse sources and targets specific to the IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server warehouse pack are IZY_TWH_CDW_Source for the central data warehouse database (TWH_CDW), IZY_TWH_MART_Target for the data mart (TWH_MART) database, and IZY_TWH_MD_Target for the metadata (TWH_MD) database. The TWH_CDW and TWH_MART ODBC system data source names, which are created during Tivoli Enterprise Data Warehouse installation, are used to access these warehouse sources and targets.

3.6 Pre-installation procedures

Before installing this warehouse enablement pack fix pack, ensure you have loaded all data collected in the operational database from IBM Tivoli Monitoring for Web Infrastructure, Version 5.1.2: WebSphere Application Server resource models into the central data warehouse and data mart databases. Data logged with version 5.1.2 is not compatible with this warehouse enablement pack fix pack and must be loaded using the corresponding version of the warehouse enablement pack.

Before installing the warehouse pack for IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server, read Product notes and limitations on page 8.

If you are running both this warehouse enablement pack and IBM Tivoli Service Level Advisor (ITSLA), there are two additional migration steps to be performed. A migration script (izy_v110_migration.bat) is provided with this fix pack in the /tedw_apps_etl/fixpack_v1103/izy/misc/tools directory to migrate the component name of the IZY_ADMIN_SERVER from the format used in versions 5.1.0 and 5.1.1 to version 5.1.2. The migration script updates the component name of the IZY_ADMIN_SERVER from 'node' to 'node:port', where *port* defaults to port 900 for distributed endpoints and 0 for proxy endpoints. This allows new measurement data to continue to be collected against the existing components. See Migrating from a previous release of the warehouse pack for additional migration information.

- Make a backup you central data warehouse database (TWH_CDW)
- Edit the izy_v110_migration.bat file
 - Specify \$user and \$password used to connect to the TWH_CDW database.
 - If necessary, change the port 900 to your default port for IBM WebSphere Administration Server.
- From a DB2 command line, run izy_v110_migration.bat.
- Obtain APAR IY46001 from the IBM Tivoli Service Level Advisor support web site and run the ITSLA migration steps as described in the APAR. This APAR works on ITSLA 1.2.0, 1.2.1, and 1.2.1 FP1.

3.7 Installation of the warehouse pack

Install the warehouse pack as described in the *IBM Tivoli Monitoring for Web Infrastructure Installation and Setup Guide*. The installation properties file (twl_install_props.cfg) for the warehouse pack fix pack is located in the /tedw_apps_etl /fixpack_v1103/izy directory. Specify this directory location for the APP_MEDIA_DIR property.

For additional detail on installing the warehouse pack, see *Installing and Configuring Tivoli Data Warehouse*.

3.8 Post-installation procedures

After you install the warehouse pack, use the procedures in *Installing and Configuring Tivoli Enterprise Data Warehouse* to use the DB2 Data Warehouse Center to perform the following configuration tasks for data sources and targets:

1. Make sure the control database is set to TWH_MD.
2. Specify the properties for the warehouse target IZY_TWH_CDW_Source.
 - In the **User ID** field, type the user ID used to access the central data warehouse database. The default value is db2admin.
 - In the **Password** field, type the password used to access the central data warehouse database.
 - Do not change the value of the **Data Source** field. It must be TWH_CDW.
3. Specify the following properties for the warehouse target IZY_TWH_MART_Target.
 - In the **User ID** field, type the user ID used to access the data mart database. The default value is db2admin.
 - In the **Password** field, type the password used to access the data mart database.
 - Do not change the value of the **Data Source** field. It must be TWH_MART.
4. Specify the following properties for the warehouse target IZY_TWH_MD_Target.
 - In the **User ID** field, type the user ID used to access the metadata database. The default value is db2admin.
 - In the **Password** field, type the password used to access the metadata database.
 - Do not change the value of the **Data Source** field. It must be TWH_MD.
5. The processes for this warehouse pack are located in the IZY_Monitoring_WebSphere_Application_Server_V1.1.0_Subject_Area subject area. The processes should be run in the following order:
 - a. IZY_m05_Dimension_Process
 - b. IZY_m10_Fact_Process

Note: Do not delete IZY.STAGE_D_WAS_METRIC located in the central data warehouse database. This table is created during the installation process and is not recreated by any of the warehouse pack processes.

3.9 Migrating from a previous release of the warehouse pack

The following database objects are changed since the IBM Tivoli Monitoring for Web Infrastructure, Version 5.1.2: WebSphere Application Server release of the warehouse pack. See chapter 3.6 Pre-installation procedures for additional compatibility information.

Added objects:

- Component type (table CompTyp), see page 28
New component types have been added to support IBM WebSphere Application Server version 5 or later. These are the common data model components (J2EE_CELL, J2EE_NODE, J2EE_SERVER, WAS_NODE_AGENT) and application server components that start with a prefix of 'IZY_WAS_'.
- Component relationship type (table RelnTyp), see page 37
A RUNSON relationship is now supported for a J2EE_SERVER and WAS_NODE_AGENT component.
- Component relationship rule (table RelnRul), see page 38
Additional relationships have been created for the new components described above.
- Attribute type (table AttrTyp), see page 45
Attribute type MANUFACTURER has been added.
- Attribute rule (table AttrRul), see page 46
Additional attribute rules have been created for the OS_NAME, VERSION, MANUFACTURER and WAS_CLUSTER attribute types with the new components.
- Component measurement rule (table MsmtRul), see page 53
Additional measurement rules were added for the new components.
- IZY_m10_Fact_Process, see page 26
A new step IZY_m10_Cleanup_Process has been added.

Changed objects:

- Component type (table CompTyp), see page 28
In IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server, Version 5.1.2, the WebSphere Administration Server port number was added to the IZY_ADMIN_SERVER to support multiple installations on one host. As a result, new components are created for all components below the IP_HOST or IZY_HOST. However, the existing components are not expired.
- Component relationship rule (table RelnRul), see page 38
The PCHILD relationship between the IZY_NODE and IZY_APPL_SERVER has been expired and the relationship between the IZY_ADMIN_SERVER and IZY_APPL_SERVER has been restored.
- Attribute type (table AttrTyp), see page 45
Attribute type IZY_CLUSTER has been changed to WAS_CLUSTER.
- Measurement group member (table MGrpMbr), see page 49
The following measurement types have changed from TOT_E to MIN_E, MAX_E, and AVG_E:
Total_JVM_Memory, Servlet_request_rate, Transaction_exceptions, Transaction_Global_Exceptions and Transaction_Local_Exceptions.

Removed objects:

- Component type (table CompTyp), see page 28
The IZY_NODE, IZY_NODE_AGENT, IZY_J2C_CONPOOL, IZY_J2C_CONFACT and IZY_DYNA_CACHE components are no longer used and have been expired.
- Component relationship rule (table RelnRul), see page 38
The PCHILD relationships between the components listed above have been expired. In addition, the PCHILD relationship between the IZY_NODE and IZY_APPL_SERVER has been expired and the relationship between the IZY_ADMIN_SERVER and the IZY_APPL_SERVER has been restored.
- Attribute rule (table AttrRul), see page 46
Attribute rules for the IZY_CLUSTER attribute type and all attributes associated with the component IZY_NODE have been expired.
- Component measurement rule (table MsmtRul), see page 53
Measurement rules for the expired components have been removed.

In order for the IBM Tivoli Service Level Advisor to function correctly, you must perform the following procedure:

1. See Pre-installation procedures on page 16.

3.10 Uninstalling the warehouse pack

Uninstall the warehouse pack as described in *Installing and Configuring Tivoli Enterprise Data Warehouse*.

When the warehouse pack is uninstalled, all tables for schema IZY are removed, but the data in the central data warehouse database remains and is still useable by other applications. Entries specific to this warehouse pack are deleted from the TWG.EXTRACT_CONTROL, TWG.EXTRACT_LOG, TWG.PRUNE_MSMT_CONTROL and the AMX metadata tables.

4 Maintenance

This section describes maintenance tasks for the warehouse pack.

4.1 Backing up and restoring

Because this warehouse pack does not create any tables in the IBM Tivoli Monitoring middle layer repository, no additional backup of this database nor any special precautions are required before executing the provided warehouse processes.

4.2 Deleting data

To manage the high volume of data, use the prune table to delete data. The IZY.Prune_Msmt_Log table in the data mart database keeps a history of data deletion from the data mart database.

4.2.1 Central data warehouse database

The Prune_Msmt_Control table governs which data is deleted. By default the data older than 3 months is deleted when the CDW_c05_Prune_and_Mark_Active process runs. This is based on the age specified in the PMSmtC_Age_In_Days column.

4.2.2 Data mart database

Deleting data from the fact tables is implemented in the IZY_m10_s010_Fact and IZY_m10_s060_Fact step. The prune mart control table IZY.Prune_Mart_Control governs which data is deleted and contains the date duration value for the WebSphere Application Server fact table. By default, all hourly and daily fact data older than 3 months is deleted when the Fact process steps run. Additionally, all weekly and monthly fact data older than 1 year is deleted. The IZY.Prune_Mart_Log table keeps a history of data deletion.

You can change this in the IZY.PRUNE_MART_CONTROL table in the data mart database. The format for the pmarte_duration field is *yyyymmdd*; *yyyy* is number of years, *mm* is number of months, and *dd* is number of days. The default setting for the hourly and daily fact tables is 300, or 3 months. The default value for the weekly and monthly fact tables is 10000, or 1 year.

4.3 Extraction control (table Extract_Control)

The extraction control table assists you in incrementally extracting data from a source database. For an example of incremental extraction, see the *Enabling an Application for Tivoli Enterprise Data Warehouse* guide.

ExtCtl_Source VARCHAR (120)	ExtCtl_Target VARCHAR (120)	ExtCtl_From_RawSeq CHAR (10)	ExtCtl_to_RawSeq CHAR (10)	ExtCtl_From_IntSeq BIGINT	ExtCtl_To_IntSeq BIGINT	ExtCtl_From_DtTm TIMESTAMP	ExtCtl_To_DtTm TIMESTAMP
IZY.STAGE_D_WAS_METRIC	IZY.D_WAS_METRIC	x'202020202020202020'	x'202020202020202020'	139	139	9999-01-01-00.00.00.0000	9999-01-01-00.00.00.0000
TWG.COMP	IZY.D_WAS_HOST	x'202020202020202020'	x'202020202020202020'	1	1	9999-01-01-00.00.00.0000	9999-01-01-00.00.00.0000
TWG.COM	IZY.D_WA	x'20202020	x'20202020	29	29	9999-01-	9999-01-

ExtCtl_Source VARCHAR (120)	ExtCtl_Target VARCHAR (120)	ExtCtl_From_RawSeq CHAR (10)	ExtCtl_to_RawSeq CHAR (10)	ExtCtl_From_IntSeq BIGINT	ExtCtl_To_IntSeq BIGINT	ExtCtl_From_DrTm TIMESTAMP	ExtCtl_To_DrTm TIMESTAMP
P	S_ADMIN SRV	202020202 020'	202020202 020'			01- 00.00.00.00 0000	01- 00.00.00.00 0000
TWG.COM P	IZY.D_WA S_APPLSR V	x'20202020 202020202 020'	x'20202020 202020202 020'	10	10	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.COM P	IZY.D_WA S_APPLC MP	x'20202020 202020202 020'	x'20202020 202020202 020'	238	238	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.COM P	IZY.D_WA S_SUBCM P	x'20202020 202020202 020'	x'20202020 202020202 020'	358	358	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_ADMI N_HOUR	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_APPL _HOUR	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_APC MP_HOUR	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR1	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR2	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR3	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00	9999-01- 01- 00.00.00.00

ExtCtl_Source VARCHAR (120)	ExtCtl_Target VARCHAR (120)	ExtCtl_From_RawSeq CHAR (10)	ExtCtl_to_RawSeq CHAR (10)	ExtCtl_From_IntSeq BIGINT	ExtCtl_To_IntSeq BIGINT	ExtCtl_From_DrTm TIMESTAMP	ExtCtl_To_DrTm TIMESTAMP
						0000	0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR4	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR5	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR6	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR7	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR8	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR9	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR10	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR11	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SBCM P_HOUR12	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000

ExtCtl_Source VARCHAR (120)	ExtCtl_Target VARCHAR (120)	ExtCtl_From_RawSeq CHAR (10)	ExtCtl_to_RawSeq CHAR (10)	ExtCtl_From_IntSeq BIGINT	ExtCtl_To_IntSeq BIGINT	ExtCtl_From_DrTm TIMESTAMP	ExtCtl_To_DrTm TIMESTAMP
TWG.COM P	IZY.D_WA S_CELL	x'20202020 202020202 020'	x'20202020 202020202 020'	14	14	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.COM P	IZY.D_WA S_NODE	x'20202020 202020202 020'	x'20202020 202020202 020'	29	29	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.COM P	IZY.D_WA S_CFGMG R	x'20202020 202020202 020'	x'20202020 202020202 020'	11	11	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.F_CFG MGR_HOU R	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.F_APP L5_HOUR	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.F_APC P5_HOUR	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5P_ HOUR1	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR2	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR3	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E F SC5_	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000

ExtCtl_Source VARCHAR (120)	ExtCtl_Target VARCHAR (120)	ExtCtl_From_RawSeq CHAR (10)	ExtCtl_to_RawSeq CHAR (10)	ExtCtl_From_IntSeq BIGINT	ExtCtl_To_IntSeq BIGINT	ExtCtl_From_DrTm TIMESTAMP	ExtCtl_To_DrTm TIMESTAMP
	HOUR4	020'	020'			00.00.00.00 0000	00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR5	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR6	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR7	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR8	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR9	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR10	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR11	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000
TWG.MSM T	IZY.STAG E_F_SC5_ HOUR12	x'20202020 202020202 020'	x'20202020 202020202 020'	215682	215682	9999-01- 01- 00.00.00.00 0000	9999-01- 01- 00.00.00.00 0000

4.4 Problem determination

For common problems and solutions, see the *Installing and Configuring Tivoli Enterprise Data Warehouse* guide and the *IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server Problem Determination Guide*.

5 ETL processes

Because this warehouse pack leverages the IBM Tivoli Monitoring, Version 5.1.1, warehouse pack central data warehouse ETL, the IBM Tivoli Monitoring 5.1.1 warehouse process AMX_c05_ETL1_Process must run to insert WebSphere Application Server data into the central data warehouse database. Therefore, consider scheduling the AMX_c05_ETL1_Process warehouse process to run before the IZY_m05_Dimension process.

5.1 IZY_m05_Dimension_Process

The IZY_m05_Dimension_Process populates the dimension tables with the IBM WebSphere Application Server components monitored by the resource models.

This process has one step:

- IZY_m05_s010_Dimension

This step populates the following tables:

- IZY.D_WAS_METRIC table with the measurement types
- IZY.D_WAS_HOST table with the IBM WebSphere Application Server 4.0.x nodes
- IZY.D_WAS_ADMINSRV table with the corresponding administration servers
- IZY.D_WAS_APPLSRV table with the application servers
- IZY.D_WAS_APPLCMP table with the application server components
- IZY.D_WAS_SUBCMP table with the servlet and connection pool subcomponents
- IZY.D_WAS_CELL table with the cell attribute information of the IBM WebSphere Application Server 5.x nodes
- IZY.D_WAS_NODE table with the IBM WebSphere Application Server 5.x nodes
- IZY.D_WAS_CFGMGR table with the node agents

This step must run successfully before you can run the IZY_m10_Fact_Process.

5.2 IZY_m10_Fact_Process

This process populates the fact tables with the new data from the measurement (Msmt) table.

This process has the following steps:

- IZY_m10_s010_Fact

This step populates the IZY.F_ADMINSRV_HOUR, IZY.F_APPLSRV_HOUR, IZY.F_APPLCMP_HOUR, and IZY.F_SUBCMP_HOUR tables with the new data from the measurement (Msmt) table for IBM WebSphere Application Server version 3.5 and 4.0.x components.

In addition, it prunes any expired data from the fact tables, if necessary. See the Deleting data section for more information on page 20. This step must run successfully before you can run any of the following rollup steps.

- IZY_m10_s020_AdminSrv_Rollup

This step rolls up the hourly data from the IZY.F_ADMINSRV_HOUR table into the IZY.F_ADMINSRV_DAY, IZY.F_ADMINSRV_WEEK, and IZY.F_ADMINSRV_MONTH tables for reports using the daily, weekly, or monthly star schemas.

- IZY_m10_s030_ApplSrv_Rollup

This step rolls up the hourly data from the IZY F_APPLSRV_HOUR table into the IZY.F_APPLSRV_DAY, IZY.F_APPLSRV_WEEK, and IZY.F_APPLSRV_MONTH tables for reports using the daily, weekly, or monthly star schemas.

- IZY_m10_s040_ApplComp_Rollup

This step rolls up the hourly data from the IZY.F_APPLCMP_HOUR table into the IZY.F_APPLCMP_DAY, IZY.F_APPLCMP_WEEK, and IZY.F_APPLCMP_MONTH tables for reports using the daily, weekly, or monthly star schemas.

- IZY_m10_s050_SubComp_Rollup

This step rolls up the hourly data from the IZY F_SUBCMP_HOUR table into the IZY F_SUBCMP_DAY, IZY.F_SUBCMP_WEEK, and IZY.F_SUBCMP_MONTH tables for reports using the daily, weekly, or monthly star schemas.

- IZY_m10_s060_Fact

This step populates the IZY.F_CFGMGR_HOUR, IZY.F_APPLSRV5_HOUR, IZY.F_APPLCMP5_HOUR, and IZY.F_SUBCMP5_HOUR tables with the new data from the measurement (Msmt) table for IBM WebSphere Application Server version 5 or later components.

In addition, it prunes any expired data from the fact tables, if necessary. See the Deleting data section for more information on page 20. This step must run successfully before you can run any of the following rollup steps.

- IZY_m10_s070_CfgMgr_Rollup

This step rolls up the hourly data from the IZY.F_CFGMGR_HOUR table into the IZY.F_CFGMR_DAY, IZY.F_CFGMR_WEEK, and IZY.F_CFGMR_MONTH tables for reports using the daily, weekly, or monthly star schemas.

- IZY_m10_s080_ApplSrv5_Rollup

This step rolls up the hourly data from the IZY F_APPLSRV5_HOUR table into the IZY.F_APPLSRV5_DAY, IZY.F_APPLSRV5_WEEK, and IZY.F_APPLSRV5_MONTH tables for reports using the daily, weekly, or monthly star schemas.

- IZY_m10_s090_ApplComp5_Rollup

This step rolls up the hourly data from the IZY.F_APPLCMP5_HOUR table into the IZY.F_APPLCMP5_DAY, IZY.F_APPLCMP5_WEEK, and IZY.F_APPLCMP5_MONTH tables for reports using the daily, weekly, or monthly star schemas.

- IZY_m10_s100_SubComp5_Rollup

This step rolls up the hourly data from the IZY F_SUBCMP5_HOUR table into the IZY F_SUBCMP5_DAY, IZY.F_SUBCMP5_WEEK, and IZY.F_SUBCMP5_MONTH tables for reports using the daily, weekly, or monthly star schemas.

- IZY_m10_Cleanup_Process

This step drops and recreates the staging tables used by rollup for the IZY_m10_s050_SubComp_Rollup and IZY_m10_s100_SubComp5_Rollup steps.

6 Central data warehouse information

Before reading this section, read about the generic schema for the Tivoli Enterprise Data Warehouse central data warehouse database, which is described in *Enabling an Application for Tivoli Enterprise Data Warehouse*. That document defines the content of each table and explains the relationships between the tables in this document.

Shaded columns in the following tables are translated. These columns are also marked with an asterisk in the column heading. *Installing and Configuring Tivoli Data Warehouse* contains instructions for installing support for additional languages.

6.1 Component configuration

The following sections describe the component configuration.

6.1.1 Component type (table CompTyp)

Note: Components whose CompTyp_Cd start with the 'IZY_' prefix, apply to IBM WebSphere Application Server versions 3.5 and 4. IBM WebSphere Application Server version 5 or later components start with a compTyp_Cd of 'IZY_WAS_' or 'J2EE_'.

CompTyp_Cd CHAR(17)	CompTyp_Parent_Cd CHAR(17)	CompTyp_Nm* VARCHAR(120)	CompTyp_Strt_DtTm TIMESTAMP	CompTyp_End_DtTm TIMESTAMP
IP_HOST	NULL	IP Host	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_HOST	NULL	IBM WebSphere Application Server Host	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_ADMIN_SERVER	NULL	IBM WebSphere Administration Server	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_APPL_SERVER	NULL	IBM Websphere Application Server	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_DATA_SOURCE	NULL	IBM Websphere Data Source	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_CONNECT_POOL	NULL	IBM Websphere Connection Pool	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_EJB	NULL	IBM Websphere Enterprise Javabeen	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_JVM	NULL	IBM Websphere Java Virtual Machine	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_SERVLET_SESS	NULL	IBM Websphere Servlet Session	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_THREAD_POOL	NULL	IBM Websphere Thread Pool	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_TRANSACT_MGR	NULL	IBM Websphere Transaction Manager	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_WEB_APPL	NULL	IBM Websphere Web Application	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
IZY_SERVLET	NULL	IBM Websphere Servlet	2002-08-15- 11.36.54.000000	9999-01-01- 00.00.00.000000
J2EE_CELL	NULL	J2EE Cell	2004-01-01- 12.00.00.000000	9999-01-01- 00.00.00.000000
J2EE_NODE	NULL	J2EE Node	2004-01-01- 12.00.00.000000	9999-01-01- 00.00.00.000000
J2EE_SERVER	NULL	J2EE Server	2004-01-01- 12.00.00.000000	9999-01-01- 00.00.00.000000
WAS_NODE_AGENT	NULL	IBM WebSphere Node Agent	2004-01-01- 12.00.00.000000	9999-01-01- 00.00.00.000000
IZY_WAS_DATA_SRC	NULL	IBM Websphere Data Source	2004-01-01- 12.00.00.000000	9999-01-01- 00.00.00.000000
IZY_WAS_CONN_PL	NULL	IBM Websphere Connection Pool	2004-01-01- 12.00.00.000000	9999-01-01- 00.00.00.000000
IZY_WAS_EJB	NULL	IBM Websphere Enterprise Javabeen	2004-01-01- 12.00.00.000000	9999-01-01- 00.00.00.000000
IZY_WAS_JVM	NULL	IBM Websphere Java Virtual Machine	2004-01-01- 12.00.00.000000	9999-01-01- 00.00.00.000000

CompTyp_Cd CHAR(17)	CompTyp_Parent_Cd CHAR(17)	CompTyp_Nm* VARCHAR(120)	CompTyp_Strt_DtTm TIMESTAMP	CompTyp_End_DtTm TIMESTAMP
IZY_WAS_SVLT_SESS	NULL	IBM Websphere Servlet Session	2004-01-01-12.00.00.000000	9999-01-01-00.00.00.000000
IZY_WAS_THREAD_PL	NULL	IBM Websphere Thread Pool	2004-01-01-12.00.00.000000	9999-01-01-00.00.00.000000
IZY_WAS_TRANS_MGR	NULL	IBM Websphere Transaction Manager	2004-01-01-12.00.00.000000	9999-01-01-00.00.00.000000
IZY_WAS_WEB_APPL	NULL	IBM Websphere Web Application	2004-01-01-12.00.00.000000	9999-01-01-00.00.00.000000
IZY_WAS_SERVLET	NULL	IBM Websphere Servlet	2004-01-01-12.00.00.000000	9999-01-01-00.00.00.000000
IZY_WAS_DYNACACHE	NULL	IBM WebSphere Dynamic Cache	2004-01-01-12.00.00.000000	9999-01-01-00.00.00.000000
IZY_WAS_J2C_FACT	NULL	IBM WebSphere J2C Connection Factory	2004-01-01-12.00.00.000000	9999-01-01-00.00.00.000000
IZY_WAS_J2C_POOL	NULL	IBM WebSphere J2C Connection Pool	2004-01-01-12.00.00.000000	9999-01-01-00.00.00.000000

6.1.2 Component (table Comp)

Comp_ID INTEGER	CompTyp_Cd CHAR(17)	Centr_Cd CHAR(6)	Cust_ID INTEGER	Comp_Corr_ID INTEGER	Comp_Nm VARCHAR(254)	Comp_Corr_Val VARCHAR(254)	Comp_Strt_DtTm TIMESTAMP	Comp_End_DtTm TIMESTAMP	Comp_Ds VARCHAR(254)
0	IP_HOST	CDW	1	-	eagle.raleigh.tivoli.com		2003-10-31-01.22.11.11	9999-01-01-00.00.00.00	IP HOST
1	IP_HOST	CDW	1	-	cardinal.raleigh.tivoli.com		2003-10-31-01.22.11.11	9999-01-01-00.00.00.00	IP HOST
2	IZY_ADMIN_SERVER ²	CDW	1	0	eagle:900	eagle:900	2003-10-31-01.22.11.11	9999-01-01-00.00.00.00	
3	IZY_ADMIN_SERVER ¹	CDW	1	1	cardinal:900	cardinal:900	2003-10-31-01.22.11.11	9999-01-01-00.00.00.00	
4	IZY_APPL_SERVER	CDW	1	2	Default Server	Default Server	2003-10-31-01.02.18.18	9999-01-01-00.00.00.00	
5	IZY_APPL_SERVER	CDW	1	3	Default Server	Default Server	2003-10-31-01.22.13.13	9999-01-01-00.00.00.00	
6	IZY_DATA_SOURCE	CDW	1	5	SampleDataSource	SampleDataSource	2003-10-31-01.22.14.14	9999-01-01-00.00.00.00	

² After running the migration script provided with the warehouse enablement pac version 1.1.0.3, the default WebSphere administration server port number is appended to the comp_nm of the existing IZY_ADMIN_SERVER components, in order to support multiple installations on one host. . See section 3.9 Migrating from a previous release of the warehouse pack for more information.

Comp_ID INTEGER	CompTyp_C d CHAR (17)	Centr_Cd CHAR(6)	Cust_ID INTEGER	Comp_Corr ID INTEGER	Comp_Nm VARCHAR (254)	Comp_Corr Val VARCHAR (254)	Comp_Stirt_ DtTm TIMESTAM P	Comp_End_ DtTm TIMESTAM P	Comp_Ds VARCHAR (254)
7	IZY_DATA _SOURCE	CDW	1	5	sample	sample	2003-10-31- 01.22.14.14	9999-01-01- 00.00.00.00	
8	IZY_EJB	CDW	1	5	Access	Access	2003-10-31- 00.37.30.30	9999-01-01- 00.00.00.00	
9	IZY_EJB	CDW	1	5	Audit	Audit	2003-10-31- 01.37.36.36	9999-01-01- 00.00.00.00	
10	IZY_EJB	CDW	1	5	History	History	2003-10-31- 01.37.34.34	9999-01-01- 00.00.00.00	
11	IZY_EJB	CDW	1	5	IncBean	IncBean	2003-10-31- 01.37.41.41	9999-01-01- 00.00.00.00	
12	IZY_EJB	CDW	1	5	Leave	Leave	2003-10-31- 01.37.39.39	9999-01-01- 00.00.00.00	
13	IZY_EJB	CDW	1	5	WSsampl es/Account BMHome	WSsamples/Acc ountBMHome	2003-10-31- 01.37.31.31	9999-01-01- 00.00.00.00	
14	IZY_EJB	CDW	1	5	WSsampl es/Account Home	WSsamples/Acc ountHome	2003-10-31- 01.37.33.33	9999-01-01- 00.00.00.00	
15	IZY_EJB	CDW	1	5	WSsampl es/HelloE JBHome	WSsamples/Hel loEJBHome	2003-10-31- 01.37.40.40	9999-01-01- 00.00.00.00	
16	IZY_EJB	CDW	1	5	WSsampl es/Incr ementHome	WSsamples/Incr ementHome	2003-10-31- 01.37.35.35	9999-01-01- 00.00.00.00	
17	IZY_EJB	CDW	1	5	WSsampl es/Transfe rHome	WSsamples/Tra nsferHome	2003-10-31- 01.37.39.39	9999-01-01- 00.00.00.00	
18	IZY_EJB	CDW	1	5	jndi/Been There	jndi/BeenThere	2003-10-31- 01.37.38.38	9999-01-01- 00.00.00.00	
19	IZY_JVM	CDW	1	5	JVM Runtime	JVM Runtime	2003-10-31- 01.37.24.24	9999-01-01- 00.00.00.00	
20	IZY_SERV LET_SESS	CDW	1	5	Servlet Session	Servlet Session	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	
21	IZY_TRAN SACT_MG R	CDW	1	5	Transactio n Manager	Transaction Manager	2003-10-31- 01.37.25.25	9999-01-01- 00.00.00.00	

Comp_ID INTEGER	CompTyp_C d CHAR (17)	Centr_Cd CHAR(6)	Cust_ID INTEGER	Comp_Corr _ID INTEGER	Comp_Nm VARCHAR (254)	Comp_Corr _Val VARCHAR (254)	Comp_Stirt_ DtTm TIMESTAM P	Comp_End_ DtTm TIMESTAM P	Comp_Ds VARCHAR (254)
22	IZY_WEB_ APPL	CDW	1	5	Default Applicatio n	Default Application	2003-10-31- 01.37.25.26	9999-01-01- 00.00.00.00	
23	IZY_WEB_ APPL	CDW	1	5	Default Server.De fault Applicatio n	Default Server.Default Application	2003-10-31- 01.37.59.59	9999-01-01- 00.00.00.00	
24	IZY_WEB_ APPL	CDW	1	5	Default Server.Ex amples Applicatio n	Default Server.Example s Application	2003-10-31- 01.37.55.55	9999-01-01- 00.00.00.00	
25	IZY_WEB_ APPL	CDW	1	5	Default Server.Sa mples Web Applicatio n	Default Server.Samples Web Application	2003-10-31- 01.37.57.57	9999-01-01- 00.00.00.00	
26	IZY_WEB_ APPL	CDW	1	5	Default Server.Yo urCo Web Applicatio n	Default Server.YourCo Web Application	2003-10-31- 10.38.00.00	9999-01-01- 00.00.00.00	
27	IZY_WEB_ APPL	CDW	1	5	Default Server.the me Web Applicatio n	Default Server.theme Web Application	2003-10-31- 01.37.58.58	9999-01-01- 00.00.00.00	
28	IZY_WEB_ APPL	CDW	1	5	Examples Applicatio n	Examples Application	2003-10-31- 01.22.18.18	9999-01-01- 00.00.00.00	
29	IZY_WEB_ APPL	CDW	1	5	Samples Web Applicatio n	Samples Web Application	2003-10-31- 01.22.18.18	9999-01-01- 00.00.00.00	
30	IZY_WEB_ APPL	CDW	1	5	YourCo Web Applicatio n	YourCo Web Application	2003-10-31- 01.22.18.18	9999-01-01- 00.00.00.00	

Comp_ID INTEGER	CompTyp_C d CHAR (17)	Centr_Cd CHAR(6)	Cust_ID INTEGER	Comp_Corr ID INTEGER	Comp_Nm VARCHAR (254)	Comp_Corr Val VARCHAR (254)	Comp_Stirt_ DtTm TIMESTAM P	Comp_End_ DtTm TIMESTAM P	Comp_Ds VARCHAR (254)
31	IZY_WEB_ APPL	CDW	1	5	theme Web Applicatio n	theme Web Application	2003-10-31- 01.22.18.18	9999-01-01- 00.00.00.00	
32	IZY_CONN ECT_POOL	CDW	1	6	Connectio n Pool	Connection Pool	2003-10-31- 01.37.22.22	9999-01-01- 00.00.00.00	
33	IZY_CONN ECT_POOL	CDW	1	7	Connectio n Pool	Connection Pool	2003-10-31- 01.37.21.21	9999-01-01- 00.00.00.00	
34	IZY_SERV LET	CDW	1	22	InvokerSe rvlet	InvokerServlet	2003-10-31- 01.37.54.54	9999-01-01- 00.00.00.00	
35	IZY_SERV LET	CDW	1	22	JSP 1.1 Processor	JSP 1.1 Processor	2003-10-31- 01.37.47.47	9999-01-01- 00.00.00.00	
36	IZY_SERV LET	CDW	1	28	Directory Browsing Servlet	DirectoryBrows ingServlet	2003-10-31- 01.37.53.53	9999-01-01- 00.00.00.00	
37	IZY_SERV LET	CDW	1	28	JSP 1.1 Processor	JSP 1.1 Processor	2003-10-31- 01.37.54.54	9999-01-01- 00.00.00.00	
38	IZY_SERV LET	CDW	1	28	SimpleFil eServlet	SimpleFileServl et	2003-10-31- 01.37.46.46	9999-01-01- 00.00.00.00	
39	IZY_SERV LET	CDW	1	29	Directory Browsing Servlet	DirectoryBrows ingServlet	2003-10-31- 01.37.44.44	9999-01-01- 00.00.00.00	
40	IZY_SERV LET	CDW	1	29	InvokerSe rvlet	InvokerServlet	2003-10-31- 01.37.50.50	9999-01-01- 00.00.00.00	
41	IZY_SERV LET	CDW	1	29	JSP 1.1 Processor	JSP 1.1 Processor	2003-10-31- 01.37.45.45	9999-01-01- 00.00.00.00	
42	IZY_SERV LET	CDW	1	29	SimpleFil eServlet	SimpleFileServl et	2003-10-31- 10.37.42.42	9999-01-01- 00.00.00.00	
43	IZY_SERV LET	CDW	1	30	Directory Browsing Servlet	DirectoryBrows ingServlet	2003-10-31- 01.37.48.48	9999-01-01- 00.00.00.00	
44	IZY_SERV LET	CDW	1	30	InvokerSe rvlet	InvokerServlet	2003-10-31- 01.37.49.49	9999-01-01- 00.00.00.00	
45	IZY_SERV LET	CDW	1	30	JSP 1.1 Processor	JSP 1.1 Processor	2003-10-31- 01.37.48.48	9999-01-01- 00.00.00.00	

Comp_ID INTEGER	CompTyp_C d CHAR (17)	Centr_Cd CHAR(6)	Cust_ID INTEGER	Comp_Corr ID INTEGER	Comp_Nm VARCHAR (254)	Comp_Corr Val VARCHAR (254)	Comp_Stirt_ DtTm TIMESTAM P	Comp_End_ DtTm TIMESTAM P	Comp_Ds VARCHAR (254)
46	IZY_SERV LET	CDW	1	30	SimpleFil eServlet	SimpleFileServl et	2003-10-31- 01.37.44.44	9999-01-01- 00.00.00.00	
47	IZY_SERV LET	CDW	1	31	Directory Browsing Servlet	DirectoryBrows ingServlet	2003-10-31- 01.37.43.43	9999-01-01- 00.00.00.00	
48	IZY_SERV LET	CDW	1	31	InvokerSe rvlet	InvokerServlet	2003-10-31- 01.37.51.51	9999-01-01- 00.00.00.00	
49	IZY_SERV LET	CDW	1	31	JSP 1.1 Processor	JSP 1.1 Processor	2003-10-31- 01.37.50.50	9999-01-01- 00.00.00.00	
50	IZY_SERV LET	CDW	1	31	SimpleFil eServlet	SimpleFileServl et	2003-10-31- 01.37.52.52	9999-01-01- 00.00.00.00	
51	IZY_SERV LET	CDW	1	95	HelloEJB. jsp	HelloEJB.jsp	2003-10-31- 17.02.17	9999-01-01- 00.00.00	
52	IZY_SERV LET	CDW	1	95	StockQuot eHTMLN otConnect ed.jsp	StockQuoteHT MLNotConnect ed.jsp	2003-08-17- 03.00.49.00000 0	9999-01-01- 00.00.00	
53	IZY_SERV LET	CDW	1	95	StockQuot eHTMLR equest.jsp	StockQuoteHT MLRequest.jsp	2003-10-31- 17.01.07.00000 0	9999-01-01- 00.00.00	
54	IZY_SERV LET	CDW	1	95	StockQuot eHTMLR esponse.js p	StockQuoteHT MLResponse.js p	2003-10-31- 17.02.10.00000 0	9999-01-01- 00.00.00	
55	IZY_SERV LET	CDW	1	95	StockQuot eServlet	StockQuoteServ let	2003-10-31- 17.01.34.00000 0	9999-01-01- 00.00.00	
56	IZY_THRE AD_POOL	CDW	1	5	ORB.thre ad.pool	ORB.thread.poo l	2003-08-20- 10.00.39.00000 0	9999-01-01- 00.00.00.00000 0	
57	IZY_THRE AD_POOL	CDW	1	5	Servlet.En gine.Trans ports	Servlet.Engine. Transports	2003-08-20- 10.00.40.00000 0	9999-01-01- 00.00.00.00000 0	
58	IZY_THRE AD_POOL	CDW	1	192	ORB.thre ad.pool	ORB.thread.poo l	2003-08-20- 10.00.29.00000 0	9999-01-01- 00.00.00.00000 0	

Comp_ID INTEGER	CompTyp_C d CHAR (17)	Centr_Cd CHAR(6)	Cust_ID INTEGER	Comp_Corr _ID INTEGER	Comp_Nm VARCHAR (254)	Comp_Corr _Val VARCHAR (254)	Comp_Stirt_ DtTm TIMESTAM P	Comp_End_ DtTm TIMESTAM P	Comp_Ds VARCHAR (254)
59	IZY_HOST	CDW	1	0	T30lmd		2003-03-11- 18.51.18.76700 0	9999-01-01- 00.00.00.00000 0	
60	IZY_HOST	CDW	1	0	RAL333		2003-03-11- 18.51.38.89600 0	9999-01-01- 00.00.00.00000 0	
61	IZY_ADMI N_SERVER	CDW	1	60	PLEX1:0	PLEX1:0	2003-03-11- 18.51.39.01600 0	9999-01-01- 00.00.00.00000 0	
62	IZY_APPL_ SERVER	CDW	1	61	BBOASR 2_BBOA SR2A	BBOASR2_BB OASR2A	2003-03-11- 18.52.35.59700 0	9999-01-01- 00.00.00.00000 0	
63	IZY_APPL_ SERVER	CDW	1	61	PSTORE_ PSTORE A	PSTORE_PSTO REA	2003-03-11- 18.52.35.59700 0	9999-01-01- 00.00.00.00000 0	
64	IZY_DATA _SOURCE	CDW	1	62	DataSourc eA	DataSourceA	2003-03-27- 16.18.42.63600 0	9999-01-01- 00.00.00.00000 0	
65	IZY_DATA _SOURCE	CDW	1	62	DataSourc eB	DataSourceB	2003-03-27- 16.18.42.63600 0	9999-01-01- 00.00.00.00000 0	
66	IZY_DATA _SOURCE	CDW	1	62	WAS Datasourc e	WAS Datasource	2003-03-27- 16.18.42.63600 0	9999-01-01- 00.00.00.00000 0	
67	IZY_DATA _SOURCE	CDW	1	63	DataSourc eA	DataSourceA	2003-03-27- 16.18.42.63600 0	9999-01-01- 00.00.00.00000 0	
68	IZY_DATA _SOURCE	CDW	1	63	DataSourc eB	DataSourceB	2003-03-27- 16.18.42.63600 0	9999-01-01- 00.00.00.00000 0	
69	IZY_DATA _SOURCE	CDW	1	63	WAS Datasourc e	WAS Datasource	2003-03-27- 16.18.42.63600 0	9999-01-01- 00.00.00.00000 0	
70	IZY_EJB	CDW	1	62	RemoteW ebApp	RemoteWebAp p	2003-03-26- 04.00.11.00000 0	9999-01-01- 00.00.00.00000 0	

Comp_ID INTEGER	CompTyp_C d CHAR (17)	Centr_Cd CHAR(6)	Cust_ID INTEGER	Comp_Corr ID INTEGER	Comp_Nm VARCHAR (254)	Comp_Corr Val VARCHAR (254)	Comp_Stirt_ DtTm TIMESTAM P	Comp_End_ DtTm TIMESTAM P	Comp_Ds VARCHAR (254)
71	IZY_EJB	CDW	1	62	RemoteWebContainer	RemoteWebContainer	2003-03-26-04.00.11.000000	9999-01-01-00.00.00.000000	
72	IZY_JVM	CDW	1	62	JVM Runtime	JVM Runtime	2003-02-23-01.00.02.000000	9999-01-01-00.00.00.000000	
73	IZY_JVM	CDW	1	63	JVM Runtime	JVM Runtime	2003-02-23-01.00.02.000000	9999-01-01-00.00.00.000000	
74	IZY_SERVLET_SESS	CDW	1	62	Servlet Session	Servlet Session	2003-02-23-01.00.00.000000	9999-01-01-00.00.00.000000	
75	IZY_SERVLET_SESS	CDW	1	63	Servlet Session	Servlet Session	2003-02-23-01.00.01.000000	9999-01-01-00.00.00.000000	
76	IZY_THREAD_POOL	CDW	1	62	ORB.thread.pool	ORB.thread.pool	2003-03-17-20.00.02.000000	9999-01-01-00.00.00.000000	
77	IZY_THREAD_POOL	CDW	1	62	Servlet.Engine.Transports	Servlet.Engine.Transports	2003-03-17-20.00.02.000000	9999-01-01-00.00.00.000000	
78	IZY_TRANSACTION_MGR	CDW	1	62	Transaction Manager	Transaction Manager	2003-02-23-01.00.02.000000	9999-01-01-00.00.00.000000	
79	IZY_TRANSACTION_MGR	CDW	1	63	Transaction Manager	Transaction Manager	2003-03-07-19.00.00.000000	9999-01-01-00.00.00.000000	
80	IZY_WEB_APPL	CDW	1	62	Default Server.Samples Web Application	Default Server.Samples Web Application	2003-03-17-03.02.13.000000	9999-01-01-00.00.00.000000	
81	IZY_WEB_APPL	CDW	1	62	PolicyIVP - localhost_1	PolicyIVP-localhost_1	2003-03-26-04.00.03.000000	9999-01-01-00.00.00.000000	

Comp_ID INTEGER	CompTyp_C d CHAR (17)	Centr_Cd CHAR(6)	Cust_ID INTEGER	Comp_Corr ID INTEGER	Comp_Nm VARCHAR (254)	Comp_Corr Val VARCHAR (254)	Comp_Stirt_ DtTm TIMESTAM P	Comp_End_ DtTm TIMESTAM P	Comp_Ds VARCHAR (254)
82	IZY_WEB_ APPL	CDW	1	63	Default Server.Sa mples Web Applicatio n	Default Server.Samples Web Application	2003-03-17- 03.00.10.00000 0	9999-01-01- 00.00.00.00000 0	
83	IZY_CONN ECT_POOL	CDW	1	59	Connectio n Pool	Connection Pool	2003-03-07- 20.00.01.00000 0	9999-01-01- 00.00.00.00000 0	
84	IZY_CONN ECT_POOL	CDW	1	60	Connectio n Pool	Connection Pool	2003-03-07- 20.00.01.00000 0	9999-01-01- 00.00.00.00000 0	
85	IZY_SERV LET	CDW	1	82	com.ibm.s ervlet.engi ne.webap p.SingleT hreadMod elServlet	com.ibm.servlet .engine.webapp. SingleThreadM odelServlet	2003-03-26- 04.00.05.00000 0	9999-01-01- 00.00.00.00000 0	
86	IP_HOST	CDW	1	-	t30laptop. raleigh.ib m.com		2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
87	J2EE_CELL	CDW	1	-	t30laptop Network	-	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
88	J2EE_NOD E	CDW	1	-	t30laptop	FROM_ITM!!t3 0laptop	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
89	WAS_NOD E_AGENT	CDW	1	-	Node Agent	FROM_ITM!!t3 0laptop	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
90	J2EE_SER VER	CDW	1	-	server1	FROM_ITM!!t3 0laptop##t30La ptopNetwork	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00 0	
91	IZY_WAS_ DYNACAC HE	CDW	1	90	Dynamic Cache	Dynamic Cache	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
92	IZY_WAS_ J2C_FACT	CDW	1	90	jmsConne ctions	jmsConnections	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	

Comp_ID INTEGER	CompTyp_C d CHAR (17)	Centr_Cd CHAR(6)	Cust_ID INTEGER	Comp_Corr ID INTEGER	Comp_Nm VARCHAR (254)	Comp_Corr Val VARCHAR (254)	Comp_Stirt_ DtTm TIMESTAM P	Comp_End_ DtTm TIMESTAM P	Comp_Ds VARCHAR (254)
93	IZY_WAS_ J2C_POOL	CDW	1	92	J2C Connectio n Pool	J2C Connection Pool	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
94	IZY_WAS_ DATA_SR C	CDW	1	90	DefaultDa tasource	DefaultDatasour ce	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00 0	
95	IZY_WAS_ CONN_PL	CDW	1	94	Connectio n Pool	Connection Pool	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
96	IZY_WAS_ EJB	CDW	1	90	Access	Access	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00 0	
97	IZY_WAS_ JVM	CDW	1	90	JVM Runtime	JVM Runtime	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
98	IZY_WAS_ SVLT_SE S	CDW	1	90	Servlet Session	Servlet Session	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
99	IZY_WAS_ THREAD_P L	CDW	1	90	ORB.thre ad.pool	ORB.thread.poo l	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
100	IZY_WAS_ TRANS_M GR	CDW	1	90	Transactio n Manager	Transaction Manager	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
101	IZY_WAS_ WEB_APP L	CDW	1	90	PetStoreE AR	PetStoreEAR	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	
102	IZY_WAS_ SERVLET	CDW	1	101	MainServl et	MainServlet	2004-01-01- 12.00.00.00000 0	9999-01-01- 00.00.00.00000 0	

6.1.3 Component relationship type (table RelnTyp)

RelnTyp_Cd CHAR(6)	RelnTyp_Nm* VARCHAR(120)
PCHILD	Parent Child Relation
RUNSON	Runs on Relation

6.1.4 Component relationship rule (table RelnRul)

CompTyp_Source_Cd CHAR(17)	CompTyp_Target_Cd CHAR(17)	RelnTyp_Cd CHAR(6)	RelnRul_Strt_DfTm TIMESTAMP	RelnRul_End_DfTm TIMESTAMP
IP_HOST	IZY_ADMIN_SERVER	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IP_INTERFACE	IZY_ADMIN_SERVER	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_HOST	IZY_ADMIN_SERVER	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_ADMIN_SERVER	IZY_APPL_SERVER	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SERVER	IZY_DATA_SOURCE	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_DATA_SOURCE	IZY_CONNECT_POOL	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SERVER	IZY_EJB	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SERVER	IZY_JVM	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SERVER	IZY_SERVLET_SESS	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SERVER	IZY_THREAD_POOL	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SERVER	IZY_TRANSACT_MGR	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SERVER	IZY_WEB_APPL	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_WEB_APPL	IZY_SERVLET	PCHILD	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IP_HOST	RUNSON	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IP_INTERFACE	RUNSON	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IZY_HOST	RUNSON	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
WAS_NODE_AGENT	IP_HOST	RUNSON	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
WAS_NODE_AGENT	IP_INTERFACE	RUNSON	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
WAS_NODE_AGENT	IZY_HOST	RUNSON	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_CELL	J2EE_NODE	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_NODE	J2EE_SERVER	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_NODE	WAS_NODE_AGENT	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IZY_WAS_DATA_SRC	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
IZY_WAS_DATA_SRC	IZY_WAS_CONN_PL	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IZY_WAS_EJB	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IZY_WAS_JVM	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IZY_WAS_SVLT_SESS	PCHILD	2004-10-31-01.23.45.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IZY_WAS_THREAD_PL	PCHILD	2004-10-31-01.23.45.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IZY_WAS_TRANS_MGR	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IZY_WAS_WEB_APPL	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
IZY_WAS_WEB_APPL	IZY_WAS_SERVLET	PCHILD	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000
J2EE_SERVER	IZY_WAS_DYNACACHE	PCHILD	2004-01-01-	9999-01-01-

CompTyp_Source_Cd CHAR(17)	CompTyp_Target_Cd CHAR(17)	RelnTyp_Cd CHAR(6)	RelnRul_Strt_DtTm TIMESTAMP	RelnRul_End_DtTm TIMESTAMP
			12.01.02.000000	00.00.00.000000
J2EE_SERVER	IZY_WAS_J2C_FACT	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
IZY_WAS_J2C_FACT	IZY_WAS_J2C_POOL	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000

6.1.5 Component relationship (table CompReln)

CompReln_ID INTEGER	Comp_Source_ID INTEGER	Comp_Target_ID INTEGER	RelnTyp_Cd CHAR(6)	CompReln_Strt_DtTm TIMESTAMP	CompReln_End_DtTm TIMESTAMP
1	0	2	PCHILD	2003-10-31- 01.37.12.12	9999-01-01- 00.00.00.00
2	1	3	PCHILD	2003-10-31- 01.37.12.12	9999-01-01- 00.00.00.00
3	2	4	PCHILD	2003-10-31- 01.37.14.14	9999-01-01- 00.00.00.00
4	3	5	PCHILD	2003-10-31- 01.37.14.14	9999-01-01- 00.00.00.00
5	5	6	PCHILD	2003-10-31- 01.37.14.14	9999-01-01- 00.00.00.00
6	5	7	PCHILD	2003-10-31- 01.37.14.14	9999-01-01- 00.00.00.00
7	5	8	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
8	5	9	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
9	5	10	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
10	5	11	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
11	5	12	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
12	5	13	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
13	5	14	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
14	5	15	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00

CompReIn_ID INTEGER	Comp_Source_ID INTEGER	Comp_Target_ID INTEGER	ReInTyp_Cd CHAR(6)	CompReIn_Strt _DtTm TIMESTAMP	CompReIn_End _DtTm TIMESTAMP
15	5	16	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
16	5	17	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
17	5	18	PCHILD	2003-10-31- 01.37.15.15	9999-01-01- 00.00.00.00
18	5	19	PCHILD	2003-10-31- 01.37.16.16	9999-01-01- 00.00.00.00
19	5	20	PCHILD	2003-10-31- 01.37.16.16	9999-01-01- 00.00.00.00
20	5	21	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
21	5	22	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
22	5	23	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
23	5	24	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
24	5	25	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
25	5	26	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
26	5	27	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
27	5	28	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
28	5	29	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
29	5	30	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
30	5	31	PCHILD	2003-10-31- 01.37.18.18	9999-01-01- 00.00.00.00
31	6	32	PCHILD	2003-10-31- 01.37.19.19	9999-01-01- 00.00.00.00

CompReIn_ID INTEGER	Comp_Source_ID INTEGER	Comp_Target_ID INTEGER	ReInTyp_Cd CHAR(6)	CompReIn_Strt _DtTm TIMESTAMP	CompReIn_End _DtTm TIMESTAMP
32	7	33	PCHILD	2003-10-31- 01.37.19.19	9999-01-01- 00.00.00.00
33	22	34	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
34	22	35	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
35	28	36	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
36	28	37	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
37	28	38	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
38	29	39	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
39	29	40	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
40	29	41	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
41	29	42	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
42	30	43	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
43	30	44	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
44	30	45	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
45	30	46	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
46	31	47	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
47	31	48	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
48	31	49	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00

CompReIn_ID INTEGER	Comp_Source_ID INTEGER	Comp_Target_ID INTEGER	ReInTyp_Cd CHAR(6)	CompReIn_Strt _DtM TIMESTAMP	CompReIn_End _DtM TIMESTAMP
49	31	50	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
50	29	51	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
51	29	52	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
52	29	53	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
53	29	54	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
54	29	55	PCHILD	2003-10-31- 01.37.20.20	9999-01-01- 00.00.00.00
55	5	56	PCHILD	2003-08-21- 19.00.40.103001	9999-01-01- 00.00.00.000000
56	5	57	PCHILD	2003-08-21- 19.00.40.103001	9999-01-01- 00.00.00.000000
57	4	58	PCHILD	2003-08-21- 19.00.40.103001	9999-01-01- 00.00.00.000000
58	60	61	PCHILD	2003-03-27- 16.09.13.708000	9999-01-01- 00.00.00.000000
59	61	62	PCHILD	2003-03-27- 16.18.25.472000	9999-01-01- 00.00.00.000000
60	61	63	PCHILD	2003-03-27- 16.18.25.472000	9999-01-01- 00.00.00.000000
61	62	64	PCHILD	2003-03-27- 16.18.43.858001	9999-01-01- 00.00.00.000000
62	62	65	PCHILD	2003-03-27- 16.18.43.858001	9999-01-01- 00.00.00.000000
63	62	66	PCHILD	2003-03-27- 16.18.43.858001	9999-01-01- 00.00.00.000000

CompReIn_ID INTEGER	Comp_Source_ID INTEGER	Comp_Target_ID INTEGER	ReInTyp_Cd CHAR(6)	CompReIn_Strt _DtTm TIMESTAMP	CompReIn_End _DtTm TIMESTAMP
64	63	67	PCHILD	2003-03-27- 16.18.47.183000	9999-01-01- 00.00.00.000000
65	63	68	PCHILD	2003-03-27- 16.18.47.183000	9999-01-01- 00.00.00.000000
66	63	69	PCHILD	2003-03-27- 16.18.47.183000	9999-01-01- 00.00.00.000000
67	62	70	PCHILD	2003-03-27- 16.18.47.183000	9999-01-01- 00.00.00.000000
68	62	71	PCHILD	2003-03-27- 16.18.47.183000	9999-01-01- 00.00.00.000000
69	62	72	PCHILD	2003-03-27- 16.18.48.935001	9999-01-01- 00.00.00.000000
70	63	73	PCHILD	2003-03-27- 16.18.48.935001	9999-01-01- 00.00.00.000000
71	62	74	PCHILD	2003-03-27- 16.18.50.388002	9999-01-01- 00.00.00.000000
72	63	75	PCHILD	2003-03-27- 16.18.50.388002	9999-01-01- 00.00.00.000000
73	62	76	PCHILD	2003-03-27- 16.18.51.119001	9999-01-01- 00.00.00.000000
74	62	77	PCHILD	2003-03-27- 16.18.51.119001	9999-01-01- 00.00.00.000000
75	62	78	PCHILD	2003-03-27- 16.18.52.471000	9999-01-01- 00.00.00.000000

CompReIn_ID INTEGER	Comp_Source_ID INTEGER	Comp_Target_ID INTEGER	ReInTyp_Cd CHAR(6)	CompReIn_Strt _DtTm TIMESTAMP	CompReIn_End _DtTm TIMESTAMP
76	63	79	PCHILD	2003-03-27- 16.18.52.471000	9999-01-01- 00.00.00.000000
77	62	80	PCHILD	2003-03-27- 16.18.53.662000	9999-01-01- 00.00.00.000000
78	62	81	PCHILD	2003-03-27- 16.18.53.662000	9999-01-01- 00.00.00.000000
79	63	82	PCHILD	2003-03-27- 16.18.53.662000	9999-01-01- 00.00.00.000000
80	64	83	PCHILD	2003-03-27- 16.18.54.914000	9999-01-01- 00.00.00.000000
81	65	84	PCHILD	2003-03-27- 16.18.54.914000	9999-01-01- 00.00.00.000000
82	81	85	PCHILD	2003-03-27- 16.19.08.333000	9999-01-01- 00.00.00.000000
83	89	86	RUNSON	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
84	90	86	RUNSON	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
86	87	88	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
87	88	89	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
88	88	90	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000

CompReIn_ID INTEGER	Comp_Source_ID INTEGER	Comp_Target_ID INTEGER	ReInTyp_Cd CHAR(6)	CompReIn_Strt _DtTm TIMESTAMP	CompReIn_End _DtTm TIMESTAMP
89	90	91	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
90	90	92	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
91	92	93	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
92	90	94	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
93	94	95	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
94	90	96	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
95	90	97	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
96	90	98	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000
97	90	99	PCHILD	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000

6.1.6 Attribute type (table AttrTyp)

AttrTyp_Cd CHAR(17)	AttrTyp_Nm* VARCHAR(120)
LAST_IP_ADDRESS	Last IP Address
IZY_WAS_VERSION ¹	Version of IBM WebSphere Application Server
IZY_OS_TYPE ²	Operating system
IZY_POLICY_REGION	Tivoli policy region
VERSION	Version Number

AttrTyp_Cd CHAR(17)	AttrTyp_Nm* VARCHAR(120)
OS_NAME	Operating System Name
TME_POLICY_REGION ³	Tivoli Endpoint Policy Region
AMX_EID	IBM Tivoli Monitoring Endpoint Identifier
AMX_GMT_OFFSET	IBM Tivoli Monitoring Endpoint GMT Offset
MANUFACTURER	Manufacturer
WAS_CLUSTER	IBM WebSphere Application Server Cluster
¹ The attribute type IZY_WAS_VERSION has been migrated to the attribute type VERSION. ² The attribute type IZY_OS_TYPE has been migrated to the attribute type OS_NAME. ³ The attribute type IZY_POLICY_REGION has been migrated to the attribute type TME_POLICY_REGION.	

6.1.7 Attribute rule (table AttrRul)

CompTyp_Cd CHAR(17)	AttrTyp_Cd CHAR(17)	AttrRul_Strt_D tTm TIMESTAMP	AttrRul_End_D tTm TIMESTAMP	AttrRul_Dom_Ind CHAR
IP_HOST	LAST_IP_ADDRESS	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000	N
IZY_HOST	AMX_EID	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000	N
IZY_HOST	AMX_GMT_OFFSET	2003-08-15-11.36.54.000000	9999-01-01-00.00.00.000000	N
IZY_ADMIN_SERVER	IZY_OS_TYPE	2003-08-15-11.36.54.000000	2003-03-17-10.14.42.713000	N
IZY_ADMIN_SERVER	IZY_POLICY_REGION	2003-08-15-11.36.54.000000	2003-03-17-10.14.42.713000	N
IZY_ADMIN_SERVER	IZY_WAS_VERSION	2003-08-15-11.36.54.000000	2003-03-17-10.14.42.713000	N
IZY_ADMIN_SERVER	OS_NAME	2003-03-17-14.18.10.720001	9999-01-01-00.00.00.000000	N
IZY_ADMIN_SERVER	TME_POLICY_REGION	2003-03-17-14.18.10.720003	9999-01-01-00.00.00.000000	N
IZY_ADMIN_SERVER	VERSION	2003-03-17-14.18.10.720001	9999-01-01-00.00.00.000000	N
J2EE_NODE	OS_NAME	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000	N
J2EE_SERVER	VERSION	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000	N
J2EE_SERVER	MANUFACTURER	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000	N
J2EE_SERVER	WAS_CLUSTER	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000	N
WAS_NODE_AGENT	VERSION	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000	N
WAS_NODE_AGENT	MANUFACTURER	2004-01-01-12.01.02.000000	9999-01-01-00.00.00.000000	N

6.1.8 Attribute domain (table AttrDom)

This warehouse pack does not place data in the attribute domain table.

6.1.9 Component attribute (table CompAttr)

CompAttr_ID INTEGER	Comp_ID INTEGER	AttrTyp_Cd CHAR(17)	CompAttr_Strt _DtTm TIMESTAMP	CompAttr_End _DtTm TIMESTAMP	CompAttr_Val VARCHAR(254)
1	0	AMX_EID	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	5
2	1	AMX_EID	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	4
3	0	AMX_GMT_OFFSET	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	-300
4	1	AMX_GMT_OFFSET	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	-300
5	0	LAST_IP_ADDRESS	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	146.84.80.237
6	1	LAST_IP_ADDRESS	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	146.84.80.62
7	3	OS_NAME	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	Windows_NT CARDINAL 5.0 2195+Service_Pack_2 Penti
8	2	OS_NAME	2003-10-31- 15.01.20.20	9999-01-01- 00.00.00.00	AIX eagle 1 5 002453034C00
9	3	TME_POLICY_REGION	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	My_PolicyRegion
10	2	TME_POLICY_REGION	2003-10-31- 15.01.20.20	9999-01-01- 00.00.00.00	My_PolicyRegion
11	3	VERSION	2003-10-31- 01.37.11.11	9999-01-01- 00.00.00.00	4.0.2
12	2	VERSION	2003-10-31- 15.01.20.20	9999-01-01- 00.00.00.00	4.0.2
13	59	AMX_EID	2003-10-31- 16.08.46.079000	9999-01-01- 00.00.00.000000	6
14	59	AMX_GMT_OFFSET	2003-10-31- 16.08.46.129000	9999-01-01- 00.00.00.000000	-300
15	59	LAST_IP_ADDRESS	2003-10-31- 16.08.46.199000	9999-01-01- 00.00.00.000000	9.42.17.253
16	61	OS_NAME	2003-10-31- 02.00.00.000000	9999-01-01- 00.00.00.000000	Zos
17	61	TME_POLICY_REGION	2003-10-31- 02.00.00.000000	9999-01-01- 00.00.00.000000	ITMWAS

CompAttr_ID INTEGER	Comp_ID INTEGER	AttrTyp_Cd CHAR(17)	CompAttr_Strt _DtM TIMESTAMP	CompAttr_End _DtM TIMESTAMP	CompAttr_Val VARCHAR(254)
18	61	VERSION	2003-10-31- 02.00.00.000000	9999-01-01- 00.00.00.000000	4.0.1
19	86	AMX_EID	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000	6
20	86	AMX_GMT_OFFSET	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000	-300
21	86	LAST_IP_ADDRESS	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000	9.42.136.253
22	88	OS_NAME	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000	Windows 2000 Service Pack 3
23	89	VERSION	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000	5.0.1
24	89	MANUFACTURER	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000	IBM
25	90	WAS_CLUSTER	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000	MyWebSphereAppCluster
26	90	VERSION	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000	5.0.1
27	90	MANUFACTURER	2004-01-01- 12.01.02.000000	9999-01-01- 00.00.00.000000	IBM

6.2 Component measurement

6.2.1 Measurement group type (table MGrpTyp)

MGrpTyp_Cd CHAR(6)	MGrpTyp_Nm* VARCHAR(120)
CATEG	Category
GROUP	Aggregate Types or Group Functions
STATE	State

6.2.2 Measurement group (table MGrp)

MGrp_Cd CHAR(6)	MGrpTyp_Cd CHAR(6)	MGrp_Parent_Cd CHAR(6)	MGrp_Nm* VARCHAR(120)
PERF	CATEG	NULL	Performance
UTIL	CATEG	NULL	Utilization

MGrp_Cd CHAR(6)	MGrpTyp_Cd CHAR(6)	MGrp_Parent_Cd CHAR(6)	MGrp_Nm* VARCHAR(120)
AVL	CATEG	NULL	Availability
STATE	CATEG	NULL	Percentage State Measurements
STORAG	CATEG	NULL	Storage
AVG_E	GROUP	NULL	Average Value Exists
MIN_E	GROUP	NULL	Minimum Value Exists
MAX_E	GROUP	NULL	Maximum Value Exists
TOT_E	GROUP	NULL	Total Value Exists
IZY_ST	STATE	NULL	IBM WebSphere Application Server States

6.2.3 Measurement group member (table MGrpMbr)

MGrp_Cd CHAR(6)	MGrpTyp_Cd CHAR(6)	MsmTyp_ID INTEGER
MIN_E	GROUP	1
MAX_E	GROUP	1
AVG_E	GROUP	1
MIN_E	GROUP	2
MAX_E	GROUP	2
AVG_E	GROUP	2
TOT_E	GROUP	3
MIN_E	GROUP	4
MAX_E	GROUP	4
AVG_E	GROUP	4
MIN_E	GROUP	5
MAX_E	GROUP	5
AVG_E	GROUP	5
MIN_E	GROUP	6
MAX_E	GROUP	6
AVG_E	GROUP	6
MIN_E	GROUP	7
MAX_E	GROUP	7
AVG_E	GROUP	7
MIN_E	GROUP	8
MAX_E	GROUP	8
AVG_E	GROUP	8
MIN_E	GROUP	9
MAX_E	GROUP	9
AVG_E	GROUP	9
MIN_E	GROUP	10
MAX_E	GROUP	10
AVG_E	GROUP	10
MIN_E	GROUP	11
MAX_E	GROUP	11
AVG_E	GROUP	11
MIN_E	GROUP	12
MAX_E	GROUP	12
AVG_E	GROUP	12
MIN_E	GROUP	13
MAX_E	GROUP	13
AVG_E	GROUP	13
TOT_E	GROUP	14
MIN_E	GROUP	15
MAX_E	GROUP	15

MGrp_Cd CHAR(6)	MGrpTyp_Cd CHAR(6)	MsmTyp_ID INTEGER
AVG E	GROUP	15
MIN E	GROUP	16
MAX E	GROUP	16
AVG E	GROUP	16
MIN E	GROUP	17
MAX E	GROUP	17
AVG E	GROUP	17
MIN E	GROUP	18
MAX E	GROUP	18
AVG E	GROUP	18
AVG E	GROUP	19
AVG E	GROUP	20
AVG E	GROUP	21
AVG E	GROUP	22
IZY ST	STATE	19
IZY ST	STATE	20
IZY ST	STATE	21
IZY ST	STATE	22
MIN E	GROUP	23
MAX E	GROUP	23
AVG E	GROUP	23
MIN E	GROUP	24
MAX E	GROUP	24
AVG E	GROUP	24
MIN E	GROUP	25
MAX E	GROUP	25
AVG E	GROUP	25
MIN E	GROUP	26
MAX E	GROUP	26
AVG E	GROUP	26
MIN E	GROUP	27
MAX E	GROUP	27
AVG E	GROUP	27
MIN E	GROUP	28
MAX E	GROUP	28
AVG E	GROUP	28
TOT E	GROUP	29
MIN E	GROUP	30
MAX E	GROUP	30
AVG E	GROUP	30
MIN E	GROUP	31
MAX E	GROUP	31
AVG E	GROUP	31
MIN E	GROUP	32
MAX E	GROUP	32
AVG E	GROUP	32
MIN E	GROUP	33
MAX E	GROUP	33
AVG E	GROUP	33
MIN E	GROUP	34
MAX E	GROUP	34
AVG E	GROUP	34
MIN E	GROUP	35
MAX E	GROUP	35
AVG E	GROUP	35
MIN E	GROUP	36
MAX E	GROUP	36
AVG E	GROUP	36

6.2.4 Measurement unit category (table MUnitCat)

MunitCat_Cd CHAR(6)	MunitCat_Nm * VARCHAR(120)
TM	Time Duration
QTY	Quantity
PRC	Percentage
RT	Rate

6.2.5 Measurement unit (table MUnit)

MUnit_Cd CHAR(6)	MUnitCat_Cd CHAR(6)	Munit_Nm* VARCHAR(120)
PRC	PRC	Percentage
Qpm	RT	Quantity per Minute
QTY	QTY	Quantity
MB	QTY	Megabytes
B	QTY	Bytes
MSec	TM	Milliseconds

6.2.6 Time summary (table TmSum)

The period over which a measurement can be summarized.

TmSum_Cd CHAR	TmSum_Nm* VARCHAR(120)
H	Hourly

6.2.7 Measurement source (table MSrc)

MSrc_Cd CHAR(6)	MSrc_Parent_Cd CHAR(6)	MSrc_Nm VARCHAR(120) *
Tivoli	NULL	Tivoli Application
AMX	Tivoli	IBM Tivoli Monitoring
IZY	AMX	IBM Tivoli Monitoring for Web Infrastructure, Version 5.1.2: WebSphere Application Server

6.2.8 Measurement type (table MsmtTyp)

The values for MsmtTyp_Nm are stored in the central data warehouse database as a short string, but are displayed in reports as descriptive, translated phrases. In the reports, the values of the MsmtTyp_Nm are capitalized in headline style and do not contain the underscores.

MsmtTyp_ID INTEGER	MUnit_Cd CHAR(6)	MSrc_Cd CHAR (6)	MsmtTyp_Nm* VARCHAR(120)	MsmtTyp_Ds* VARCHAR(254)
1	MSec	IZY	Average connection pool wait time	Connection pool average wait time per cycle

MsmTyp_ID INTEGER	MUnit_Cd CHAR(6)	MSrc_Cd CHAR (6)	MsmTyp_Nm* VARCHAR(120)	MsmTyp_Ds* VARCHAR(254)
2	PRC	IZY	Average_connection_pool_percent_us ed	Average percent of the connection pool that is in use. (This measurement is not collected in the z/OS environment.)
3	QTY	IZY	Connection_pool_faults	Number of connection pool faults (e.g. time out) in connection pool
4	MSec	IZY	Average_EJB_response_time	Average total method response time for the remote methods of the bean for the cycle
5	Qpm	IZY	EJB_request_rate	Number of calls to the remote methods of the bean per minute
6	QTY	IZY	Average_concurrent_EJB_requests	Average number of concurrently active beans (entity and stateful)
7	PRC	IZY	Percent EJB returns discarded	Percent of the EJB returns discarded
8	B	IZY	Used JVM memory	Used memory in JVM Runtime
9	B	IZY	Total JVM memory	Total memory in JVM Runtime
10	PRC	IZY	Active threads to pool size ratio	Ratio of active threads to pool size
11	MSec	IZY	Average_servlet_response_time	Recent servlet response time (average)
12	QTY	IZY	Servlet_request_rate	Number of requests that a servlet processed per minute
13	QTY	IZY	Concurrent_servlet_requests	Number of servlet requests that are being concurrently processed (load)
14	QTY	IZY	Servlet_error_rate	Servlet errors
15	QTY	IZY	Live_servlet_sessions	Number of concurrently live servlet sessions (load)
16	MSec	IZY	Transaction_response_time	Recent transaction response time. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)
17	Qpm	IZY	Transaction_request_rate	Transaction requests per minute. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)
18	PRC	IZY	Transaction_exceptions	Transaction time outs to total transactions. (This measurement is not collected in the z/OS or IBM WebSphere Application Server 3.5.x environment.)
19	PRC	IZY	WebSphere_server_state_up	Server state is up
20	PRC	IZY	WebSphere_server_state_down	Server state is down
21	PRC	IZY	WebSphere_server_state_initializing	Server state is initializing
22	PRC	IZY	WebSphere_server_state_unknown	Server state is unknown
23	MSec	IZY	Average_EJB_CPU_Time	Average CPU time per EJB request. (This measurement is collected in the z/OS environment only.)
24	MSec	IZY	Average_Servlet_CPU_Time	Average CPU time per servlet request. (This measurement is collected in the z/OS environment only.)
25	PRC	IZY	Percent_CPU_Utilization	Percent of the CPU utilized by the application server process. (This measurement is not collected in the z/OS and OS/400 environment.)
26	MB	IZY	Process_Size	Size of application server process. (This measurement is not collected in the z/OS and OS/400 environment.)
27	MSec	IZY	Average_JDBC_Response_Time	Average JDBC driver response time. (This measurement is valid for IBM WebSphere Application Server version 5 only.)
28	PRC	IZY	Percent_Missed	Ratio of missed requests to total requests in the dynamic cache. (This measurement is valid for IBM WebSphere Application Server version 5 only.)
29	QTY	IZY	Session_Request_Errors	Number of times a new session request cannot be satisfied. (This measurement is valid for IBM WebSphere Application Server version 5 only.)
30	MSec	IZY	Average_J2C_Use_Time	Average time J2C connections are in use. (This measurement is valid for IBM WebSphere Application Server version 5 only.)
31	MSec	IZY	Transaction_Global_Response_Time	Recent global transaction response time. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)
32	Qpm	IZY	Transaction_Global_Request_Rate	Global transaction requests per minute. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)
33	PRC	IZY	Transaction_Global_Exceptions	Global transaction time outs to total global transactions. (This measurement is not collected in the z/OS or IBM WebSphere Application Server 3.5.x environment.)
34	MSec	IZY	Transaction_Local_Response_Time	Recent local transaction response time. (This

MsmTyp_ID INTEGER	MUnit_Cd CHAR(6)	MSrc_Cd CHAR (6)	MsmTyp_Nm* VARCHAR(120)	MsmTyp_Ds* VARCHAR(254)
				measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)
35	Qpm	IZY	Transaction_Local_Request_Rate	Local transaction requests per minute. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)
36	PRC	IZY	Transaction_Local_Exceptions	Local transaction time outs to total local transactions. (This measurement is not collected in the z/OS or IBM WebSphere Application Server 3.5.x environment.)

6.2.9 Component measurement rule (table MsmRul)

CompTyp_Cd CHAR(17)	MsmTyp_ID INTEGER
IZY_CONNECT_POOL	1
IZY_CONNECT_POOL	2
IZY_CONNECT_POOL	3
IZY_EJB	4
IZY_EJB	5
IZY_EJB	6
IZY_EJB	7
IZY_EJB	23
IZY_JVM	8
IZY_JVM	9
IZY_THREAD_POOL	10
IZY_WEB_APPL	11
IZY_WEB_APPL	12
IZY_WEB_APPL	13
IZY_WEB_APPL	14
IZY_WEB_APPL	24
IZY_SERVLET	11
IZY_SERVLET	12
IZY_SERVLET	13
IZY_SERVLET	14
IZY_SERVLET	24
IZY_SERVLET_SESS	15
IZY_TRANSACT_MGR	16
IZY_TRANSACT_MGR	17
IZY_TRANSACT_MGR	18
IZY_TRANSACT_MGR	31
IZY_TRANSACT_MGR	32
IZY_TRANSACT_MGR	33
IZY_TRANSACT_MGR	34
IZY_TRANSACT_MGR	35
IZY_TRANSACT_MGR	36
IZY_APPL_SERVER	4
IZY_APPL_SERVER	5
IZY_APPL_SERVER	6
IZY_APPL_SERVER	7
IZY_APPL_SERVER	11
IZY_APPL_SERVER	12
IZY_APPL_SERVER	13
IZY_APPL_SERVER	14
IZY_APPL_SERVER	19
IZY_APPL_SERVER	20
IZY_APPL_SERVER	21
IZY_APPL_SERVER	22
IZY_APPL_SERVER	23
IZY_APPL_SERVER	24
IZY_APPL_SERVER	25
IZY_APPL_SERVER	26
IZY_ADMIN_SERVER	19

CompTyp_Cd CHAR(17)	MsmTyp_ID INTEGER
IZY_ADMIN_SERVER	20
IZY_ADMIN_SERVER	21
IZY_ADMIN_SERVER	22
WAS_NODE_AGENT	19
WAS_NODE_AGENT	20
WAS_NODE_AGENT	21
WAS_NODE_AGENT	22
J2EE_SERVER	4
J2EE_SERVER	5
J2EE_SERVER	6
J2EE_SERVER	7
J2EE_SERVER	11
J2EE_SERVER	12
J2EE_SERVER	13
J2EE_SERVER	14
J2EE_SERVER	19
J2EE_SERVER	20
J2EE_SERVER	21
J2EE_SERVER	22
J2EE_SERVER	25
J2EE_SERVER	26
IZY_WAS_CONN_PL	1
IZY_WAS_CONN_PL	2
IZY_WAS_CONN_PL	3
IZY_WAS_CONN_PL	27
IZY_WAS_EJB	4
IZY_WAS_EJB	5
IZY_WAS_EJB	6
IZY_WAS_EJB	7
IZY_WAS_JVM	8
IZY_WAS_JVM	9
IZY_WAS_THREAD_PL	10
IZY_WAS_WEB_APPL	11
IZY_WAS_WEB_APPL	12
IZY_WAS_WEB_APPL	13
IZY_WAS_WEB_APPL	14
IZY_WAS_SERVLET	11
IZY_WAS_SERVLET	12
IZY_WAS_SERVLET	13
IZY_WAS_SERVLET	14
IZY_WAS_SVLT_SESS	15
IZY_WAS_SVLT_SESS	29
IZY_WAS_TRANS_MGR	16
IZY_WAS_TRANS_MGR	17
IZY_WAS_TRANS_MGR	18
IZY_WAS_TRANS_MGR	31
IZY_WAS_TRANS_MGR	32
IZY_WAS_TRANS_MGR	33
IZY_WAS_TRANS_MGR	34
IZY_WAS_TRANS_MGR	35
IZY_WAS_TRANS_MGR	36
IZY_WAS_DYNACACHE	28
IZY_WAS_J2C_POOL	30

6.2.10 Measurement (table Msmt)

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Start_ Dt	Msmt_Start_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl _Cnt INTEGER	Msmt_Err_ Cnt INTEGER
0	19	8	H	2003-08-16	13:00:00	1.250000 0000000 0E+07	2.900000 0000000 0E+07	2.040000 0000000 0E+07			
1	19	8	H	2003-08-16	14:00:00	1.250000 0000000 0E+07	2.890000 0000000 0E+07	2.010000 0000000 0E+07			
2	19	9	H	2003-08-16	13:00:00	2.69E+08	2.69E+08	2.69E+08			
3	19	9	H	2003-08-16	14:00:00	2.69E+08	2.69E+08	2.69E+08			
4	19	8	H	2003-08-16	15:00:00	1.240000 0000000 0E+07	2.910000 0000000 0E+07	2.100000 0000000 0E+07			
5	19	8	H	2003-08-16	16:00:00	1.240000 0000000 0E+07	2.910000 0000000 0E+07	2.040000 0000000 0E+07			
6	19	9	H	2003-08-16	15:00:00	2.69E+08	2.69E+08	2.69E+08			
7	19	9	H	2003-08-16	16:00:00	2.69E+08	2.69E+08	2.69E+08			
8	4	11	H	2003-08-16	17:00:00	7.240358 7341308 5E+01	8.397283 9355468 8E+01	7.756832 1228027 3E+01			
9	4	11	H	2003-08-16	18:00:00	1.644907 9895019 5E+02	2.043511 9628906 3E+02	1.832165 0695800 8E+02			
10	4	11	H	2003-08-16	19:00:00	1.199763 0310058 6E+02	1.279304 9621582 0E+02	1.241352 9968261 7E+02			
11	4	12	H	2003-08-16	17:00:00	1.124272 9687500 0E+05	7.116000 0000000 0E+03	3.314666 9921875 0E+03			
12	4	12	H	2003-08-16	18:00:00	2.224272 9687500 0E+05	7.006000 0000000 0E+03	3.814666 9921875 0E+03			
13	4	12	H	2003-08-16	19:00:00	1.224272 9687500 0E+05	6.013600 0000000 0E+03	3.214666 9921875 0E+03			
14	4	13	H	2003-	17:00:00	0.00E+00	0.00E+00	0.00E+00			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl _Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				08-16							
15	4	13	H	2003-08-16	18:00:00	0.00E+00	0.00E+00	0.00E+00			
16	4	13	H	2003-08-16	19:00:00	0.00E+00	0.00E+00	0.00E+00			
17	4	14	H	2003-08-16	17:00:00				0.000000 0000000 0E+00		
18	4	14	H	2003-08-16	18:00:00				0.000000 0000000 0E+00		
19	4	14	H	2003-08-16	19:00:00				0.000000 0000000 0E+00		
20	32	1	H	2003-08-16	19:03:00	0.00E+00	0.00E+00	0.00E+00			
21	32	1	H	2003-08-16	20:01:00	0.00E+00	0.00E+00	0.00E+00			
22	32	1	H	2003-08-16	21:00:00	0.00E+00	0.00E+00	0.00E+00			
23	32	1	H	2003-08-16	22:00:00	0.00E+00	0.00E+00	0.00E+00			
24	32	1	H	2003-08-16	23:00:00	0.00E+00	0.00E+00	0.00E+00			
25	32	1	H	2003-08-17	00:00:00	0.00E+00	0.00E+00	0.00E+00			
26	32	1	H	2003-08-17	01:00:00	0.00E+00	0.00E+00	0.00E+00			
27	32	1	H	2003-08-17	02:00:00	0.00E+00	0.00E+00	0.00E+00			
28	32	2	H	2003-08-16	19:00:00	6.80E-05	1.28E-04	9.46E-05			
29	32	2	H	2003-08-16	20:00:00	2.71E-05	3.37E-05	3.01E-05			
30	32	2	H	2003-08-16	21:00:00	2.08E-05	2.53E-05	2.28E-05			
31	32	2	H	2003-08-16	22:00:00	1.66E-05	1.96E-05	1.81E-05			
32	32	2	H	2003-	23:00:00	1.22E-05	1.37E-05	1.30E-05			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				08-16							
33	32	2	H	2003-08-17	00:00:00	1.12E-05	1.17E-05	1.15E-05			
34	32	2	H	2003-08-17	01:00:00	9.92E-06	1.08E-05	1.03E-05			
35	32	2	H	2003-08-17	02:00:00	8.19E-06	8.57E-06	8.38E-06			
36	32	3	H	2003-08-16	19:00:00				0.00E+00		
37	32	3	H	2003-08-16	20:00:00				0.00E+00		
38	32	3	H	2003-08-16	21:00:00				0.00E+00		
39	32	3	H	2003-08-16	22:00:00				0.00E+00		
40	32	3	H	2003-08-16	23:00:00				0.00E+00		
41	32	3	H	2003-08-17	00:00:00				0.00E+00		
42	32	3	H	2003-08-17	01:00:00				0.00E+00		
43	32	3	H	2003-08-17	02:00:00				0.00E+00		
44	33	1	H	2003-08-16	19:00:00	0.00E+00	0.00E+00	0.00E+00			
45	33	1	H	2003-08-16	20:00:00	0.00E+00	0.00E+00	0.00E+00			
46	33	1	H	2003-08-16	21:00:00	0.00E+00	0.00E+00	0.00E+00			
47	33	1	H	2003-08-16	22:00:00	0.00E+00	0.00E+00	0.00E+00			
48	33	1	H	2003-08-16	23:00:00	0.00E+00	0.00E+00	0.00E+00			
49	33	1	H	2003-08-17	00:00:00	0.00E+00	0.00E+00	0.00E+00			
50	33	1	H	2003-08-17	01:00:00	0.00E+00	0.00E+00	0.00E+00			
51	33	1	H	2003-	02:00:00	0.00E+00	0.00E+00	0.00E+00			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				08-17							
52	33	2	H	2003-08-16	19:00:00	5.77E+00	6.03E+00	5.93E+00			
53	33	2	H	2003-08-16	20:00:00	1.03E+01	1.35E+01	1.20E+01			
54	33	2	H	2003-08-16	21:00:00	1.43E+01	1.65E+01	1.55E+01			
55	33	2	H	2003-08-16	22:00:00	1.71E+01	1.85E+01	1.78E+01			
56	33	2	H	2003-08-16	23:00:00	1.99E+01	2.06E+01	2.03E+01			
57	33	2	H	2003-08-17	00:00:00	2.09E+01	2.11E+01	2.10E+01			
58	33	2	H	2003-08-17	01:00:00	2.13E+01	2.18E+01	2.16E+01			
59	33	2	H	2003-08-17	02:00:00	2.33E+01	2.39E+01	2.36E+01			
60	33	3	H	2003-08-16	19:00:00				0.00E+00		
61	33	3	H	2003-08-16	20:00:00				0.00E+00		
62	33	3	H	2003-08-16	21:00:00				0.00E+00		
63	33	3	H	2003-08-16	22:00:00				0.00E+00		
64	33	3	H	2003-08-16	23:00:00				0.00E+00		
65	33	3	H	2003-08-17	00:00:00				0.00E+00		
66	33	3	H	2003-08-17	01:00:00				0.00E+00		
67	33	3	H	2003-08-17	02:00:00				0.00E+00		
68	4	4	H	2003-08-16	17:00:00	3.689714 0502929 7E+01	4.009711 0748291 0E+01	3.900154 1137695 3E+01			
69	4	4	H	2003-08-16	18:00:00	5.214945 9838867 2E+01	5.914575 9582519 5E+01	5.653073 8830566 4E+01			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
70	4	4	H	2003-08-16	19:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
71	4	4	H	2003-08-16	20:00:00	5.553242 8741455 1E+01	5.864252 0904541 0E+01	5.750300 9796142 6E+01			
72	4	5	H	2003-08-16	17:00:00	4.90E+01	9.90E+01	7.75E+01			
73	4	5	H	2003-08-16	18:00:00	5.50E+01	9.60E+01	7.59E+01			
74	4	5	H	2003-08-16	19:00:00	5.80E+01	1.21E+02	9.09E+01			
75	4	5	H	2003-08-16	20:00:00	8.50E+01	1.57E+02	1.20E+02			
76	4	6	H	2003-08-16	18:00:00	0.000000 0000000 0E+00	2.000000 0000000 E+00	0.051960 0000000 0 E+00			
77	4	6	H	2003-08-16	19:00:00	0.000000 0000000 0E+00	3.000000 0000000 E+00	0.042520 0000000 0E+00			
78	4	6	H	2003-08-16	20:00:00	0.000000 0000000 0E+00	2.000000 0000000 0E+00	0.015500 0000000 0 E+00			
79	4	7	H	2003-08-16	17:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
80	4	7	H	2003-08-16	18:00:00	0.000000 0000000 0E+01	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
81	4	7	H	2003-08-17	19:00:00	0.000000 0000000 E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
82	4	7	H	2003-08-17	20:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
83	8	4	H	2003-08-16	17:00:00	2.865988 0161285 E+00	3.575181 0073852 5E+00	3.240750 0743866 0E+00			
84	8	4	H	2003-08-16	18:00:00	3.104214 9066925	3.466200 1132965	3.277502 0599365			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
						E+00	1E+00	2E+00			
85	8	4	H	2003-08-16	19:00:00	3.151671 8864440 9E+00	3.520617 9618835 4E+00	3.313210 0105285 6E+00			
86	8	4	H	2003-08-16	20:00:00	3.069535 9706878 7E+00	4.066185 9512329 1E+00	3.547358 0360412 6E+00			
87	8	4	H	2003-08-16	21:00:00	3.276480 9131622 3E+00	4.135470 8671569 8E+00	3.809655 9047699 0E+00			
88	8	4	H	2003-08-17	22:00:00	3.832737 9226684 E+00	4.348246 0975647 0E+00	4.090491 7716980 0E+00			
89	8	4	H	2003-08-17	23:00:00	3.329128 9806366 0E+00	5.057428 8368225 0E+00	4.048466 2055969 2E+00			
90	8	4	H	2003-08-17	00:00:00	3.809340 9538269 0E+00	4.610041 1415100 0E+00	4.209691 0476684 6E+00			
91	8	5	H	2003-08-16	17:00:00	1.70E+01	2.10E+01	2.00E+01			
92	8	5	H	2003-08-16	18:00:00	2.60E+01	3.20E+01	3.00E+01			
93	8	5	H	2003-08-16	19:00:00	9.00E+00	1.10E+01	1.01E+01			
94	8	5	H	2003-08-16	20:00:00	3.50E+01	4.30E+01	4.01E+01			
95	8	5	H	2003-08-16	21:00:00	1.70E+01	2.10E+01	2.00E+01			
96	8	5	H	2003-08-17	22 :00:00	2.60E+01	3.20E+01	3.00E+01			
97	8	5	H	2003-08-17	23:00:00	9.00E+00	1.10E+01	1.01E+01			
98	8	5	H	2003-08-17	00:00:00	0.00E+00	4.30E+01	3.54E+01			
99	8	6	H	2003-08-16	17:00:00	0.000000 0000000 0E+00	1.000000 0000000 E+00	0.001960 0000000 0 E+00			
100	8	6	H	2003-	18:00:00	0.000000	1.000000	0.002520			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				08-16		0000000 0E+00	0000000 0E+00	0000000 0E+00			
101	8	6	H	2003- 08-16	19:00:00	0.000000 0000000 0E+00	1.000000 0000000 0E+00	0.005500 0000000 0 E+00			
102	8	7	H	2003- 08-16	17:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
103	8	7	H	2003- 08-16	18:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
104	8	7	H	2003- 08-16	19:00:00	0.000000 0000000 E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
105	12	4	H	2003- 08-16	17:00:00	5.214945 9838867 2 ^E +01	5.914575 9582519 5E+01	5.653073 8830566 4E+01			
106	12	4	H	2003- 08-16	18:00:00	5.510094 0704345 7E+01	5.981195 8312988 3E+01	5.811579 8950195 3E+01			
107	12	4	H	2003- 08-16	19:00:00	5.553242 8741455 1E+01	5.864252 0904541 0E+01	5.750300 9796142 6E+01			
108	12	4	H	2003- 08-16	20:00:00	5.447032 9284668 0 ^E +01	6.084825 1342773 4E+01	5.794047 1649169 9E+01			
109	12	4	H	2003- 08-16	21:00:00	5.740560 9130859 4E+01	6.427998 3520507 8E+01	5.989973 0682373 0E+01			
110	12	4	H	2003- 08-17	22 :00:00	5.754964 0655517 61E+01	6.163705 8258056 6E+01	5.959334 9456787 1E+01			
111	12	4	H	2003- 08-17	23:00:00	5.971961 9750976 6 ^E +01	6.067443 8476562 5E+01	6.010676 9561767 6E+01			
112	12	4	H	2003- 08-17	00:00:00	6.065900 0396728 5E+01	6.119699 0966796 9E+01	6.092800 1403808 6E+01			
113	12	5	H	2003- 08-16	17:00:00	1.199333 0078125 0E+04	1.569600 0000000 0E+04	1.287066 9921875 0E+04			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
114	12	5	H	2003-08-16	18:00:00	1.054266 9921875 0E+04	1.422533 0078125 0E+04	1.287066 9921875 0E+04			
115	12	5	H	2003-08-16	19:00:00	1.422533 0078125 0E+04	1.454800 0000000 0E+04	1.439333 0078125 0E+04			
116	12	5	H	2003-08-16	20:00:00	1.439333 0078125 0E+04	1.569600 0000000 0E+04	1.454800 0000000 0E+04			
117	12	5	H	2003-08-16	21:00:00	1.287066 9921875 0E+04	1.439333 0078125 0E+04	1.339333 0078125 0E+04			
118	12	5	H	2003-08-17	22:00:00	1.569600 0000000 0E+04	1.769600 0000000 0E+04	1.679600 0000000 0E+04			
119	12	5	H	2003-08-17	23:00:00	1.054266 9921875 0E+04	1.454800 0000000 0E+04	1.439333 0078125 0E+04			
120	12	5	H	2003-08-17	00:00:00	1.054266 9921875 0E+04	1.422533 0078125 0E+04	1.287066 9921875 0E+04			
121	12	6	H	2003-08-16	18:00:00	0.000000 0000000 0E+00	1.000000 0000000 0E+00	0.003030 0000000 0000E+0 0			
122	12	6	H	2003-08-16	19:00:00	0.000000 0000000 0E+00	1.000000 0000000 0E+00	0.532000 0000000 0E+00			
123	12	7	H	2003-08-16	17:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
124	12	7	H	2003-08-16	18:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
125	12	7	H	2003-08-16	19:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
126	12	7	H	2003-08-16	20:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
127	21	16	H	2003-	19:00:00	0.333333	403.4672	25.26606			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				08-16		3134651 2	8515625 000	9412231 40			
128	21	16	H	2003- 08-16	20:00:00	8.037111 2823486 3	15.20833 0154418 90	11.45654 0107727 10			
129	21	16	H	2003- 08-16	21:00:00	15.13129 9972534 20	21.13548 0880737 30	18.06677 0553588 90			
130	21	16	H	2003- 08-16	22:00:00	0.857142 9252624 5	1215.722 0458984 4000	307.9737 8540039 100			
131	21	16	H	2003- 08-6	23:00:00	0.714285 6717109 7	10.09090 9957885 70	3.446233 9878082 3			
132	21	16	H	2003- 08-17	00:00:00	0.500000 0000000 0	65.84615 3259277 30	8.399131 7749023 4			
133	21	16	H	2003- 08-17	1:00:00	0.000000 0000000 0	6.444445 1332092 3	1.358729 9585342 4			
134	21	16	H	2003- 08-17	02:00:00	0.428571 4030265 8	1.000000 0000000 0	0.750000 0000000 0			
135	21	17	H	2003- 08-16	19:00:00	2.072000 0000000 0E+03	3.792666 9921875 0E+03	2.665333 0078125 0E+03			
136	21	17	H	2003- 08-16	20:00:00	2.009333 0078125 0E+03	2.844000 0000000 0E+03	2.363166 9921875 0E+03			
137	21	17	H	2003- 08-16	21:00:00	2.436000 0000000 0E+03	3.114666 9921875 0E+03	2.882444 0917968 8E+03			
138	21	17	H	2003- 08-16	22:00:00	2.124666 9921875 0E+03	3.565333 0078125 0E+03	2.608000 0000000 0E+03			
139	21	17	H	2003- 08-16	23:00:00	3.031333 0078125 0E+03	3.950000 0000000 0E+03	3.541111 0839843 8E+03			
140	21	17	H	2003- 08-17	00:00:00	2.958666 9921875	3.184000 0000000	3.036888 9160156			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
						0E+03	0E+03	3E+03			
141	21	17	H	2003- 08-17	01:00:00	3.575333 0078125 0E+03	4.040666 9921875 0E+03	3.808000 0000000 0E+03			
142	21	17	H	2003- 08-17	02:00:00	3.136000 0000000 0E+03	3.512000 0000000 0E+03	3.324000 0000000 0E+03			
143	21	18	H	2003- 08-16	18:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
144	21	18	H	2003- 08-16	19:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
145	21	18	H	2003- 08-16	20:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
146	21	18	H	2003- 08-16	21:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
147	21	18	H	2003- 08-16	22:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
148	2	19	H	2003- 08-18	06:00:00			100.00			
149	2	20	H	2003- 08-18	06:00:00			0.00			
150	2	21	H	2003- 08-18	06:00:00			0.00			
151	2	22	H	2003- 08-18	06:00:00			0.00			
152	4	19	H	2003- 08-18	06:00:00			100.00			
153	4	20	H	2003- 08-18	06:00:00			0.00			
154	4	21	H	2003- 08-18	06:00:00			0.00			
155	4	22	H	2003- 08-18	06:00:00			0.00			
156	2	19	H	2003-	07:00:00			100.00			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl _Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				08-18							
157	2	19	H	2003-08-18	08:00:00			100.00			
158	2	19	H	2003-08-18	09:00:00			100.00			
159	2	20	H	2003-08-18	07:00:00			0.00			
160	2	20	H	2003-08-18	08:00:00			0.00			
161	2	20	H	2003-08-18	09:00:00			0.00			
162	2	21	H	2003-08-18	07:00:00			0.00			
163	2	21	H	2003-08-18	08:00:00			0.00			
164	2	21	H	2003-08-18	09:00:00			0.00			
165	2	22	H	2003-08-18	07:00:00			0.00			
166	2	22	H	2003-08-18	08:00:00			0.00			
167	2	22	H	2003-08-18	09:00:00			0.00			
168	4	19	H	2003-08-18	07:00:00			100.00			
169	4	19	H	2003-08-18	08:00:00			100.00			
170	4	19	H	2003-08-18	09:00:00			100.00			
171	4	20	H	2003-08-18	07:00:00			0.00			
172	4	20	H	2003-08-18	08:00:00			0.00			
173	4	20	H	2003-08-18	09:00:00			0.00			
174	4	21	H	2003-08-18	07:00:00			0.00			
175	4	21	H	2003-	08:00:00			0.00			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				08-18							
176	4	21	H	2003-08-18	09:00:00			0.00			
177	4	22	H	2003-08-18	07:00:00			0.00			
178	4	22	H	2003-08-18	08:00:00			0.00			
179	4	22	H	2003-08-18	09:00:00			0.00			
180	20	15	H	2003-08-18	14:00:00	2.100000 000000E+02	3.400000 0000000 +E02	2.590000 000000E +02			
181	20	15	H	2003-08-18	15:00:00	3.400000 0000000 0E+02	4.000000 0000000 0E+02	4.000000 0000000 0E+02			
182	20	15	H	2003-08-18	16:00:00	1.690000 000000E +02	5.880000 000000E +02	3.890000 0000000 0E+02			
182	52	11	H	2003-08-19	00:00:00	1.591513 0615234 4E+02	1.848023 9868164 1E+02	1.690061 0351562 5E+02			
183	52	11	H	2003-08-19	01:00:00	1.567651 0620117 2E+02	1.796741 0278320 3E+02	1.682196 0449218 8E+02			
184	52	12	H	2003-08-19	02:00:00	1.580000 0000000 0E+03	5.079630 1269531 3E+02	2.448000 0000000 0E+03			
185	52	12	H	2003-08-19	00:00:00	1.580000 0000000 0E+03	5.079630 1269531 3E+02	2.448000 0000000 0E+03			
186	52	12	H	2003-08-19	01:00:00	1.260000 0000000 0E+03	7.179630 1269531 3E+02	2.448000 0000000 0E+03			
187	52	13	H	2003-08-19	02:00:00	0.00E+00	2.00E+00	1.00E+00			
188	52	13	H	2003-08-19	00:00:00	0.00E+00	8.00E+00	4.47E+00			
189	52	13	H	2003-08-19	01:00:00	2.00E+00	10.00E+00	6.36E+00			
190	52	14	H	2003-	02:00:00				4.821518		

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				08-19					0635452 3E-01		
191	52	14	H	2003- 08-19	00:00:00				0.000000 0000000 0E+00		
192	52	14	H	2003- 08-19	01:00:00				0.000000 0000000 0E+00		
193	52	11	H	2003- 08-19	02:00:00	0.000000 0000000 0E+00	0.000000 0000000 0E+00	0.000000 0000000 0E+00			
194	40	11	H	2003- 08-19	00:00:00	1.237951 9653320 3E+02	1.278189 0106201 2E+02	1.254906 0058593 8E+02			
195	40	11	H	2003- 08-19	01:00:00	1.240317 9931640 6E+02	1.254432 9833984 4E+02	1.247375 0305175 8E+02			
196	40	12	H	2003- 08-19	02:00:00	1.496666 9921875 0E+03	3.924574 8901367 2E+02	2.055333 0078125 0E+03			
197	40	12	H	2003- 08-19	00:00:00	1.496666 9921875 0E+03	3.924574 8901367 2E+02	2.055333 0078125 0E+03			
198	40	12	H	2003- 08-19	01:00:00	2.496666 9921875 0E+03	5.024574 8901367 2E+02	3.155333 0078125 0E+03			
199	40	13	H	2003- 08-19	02 :00:00	0.000000 0000000 0E+00	7.000000 0000000 0E+00	3.038000 0000000 0E+00			
200	40	13	H	2003- 08-19	00:00:00	0.000000 0000000 0E+00	3.000000 0000000 0E+00	2.153000 0000000 0E+00			
201	40	13	H	2003- 08-19	01:00:00	0.000000 0000000 0E+00	1.000000 0000000 0E+00	0.593138 0093097 7E-01			
202	40	14	H	2003- 08-19	02:00:00				0.000000 0000000 0E+00		
203	40	14	H	2003- 08-19	00:00:00				0.000000 0000000 0E+00		

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
204	40	14	H	2003-08-19	01:00:00				0.000000 0000000 0E+00		
205	40	14	H	2003-08-19	02:00:00				0.000000 0000000 0E+00		
206	56	10	H	2003-08-21	12:00:00	0.000000 0000000 0E+00	3.999999 9105930 3E-02	1.999999 9552965 2E-02			
207	56	10	H	2003-08-21	13:00:00	0.000000 0000000 0E+00	3.999999 9105930 3E-02	3.799999 8778104 8E-02			
208	56	10	H	2003-08-21	14:00:00	0.000000 0000000 0E+00	3.999999 9105930 3E-02	1.776999 9802112 6E-02			
209	56	10	H	2003-08-21	15:00:00	0.000000 0000000 0E+00	3.999999 9105930 3E-02	3.599999 8450279 2E-02			
210	27	11	H	2003-08-26	17:00:00	3.803499 9370575 0E+00	4.556200 0274658 2E+00	4.085579 8721313 5E+00			
211	27	11	H	2003-08-26	18:00:00	3.911600 1129150 4E+00	4.663300 0373840 3E+00	4.178209 7816467 3E+00			
212	27	11	H	2003-08-26	19:00:00	3.977499 9618530 3E+00	6.149199 9626159 7E+00	4.377500 0572204 6E+00			
213	27	11	H	2003-08-26	20:00:00	3.931299 9248504 6E+00	8.010800 3616333 0E+00	4.417840 0039672 9E+00			
214	27	11	H	2003-08-26	21:00:00	4.062300 2052307 1E+00	5.989299 7741699 2E+00	4.405990 1237487 8E+00			
215	27	11	H	2003-08-26	22:00:00	4.102700 2334594 7E+00	6.266200 0656127 9E+00	4.525489 8071289 1E+00			
216	27	11	H	2003-08-26	23:00:00	4.222000 1220703 1E+00	7.211400 0320434 6E+00	4.616479 8736572 3E+00			
217	27	11	H	2003-08-27	00:00:00	4.786300 1823425	8.763400 0778198	5.794250 0114440			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
						3E+00	2E+00	9E+00			
218	27	11	H	2003- 08-27	01:00:00	4.181099 8916626 0E+00	9.866499 9008178 7E+00	5.488659 8587036 1E+00			
219	27	11	H	2003- 08-27	02:00:00	4.328400 1350402 8E+00	8.920800 2090454 1E+00	5.781489 8490905 8E+00			
220	27	11	H	2003- 08-27	03:00:00	5.062699 7947692 9E+00	9.266599 6551513 7E+00	6.545839 7865295 4E+00			
221	27	11	H	2003- 08-27	04:00:00	5.294300 0793457 0E+00	9.383399 9633789 E+01	7.038660 0494384 8E+00			
222	27	11	H	2003- 08-27	05:00:00	6.020100 1167297 4E+00	9.187500 0000000 ^E +01	7.344629 7645568 8E+00			
223	27	11	H	2003- 08-27	06:00:00	6.386300 0869751 0E+00	9.266599 6551513 7E+00	8.674790 3823852 5E+00			
224	27	11	H	2003- 08-27	07:00:00	6.510600 0900268 6E+00	9.319750 0228881 8E+01	8.516260 1470947 3E+00			
225	27	12	H	2003- 08-26	17:00:00	5.514950 0000000 0E+00	5.953740 0000000 0E+00	5.738180 0000000 0E+00			
226	27	12	H	2003- 08-26	18:00:00	5.738180 0000000 0E+00	5.917480 0000000 0E+00	5.746840 0000000 0E+00			
227	27	12	H	2003- 08-26	19:00:00	5.917480 0000000 0E+00	5.953740 0000000 0E+00	5.937400 0000000 E+00			
228	27	12	H	2003- 08-26	20:00:00	5.514950 0000000 0E+00	5.732860 0000000 0E+00	5.592200 0000000 0E+00			
229	27	12	H	2003- 08-26	21:00:00	5.058120 0000000 0E+00	5.058120 0000000 0E+00	5.036820 0000000 0E+00			
230	27	12	H	2003- 08-26	22:00:00	5.738180 0000000 0E+00	5.917480 0000000 0E+00	5.886000 000000E +00			
231	27	12	H	2003-	23:00:00	4.823200	4.981610	4.872000			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				08-26		0000000 0E+00	0000000 0E+00	0000000 E+00			
232	27	12	H	2003- 08-27	00:00:00	4.185770 0000000 0E+00	4.545680 0000000 0E+00	4.427840 0039672 9E+00			
233	27	12	H	2003- 08-27	01:00:00	4.240830 0000000 0E+00	4.545680 0000000 0E+00	4.417840 0039672 9E+00			
234	27	12	H	2003- 08-27	02:00:00	5.514950 0000000 0E+00	5.953740 0000000 0E+00	5.738180 0000000 0E+00			
235	27	12	H	2003- 08-27	03:00:00	6.020100 1167297 4E+00	9.187500 0000000 ^E +01	7.344629 7645568 8E+00			
236	27	12	H	2003- 08-27	04:00:00	6.386300 0869751 0E+00	9.266599 6551513 7E+00	8.674790 3823852 5E+00			
237	27	12	H	2003- 08-27	05:00:00	5.738180 0000000 0E+00	5.917480 0000000 0E+00	5.746840 0000000 0E+00			
238	27	12	H	2003- 08-27	06:00:00	4.545680 0000000 0E+00	4.590240 0000000 0E+00	4.576800 0000000 E+00			
239	27	12	H	2003- 08-27	07:00:00	4.185770 0000000 0E+00	4.545680 0000000 0E+00	4.240830 0000000 0E+00			
240	27	13	H	2003- 08-26	17:00:00	0.000000 0000000 0E+00	1.000000 0000000 0E+00	0.723000 0000000 0E+00			
241	27	13	H	2003- 08-26	18:00:00	0.000000 0000000 0E+00	5.000000 0000000 0E+00	3.102000 0000000 0E+00			
242	27	13	H	2003- 08-26	19:00:00	0.000000 0000000 0E+00	3.000000 0000000 0E+00	1.267299 9501228 3E+00			
243	27	13	H	2003- 08-26	20:00:00	0.000000 0000000 0E+00	1.000000 0000000 0E+00	6.017600 0000000 0E-01			
244	27	14	H	2003- 08-26	17:00:00				0.000000 0000000 0E+00		

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl _Cnt INTEGER	Msmt_Err_ Cnt INTEGER
245	27	14	H	2003-08-26	18:00:00				0.000000 0000000 0E+00		
246	27	14	H	2003-08-26	19:00:00				0.000000 0000000 0E+00		
247	27	14	H	2003-08-26	20:00:00				0.000000 0000000 0E+00		
248	27	14	H	2003-08-26	21:00:00				0.000000 0000000 0E+00		
249	27	14	H	2003-08-26	22:00:00				0.000000 0000000 0E+00		
250	27	14	H	2003-08-26	23:00:00				0.000000 0000000 0E+00		
251	27	14	H	2003-08-27	00:00:00				0.000000000 00000E+00		
252	27	14	H	2003-08-27	01:00:00				0.000000 0000000 0E+00		
253	27	14	H	2003-08-27	02:00:00				0.000000 0000000 0E+00		
254	27	14	H	2003-08-27	03:00:00				0.000000 0000000 0E+00		
255	27	14	H	2003-08-27	04:00:00				0.000000 0000000 0E+00		
256	27	14	H	2003-08-27	05:00:00				0.000000 0000000 0E+00		
257	27	14	H	2003-08-27	06:00:00				0.000000 0000000 0E+00		
258	27	14	H	2003-08-27	07:00:00				0.000000 0000000 0E+00		

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
259	27	14	H	2003-08-27	08:00:00				0.000000 0000000 0E+00		
260	27	14	H	2003-08-27	09:00:00				0.000000 0000000 0E+00		
261	27	14	H	2003-08-27	10:00:00				0.000000 0000000 0E+00		
262	62	23	H	2003-03-24	02:00:00	3.00E+00	3.36E+02	2.42E+01			
263	62	23	H	2003-03-24	03:00:00	9.39E+00	1.72E+01	1.30E+01			
264	62	23	H	2003-03-24	04:00:00	0.00E+00	2.30E+01	1.82E+01			
265	62	23	H	2003-03-24	05:00:00	3.50E+00	1.05E+01	5.80E+00			
266	62	23	H	2003-03-24	06:00:00	3.50E+00	1.65E+01	9.36E+00			
267	70	23	H	2003-03-24	02:00:00	0.00E+00	3.75E+00	1.01E-01			
268	70	23	H	2003-03-24	03:00:00	0.00E+00	0.00E+00	0.00E+00			
269	70	23	H	2003-03-24	04:00:00	0.00E+00	0.00E+00	0.00E+00			
270	71	23	H	2003-03-24	02:00:00	0.00E+00	3.09E+01	6.45E+00			
271	71	23	H	2003-03-24	03:00:00	5.64E+00	1.01E+01	6.69E+00			
272	71	23	H	2003-03-24	04:00:00	0.00E+00	8.98E+00	6.49E+00			
273	62	24	H	2003-03-27	0:00:00	6.41E+04	1.92E+05	9.00E+04			
274	62	24	H	2003-03-27	1:00:00	5.92E+04	2.00E+05	8.64E+04			
275	62	24	H	2003-	2:00:00	0.00E+00	3.01E+05	7.78E+04			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				03-27							
276	62	24	H	2003-03-27	3:00:00	6.23E+04	1.15E+05	7.23E+04			
277	81	24	H	2003-03-27	0:00:00	6.41E+04	1.92E+05	9.00E+04			
278	81	24	H	2003-03-27	1:00:00	5.92E+04	2.00E+05	8.64E+04			
279	81	24	H	2003-03-27	2:00:00	0.00E+00	3.01E+05	7.78E+04			
280	81	24	H	2003-03-27	3:00:00	6.23E+04	1.15E+05	7.23E+04			
281	85	24	H	2003-03-27	0:00:00	6.41E+04	1.92E+05	9.00E+04			
282	85	24	H	2003-03-27	1:00:00	5.92E+04	2.00E+05	8.64E+04			
283	85	24	H	2003-03-27	2:00:00	0.00E+00	3.01E+05	7.78E+04			
284	85	24	H	2003-03-27	3:00:00	6.23E+04	1.15E+05	7.23E+04			
285	89	19	H	2003-10-08	22:00:00			1.00E+02			
286	89	20	H	2003-10-08	22:00:00			0.00E+00			
287	89	21	H	2003-10-08	22:00:00			0.00E+00			
288	89	22	H	2003-10-08	22:00:00			0.00E+00			
289	89	19	H	2003-10-08	23:00:00			5.56E+01			
290	89	20	H	2003-10-08	23:00:00			4.44E+01			
291	89	21	H	2003-10-08	23:00:00			0.00E+00			
292	88	22	H	2003-10-08	23:00:00			0.00E+00			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
293	90	25	H	2003-09-10	19:00:00	0.00E+00	4.09E+01	1.96E+00			
294	90	25	H	2003-09-10	20:00:00	0.00E+00	4.19E+01	2.00E+00			
295	90	25	H	2003-09-10	21:00:00	3.05E-03	4.66E+01	1.88E+00			
296	90	25	H	2003-09-10	22:00:00	3.05E-03	4.46E+01	1.85E+00			
297	90	25	H	2003-09-10	19:00:00	0.00E+00	4.09E+01	1.96E+00			
298	90	26	H	2003-09-10	12:00:00	1.19E+02	1.19E+02	1.19E+02			
299	90	26	H	2003-09-10	13:00:00	1.19E+02	1.19E+02	1.19E+02			
300	90	26	H	2003-09-10	14:00:00	1.18E+02	1.19E+02	1.19E+02			
301	90	26	H	2003-09-10	12:00:00	1.19E+02	1.19E+02	1.19E+02			
302	90	26	H	2003-09-10	13:00:00	1.19E+02	1.19E+02	1.19E+02			
303	90	26	H	2003-09-10	14:00:00	1.18E+02	1.19E+02	1.19E+02			
304	95	27	H	2003-10-09	20:00:00	0.00E+00	1.86E+01	4.25E+00			
305	95	27	H	2003-10-09	21:00:00	0.00E+00	1.53E+01	3.67E+00			
306	95	27	H	2003-10-09	22:00:00	0.00E+00	1.42E+01	3.53E+00			
307	95	27	H	2003-10-09	20:00:00	0.00E+00	1.86E+01	4.25E+00			
308	91	28	H	2003-10-09	14:00:00	3.90E+01	6.70E+01	4.51E+01			
309	91	28	H	2003-10-09	15:00:00	3.60E+01	3.90E+01	3.67E+01			
310	91	28	H	2003-10-09	16:00:00	3.50E+01	3.60E+01	3.50E+01			
311	91	28	H	2003-	17:00:00	3.50E+01	3.50E+01	3.50E+01			

Msmt_ID BIGINT	Comp_ID INTEGER	MsmtTyp_ID INTEGER	TmSum_Cd CHAR	Msmt_Strt_ Dt	Msmt_Strt_ Tm TIME	Msmt_Min_ Val FLOAT	Msmt_Max_ Val FLOAT	Msmt_Avg_ Val FLOAT	Msmt_Tot_ Val FLOAT	Msmt_Smpl Cnt INTEGER	Msmt_Err_ Cnt INTEGER
				10-09							
312	91	28	H	2003-10-09	14:00:00	3.90E+01	6.70E+01	4.51E+01			
313	91	28	H	2003-10-09	15:00:00	3.60E+01	3.90E+01	3.67E+01			
314	91	28	H	2003-10-09	16:00:00	3.50E+01	3.60E+01	3.50E+01			
315	98	29	H	2003-09-13	22:00:00				0.00E+00		
316	98	29	H	2003-09-13	23:00:00				0.00E+00		
317	98	29	H	2003-09-14	0:00:00				0.00E+00		
318	98	29	H	2003-09-14	1:00:00				0.00E+00		
319	98	29	H	2003-09-14	2:00:00				0.00E+00		
320	93	30	H	2003-09-14	0:00:00	0.00E+00	4.00E+00	2.00E+00			
321	93	30	H	2003-09-14	1:00:00	1.00E+00	6.00E+00	3.00E+00			
322	93	30	H	2003-09-14	2:00:00	2.00E+00	7.00E+00	5.00E+00			
323	21	31	H	2003-10-02	2:00:00	1.29E+02	1.31E+02	1.30E+02			
324	21	32	H	2003-10-02	2:00:00	1.40E+01	1.40E+01	1.40E+01			
325	21	33	H	2003-10-02	2:00:00	0.00E+00	0.00E+00	0.00E+00			
326	21	34	H	2003-10-02	2:00:00	9.38E-02	4.38E-01	2.82E-01			
327	21	35	H	2003-10-02	2:00:00	1.00E+01	1.20E+01	1.10E+01			
328	21	36	H	2003-10-02	2:00:00	0.00E+00	0.00E+00	0.00E+00			

6.3 Helper tables

The central data warehouse data model supports a multicustomer and multicenter environment. For more information, refer to the “Customers and centers” section in the *Enabling an Application for Tivoli Enterprise Data Warehouse* document. To support an environment with multiple customers or centers, you must update the AMX.Cust_Lookup and the AMX.Centr_Lookup tables provided in the central data warehouse database by the IBM Tivoli Monitoring, Version 5.1.1, warehouse pack.

6.4 Exception tables

This warehouse pack does not place data in exception tables.

6.5 Incremental extraction

This warehouse pack uses incremental extraction to extract component and measurement data from the central data warehouse database and insert it into the data mart tables. The Extract_Control_to_intseq in the Extract_Control table controls this process.

For each of the data mart tables, the Extract_Control_to_intseq is set as follows:

EXTCTL_SOURCE	EXTCTL_TARGET	EXTCTL_TO_INTSEQ
IZY.STAGE_D_WAS_METRIC	IZY.D_WAS_METRIC	Metric_ID (IZY.STAGE_D_WAS_METRIC)
TWG.COMP	IZY.D_WAS_HOST	Comp_Source_ID (TWG.CUR_COMP, TWG.CUR_COMPRELN)
TWG.COMP	IZY.D_WAS_ADMINSRV	CompAttr_ID (TWG.CUR_COMP, TWG.CUR_COMPATTR)
TWG.COMP	IZY.D_WAS_APPLSRV	Comp_ID (TWG.CUR_COMP)
TWG.COMP	IZY.D_WAS_APPLCMP	Comp_ID (TWG.CUR_COMP)
TWG.COMP	IZY.D_WAS_SUBCMP	Comp_ID (TWG.CUR_COMP)
TWG.COMP	IZY.D_WAS_CELL	CompAttr_ID (TWG.CUR_COMP, TWG.CUR_COMPATTR)
TWG.COMP	IZY.D_WAS_NODE	Comp_ID (TWG.CUR_COMP)
TWG.COMP	IZY.D_WAS_CFGMGR	Comp_ID (TWG.CUR_COMP)
TWG.MSMT	IZY.STAGE_F_<xxxxx>_HOUR ¹	Msmt_ID (TWG.MSMT)
TWG.MSMT	IZY.F_<xxxxx>5_HOUR	Msmt_ID (TWG.MSMT)
TWG.MSMT	IZY.F_SUBCMP5_HOUR<1-12>	Msmt_ID (TWG.MSMT)
¹ The corresponding mart tables are IZY.F_<xxxxx>_HOUR.		

Upon completion, a row is added to the Extract_Log table, which causes a trigger to fire and update Extract_Control to close the extraction window.

7 IBM Tivoli Monitoring integration

7.1 Metadata tables for applications that use the resource model ETL

This section defines the data in the Tivoli Enterprise Data Warehouse central data warehouse database.

7.1.1 Resource translation (table Resource_Transl)

Resource	CompTyp_cd
WebSphereASAdminServer	IZY_ADMIN_SERVER
WebSphereASApplicationServer	IZY_APPL_SERVER
WebSphereASDataSource	IZY_DATA_SOURCE
WebSphereASConnectionPool	IZY_CONNECT_POOL
WebSphereASEJB	IZY_EJB
WebSphereASJVMRuntime	IZY_JVM
WebSphereASServletSession	IZY_SERVLET_SESS
WebSphereASTransaction	IZY_TRANSACT_MGR
WebSphereASThreadPool	IZY_THREAD_POOL
WebSphereASWebApplication	IZY_WEB_APPL
WebSphereASServlet	IZY_SERVLET
WebSphereASRemoteAdminServer	IZY_ADMIN_SVR_RMT
WebSphereASRemoteApplicationServer	IZY_APPL_SVR_RMT
WebSphereASRemoteDataSource	IZY_DATA_SRC_RMT
WebSphereASRemoteConnectionPool	IZY_CONN_PL_RMT
WebSphereASRemoteEJB	IZY_EJB_RMT
WebSphereASRemoteJVMRuntime	IZY_JVM_RMT
WebSphereASRemoteServletSession	IZY_SVLT_SESS_RMT
WebSphereASRemoteThreadPool	IZY_THREAD_PL_RMT
WebSphereASRemoteTransaction	IZY_TRANS_MGR_RMT
WebSphereASRemoteWebApplication	IZY_WEB_APPL_RMT
WebSphereASRemoteServlet	IZY_SERVLET_RMT
WebSphereASJ2EECell	J2EE_CELL
WebSphereASJ2EENode	J2EE_NODE
WebSphereASJ2EEServer	J2EE_SERVER
WebSphereASV5NodeAgent	WAS_NODE_AGENT
WebSphereASV5DataSource	IZY_WAS_DATA_SRC
WebSphereASV5ConnectionPool	IZY_WAS_CONN_PL
WebSphereASV5EJB	IZY_WAS_EJB

WebSphereASV5JVMRuntime	IZY_WAS_JVM
WebSphereASV5ServletSession	IZY_WAS_SVLT_SESS
WebSphereASV5Transaction	IZY_WAS_TRANS_MGR
WebSphereASV5ThreadPool	IZY_WAS_THREAD_PL
WebSphereASV5WebApplication	IZY_WAS_WEB_APPL
WebSphereASV5Servlet	IZY_WAS_SERVLET
WebSphereASV5DynamicCache	IZY_WAS_DYNACACHE
WebSphereASV5J2CPool	IZY_WAS_J2C_POOL
WebSphereASV5J2CFactory	IZY_WAS_J2C_FACT

7.1.2 Category translation (table Category_Transl)

Category	MSrc_cd
WebSphereAS	IZY

7.1.3 Component type translation (table CompTyp_Transl)

MSrc_Cd	ITM_Key_Property ¹	CompTyp_Cd	Comp_Format_Nm ¹
IZY	WebSphereASAdminServer.Name	IZY_ADMIN_SERVER	WebSphereASAdminServer.Name
IZY	WebSphereASApplicationServer.Name	IZY_APPL_SERVER	WebSphereASApplicationServer.Name
IZY	WebSphereASDataSource.Name	IZY_DATA_SOURCE	WebSphereASDataSource.Name
IZY	WebSphereASConnectionPool.Name	IZY_CONNECT_POOL	WebSphereASConnectionPool.Name
IZY	WebSphereASEJB.Name	IZY_EJB	WebSphereASEJB.Name
IZY	WebSphereASJVMRuntime.Name	IZY_JVM	WebSphereASJVMRuntime.Name
IZY	WebSphereASServletSession.Name	IZY_SERVLET_SESS	WebSphereASServletSession.Name
IZY	WebSphereASThreadPool.Name	IZY_THREAD_POOL	WebSphereASThreadPool.Name
IZY	WebSphereASTransaction.Name	IZY_TRANSACT_MGR	WebSphereASTransaction.Name
IZY	WebSphereASWebApplication.Name	IZY_WEB_APPL	WebSphereASWebApplication.Name
IZY	WebSphereASServlet.Name	IZY_SERVLET	WebSphereASServlet.Name
IZY	WebSphereASRemoteAdminServer.Name	IZY_ADMIN_SVR_RMT	WebSphereASRemoteAdminServer.Name
IZY	WebSphereASRemoteApplicationServer.Name	IZY_APPL_SVR_RMT	WebSphereASRemoteApplicationServer.N ame
IZY	WebSphereASRemoteDataSource.Name	IZY_DATA_SRC_RMT	WebSphereASRemoteDataSource.Name
IZY	WebSphereASRemoteConnectionPool.Name	IZY_CONN_PL_RMT	WebSphereASRemoteConnectionPool.Nam e
IZY	WebSphereASRemoteEJB.Name	IZY_EJB_RMT	WebSphereASRemoteEJB.Name
IZY	WebSphereASRemoteJVMRuntime.Name	IZY_JVM_RMT	WebSphereASRemoteJVMRuntime.Name
IZY	WebSphereASRemoteServletSession.Name	IZY_SVLT_SESS_RMT	WebSphereASRemoteServletSession.Name
IZY	WebSphereASRemoteThreadPool.Name	IZY_THREAD_PL_RMT	WebSphereASRemoteThreadPool.Name

IZY	WebSphereASRemoteTransaction.Name	IZY_TRANS_MGR_RMT	WebSphereASRemoteTransaction.Name
IZY	WebSphereASRemoteWebApplication.Name	IZY_WEB_APPL_RMT	WebSphereASRemoteWebApplication.Name
IZY	WebSphereASRemoteServlet.Name	IZY_SERVLET_RMT	WebSphereASRemoteServlet.Name
IZY	WebSphereASJ2EECell.Name	J2EE_CELL	WebSphereASJ2EECell.Name
IZY	WebSphereASJ2EENode.Name	J2EE_NODE	WebSphereASJ2EENode.Name
IZY	WebSphereASJ2EEServer.Name	J2EE_SERVER	WebSphereASJ2EEServer.Name
IZY	WebSphereASV5NodeAgent.Name	WAS_NODE_AGENT	WebSphereASV5NodeAgent.Name
IZY	WebSphereASV5DataSource.Name	IZY_WAS_DATA_SRC	WebSphereASV5DataSource.Name
IZY	WebSphereASV5ConnectionPool.Name	IZY_WAS_CONN_PL	WebSphereASV5ConnectionPool.Name
IZY	WebSphereASV5EJB.Name	IZY_WAS_EJB	WebSphereASV5EJB.Name
IZY	WebSphereASV5JVMRuntime.Name	IZY_WAS_JVM	WebSphereASV5JVMRuntime.Name
IZY	WebSphereASV5ServletSession.Name	IZY_WAS_SVLT_SESS	WebSphereASV5ServletSession.Name
IZY	WebSphereASV5ThreadPool.Name	IZY_WAS_THREAD_PL	WebSphereASV5ThreadPool.Name
IZY	WebSphereASV5Transaction.Name	IZY_WAS_TRANS_MGR	WebSphereASV5Transaction.Name
IZY	WebSphereASV5WebApplication.Name	IZY_WAS_WEB_APPL	WebSphereASV5WebApplication.Name
IZY	WebSphereASV5Servlet.Name	IZY_WAS_SERVLET	WebSphereASV5Servlet.Name
IZY	WebSphereASV5DynamicCache.Name	IZY_WAS_DYNACACHE	WebSphereASV5DynamicCache.Name
IZY	WebSphereASV5J2CPool.Name	IZY_WAS_J2C_POOL	WebSphereASV5J2CPool.Name
IZY	WebSphereASV5J2CFactory.Name	IZY_WAS_J2C_FACT	WebSphereASV5J2CFactory.Name
¹ Use a semicolon (;) to separate values in ITM_Key_Property and Comp_Format_Nm. Do not put a semicolon after the last value.			

7.1.4 Common component type translation (table CompTyp_Transl_Common)

MSrc_Cd	CompTyp_Cd	Common_MSrc_Cd
IZY	J2EE_SERVER	MODEL1
IZY	J2EE_CELL	MODEL1
IZY	J2EE_NODE	MODEL1
IZY	WAS_NODE_AGENT	MODEL1

7.1.5 Attribute translation (table AttrTyp_Transl)

MSrc_cd	ITM_Attr_Property	AttrTyp_Cd
IZY	WebSphereASAdminServer.WasVersion	VERSION
IZY	WebSphereASAdminServer.OSType	OS_NAME
IZY	WebSphereASAdminServer.PolicyRegion	TME_POLICY_REGION
IZY	WebSphereASRemoteAdminServer.IZY_HOST	IZY_HOST
IZY	WebSphereASRemoteAdminServer.LAST_IP_ADDRESS	LAST_IP_ADDRESS

Msrc_cd	ITM_Attr_Property	AttrTyp_Cd
	RESS	
IZY	WebSphereASRemoteAdminServer.WasVersion	VERSION
IZY	WebSphereASRemoteAdminServer.OSType	OS_NAME
IZY	WebSphereASRemoteAdminServer.PolicyRegion	TME_POLICY_REGION
IZY	WebSphereASJ2EENode.OSType	OS_NAME
IZY	WebSphereASJ2EEServer.Manufacturer	MANUFACTURER
IZY	WebSphereASJ2EEServer.Version	VERSION
IZY	WebSphereASJ2EEServer.ClusterName	WAS_CLUSTER
IZY	WebSphereASV5NodeAgent.Manufacturer	MANUFACTURER
IZY	WebSphereASV5NodeAgent.Version	VERSION

7.1.6 Component relationship rule translation (table RelnRul_Transl)

CompTyp_Source_Cd CHAR(17)	CompTyp_Target_Cd CHAR(17)	RelnTyp_Cd CHAR(6)	RelnRul_Strt_DfTm TIMESTAMP	RelnRul_End_DfTm TIMESTAMP
IZY_ADMIN_SERVER	IZY_ADMIN_SVR_RMT	PROXY	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SERVER	IZY_APPL_SVR_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_DATA_SOURCE	IZY_DATA_SRC_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_CONNECT_POOL	IZY_CONN_PL_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_EJB	IZY_EJB_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_JVM	IZY_JVM_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_SERVLET_SESS	IZY_SVLT_SESS_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_THREAD_POOL	IZY_THREAD_PL_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_TRANSACT_MGR	IZY_TRANS_MGR_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_WEB_APPL	IZY_WEB_APPL_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_SERVLET	IZY_SERVLET_RMT	SAME	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SVR_RMT	IZY_DATA_SRC_RMT	PCHILD	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_DATA_SRC_RMT	IZY_CONN_PL_RMT	PCHILD	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SVR_RMT	IZY_EJB_RMT	PCHILD	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SVR_RMT	IZY_JVM_RMT	PCHILD	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SVR_RMT	IZY_SVLT_SESS_RMT	PCHILD	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SVR_RMT	IZY_THREAD_PL_RMT	PCHILD	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000

CompTyp_Source_Cd CHAR(17)	CompTyp_Target_Cd CHAR(17)	RelnTyp_Cd CHAR(6)	RelnRul_Strt_DtTm TIMESTAMP	RelnRul_End_DtTm TIMESTAMP
IZY_APPL_SVR_RMT	IZY_TRANS_MGR_RMT	PCHILD	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_APPL_SVR_RMT	IZY_WEB_APPL_RMT	PCHILD	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000
IZY_WEB_APPL_RMT	IZY_SERVLET_RMT	PCHILD	2003-11-19-11.36.54.000000	9999-01-01-00.00.00.000000

7.2 IBM Tivoli Monitoring resource models

The following sections contain information in the IBM Tivoli Monitoring database that is used as the operational data source for Tivoli Enterprise Data Warehouse. For more information about resource models, see the *IBM Tivoli Monitoring Workbench User's Guide*. For information about the resource models specific to IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server, see the *IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server User's Guide*.

7.2.1 Resource model for distributed WebSphereAS Administration Server Status

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>administration server name:port</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASAdminServer
	Context VARCHAR(64)	State
Metrics	Name VARCHAR(128)	WebSphere_server_state_up
		WebSphere_server_state_down
		WebSphere_server_state_initializing
		WebSphere_server_state_unknown
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.2 Resource model for proxy z/OS WebSphereAS Administration Server Status

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=administration server name:port;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion;

		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteAdminServer
	Context VARCHAR(64)	State
Metrics	Name VARCHAR(128)	WebSphere_server_state_up
		WebSphere_server_state_down
		WebSphere_server_state_initializing
		WebSphere_server_state_unknown
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.3 Resource model for distributed WebSphereAS Application Server Status

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASAdminServer.Name= <i>node name:port</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASApplicationServer
	Context VARCHAR(64)	State
Metrics	Name VARCHAR(128)	WebSphere_server_state_up
		WebSphere_server_state_down
		WebSphere_server_state_initializing
		WebSphere_server_state_unknown
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.4 Resource model for proxy z/OS WebSphereAS Application Server Status

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASRemoteAdminServer.Name= <i>node name:port</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST

	VARCHAR(128)	WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteApplicationServer
	Context VARCHAR(64)	State
Metrics	Name VARCHAR(128)	WebSphere_server_state_up
		WebSphere_server_state_down
		WebSphere_server_state_initializing
		WebSphere_server_state_unknown
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.5 Resource model for distributed WebSphereAS Application Server Status (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EECell.Name= <i>cell name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASJ2EEServer
	Context VARCHAR(64)	State
Metrics	Name VARCHAR(128)	WebSphere_server_state_up
		WebSphere_server_state_down
		WebSphere_server_state_initializing
		WebSphere_server_state_unknown

¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.

7.2.6 Resource model for distributed WebSphereAS DB Pools

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Connection Pool; WebSphereASAdminServer.Name=node <i>name:port</i> ; WebSphereASApplicationServer.Name= <i>application server name</i> ; WebSphereASDataSource.Name= <i>data source name</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASConnectionPool
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_connection_pool_percent_used
		Average_connection_pool_wait_time
		Connection_pool_faults
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.7 Resource model for proxy z/OS WebSphereAS DB Pools

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Connection Pool;
		WebSphereASRemoteAdminServer.Name= <i>node name:port</i> ;
		WebSphereASRemoteApplicationServer.Name= <i>application server name</i> ;
		WebSphereASRemoteDataSource.Name= <i>data source name</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteConnectionPool
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_connection_pool_wait_time

	VARCHAR(128)	Connection_pool_faults
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.8 Resource model for distributed WebSphereAS DB Pools (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Connection Pool;
		WebSphereASJ2EECell.Name= <i>cell name</i> ;
		WebSphereASJ2EENode.Name= <i>node name</i> ;
		WebSphereAJ2EEServer.Name= <i>application server name</i> ;
		WebSphereASV5DataSource.Name= <i>data source name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5ConnectionPool
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_connection_pool_percent_used
		Average_connection_pool_wait_time
		Connection_pool_faults
		Average_JDBC_Response_Time

¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.

7.2.9 Resource model for distributed WebSphereAS EJBs

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>EJB name</i> ;
		WebSphereASAdminServer.Name= <i>node name:port</i> ;
		WebSphereASApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion

Resources	Name VARCHAR(128)	WebSphereASEJB
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_EJB_response_time
		Average_concurrent_EJB_requests
		EJB_request_rate
		Percent_EJB_returns_discarded

¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.

7.2.10 Resource model for proxy z/OS WebSphereAS EJBs

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>EJB name</i> ; WebSphereASRemoteAdminServer.Name= <i>node name</i> ; WebSphereASRemoteApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion;
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteEJB
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_EJB_response_time
		Average_concurrent_EJB_requests
		EJB_request_rate
		Percent_EJB_returns_discarded
		Average_EJB_CPU_Time

¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.

7.2.11 Resource model for distributed WebSphereAS EJBs (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>EJB name</i> ; WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ;

		WebSphereASJ2EEServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5EJB
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_EJB_response_time
		Average_concurrent_EJB_requests
		EJB_request_rate
		Percent_EJB_returns_discarded
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.12 Resource model for distributed WebSphereAS EJBs - Application server

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASAdminServer.Name= <i>node name:port</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion;
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR	WebSphereASApplicationServer
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_EJB_response_time
		Average_concurrent_EJB_requests
		EJB_request_rate
		Percent_EJB_returns_discarded
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.13 Resource model for proxy z/OS WebSphereAS EJBs - Application server

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASRemoteAdminServer.Name= <i>administration server name</i> ;

Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion
		WebSphereASRemoteAdminServer.WasVersion
		WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
Resources	Name VARCHAR	WebSphereASRemoteApplicationServer
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_EJB_response_time
		Average_concurrent_EJB_requests
		EJB_request_rate
		Percent_EJB_returns_discarded
		Average_EJB_CPU_Time
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.14 Resource model for distributed WebSphereAS EJBs – Application Server (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASJ2EECell.IName= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR	WebSphereASJ2EEServer
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_EJB_response_time
		Average_concurrent_EJB_requests
		EJB_request_rate
		Percent_EJB_returns_discarded

¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.

7.2.15 Resource model for distributed WebSphereAS JVM

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=JVM Runtime; WebSphereASAdminServer.Name= <i>node name:port</i> ; WebSphereASApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR	WebSphereASJVM
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Total_JVM_memory
		Used_JVM_memory
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.16 Resource model for proxy z/OS WebSphereAS JVM

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=JVM Runtime; WebSphereASRemoteAdminServer.Name= <i>node name</i> ; WebSphereASRemoteApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteJVMRuntime
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Total_JVM_memory
		Used_JVM_memory
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.17 Resource model for distributed WebSphereAS JVM (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=JVM Runtime; WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EEServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5JVM
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Total_JVM_memory
		Used_JVM_memory
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.18 Resource model for distributed WebSphereAS Http Sessions

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Servlet Session; WebSphereASAdminServer.Name= <i>node name:port</i> ; WebSphereASApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASServletSession
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Live_servlet_sessions
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.19 Resource model for proxy z/OS WebSphereAS Http Sessions

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Servlet Session; WebSphereASRemoteAdminServer.Name= <i>node name</i> ; WebSphereASRemoteApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteServletSession
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Live_servlet_sessions
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.20 Resource model for distributed WebSphereAS Http Sessions (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Servlet Session; WebSphereASJ2EE.Cell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EEServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5ServletSession
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Live_servlet_sessions
		Session_Request_Errors
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.21 Resource model for distributed WebSphereAS Thread Pools

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>thread pool name</i> ;
		WebSphereASAdminServer.Name= <i>node name:port</i> ;
		WebSphereASApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASThreadPool
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Active_threads_to_pool_size_ratio
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.22 Resource model for proxy z/OS WebSphereAS Thread Pools

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>thread pool name</i> ;
		WebSphereASRemoteAdminServer.Name= <i>node name</i> ;
		WebSphereASRemoteApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteThreadPool
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Active_threads_to_pool_size_ratio
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.23 Resource model for distributed WebSphereAS Thread Pools (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key	Name= <i>thread pool name</i> ;

	VARCHAR(2096)	WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EEServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5ThreadPool
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Active_threads_to_pool_size_ratio
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.24 Resource model for distributed WebSphereAS Transactions

The WebSphereAS Transactions Resource model should not be used to monitor WebSphere Application Server 3.5.x systems since transaction metrics are not supported by WebSphere Application Server 3.5.x.

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Transaction Manager; WebSphereASAdminServer.Name= <i>node name:port</i> ; WebSphereASApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASTransaction
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Transaction_response_time
		Transaction_request_rate
		Transaction_exceptions
		Transaction_Global_Response_Time
		Transaction_Global_Request_Rate
		Transaction_Global_Exceptions
		Transaction_Local_Response_Time

ITM Table Name	Column Name	Value
		Transaction_Local_Request_Rate
		Transaction_Local_Exceptions
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.25 Resource model for proxy z/OS WebSphereAS Transactions

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Transaction Manager; WebSphereASRemoteAdminServer.Name= <i>node name</i> ; WebSphereAS RemoteApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteTransaction
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Transaction_response_time
		Transaction_request_rate
		Transaction_Global_Response_Time
		Transaction_Global_Request_Rate
		Transaction_Local_Response_Time
		Transaction_Local_Request_Rate
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.26 Resource model for distributed WebSphereAS Transactions (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Transaction Manager; WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EEServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version

ITM Table Name	Column Name	Value
		WebSphereASJ2EEServver.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5Transaction
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Transaction_response_time
		Transaction_request_rate
		Transaction_exceptions
		Transaction_Global_Response_Time
		Transaction_Global_Request_Rate
		Transaction_Global_Exceptions
		Transaction_Local_Response_Time
		Transaction_Local_Request_Rate
		Transaction_Local_Exceptions
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.27 Resource model for distributed WebSphereAS Web Applications - Application server

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASAdminServer.Name= <i>node name:port</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASApplicationServer
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_servlet_response_time
		Servlet_request_rate
		Concurrent_servlet_requests
		Servlet_error_rate
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.28 Resource model for proxy z/OS WebSphereAS Web Applications - Application server

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASRemoteAdminServer.Name= <i>node name</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion;
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteApplicationServer
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_servlet_response_time
		Servlet_request_rate
		Concurrent_servlet_requests
		Servlet_error_rate
		Average_Servlet_CPU_Time

¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.

7.2.29 Resource model for distributed WebSphereAS Web Applications - Application server (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASJ2EEServer
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_servlet_response_time
		Servlet_request_rate

		Concurrent_servlet_requests
		Servlet_error_rate
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.30 Resource model for distributed WebSphereAS Web Applications - Web application

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>web application name</i> ; WebSphereASAdminServer.Name= <i>node name:port</i> ; WebSphereASApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASWebApplication
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_servlet_response_time
		Servlet_request_rate
		Concurrent_servlet_requests
		Servlet_error_rate

¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.

7.2.31 Resource model for proxy z/OS WebSphereAS Web Applications - Web application

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>web application name</i> ;
		WebSphereASRemoteAdminServer.Name= <i>node name</i> ;
		WebSphereASRemoteApplicationServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion;
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteWebApplication

ITM Table Name	Column Name	Value
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_servlet_response_time
		Servlet_request_rate
		Concurrent_servlet_requests
		Servlet_error_rate
		Average_Servlet_CPU_Time
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.32 Resource model for distributed WebSphereAS Web Applications - Web application (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>web application name</i> ; WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EEServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereAJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5WebApplication
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_servlet_response_time
		Servlet_request_rate
		Concurrent_servlet_requests
		Servlet_error_rate
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.33 Resource model for distributed WebSphereAS Web Applications - Servlet

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>servletname</i> ; WebSphereASAdminServer.Name= <i>node name:port</i> ; WebSphereASApplicationServer.Name= <i>application server name</i> ;

ITM Table Name	Column Name	Value
		WebSphereASWebApplication.Name= <i>web application name</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.PolicyRegion
		WebSphereASAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASServlet
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_servlet_response_time
		Servlet_request_rate
		Concurrent_servlet_requests
		Servlet_error_rate
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.34 Resource Model for proxy z/OS WebSphereAS Web Applications - Servlet

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>servletname</i> ; WebSphereASRemoteAdminServer.Name= <i>administration server name</i> ; WebSphereASRemoteApplicationServer.Name= <i>application server name</i> ; WebSphereASRemoteWebApplication.Name= <i>web application name</i> ;
Categories	Name VARCHAR(128)	WebSphereASRemoteAdminServer.IZY_HOST
		WebSphereASRemoteAdminServer.LAST_IP_ADDRESS
		WebSphereASRemoteAdminServer.OSType
		WebSphereASRemoteAdminServer.PolicyRegion
		WebSphereASRemoteAdminServer.WasVersion
Resources	Name VARCHAR(128)	WebSphereASRemoteServlet
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_servlet_response_time
		Servlet_request_rate
		Concurrent_servlet_requests
		Servlet_error_rate
		Average_Servlet_CPU_Time

¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.

7.2.35 Resource model for distributed WebSphereAS Web Applications - Servlet (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>servletname</i> ; WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EEServer.Name= <i>application server name</i> ; WebSphereASV5WebApplication.Name= <i>web application name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5Servlet
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_servlet_response_time
		Servlet_request_rate
		Concurrent_servlet_requests
		Servlet_error_rate
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.36 Resource model for distributed WebSphereAS Application Server Resource Use

This resource model is not supported in the z/OS and OS/400 environment.

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASAdminServer.Name= <i>node name:port</i> ;
Categories	Name VARCHAR(128)	WebSphereASAdminServer.OSType
		WebSphereASAdminServer.WasVersion
		WebSphereASAdminServer.PolicyRegion
Resources	Name VARCHAR(128)	WebSphereASApplicationServer

	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Percent_CPU_Utilization
		Process_Size
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.37 Resource model for distributed WebSphereAS Application Server Resource Use (Version 5)

This resource model is not supported in the z/OS and OS/400 environment.

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name= <i>application server name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EECell.Name= <i>cell name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASJ2EEServer
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Percent_CPU_Utilization
		Process_Size
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.38 Resource model for distributed WebSphereAS Dynamic Cache (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Dynamic Cache WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EEServer.Name= <i>application server name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType

		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5DynamicCache
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Percent_Missed
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.39 Resource model for distributed WebSphereAS J2C Connection Pool (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=J2C Connection Pool; WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ; WebSphereASJ2EEServer.Name= <i>application server name</i> ; WebSphereASVV5J2CFactory.Name= <i>connection factory name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ2EEServer.Manufacturer
		WebSphereASJ2EEServer.ClusterName
Resources	Name VARCHAR(128)	WebSphereASV5J2CPool
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	Average_J2C_Use_Time
¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.		

7.2.40 Resource model for distributed WebSphereAS Node Agent Status (Version 5)

ITM Table Name	Column Name	Value
Instances ¹	Instance_Key VARCHAR(2096)	Name=Node Agent; WebSphereASJ2EECell.Name= <i>cell name</i> ; WebSphereASJ2EENode.Name= <i>node name</i> ;
Categories	Name VARCHAR(128)	WebSphereASJ2EENode.OSType
		WebSphereASJ2EEServer.Version
		WebSphereASJ.2EEServer.Manufacturer
Resources	Name	WebSphereASV5NodeAgent
	Context VARCHAR(64)	Performance
Metrics	Name VARCHAR(128)	WebSphere_server_state_up
		WebSphere_server_state_down
		WebSphere_server_state_initializing
		WebSphere_server_state_unknown

¹ IBM Tivoli Monitoring use a semicolon (;) to separate values within Instances and to terminate the final value.

8 Data mart schema information

The following sections contain the definitions of star schemas, metric dimension tables, data mart databases, and reports provided with the IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server warehouse pack.

Shaded columns in the following tables are translated and are marked with an asterisk (*). *Installing and Configuring Tivoli Enterprise Data Warehouse* contains instructions for installing support for additional languages.

8.1 Star schemas

Before using this section, read about the star schemas in *Enabling an Application for Tivoli Enterprise Data Warehouse*. That document defines the content of each table and explains the relationships between the tables in this document.

This warehouse pack provides the following star schemas.

8.1.1 IZY hourly administration server star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the hourly fact table for the WebSphere administration server components.
Name of fact table	IZY.F_ADMINSRV_HOUR
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.1.1 Fact table IZY.F_ADMINSRV_HOUR

This warehouse pack places data in the IZY.F_ADMINSRV_HOUR fact table. This table has the following columns:

- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_hour (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.2 IZY daily administration server star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the daily fact table for the WebSphere administration server components.
Name of fact table	IZY.F_ADMINSRV_DAY
Name of metric dimension table	IZY.D_WAS_METRIC

Names of other dimension tables	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.2.1 Fact table IZY.F_ADMINSRV_DAY

This warehouse pack places data in the IZY.F_ADMINSRV_DAY fact table. This table has the following columns:

- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (timestamp)

8.1.3 IZY weekly administration server star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the weekly fact table for the WebSphere administration server components.
Name of fact table	IZY.F_ADMINSRV_WEEK
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.3.1 Fact table IZY.F_ADMINSRV_WEEK

This warehouse pack places data in the IZY.F_ADMINSRV_WEEK fact table. This table has the following columns:

- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (timestamp)

8.1.4 IZY monthly administration server star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the monthly fact table for the WebSphere administration server components.
Name of fact table	IZY.F_ADMINSRV_MONTH
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.4.1 Fact table IZY.F_ADMINSRV_MONTH

This warehouse pack places data in the IZY.F_ADMINSRV_MONTH fact table. This table has the following columns:

- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.5 IZY hourly application server star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the hourly fact table for the WebSphere application servers.
Name of fact table	IZY.F_APPLSRV_HOUR
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.5.1 Fact table IZY.F_APPLSRV_HOUR

This warehouse pack places data in the IZY.F_APPLSRV_HOUR fact table. This table has the following columns:

- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_hour (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)

- Total_value (double)
- Sample_count (integer)

8.1.6 IZY daily application server star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the daily fact table for the WebSphere application servers.
Name of fact table	IZY.F_APPLSRV_DAY
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.6.1 Fact table IZY.F_APPLSRV_DAY

This warehouse pack places data in the IZY.F_APPLSRV_DAY fact table. This table has the following columns:

- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.7 IZY weekly application server star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the weekly fact table for the WebSphere application servers.
Name of fact table	IZY.F_APPLSRV_WEEK
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.7.1 Fact table IZY.F_APPLSRV_WEEK

This warehouse pack places data in the IZY.F_APPLSRV_WEEK fact table. This table has the following columns:

- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.8 IZY monthly application server star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the monthly fact table for the WebSphere application servers.
Name of fact table	IZY.F_APPLSRV_MONTH
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.8.1 Fact table IZY.F_APPLSRV_MONTH

This warehouse pack places data in the IZY.F_APPLSRV_MONTH fact table. This table has the following columns:

- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.9 IZY hourly application server component star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the hourly fact table for the WebSphere application server components, such as data sources, EJBs, JVMs, web applications, thread pools, servlet sessions and transaction managers.
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Name of fact table	IZY.F_APPLCMP_HOUR
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.9.1 Fact table IZY.F_APPLCMP_HOUR

This warehouse pack places data in the IZY.F_APPLCMP_HOUR fact table. This table has the following columns:

- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_hour (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.10 IZY daily application server component star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the daily fact table for the WebSphere application server components, such as data sources, EJBs, JVMs, web applications, thread pools, servlet sessions and transaction managers.
Name of fact table	IZY.F_APPLCMP_DAY
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.10.1 Fact table IZY.F_APPLCMP_DAY

This warehouse pack places data in the IZY.F_APPLCMP_DAY fact table. This table has the following columns:

- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)

- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.11 IZY weekly application server component star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the weekly fact table for the WebSphere application server components, such as data sources, EJBs, JVMs, web applications, thread pools, servlet sessions and transaction managers.
Name of fact table	IZY.F_APPLCMP_WEEK
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.11.1 Fact table IZY.F_APPLCMP_WEEK

This warehouse pack places data in the IZY.F_APPLCMP_WEEK fact table. This table has the following columns:

- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.12 IZY monthly application server component star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the monthly fact table for the WebSphere application server components, such as data sources, EJBs,
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	JVMs, web applications, thread pools, servlet sessions and transaction managers.
Name of fact table	IZY.F_APPLCMP_MONTH
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.12.1 Fact table IZY.F_APPLCMP_MONTH

This warehouse pack places data in the IZY.F_APPLCMP_MONTH fact table. This table has the following columns:

- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.13 IZY hourly application server subcomponent schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the hourly fact table for the WebSphere application server subcomponents, such as connection pools and servlets.
Name of fact table	IZY.F_SUBCMP_HOUR
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_SUBCMP
	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.13.1 Fact table IZY.F_SUBCMP_HOUR

This warehouse pack places data in the IZY.F_SUBCMP_HOUR fact table. This table has the following columns:

- SubCmp_Comp_ID (integer)
- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_hour (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.14 IZY daily application server subcomponent schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the daily fact table for the WebSphere application server subcomponents, such as connection pools and servlets.
Name of fact table	IZY.F_SUBCMP_DAY
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_SUBCMP
	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.14.1 Fact table IZY.F_SUBCMP_DAY

This warehouse pack places data in the IZY.F_SUBCMP_DAY fact table. This table has the following columns:

- SubCmp_Comp_ID (integer)
- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.15 IZY weekly application server subcomponent schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the weekly fact table for the WebSphere application server subcomponents; such as servlets and connection pools.
Name of fact table	IZY.F_SUBCMP_WEEK
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_SUBCMP
	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV
	IZY.D_WAS_HOST

8.1.15.1 Fact table IZY.F_SUBCMP_WEEK

This warehouse pack places data in the IZY.F_SUBCMP_WEEK fact table. This table has the following columns:

- SubCmp_Comp_ID (integer)
- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.16 IZY monthly application server subcomponent schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the monthly fact table for the WebSphere application server subcomponents, such as connection pools and servlets.
Name of fact table	IZY.F_SUBCMP_MONTH
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_SUBCMP
	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_ADMINSRV

	IZY.D_WAS_HOST
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8.1.16.1 Fact table IZY.F_SUBCMP_MONTH

This warehouse pack places data in the IZY.F_SUBCMP_MONTH fact table. This table has the following columns:

- SubCmp_Comp_ID (integer)
- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- AdminSrv_Comp_ID (integer)
- XQ_AdminSrv_Dttm (timestamp)
- Host_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.17 IZY hourly configuration manager star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the hourly fact table for the WebSphere node agent components.
Name of fact table	IZY.F_CFGMGR_HOUR
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_CFGMGR
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.17.1 Fact table IZY.F_CFGMGR_HOUR

This warehouse pack places data in the IZY.F_CFGMGR_HOUR fact table. This table has the following columns:

-
- CfgMgr_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_hour (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)

- Sample_count (integer)

8.1.18 IZY daily configuration manager star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the daily fact table for the WebSphere node agent components.
Name of fact table	IZY.F_CFGMGR_DAY
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_CFGMGR
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.18.1 Fact table IZY.F_CFGMGR_DAY

This warehouse pack places data in the IZY.F_CFGMGR_DAY fact table. This table has the following columns:

- CfgMgr_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.19 IZY weekly configuration manager star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the weekly fact table for the WebSphere node agent components.
Name of fact table	IZY.F_CFGMGR_WEEK
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_CFGMGR
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.19.1 Fact table IZY.F_CFGMGR_WEEK

This warehouse pack places data in the IZY.F_CFGMGR_WEEK fact table. This table has the following columns:

- CfgMgr_Comp_ID (integer)

- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.20 IZY monthly configuration manager star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the monthly fact table for the WebSphere node agent components.
Name of fact table	IZY.F_CFGMGR_MONTH
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_CFGMGR
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.20.1 Fact table IZY.F_CFGMGR_MONTH

This warehouse pack places data in the IZY.F_CFGMGR_MONTH fact table. This table has the following columns:

- CfgMgr_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.21 IZY hourly application server V5 star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the hourly fact table for the WebSphere application servers version 5.x.
Name of fact table	IZY.F_APPLSRV5_HOUR
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLSRV

	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.21.1 Fact table IZY.F_APPLSRV5_HOUR

This warehouse pack places data in the IZY.F_APPLSRV5_HOUR fact table. This table has the following columns:

- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_hour (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.22 IZY daily application server V5 star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the daily fact table for the WebSphere application servers version 5.x.
Name of fact table	IZY.F_APPLSRV5_DAY
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.22.1 Fact table IZY.F_APPLSRV5_DAY

This warehouse pack places data in the IZY.F_APPLSRV5_DAY fact table. This table has the following columns:

- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.23 IZY weekly application server V5 star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the weekly fact table for the WebSphere application servers version 5.x.
Name of fact table	IZY.F_APPLSRV5_WEEK
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.23.1 Fact table IZY.F_APPLSRV5_WEEK

This warehouse pack places data in the IZY.F_APPLSRV5_WEEK fact table. This table has the following columns:

- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.24 IZY monthly application server V5 star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the monthly fact table for the WebSphere application servers version 5.x.
Name of fact table	IZY.F_APPLSRV5_MONTH
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.24.1 Fact table IZY.F_APPLSRV5_MONTH

This warehouse pack places data in the IZY.F_APPLSRV5_MONTH fact table. This table has the following columns:

- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)

- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.25 IZY hourly application server V5 component star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the hourly fact table for the WebSphere application server version 5.x components, such as data sources, dynamic cache, J2C factories, JVMs, web applications, thread pools, servlet sessions, etc.
Name of fact table	IZY.F_APPLCMP5_HOUR
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.25.1 Fact table IZY.F_APPLCMP5_HOUR

This warehouse pack places data in the IZY.F_APPLCMP5_HOUR fact table. This table has the following columns:

- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_hour (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.26 IZY daily application server V5 component star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the daily fact table for the WebSphere application server version 5.x components, such as data sources, dynamic cache, J2C factories, JVMs, web applications, thread pools, servlet
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	sessions, etc.
Name of fact table	IZY.F_APPLCMP5_DAY
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.26.1 Fact table IZY.F_APPLCMP5_DAY

This warehouse pack places data in the IZY.F_APPLCMP5_DAY fact table. This table has the following columns:

- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.27 IZY weekly application server V5 component star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the weekly fact table for the WebSphere application server version 5.x components, such as data sources, dynamic cache, J2C factories,, JVMs, web applications, thread pools, servlet sessions, etc.
Name of fact table	IZY.F_APPLCMP5_WEEK
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.27.1 Fact table IZY.F_APPLCMP5_WEEK

This warehouse pack places data in the IZY.F_APPLCMP5_WEEK fact table. This table has the following columns:

- ApplCmp_Comp_ID (integer)

- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer))
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.28 IZY monthly application server V5 component star schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the monthly fact table for the WebSphere application server components, such as data sources, dynamic cache, J2C factories, JVMs, web applications, thread pools, servlet sessions, etc.
Name of fact table	IZY.F_APPLCMP5_MONTH
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.28.1 Fact table IZY.F_APPLCMP5_MONTH

This warehouse pack places data in the IZY.F_APPLCMP5_MONTH fact table. This table has the following columns:

- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer))
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.29 IZY hourly application server V5 subcomponent schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the hourly fact table for the WebSphere application server version 5.x subcomponents, such as connection pools, J2C connection pools and servlets.
Name of fact table	IZY.F_SUBCMP5_HOUR
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_SUBCMP
	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.29.1 Fact table IZY.F_SUBCMP5_HOUR

This warehouse pack places data in the IZY.F_SUBCMP5_HOUR fact table. This table has the following columns:

- SubCmp_Comp_ID (integer)
- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_hour (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.30 IZY daily application server V5 subcomponent schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the daily fact table for the WebSphere application server version 5.x subcomponents, such as connection pools, J2C connection pools and servlets.
Name of fact table	IZY.F_SUBCMP5_DAY
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_SUBCMP
	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.30.1 Fact table IZY.F_SUBCMP5_DAY

This warehouse pack places data in the IZY.F_SUBCMP5_DAY fact table. This table has the following columns:

- SubCmp_Comp_ID (integer)
- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.1.31 IZY weekly application server V5 subcomponent schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the weekly fact table for the WebSphere application server version 5.x subcomponents, such as connection pools, J2C connection pools and servlets.
Name of fact table	IZY.F_SUBCMP5_WEEK
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_SUBCMP
	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.31.1 Fact table IZY.F_SUBCMP5_WEEK

This warehouse pack places data in the IZY.F_SUBCMP5_WEEK fact table. This table has the following columns:

- SubCmp_Comp_ID (integer)
- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)

- Total_value (double)
- Sample_count (integer)

8.1.32 IZY monthly application server V5 subcomponent schema

The following table defines the star schema. The description of the star schema is translated.

Description of star schema (in IWH_STARSHEMA)*	Star schema with dimension tables associated with the monthly fact table for the WebSphere application server version 5.x subcomponents, such as connection pools, J2C connection pools and servlets.
Name of fact table	IZY.F_SUBCMP5_MONTH
Name of metric dimension table	IZY.D_WAS_METRIC
Names of other dimension tables	IZY.D_WAS_SUBCMP
	IZY.D_WAS_APPLCMP
	IZY.D_WAS_APPLSRV
	IZY.D_WAS_NODE
	IZY.D_WAS_CELL

8.1.32.1 Fact table IZY.F_SUBCMP5_MONTH

This warehouse pack places data in the IZY.F_SUBCMP5_MONTH fact table. This table has the following columns:

- SubCmp_Comp_ID (integer)
- ApplCmp_Comp_ID (integer)
- ApplSrv_Comp_ID (integer)
- Node_Comp_ID (integer)
- XQ_Node_Dttm (timestamp)
- Cell_Attr_ID (integer)
- Metric_ID (integer)
- Meas_date (timestamp)
- Min_value (double)
- Max_value (double)
- Avg_value (double)
- Total_value (double)
- Sample_count (integer)

8.2 Metric dimension tables

This section describes the metric dimension tables used by the star schemas in this warehouse pack. These column headings are also marked with an asterisk (*).

8.2.1 IZY.D_WAS_METRIC

This dimension table has the following columns:

Metric_ID INTEGER	Met_Category * VARCHAR (254)	Met_Desc * VARCHAR (254)	Met_Name * VARCHAR (254)	Met_Units * VARCHAR (254)	Min_Exists CHAR (1)	Max_Exists CHAR (1)	Avg_Exists CHAR (1)	Total_Exists CHAR (1)	Msrc_Nm * VARCHAR (254)
1	not used	Connection pool average wait time per cycle	Average_connection_pool_wait_time	MSec	Y	Y	Y	N	IZY
2	not used	Average percent of the connection pool that is in use. (This measurement is not collected in the z/OS environment.)	Average_connection_pool_percent_used	PRC	Y	Y	Y	N	IZY
3	not used	Number of connection pool faults (e.g. timeout) in connection pool	Connection_pool_faults	QTY	N	N	N	Y	IZY
4	not used	Average total method response time for the remote methods of the bean for the cycle	Average_EJB_response_time	MSec	Y	Y	Y	N	IZY
5	not used	Number of calls to the remote methods of the bean per minute	EJB_request_rate	Qpm	Y	Y	Y	N	IZY
6	not used	Average number of concurrently active beans (entity and stateful)	Average_concurrent_EJB_requests	QTY	Y	Y	Y	N	IZY
7	not used	Percent of the EJB returns discarded	Percent_EJB_returns_discarded	PRC	Y	Y	Y	N	IZY
8	not used	Used memory in JVM Runtime	Used_JVM_memory	B	Y	Y	Y	N	IZY
9	not used	Total memory in JVM Runtime	Total_JVM_memory	B	Y	Y	Y	N	IZY
10	not used	Ratio of active threads to pool	Active_threads_to_pool_size_ratio	PRC	Y	Y	Y	N	IZY

Metric_ID INTEGER	Met_Category * VARCHAR (254)	Met_Desc * VARCHAR (254)	Met_Name * VARCHAR (254)	Met_Units * VARCHAR (254)	Min_Exists CHAR (1)	Max_Exists CHAR (1)	Avg_Exists CHAR (1)	Total_Exists CHAR (1)	Msrc_Nm * VARCHAR (254)
		size							
11	not used	Recent servlet response time (average)	Average_servlet_response_time	MSec	Y	Y	Y	N	IZY
12	not used	Number of requests that a servlet processed per minute	Servlet_request_rate	QTY	Y	Y	Y	N	IZY
13	not used	Number of servlet requests that are being concurrently processed (load)	Concurrent_servlet_requests	QTY	Y	Y	Y	N	IZY
14	not used	Servlet errors	Servlet_error_rate	QTY	N	N	N	Y	IZY
15	not used	Number of concurrently live servlet sessions (load)	Live_servlet_sessions	QTY	Y	Y	Y	N	IZY
16	not used	Recent transaction response time. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)	Transaction_response_time	MSec	Y	Y	Y	N	IZY
17	not used	Transaction requests per minute. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)	Transaction_request_rate	Qpm	Y	Y	Y	N	IZY
18	not used	Transaction time outs to total transactions.	Transaction_exceptions	PRC	Y	Y	Y	N	IZY

Metric_ID INTEGER	Met_Category * VARCHAR (254)	Met_Desc * VARCHAR (254)	Met_Name * VARCHAR (254)	Met_Units * VARCHAR (254)	Min_Exists CHAR (1)	Max_Exists CHAR (1)	Avg_Exists CHAR (1)	Total_Exists CHAR (1)	Msrc_Nm * VARCHAR (254)
		(This measurement is not collected in the z/OS or IBM WebSphere Application Server 3.5.x environment.)							
19	IBM WebSphere Application Server States	Server state is up	WebSphere_server_state_up	PRC	N	N	Y	N	IZY
20	IBM WebSphere Application Server States	Server state is down	WebSphere_server_state_down	PRC	N	N	Y	N	IZY
21	IBM WebSphere Application Server States	Server state is initializing	WebSphere_server_state_initializing	PRC	N	N	Y	N	IZY
22	IBM WebSphere Application Server States	Server state is unknown	WebSphere_server_state_unknown	PRC	N	N	Y	N	IZY
23	not used	Average CPU time per EJB request. (This measurement is collected in the z/OS environment only.)	Average_EJB_CPU_Time	MSec	Y	Y	Y	N	IZY
24	not used	Average CPU time per servlet request. (This measurement is collected in the z/OS environment only.)	Average_Servlet_CPU_Time	MSec	Y	Y	Y	N	IZY

Metric_ID INTEGER	Met_Category * VARCHAR (254)	Met_Desc * VARCHAR (254)	Met_Name * VARCHAR (254)	Met_Units * VARCHAR (254)	Min_Exists CHAR (1)	Max_Exists CHAR (1)	Avg_Exists CHAR (1)	Total_Exists CHAR (1)	Msrc_Nm * VARCHAR (254)
25	not used	Percent of the CPU utilized by the application server process. (This measurement is not collected in the z/OS and OS/400 environment.)	Percent_CPU_Utilization	PRC	Y	Y	Y	N	IZY
26	not used	Size of application server process. (This measurement is not collected in the z/OS and OS/400 environment.)	Process_Size	MB	Y	Y	Y	N	IZY
27	not used	Average JDBC driver response time. (This measurement is valid for IBM WebSphere Application Server version 5 only.)	Average_JDBC_Response_Time	MSec	Y	Y	Y	N	IZY
28	not used	Ratio of missed requests to total requests in the dynamic cache. (This measurement is valid for IBM WebSphere Application Server version 5 only.)	Percent_Missed	PRC	Y	Y	Y	N	IZY
29	not used	Number of times a new session request cannot be satisfied. (This measurement is	Session_Request_Errors	QTY	N	N	N	Y	IZY

Metric_ID INTEGER	Met_Category * VARCHAR (254)	Met_Desc * VARCHAR (254)	Met_Name * VARCHAR (254)	Met_Units * VARCHAR (254)	Min_Exists CHAR (1)	Max_Exists CHAR (1)	Avg_Exists CHAR (1)	Total_Exists CHAR (1)	Msrc_Nm * VARCHAR (254)
		valid for IBM WebSphere Application Server version 5 only.)							
30	not used	Average time J2C connections are in use. (This measurement is valid for IBM WebSphere Application Server version 5 only.)	Average_J2C_Use_Time	MSec	Y	Y	Y	N	IZY
31	not used	Recent global transaction response time. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)	Transaction_Global_Response_Time	MSec	Y	Y	Y	N	IZY
32	not used	Global transaction requests per minute. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)	Transaction_Global_Request_Rate	Qpm	Y	Y	Y	N	IZY
33	not used	Global transaction time outs to total global transactions. (This measurement is not collected in the z/OS or IBM	Transaction_Global_Exceptions	PRC	Y	Y	Y	N	IZY

Metric_ID INTEGER	Met_Category * VARCHAR (254)	Met_Desc * VARCHAR (254)	Met_Name * VARCHAR (254)	Met_Units * VARCHAR (254)	Min_Exists CHAR (1)	Max_Exists CHAR (1)	Avg_Exists CHAR (1)	Total_Exists CHAR (1)	Msrc_Nm * VARCHAR (254)
		WebSphere Application Server 3.5.x environment.)							
34	not used	Recent local transaction response time. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)	Transaction_Local_Response_Time	MSec	Y	Y	Y	N	IZY
35	not used	Local transaction requests per minute. (This measurement is not collected in the IBM WebSphere Application Server 3.5.x environment.)	Transaction_Local_Request_Rate	Qpm	Y	Y	Y	N	IZY
36	not used	Local transaction time outs to total local transactions. (This measurement is not collected in the z/OS or IBM WebSphere Application Server 3.5.x environment.)	Transaction_Local_Exceptions	PRC	Y	Y	Y	N	IZY
* This column is translated.									

Notes:

- The values for MsmTyp_Nm are stored in the central data warehouse database as a short string, but are displayed in reports as descriptive, translated phrases. In the reports, the Met_name value does not contain the underscores as defined in the MsmTyp_Nm value.

- Do not delete IZY.STAGE_D_WAS_METRIC located in the central data warehouse database. This table is created during the installation process and is not recreated by any of the data warehouse processes.

8.3 Dimension tables

The following sections describe the dimension tables (other than metric dimension tables) used by the star schemas in this warehouse pack.

8.3.1 Dimension table IZY.D_WAS_HOST

The following columns are used in this dimension table:

- HOST_ID
- HOST_NAME
- CENTR_NM
- CUST_NAME

8.3.2 Dimension table IZY.D_WAS_ADMINSRV

The following columns are used in this dimension table:

- ADMINSRV_COMP_ID
- ADMINSRV_COMP_NAME
- XQ_ADMINSRV_DTTM
- ADMINSRV_OS_TYPE
- ADMINSRV_WAS_VER
- ADMINSRV_POLICYREG

Note: In some cases, the ADMINSRV_OS_TYPE value might appear to be truncated in the dimension table. This is actually the entire value logged by the resource model.

8.3.3 Dimension table IZY.D_WAS_APPLSRV

The following columns are used in this dimension table:

- APPLSRV_COMP_ID
- APPLSRV_COMP_NAME
- APPLSRV_CLUSTER

8.3.4 Dimension table IZY.D_WAS_APPLCMP

The following columns are used in this dimension table:

- APPLCMP_COMP_ID
- APPLCMP_COMP_NAME
- APPLCMP_TYPECD

8.3.5 Dimension table IZY.D_WAS_SUBCMP

The following columns are used in this dimension table:

- SUBCMP_COMP_ID
- SUBCMP_COMP_NAME
- SUBCMP_TYPECD

8.3.6 Dimension table IZY.D_WAS_CELL

The following columns are used in this dimension table:

- CELL_ATTR_ID
- CELL_ATTR_VAL

8.3.7 Dimension table IZY.D_WAS_NODE

The following columns are used in this dimension table:

- NODE_COMP_ID
- NODE_COMP_NAME
- XQ_NODE_DTTM
- NODE_HOST_NAME
- NODE_OS_TYPE
- NODE_WAS_VER
- CENTER_NM
- CUST_NAME

8.3.8 Dimension table IZY.D_WAS_CFGMGR

The following columns are used in this dimension table:

- CFGMGR_COMP_ID
- CFGMGR_COMP_NAME
- CFGMGR_TYPECD

8.4 Data mart databases

This warehouse pack provides the following data mart database.

8.4.1 Data mart IZY Monitoring for WebSphere Application Server

This data mart uses the following star schemas:

- IZY Hourly Administration Server Schema
- IZY Daily Administration Server Schema
- IZY Weekly Administration Server Schema
- IZY Monthly Administration Server Schema
- IZY Hourly Application Server Schema
- IZY Daily Application Server Schema
- IZY Weekly Application Server Schema
- IZY Monthly Application Server Schema

- IZY Hourly Application Server Component Schema
- IZY Daily Application Server Component Schema
- IZY Weekly Application Server Component Schema
- IZY Monthly Application Server Component Schema
- IZY Hourly Application Server Subcomponent Schema
- IZY Daily Application Server Subcomponent Schema
- IZY Weekly Application Server Subcomponent Schema
- IZY Monthly Application Server Subcomponent Schema
- IZY Hourly Configuration Manager Server Schema
- IZY Daily Configuration Manager Schema
- IZY Weekly Configuration Manager Schema
- IZY Monthly Configuration Manager Schema
- IZY Hourly Application Server V5 Schema
- IZY Daily Application Server V5 Schema
- IZY Weekly Application Server V5 Schema
- IZY Monthly Application Server V5 Schema
- IZY Hourly Application Server V5 Component Schema
- IZY Daily Application Server V5 Component Schema
- IZY Weekly Application Server V5 Component Schema
- IZY Monthly Application Server V5 Component Schema
- IZY Hourly Application Server V5 Subcomponent Schema
- IZY Daily Application Server V5 Subcomponent Schema
- IZY Weekly Application Server V5 Subcomponent Schema
- IZY Monthly Application Server V5 Subcomponent Schema

9 Reports

This data mart provides the following prepackaged reports.

Note: In the resource model summary reports, data for application servers with the same name that reside on the same host, but different nodes or data for multiple instances of applications servers with the same name is grouped together. This is because the data is grouped by the operating system, host name (node name) and application server.

In addition, the version 5 (V5) reports may show the operating system as 'UNKNOWN' for IBM WebSphere Application Server Network Deployment environments. This is the operating system as defined in the object. The operating system is not discovered in this environment.

9.1 *IZY EJBs with the Most Hits*

This extreme case report shows the top 25 Enterprise JavaBeans (EJBs) with the highest weekly average total requests.

Group by: EJB name

Aggregate function: Maximum

Metric: EJB_request_rate (throughput: number of calls to bean's remote methods)

Star schema tables: IZY Weekly Application Server Component Star Schema

Time interval: Week

Start/End time: Current date minus 7 days (This can be changed at report run time.)

Order by: Output of maximum aggregation function

Order type: Descending

9.2 *IZY Servlets with the Highest Response Time*

This extreme report shows the top 25 servlets with the highest weekly average response time.

Group by: Servlet name

Aggregate function: Maximum

Metric: Average_servlet_response_time

Star schema tables: IZY Weekly Application Server Subcomponent Star Schema

Time interval: Week

Start/End time: Current date minus 7 days days (This can be changed at report run time.)

Order by: Output of maximum aggregation function

Order type: Descending

9.3 *IZY Servlets with the Most Hits*

This extreme report shows the top 25 servlets with the highest weekly average total requests.

Group by: Servlet name

Aggregate function: Maximum

Metric: Servlet_request_rate (throughput: number of servlet requests)

Star schema tables: IZY Weekly Application Server Subcomponent Sstar Schema

Time interval: Week

Start/End time: Current date minus 7 days (This can be changed at report run time.)

Order by: Output of maximum aggregation function

Order type: Descending

9.4 *IZY EJB Performance Health*

This health check report compares the hourly performance (method response time), load (concurrent active), and throughput (total requests), aggregated for all application servers.

Group by (time unit on X-axis): Hour

Aggregate function: Average

Metric: Average_EJB_response_time, Average_concurrent_EJB_requests and EJB_request_rate

Star schema tables: IZY Hourly Application Server Star Schema

Time column: Day

Start/End time: Current date minus 1 day (This can be changed at report run time.)

Time interval: Hour

Order by: Group by attribute

Note: The EJB_request_rate can be a very large number and the Average_EJB_response_time and Average_concurrent_EJB_requests are small numbers. Therefore, the IZY EJB performance health report does not scale well. This is currently a limitation in the Tivoli Enterprise Data Warehouse reporting interface.

9.5 IZY Servlet Performance Health

This health check report compares the hourly performance (servlet response time), load (concurrent requests), and throughput (servlet requests), aggregated for all application servers.

Group by (time unit on X-axis): Hour

Aggregate function: Average

Metric: Average_servlet_response_time, Concurrent_servlet_requests, and Servlet_request_rate

Star schema tables: IZY Hourly Application Server Star Schema

Time column: Day

Start/End time: Current date minus 1 day (This can be changed at report run time.)

Time interval: Hour

Order by: Group by attribute

Note: The Servlet_request_rate can be a very large number and the Average_servlet_response_time and concurrent_servlet_requests are small numbers. Therefore, the IZY Servlet Performance Health report does not scale well. This is currently a limitation in the Tivoli Enterprise Data Warehouse reporting interface.

9.6 IZY EJB Resource Model Summary

This summary report examines the minimum, maximum, average, and total values, as applicable, for Enterprise JavaBean resource model measurements grouped by operating system, host, and application server.

Group by: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME

Aggregate function: Corresponding minimum, maximum, average, or total

Metric: Average_EJB_response_time, EJB_request_rate, Average_concurrent_EJB_requests, Percent_EJB_returns_discarded

Star schema tables: IZY Weekly Application Server Star Schema

Time column: Week

Start/End time: Current date minus 7 days (This can be changed at report run time.)

Time interval: Week

Order By: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME

Order Type: Ascending

9.7 IZY JVM Runtime Resource Model Summary

This summary report examines the minimum, maximum, average, and total values, as applicable, for all Java Virtual Machine (JVM) Runtime resource model measurements grouped by operating system, host, and application server.

Group by: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME

Aggregate function: Corresponding minimum, maximum, and average

Metric: Used_JVM_memory, Total_JVM_memory

Star schema tables: IZY Weekly Application Server Component Star Schema

Time column: Week
Start/End time: Current date minus 7 days (This can be changed at report run time.)
Time interval: Week
Order by: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME
Order type: Ascending

9.8 IZY Transaction Manager Resource Model Summary

This summary report examines the minimum, maximum, average, and total values, as applicable, for transaction manager resource model measurements grouped by operating system, host, and application server.

Group by: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME
Aggregate function: Corresponding minimum, maximum, average, or total
Metric: Transaction_response_time, Transaction_request_rate, Transaction_exceptions
Star Schema tables: IZY Weekly Application Server Component Star Schema
Time column: Week
Start/End time: Current date minus 7 days (This can be changed at report run time.)
Time interval: Week
Order by: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME
Order type: Ascending

9.9 IZY Web Application Resource Model Summary

This summary report examines the minimum, maximum, average, and total values, as applicable, for Web Application resource model measurements grouped by operating system, host, and application server.

Group by: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME
Aggregate function: Corresponding minimum, maximum, average and total
Metric: Average_servlet_response_time, Servlet_request_rate, Concurrent_servlet_requests, Servlet_error_rate
Star schema tables: IZY Weekly Application Server Star Schema
Time column: Week
Start/End time: Current date minus 7 days (This can be changed at report run time.)
Time interval: Week
Order by: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME
Order type: Ascending

9.10 IZY Servlet Session Resource Model Summary

This summary report examines the minimum, maximum, average, and total values, as applicable, for servlet session resource model measurements grouped by operating system, host, and application server.

Group by: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME
Aggregate function: corresponding minimum, maximum, or average
Metric: Live_servlet_sessions
Star schema tables: IZY Weekly Application Server Component Star Schema
Time column: Week
Start/End time: Current date minus 7 days (This can be changed at report run time.)
Time interval: Week
Order by: ADMIN_SRV_OS_TYPE, IP_HOST_NAME, APPLSRV_COMP_NAME
Order type: Ascending

This data mart provides the following prepackaged reports for WebSphere Application Server Version 3.5.x and 4.0.x. data. These reports will not function with the star schemas provided for WebSphere Application Server Version 5.x or later.

9.11 IZY V5 EJBs with the Most Hits

This extreme case report shows the top 25 IBM WebSphere Application Server Version 5 (or later) Enterprise JavaBeans (EJBs) with the highest weekly average total requests.

Group by: EJB name

Aggregate function: Maximum

Metric: EJB_request_rate (throughput: number of calls to bean's remote methods)

Star schema tables: IZY Weekly Application Server V5 Component Star Schema

Time interval: Week

Start/End time: Current date minus 7 days (This can be changed at report run time.)

Order by: Output of maximum aggregation function

Order type: Descending

9.12 IZY V5 Servlets with the Highest Response Time

This extreme report shows the top 25 WebSphere Application Server Version 5 (or later) servlets with the highest weekly average response time.

Group by: Servlet name

Aggregate function: Maximum

Metric: Average_servlet_response_time

Star schema tables: IZY Weekly Application Server V5 Subcomponent Star Schema

Time interval: Week

Start/End time: Current date minus 7 days (This can be changed at report run time.)

Order by: Output of maximum aggregation function

Order type: Descending

9.13 IZY V5 Servlets with the Most Hits

This extreme report shows the top 25 WebSphere Application Server Version 5 (or later) servlets with the highest weekly average total requests.

Group by: Servlet name

Aggregate function: Maximum

Metric: Servlet_request_rate (throughput: number of servlet requests)

Star schema tables: IZY Weekly Application Server V5 Subcomponent Star Schema

Time interval: Week

Start/End time: Current date minus 7 days (This can be changed at report run time.)

Order by: Output of maximum aggregation function

Order type: Descending

9.14 IZY V5 EJB Performance Health

This health check report compares the hourly performance (method response time), load (concurrent active), and throughput (total requests), aggregated for all WebSphere Application Server Version 5 (or later) application servers.

Group by (time unit on X-axis): Hour

Aggregate function: Average

Metric: Average_EJB_response_time, Average_concurrent_EJB_requests and EJB_request_rate

Star schema tables: IZY Hourly Application Server V5 Star Schema

Time column: Day

Start/End time: Current date minus 1 day (can be changed at report run time)

Time interval: Hour

Order by: Group by attribute

Note: The EJB_request_rate can be a very large number and the Average_EJB_response_time and Average_concurrent_EJB_requests are small numbers. Therefore, the IZY EJB Performance Health report does not scale well. This is currently a limitation in the Tivoli Enterprise Data Warehouse reporting interface.

9.15 IZY V5 Servlet Performance Health

This health check report compares the performance (servlet response time), load (concurrent requests), and throughput (servlet requests), aggregated for all WebSphere Application Server Version 5 (or later) application servers.

Group by (time unit on X-axis): Hour

Aggregate function: Average

Metric: Average_servlet_response_time, Concurrent_servlet_requests, and Servlet_request_rate

Star schema tables: IZY Hourly Application Server V5 Star Schema

Time column: Day

Start/End time: Current date minus 1 day (can be changed at report run time)

Time interval: Hour

Order by: Group by attribute

Note: The Servlet_request_rate can be a very large number and the Average_servlet_response_time and concurrent_servlet_requests are small numbers. Therefore, the IZY Servlet Performance Health report does not scale well. This is currently a limitation in the Tivoli Enterprise Data Warehouse reporting interface.

9.16 IZY V5 EJB Resource Model Summary

This summary report examines the weekly minimum, maximum, average, and total values, as applicable, for WebSphere Application Server Version 5 (or later) Enterprise JavaBean resource model measurements grouped by operating system, cell, node, and application server.

Group by: NODE_OS_TYPE, CELL_ATTR_VAL, NODE_COMP_NAME, APPLSRV_COMP_NAME

Aggregate function: Corresponding minimum, maximum, average, or total

Metric: Average_EJB_response_time, EJB_request_rate, Average_concurrent_EJB_requests, Percent_EJB_returns_discarded

Star schema tables: IZY Weekly Application Server V5 Star Schema

Time column: Week

Start/End time: Current date minus 7 days (This can be changed at report run time.)

Time interval: Week

Order by: NODE_OS_TYPE, CELL_ATTR_VAL, NODE_COMP_NAME, APPLSRV_COMP_NAME

Order type: Ascending

9.17 IZY V5 JVM Runtime Resource Model Summary

This summary report examines the weekly minimum, maximum, average, and total values, as applicable, for all WebSphere Application Server Version 5 (or later) Java Virtual Machine (JVM) Runtime resource model measurements grouped by operating system, cell, node, and application server.

Group by: NODE_OS_TYPE, CELL_ATTR_VAL, NODE_COMP_NAME, APPLSRV_COMP_NAME

Aggregate function: Corresponding minimum, maximum, and average

Metric: Used_JVM_memory, Total_JVM_memory

Star schema tables: IZY Weekly Application Server V5 Component Star Schema

Time column: Week

Start/End time: Current date minus 7 days (This can be changed at report run time.)

Time interval: Week

Order by: NODE_OS_TYPE, CELL_ATTR_VAL, NODE_COMP_NAME, APPLSRV_COMP_NAME
Order type: Ascending

9.18 IZY V5 Transaction Manager Resource Model Summary

This summary report examines the weekly minimum, maximum, average, and total values, as applicable, for WebSphere Application Server Version 5 (or later) transaction manager resource model measurements grouped by operating system, cell, node, and application server.

Group by: NODE_OS_TYPE, CELL_ATTR_VAL, NODE_COMP_NAME, APPLSRV_COMP_NAME
Aggregate function: Corresponding minimum, maximum, or average
Metric: Transaction_response_time, Transaction_request_rate, Transaction_exceptions
Star schema tables: IZY Weekly Application Server V5 Component Star Schema
Time column: Week
Start/End time: Current date minus 7 days (This can be changed at report run time.)
Time interval: Week
Order by: NODE_OS_TYPE, CELL_ATTR_VAL, NODE_COMP_NAME, APPLSRV_COMP_NAME
Order type: Ascending

9.19 IZY V5 Web Application Resource Model Summary

This summary report examines the weekly minimum, maximum, average, and total values, as applicable, for WebSphere Application Server Version 5 (or later) Web Application resource model measurements grouped by operating system, cell, node, and application server.

Group by: NODE_OS_TYPE, CELL_ATTR_VAL, NODE_COMP_NAME, APPLSRV_COMP_NAME
Aggregate function: Corresponding minimum, maximum, average or total
Metric: Average_servlet_response_time, Servlet_request_rate, Concurrent_servlet_requests, Servlet_error_rate
Star schema tables: IZY Weekly Application Server V5 Star Schema
Time column: Week
Start/End time: Current date minus 7 days (This can be changed at report run time.)
Time interval: Week
Order by: NODE_OS_TYPE, CELL_ATTR_VAL, NODE_COMP_NAME, APPLSRV_COMP_NAME
Order type: Ascending

9.20 IZY V5 Servlet Session Resource Model Summary

This summary report examines the weekly minimum, maximum, average, and total values, as applicable, for WebSphere Application Server Version 5 (or later) servlet session resource model measurements grouped by operating system, cell, node, and application server.

Group by: OS_TYPE, CELL_ATTR_VAL, NODE_NAME, APPLSRV_COMP_NAME
Aggregate function: Corresponding minimum, maximum, or average
Metric: Live_servlet_sessions
Star schema tables: IZY Weekly Application Server V5 Component Star Schema
Time column: Week
Start/End time: Current date minus 7 days (This can be changed at report run time.)
Time interval: Week
Order by: OS_TYPE, CELL_NAME, NODE_NAME, APPLSRV_COMP_NAME
Order type: Ascending

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