

HP OpenView OS/390 Management

Concepts Guide

Software Version: A.05.60

HP OpenView



Manufacturing Part Number: B9122-90017

July 2006

© Copyright 2005 Hewlett-Packard Development Company, L.P.

Legal Notices

Warranty

Hewlett-Packard makes no warranty of any kind with regard to this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be held liable for errors contained herein or direct, indirect, special, incidental or consequential damages in connection with the furnishing, performance, or use of this material.

A copy of the specific warranty terms applicable to your Hewlett-Packard product can be obtained from your local Sales and Service Office.

Restricted Rights Legend

Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause in DFARS 252.227-7013.

Hewlett-Packard Company
United States of America

Rights for non-DOD U.S. Government Departments and Agencies are as set forth in FAR 52.227-19(c)(1,2).

Copyright Notices

© Copyright 2005 Hewlett-Packard Development Company, L.P.

No part of this document may be copied, reproduced, or translated into another language without the prior written consent of Hewlett-Packard Company. The information contained in this material is subject to change without notice.

Trademark Notices

HP-UX Release 11.00 and later (in both 32 and 64-bit configurations) on all HP 9000 computers are Open Group UNIX 95 branded products.

MVS, OS/390, z/OS and VTAM are products of International Business Machines Corporation.

NetView/390 is a product of Tivoli Corporation.

OpenView® is a registered U.S. trademark of Hewlett-Packard Company.

SOLVE:NETMASTER is a product of Computer Associates International, Inc.

UNIX® is a registered trademark of the Open Group.

Java is a registered U.S. trademark of Sun Microsystems, Inc.

All other product names are the property of their respective trademark or service mark holders and are hereby acknowledged

Support

Please visit the HP OpenView web site at:

<http://www.managementsoftware.hp.com/>

This web site provides contact information and details about the products, services, and support that HP OpenView offers.

You can also go directly to the support web site at:


<http://support.openview.hp.com/>


HP OpenView online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valuable support customer, you can benefit by being able to:

- Search for knowledge documents of interest
- Submit and track progress on support cases
- Manage a support contract
- Look up HP support contacts
- Review information about available services
- Enter discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and log in. Throughout the site, access levels are indicated by the following icons:

 HP Passport

 Active contract

 Premium contract

To find more information about access levels, go to the following URL:

http://support.openview.hp.com/access_level.jsp

To register for an HP Passport ID, go to the following URL:

<https://passport.hp.com/hpp2/newuser.do>

Revision History

This manual's title page contains the following identifying information:

- Version number, which indicates the software version.
- Print date, which changes each time the document is updated.

To check for recent updates or to verify that you are using the most recent edition of a document, visit the following URL:

http://ovweb.external.hp.com/lpe/doc_serv/

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Table 1 indicates changes made to this document since the last released edition.

Table 1: Changes to This Document

Date	Description
07-July-2005	Version A.05.50

Table of Contents

Contents	7
Documentation Map.....	11
OS/390 Printed Manuals.....	11
OS/390 Online Information	11
About OV OS/390	13
What is OV OS/390?	14
What OV OS/390 Does.....	14
Benefits of OV OS/390.....	14
About OV OS/390 Architecture and Data Flow	15
Increasing Productivity.....	15
About the OV OS/390 Agent.....	17
What the OV OS/390 Agent Does.....	18
Forwarding OS/390 Messages	18
Forwarding VTAM Messages.....	18
Forwarding CNM Alerts.....	18
Forwarding DB2 Management Data.....	18
Forwarding Performance and Utilization Data	18
Forwarding WebSphere Management Data.....	19
Components of the OV OS/390 Agent	19
About the OV OS/390 Main Task.....	19
About OV OS/390 Subtasks	20
Types of Subtask Queues	20
About the TCP Subtask	20
About the CMD Subtask	21
About the MVS Subtask.....	21

About the SEC Subtask	21
About the SPO Subtask.....	21
About the CNM Subtask	22
About the PPO Subtask.....	22
About the PPI Subtask.....	22
About the PERF Subtask.....	22
About the OSINFO Subtask.....	22
About the Subtask Restart Function	22
About the OV OS/390 Server.....	23
About Server Components	24
Integrating OV OS/390 Server Components.....	25
Types of OV OS/390 Server Components	25
Managing Server Processes with vp390sv	26
About the Master Message Server (MMS).....	26
About the Command Server	26
About the Alert Server.....	26
About the Status Manager	26
About the OVO Instruction Text for Alerts.....	26
About the SNA Discovery Process.....	27
About the LLI Command Interface	27
Mapping VTAM Resources (SNA Map Application)	27
Adding a Mainframe to OVO (vp390addagt).....	27
Discovering Network Resources.....	29
Discovering Network Topology.....	30
Initiating the Discovery Process.....	30
Discovering Resources	30
Storing Information.....	30
Displaying SNA Resources	30
About the Application Group Window	30
About the OVO Root Window	32
About the OV OS/390 Domain Submap.....	32
About the Major Node Submap.....	34
About the Subordinate Resource Submap.....	35

OVO User Interface Integration	37
Types of Message Windows	38
About the Message Browser Window	38
About the Node Bank Window	39
About the Message Detail Window	40
Managing Using the Mainframe Visual Management Interface (MVMI)	41
DASD Statistics	43
Active Jobs	44
JES2 Output Queue	45
JES2 Input Queue	46
JES2 Held Queue	47
Address Space Statistics	48
System Resource Statistics	49
Collecting z/OS Performance and DASD Utilization Data	51
Reporting on Performance and DASD Utilization Data	52

Documentation Map

HP OpenView OS/390 Management (OV OS/390) provides a set of manuals that help you use the product and understand the concepts underlying the product. This section describes what information is available and where you can find it.



In addition to OS/390 documentation, related OpenView products provide a comprehensive set of manuals that help you use the products and improve your understanding of the underlying concepts.

OS/390 Printed Manuals

This section provides an overview of the printed manuals and their contents.

HP OpenView OS/390 Management Concepts Guide

Explains OV OS/390 features, functions, architecture, and data flow. Describes OV OS/390 agent and server components, process management, SNA discovery process, network topology, and message windows.

HP OpenView OS/390 Management Installation Guide

Explains how to upload OS/390 installation files from the OVO management server, update OS/390, NetView/390, and SOLVE:NETMASTER software, and start and stop OV OS/390. Also describes OS/390 console commands.

HP OpenView OS/390 Management Administrator's Reference

Explains how to install, de-install, configure, and use OV OS/390. Also includes detailed troubleshooting procedures and explanations of OS/390 system messages.

OS/390 Online Information

The following information is available online:

OV OS/390 Software Release

About OV OS/390

This chapter describes HP OpenView OS/390 Management (OV OS/390). It also provides a brief overview of its benefits, architecture, and data flow.

What is OV OS/390?

HP OpenView OS/390 Management (OV OS/390) integrates the z/OS mainframe platform into HP OpenView Operations (OVO). With the addition of OV OS/390, OVO provides you with true end-to-end management of your information technology (IT) environment, from PCs to mainframe computers.



While the product name retains the name of the former OS/390 operating system, this latest release of OV OS/390 communicates with mainframes running z/OS. Unless otherwise noted, "z/OS" can be substituted for "OS/390" in these manuals.

What OV OS/390 Does

OV OS/390 is closely integrated into the OVO management server. An OV OS/390 agent monitors the S/390 mainframe environment for important events and critical situations. These event and situation messages are communicated via TCP/IP to the OVO management server, where an appropriate automatic or operator-initiated action can be issued back to the mainframe.

Benefits of OV OS/390

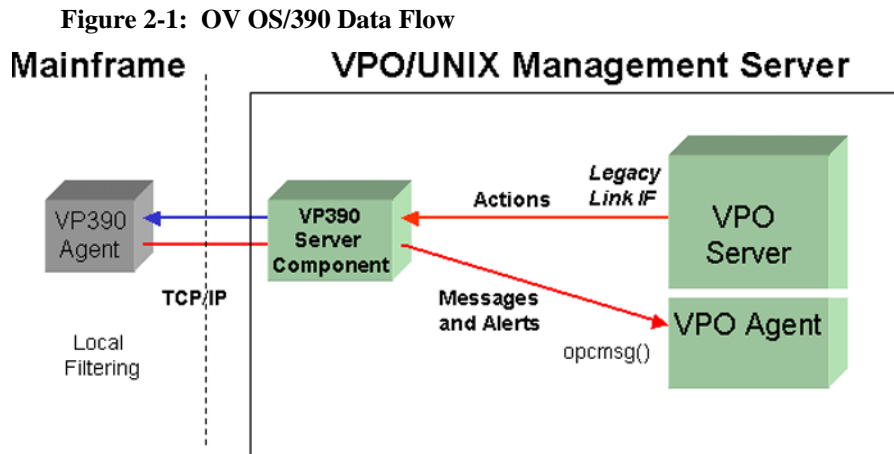
OV OS/390 provides you with the following benefits:

- **Compatibility with OS/390**
Ability to co-exist with currently installed OS/390 management solutions.
- **Health Monitoring for S/390 Systems**
Health monitors for S/390 systems and their standard business applications.
- **Consolidated Management View**
Consolidated end-to-end management view, which gives you a business-centric perspective.
- **Automatic Problem Resolution**
Two-way communication with S/390 systems to resolve problems quickly and automatically.

About OV OS/390 Architecture and Data Flow

OV OS/390 consists of two main components: the agent component that runs on the S/390 mainframe, and the server component that runs on the OVO UNIX management server. OV OS/390 differs from OVO SPIs in that message templates are not distributed to the agent. Instead, collected messages are forwarded from the agent to the OVO server and template processing is done within the agent portion on the OVO server. This pulls most of the message processing work off of the mainframe, where CPU time is a more valued resource.

Figure 2-1 shows the data flow between the S/390 mainframe and the OVO management server provided by OV OS/390.



Similar to other OVO agents, OV OS/390 enables you to respond to critical S/390 events and messages through pre-defined automatic actions and resolution instructions, or by creating trouble tickets to notify your operations staff. Messages coming from the S/390 are routed into existing OVO message groups and included in the OVO Message Browser. After a critical situation is resolved, the messages are acknowledged in OVO.

Increasing Productivity

Consolidating the management of mainframes and other systems with OVO enables you to act proactively on critical events and messages. Using this intuitive and cost-effective solution as the central end-user interface provides the basis for service level management.

About the OV OS/390 Agent

This chapter describes the agent and agent components provided with OV OS/390.

What the OV OS/390 Agent Does

The OV OS/390 agent operates as a z/OS started task. Mainframe messages are collected by the agent from several sources, outlined below. Pre-defined messages filters identify important messages that are then packaged into a common data structure and forwarded via TCP/IP to the OVO Unix Server for processing.

Forwarding OS/390 Messages

OS/390 messages can include information from the following:

- Operating System
- DB2 (Data Base 2)
- JES2 (Job Entry Subsystem 2)
- MQSeries (Message Queuing Series)
- CICS (Customer Information Central System) utilizing an OV OS/390 exit program in the CICS address space
- WebSphere

Forwarding VTAM Messages

The z/OS network task, VTAM, issues messages regarding the mainframe SNA network. The OV OS/390 agent collects these VTAM messages through the VTAM PPO interface (see “About the PPO Subtask”).

Forwarding CNM Alerts

Mainframe-connected devices may issue hardware-generated alerts (comparable to SNMP alarms). The OV OS/390 agent collects these alerts through the VTAM task’s CNM interface (see “About the CNM Subtask”).

Forwarding DB2 Management Data

OV OS/390 provides the ability to monitor DB2 messages that are sent to the OS/390 system console, including additions to the default templates for monitoring critical DB2 messages and processes.

Forwarding Performance and Utilization Data

OV OS/390 performance and resource utilization data is provided by a command interface to the OV OS/390 agent to retrieve direct access storage devices (DASD) utilization statistics. An interface to the IBM Resource Monitoring Facility (RMF) is provided to collect and forward performance information to the OVO Server and OV Performance Agent.

Forwarding WebSphere Management Data

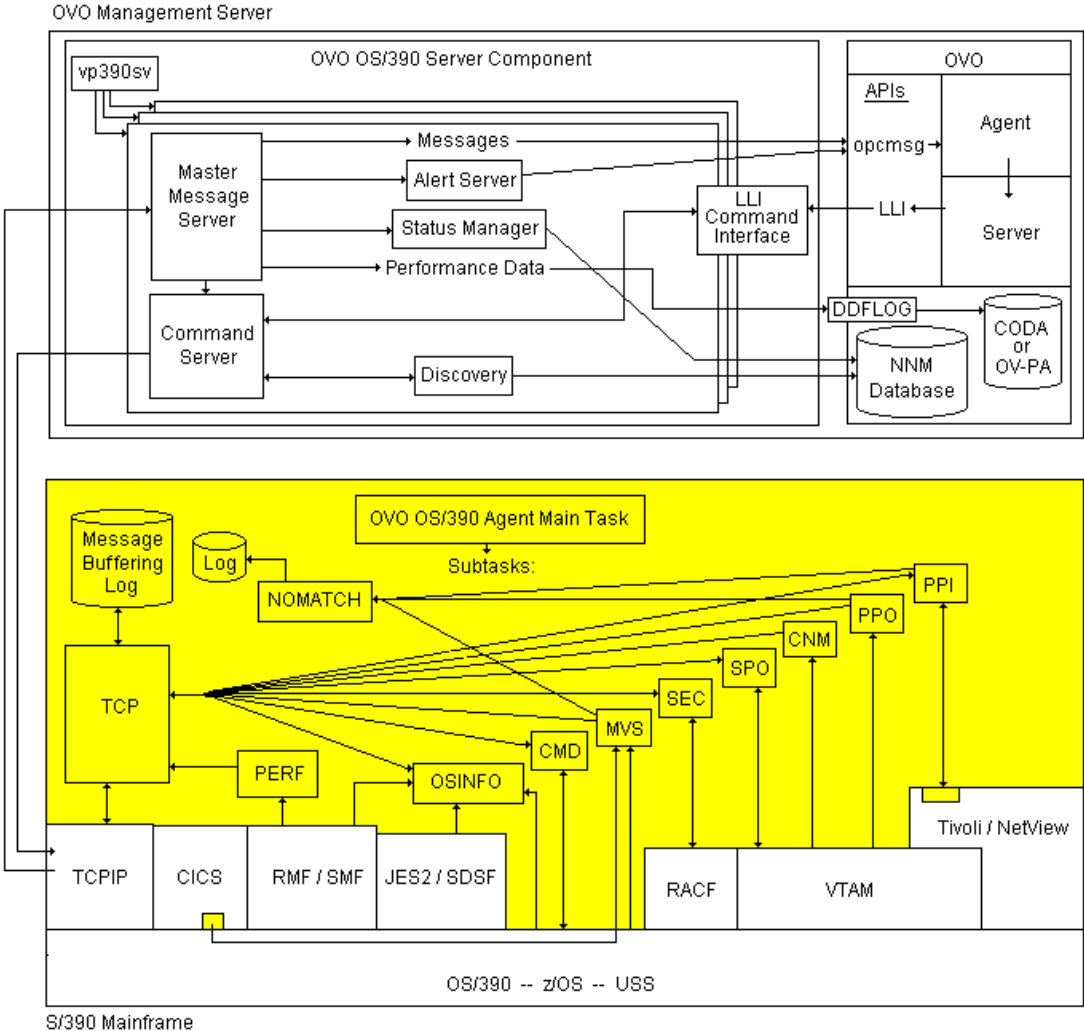
OV OS/390 provides the ability to monitor WebSphere messages that are sent to the OS/390 system console. Included are additions to the default templates for monitoring critical WebSphere messages and processes.

Components of the OV OS/390 Agent

In the OV OS/390 agent, the main task activates several subtasks that interact with the various mainframe message sources. Collected messages are transferred to the TCP subtask, which is responsible for forwarding the information to the OV OS/390 component on the OVO Server.

Figure 3-1 highlights the components of the OV OS/390 agent.

Figure 3-1: OV OS/390 Agent Components



About the OV OS/390 Main Task

The OV OS/390 agent executes as a started task or batch job on the mainframe system. The Job Control Language (JCL) starts the main task program. The main task program opens and reads initialization cards from System Input (SYSIN), which specifies the subtasks to be started. As the cards are processed, a set of interprocess communication queues is set up in storage to be shared by the main task and all subtasks. All communication between tasks within the OV OS/390 agent is accomplished by these queues. After SYSIN card processing is complete, the OV OS/390 agent main task routes messages between the subtask queues and processes maintenance (Modify) commands from the z/OS console operator.

About OV OS/390 Subtasks

The OV OS/390 agent subtasks collectively provide all the necessary communications and system interfaces. Each of the subtasks are dedicated to a particular interface function and communicates with other subtasks using the OV OS/390 agent interprocess communications queues.

Types of Subtask Queues

Each subtask uses the following two queues:

- **Subtask Input Queue**

Queue used for messages destined for processing in the subtask interface. These messages can be commands for execution or messages to be transmitted to the OV OS/390 server component.

- **Subtask Output Queue**

Queue used for messages that are the result of subtask processing. Messages from this queue are routed by the main task to other subtasks for processing.

About the TCP Subtask

The TCP/IP (TCP) subtask is an executable that requests the opening of two TCP/IP ports from the TCP/IP address space on the mainframe, then waits for the OV OS/390 server component to start communication with the OV OS/390 agent mainframe component through these ports. The TCP subtask accepts commands from the OV OS/390 server component, routes them to the appropriate subtask for execution, and sends the replies back to the OVO server component over a TCP/IP port.

As a rule, you must have one TCP subtask defined for each OV OS/390 server component that will be connecting to the mainframe through TCP/IP.

Optionally, the TCP subtask will write messages to buffering datasets if the connection to the OVO server is lost. When communication is re-established, the stored messages will be forwarded to the server.

About the CMD Subtask

The Command (CMD) subtask is an executable that does the following:

1. Establishes an extended Multiple Console Support (MCS) console for OV OS/390.
2. Receives z/OS commands (for example, Modify) from the OV OS/390 server components.
3. Sends the commands to the defined console.
4. Receives the response messages from z/OS.
5. Sends the responses back to the OV OS/390 server component that initiated the command.

About the MVS Subtask

The MVS Messages (MVS) subtask is an executable that does the following:

1. Establishes an extended MCS console for OV OS/390.
2. Receives z/OS messages.
3. Forwards messages to all active OV OS/390 server components.

About the SEC Subtask

The Security Access (SEC) subtask is an executable that issues user ID and password requests to the mainframe security product.

The OV OS/390 agent has been tested with the following software products:

- RACF (IBM Resource Access Control Facility)
- ACF2 (Computer Associates Advanced Communications Functions 2)

The SEC subtask accepts user IDs, passwords, and (optionally) new passwords to be sent to RACF or ACF2 for verification. It also sends one of several return codes back to the requesting OV OS/390 server component subtask based on the response from RACF or ACF2.

About the SPO Subtask

The Secondary Program Operator (SPO) subtask is an executable that does the following:

1. Initializes a SPO Active Control Block (ACB) to VTAM.
2. Receives VTAM commands (for example, Vary or Display) from OV OS/390 server component subtasks.
3. Sends the commands to VTAM over the SPO.
4. Receives the response messages from VTAM.
5. Sends response messages back to the OV OS/390 server component subtask that initiated the command.

If several commands arrive at nearly the same time from different OVO operators, the OV OS/390 agent allows for multiple SPO subtasks to distribute the work.

About the CNM Subtask

The Communications Network Monitoring (CNM) subtask is an executable that initializes a CNM ACB to VTAM. This initialization enables the ACB to receive unsolicited hardware alerts from VTAM. The CNM subtask passes these alerts in their raw hexadecimal format on to all active OV OS/390 server component subtasks.

Because VTAM allows only one application on the system to act as the CNM receiver, you should define the CNM subtask only if the system does *not* have NetView/390 or SOLVE:NETMASTER running. If NetView/390 or SOLVE:NETMASTER is present, use the PPI subtask instead.

About the PPO Subtask

The Primary Program Operator (PPO) subtask is an executable that initializes a PPO ACB to VTAM. This initialization enables the ACB to receive unsolicited messages from VTAM, most importantly messages about status changes of VTAM resources. The PPO subtask forwards these messages to all active OV OS/390 server subtasks.

Because VTAM allows only one application on the system to act as the PPO receiver, you should define the PPO subtask only if the system does *not* have NetView/390 or SOLVE:NETMASTER running. If NetView/390 or SOLVE:NETMASTER is present, use the PPI subtask instead.

About the PPI Subtask

The Program-to-Program Interface (PPI) subtask is an executable that communicates with a user exit in the NetView/390 or SOLVE:NETMASTER address space. Because the NetView/390 or SOLVE:NETMASTER application controls the PPO and CNM connections to VTAM, the OV OS/390 agent requires that the exit be installed to pass on incoming VTAM information to the OV OS/390 agent. The PPI subtask then passes the VTAM message and alert data to active OV OS/390 server component subtasks.

Use the PPI subtask only if a NetView/390 or SOLVE:NETMASTER is present on the system. Otherwise, use the PPO and CNM subtasks.

About the PERF Subtask

The Performance subtask (PERF) uses an API into IBM's Resource Monitoring Facility (RMF) to collect a wide range of data regarding the mainframe and jobs running on it. The PERF subtask solicits the RMF information on a user-defined time interval, and forwards the collected information to the OpenView performance sub-agent (CODA) or the OpenView Performance Agent (OVPA).

About the OSINFO Subtask

The Operating System Information subtask (OSINFO) collects on-demand information about the mainframe system its active address spaces, DASD statistics, memory usage, and submitted jobs. These data can be requested at any time using a command script on the OVO management server to allow users to develop customized queries about the status of the mainframe.

About the Subtask Restart Function

As an extension to the OVO main task, the OV OS/390 agent has a subtask restart function that automatically restarts the mainframe subtasks when communication is lost from the host. This restart function eliminates the need to restart the entire OV OS/390 agent address space.

About the OV OS/390 Server

This chapter describes the server components and process management provided by HP OpenView OS/390 Management (OV OS/390).

About Server Components

Figure 4-1 shows the HP OpenView OS/390 Management (OV OS/390) server components running on the HP OpenView Operations (OVO) for UNIX management server.

Figure 4-1: OV OS/390 Server Components

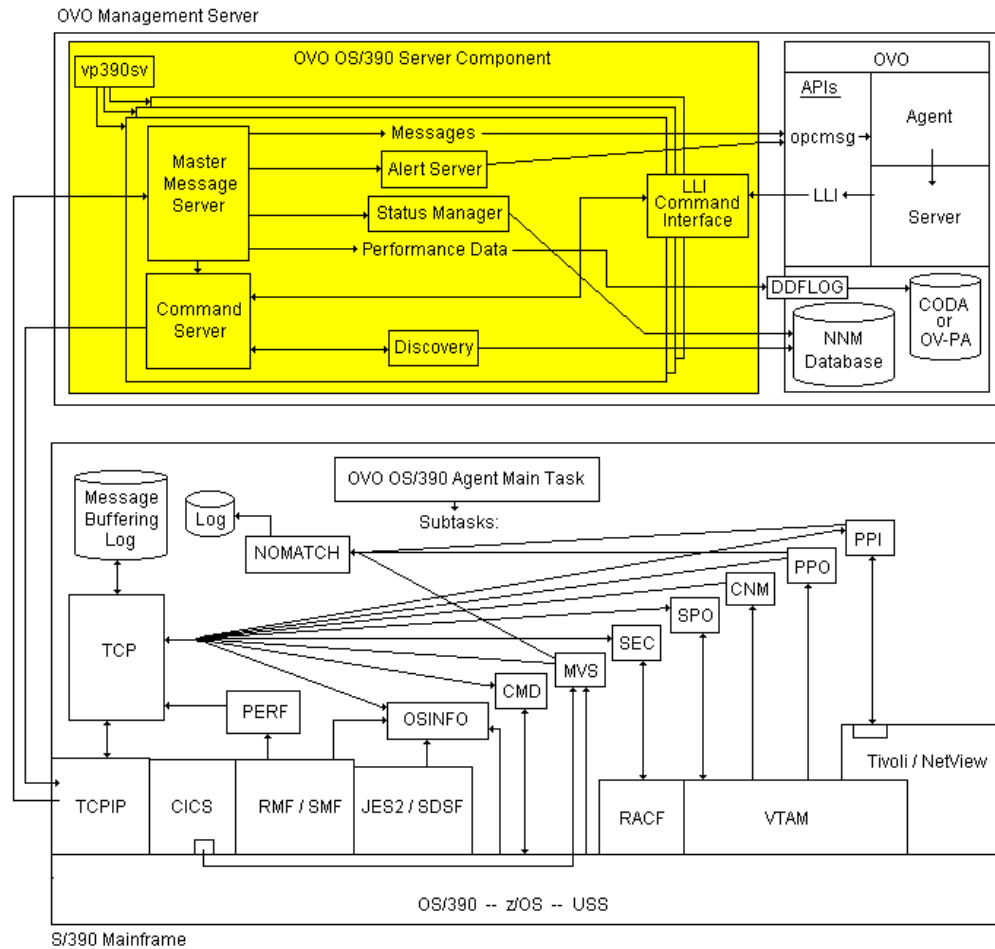
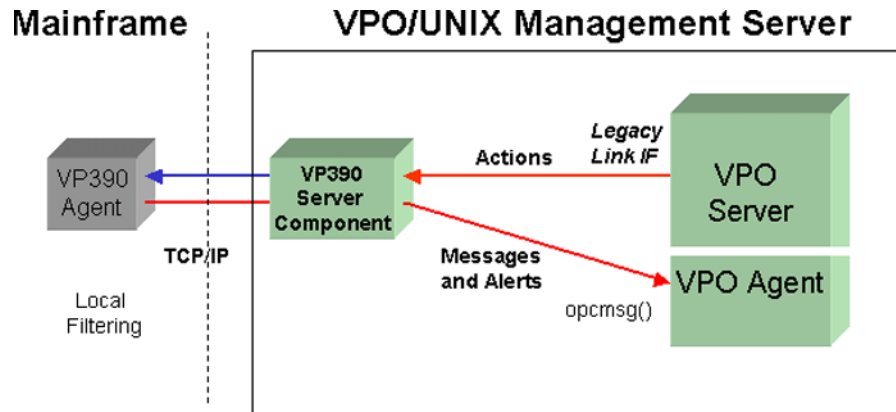


Figure 4-2 shows the data flow between the OV OS/390 managed node and the UNIX management server.

Figure 4-2: Data Flow Between OV OS/390 Manage Node and OVO Management Server



Integrating OV OS/390 Server Components

The OV OS/390 server components are integrated into OVO through the following:

- ovstart and ovstop commands
- opcmsg application program interface (API)
- Legacy Link Interface (LLI) API
- Motif and JAVA graphical user interface (GUI)
- Service Navigator “XML” mapping

The OV OS/390 Command Interface and Command Server components use opcmsg and LLI APIs to enable automatic and operator-initiated actions. These actions are based on recommended responses received from customized OVO templates on the management server. The OV OS/390 server components use the OpenView Motif operator console to graphically display discovered System Network Architecture (SNA) resources and topology.

Types of OV OS/390 Server Components

For each mainframe computer monitored and controlled by OVO, there are four server components:

- Master Message Server (MMS)
For details, see “About the Master Message Server” below.
- Command Server
For details, see “About the Command Server” below.
- Alert Server
For details, see “About the Alert Server” below.
- Status Manager

For details, see “About the Status Manager” below

You must install these OV OS/390 server components before you install the OV OS/390 mainframe agent.

Managing Server Processes with vp390sv

To ensure that the OpenView software and the OV OS/390 components of the OVO management server start up and shut down in the appropriate sequence, the OV OS/390 process management program (vp390sv) is registered in the HP-UX boot process. The vp390sv program may also be run from the Unix command line at any time with parameters to start, stop, or check the status of the OV OS/390 processes of a particular mainframe agent.

About the Master Message Server (MMS)

The Master Message Server (MMS) is the primary server process for OV OS/390 on the OVO management server. All incoming mainframe messages and performance data comes through the MMS, and is then forwarded to the OVO agents, as well as the OV OS/390 Alert Server, Status Manager, and to Dynamic Data Feed (DDF) log for Common Observation Distributed Agent (CODA) or OVPA.

About the Command Server

The Command Server forwards OVO server action requests through the LLI API and command interface to the S/390 mainframe for execution, then delivers the responses back to OVO.

About the Alert Server

The Alert Server process receives SNA hardware and software alerts from the Master Message Server (MMS), and analyzes the alerts to determine the originator and alert description. The Alert Server then forwards the alerts to OVO, where the original alert data is stored in the Original Message Text field.

About the Status Manager

The Status Manager receives status messages generated by the mainframe VTAM program. The Status Manager updates mainframe resource icons in the SNA network map.

About the OVO Instruction Text for Alerts

The OVO Instruction Text interface is used to display the translation of SNA alerts. Instruction text for alerts consists of a text translation of the alert's binary code points, which may include an alert description, probable causes, and operator actions.

About the SNA Discovery Process

The OV OS/390 SNA Discovery process issues commands on S/390 mainframe computers to discover VTAM resources. Discovered resources are stored in the OpenView object database (ovwdb). These discovered resources are sent to the SNA Map Application.

About the LLI Command Interface

The OV OS/390 Legacy Link Interface (LLI) communicates with the OVO LLI and the Command Server to send native mainframe commands and receive responses.

Mapping VTAM Resources (SNA Map Application)

The SNA Map Application builds a hierarchical map of OS/390 VTAM resources from database objects created by the SNA Discovery process. The SNA Map Application creates icons to represent each object in the SNA hierarchy. It then sets the status of each object with OVO Server Components.

Adding a Mainframe to OVO (vp390addagt)

The vp390390addagt program adds a new mainframe node to be monitored by OVO. After you enter some identifying information about the mainframe, vp390addagt adds the mainframe to the OVO Node Bank, and places it in the mainframe Node Group.

Discovering Network Resources

This chapter describes how to discover mainframe network topology and graphically display System Network Architecture (SNA) resources and their status with OV OS/390.

Discovering Network Topology

OV OS/390 provides a discovery process for building a hierarchical map of OS/390 Virtual Telecommunications Access Method (VTAM) resources. Specific VTAM resource types are represented in the hierarchical map by different icons.

Initiating the Discovery Process

The OS/390 VTAM resources discovery process is initiated by the OVO administrator or authorized operator by dragging and dropping icons in the hierarchical map with the Discovery application, which is located in the VP390 Tools folder of the Application Bank.

Discovering Resources

The Discovery application discovers major nodes and physical units (PUs) of a selected S/390 domain. Optionally, you can use the application to discover the logical units (LUs) the domain. You choose these optional LU resources when you create the mainframe node with the Add 390 Node application.

Storing Information

Information about discovered resources is maintained in the OpenView object database.

Displaying SNA Resources

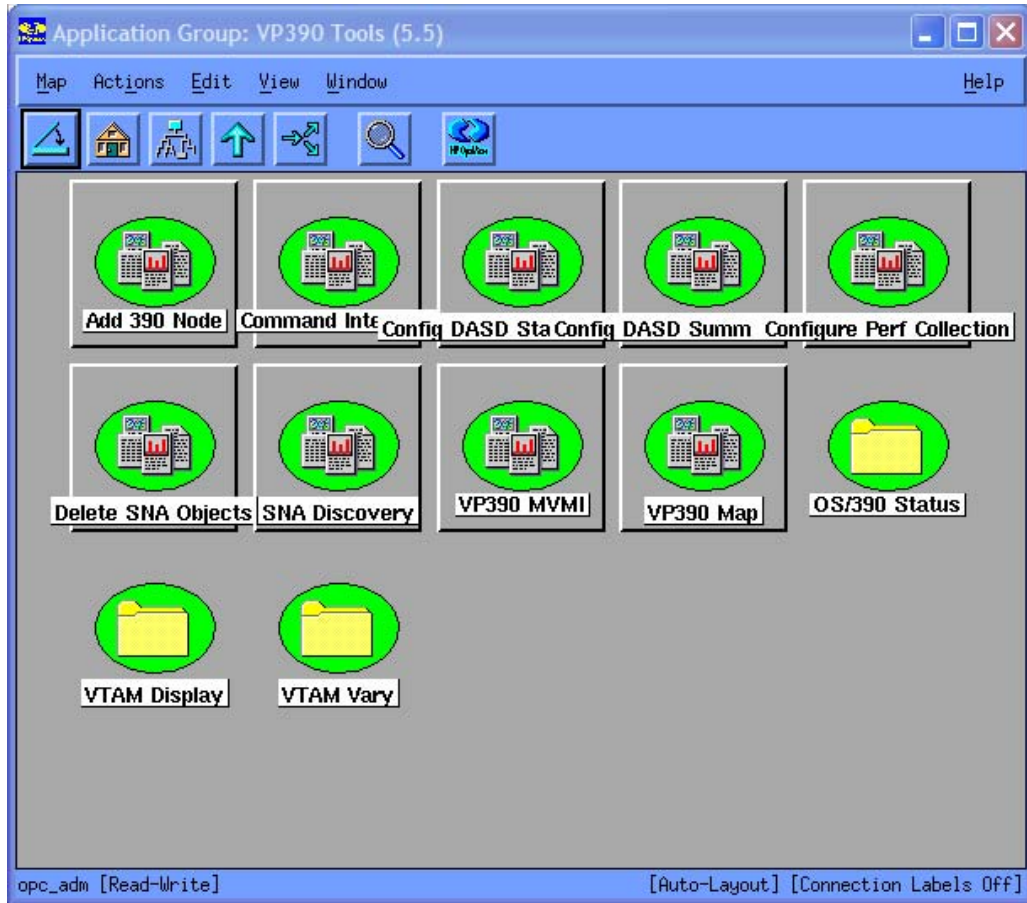
To provide a graphical hierarchical view of discovered resources, you can assign the VP390 Map application, located in the VP390 Tools application folder, to operators. The Status Manager monitors status changes, which it indicates with icons representing the VTAM resources on the VP390SNA submap. Operators can select VTAM resource icons from the appropriate submap, and use them to execute actions on the selected resources.

About the Application Group Window

The VP390 Tools Application Group contains a logical grouping of applications that can be assigned to individual OVO operators to help monitor and manage the S/390 mainframe environment. For specific actions that can be performed this window, see the *OV OS/390 Administrator's Reference*.

Figure 5-1 shows the Application Group: VP390 Tools window.

Figure 5-1: OV OS/390 Application Group: VP390 Tools Window



About the OVO Root Window

Figure 5-2 shows the OVO Root window following a discovery.

Figure 5-2: OVO Root Window Following a Discovery

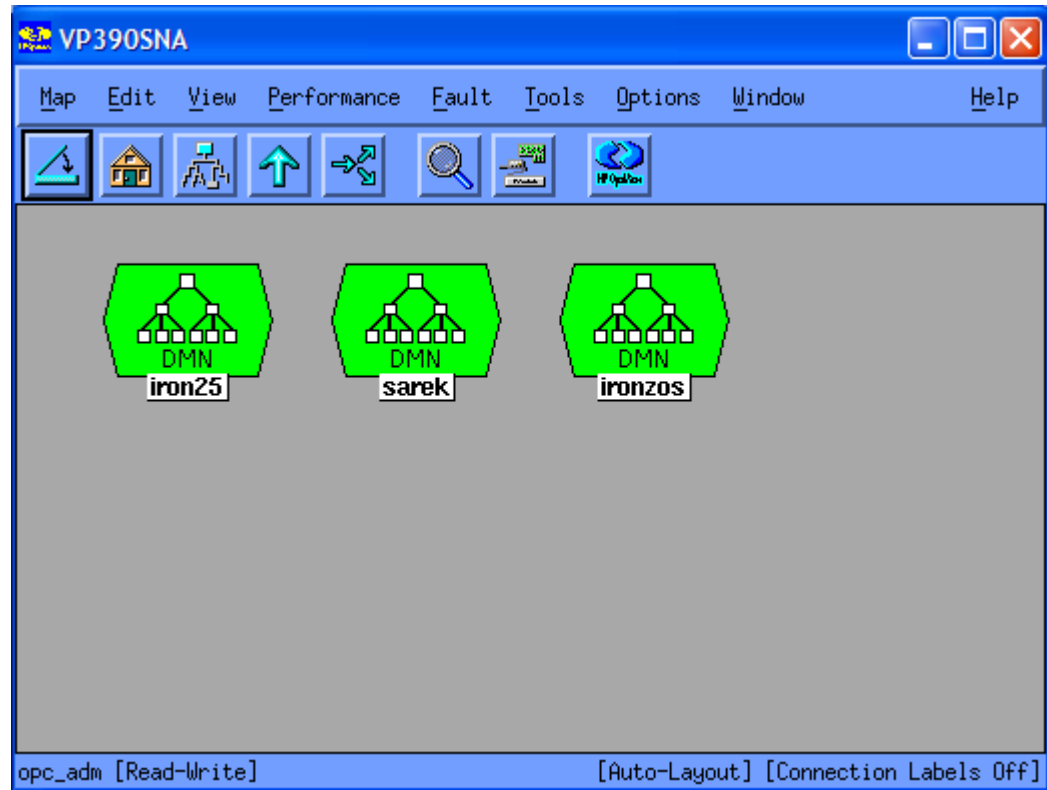


About the OV OS/390 Domain Submap

The VP390SNA Domain submap contains an icon for each S/390 domain defined and discovered by the OV OS/390 Discovery process (see “Discovering Network Topology” on page 28).

Figure 5-3 shows the VP390SNA Domain submap.

Figure 5-3: VP390SNA Domain Submap

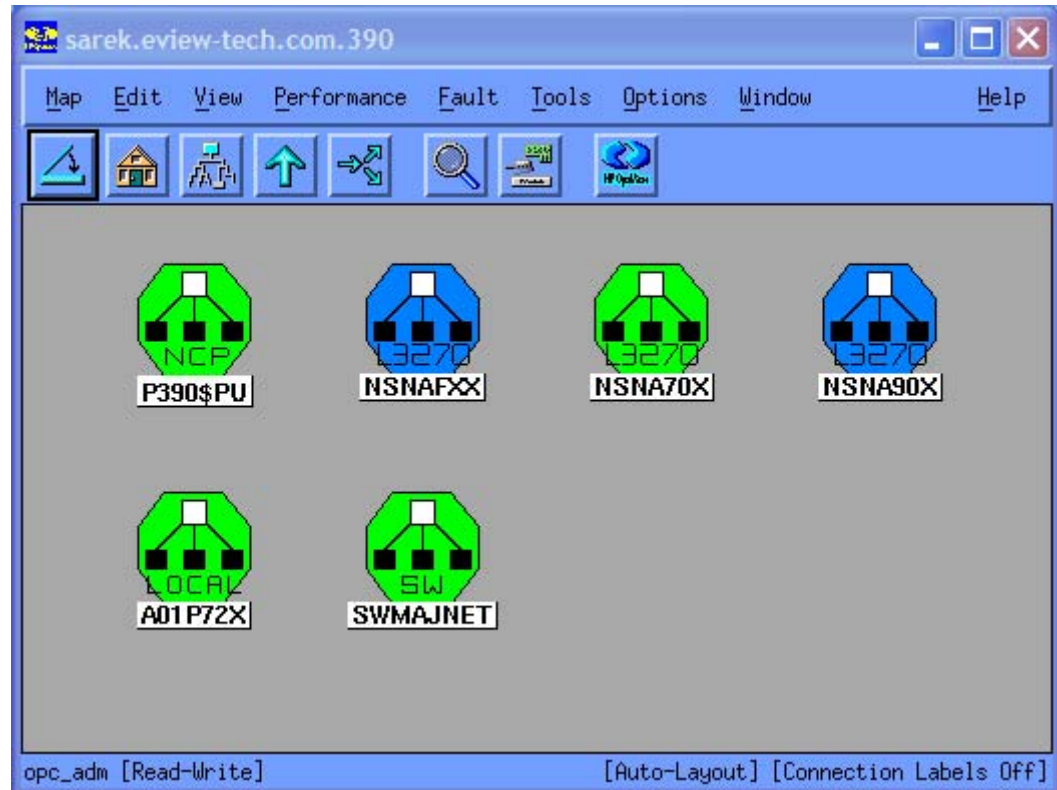


About the Major Node Submap

The OV OS/390 Major Node submap graphically displays the major VTAM nodes associated with the domain you selected in the discover process.

Figure 5-4 shows the Major Node submap.

Figure 5-4: OV OS/390 Major Node Submap

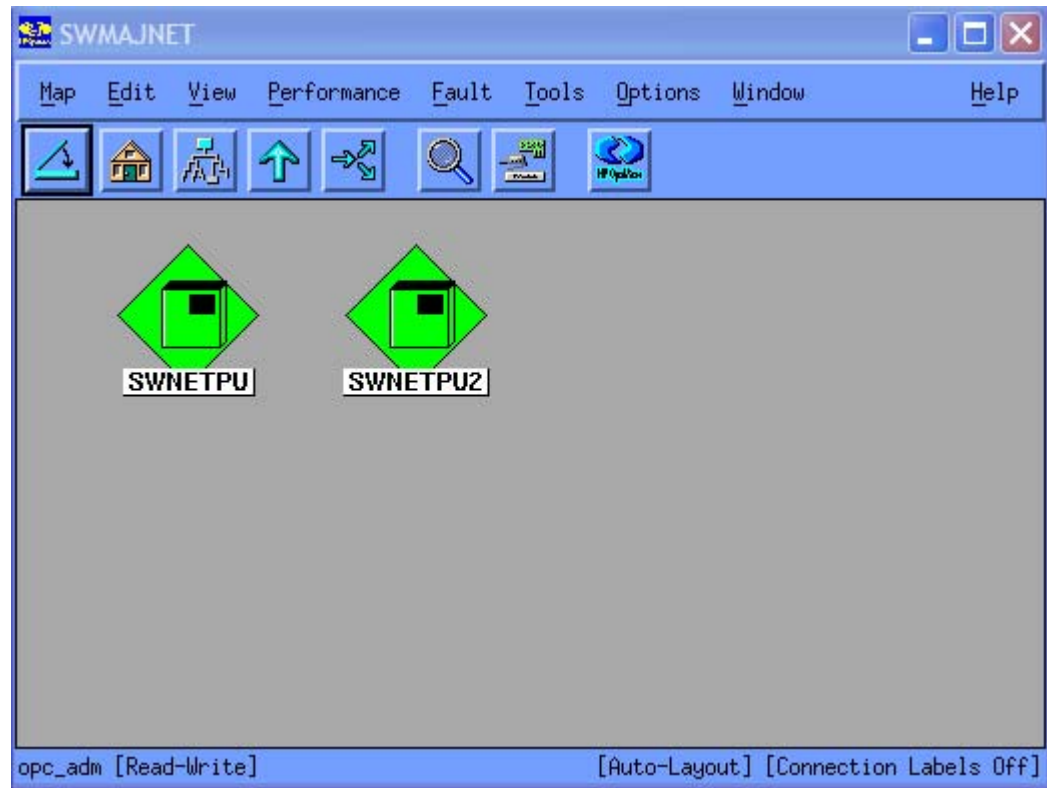


About the Subordinate Resource Submap

The OV OS/390 Subordinate Resource submap displays all known physical units (PUs) and, optionally, logical units (LUs) associated with the physical units you discovered in the discovery process.

Figure 5-5 shows the Subordinate Resource submap.

Figure 5-5: OV OS/390 Subordinate Resource Submap



OVO User Interface Integration

This chapter illustrates how OV OS/390 information is seamlessly integrated into existing OVO displays.

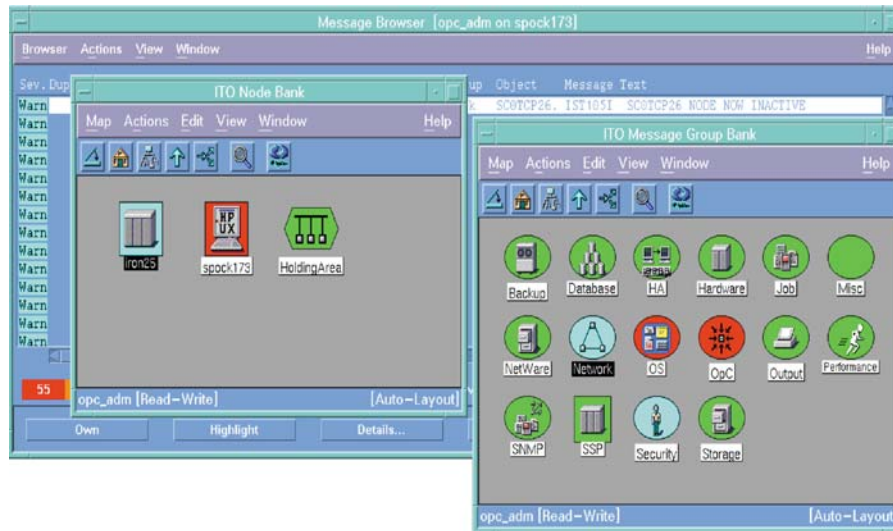
Types of Message Windows

OV OS/390 installation provides instant integration with existing OVO windows:

- Node Bank
- Message Browser
- Message Detail

Figure 6-1 shows how you can use these windows for a consolidated management view of application and system messages across your S/390 mainframe environment.

Figure 6-1: Consolidated View of Application and System Messages

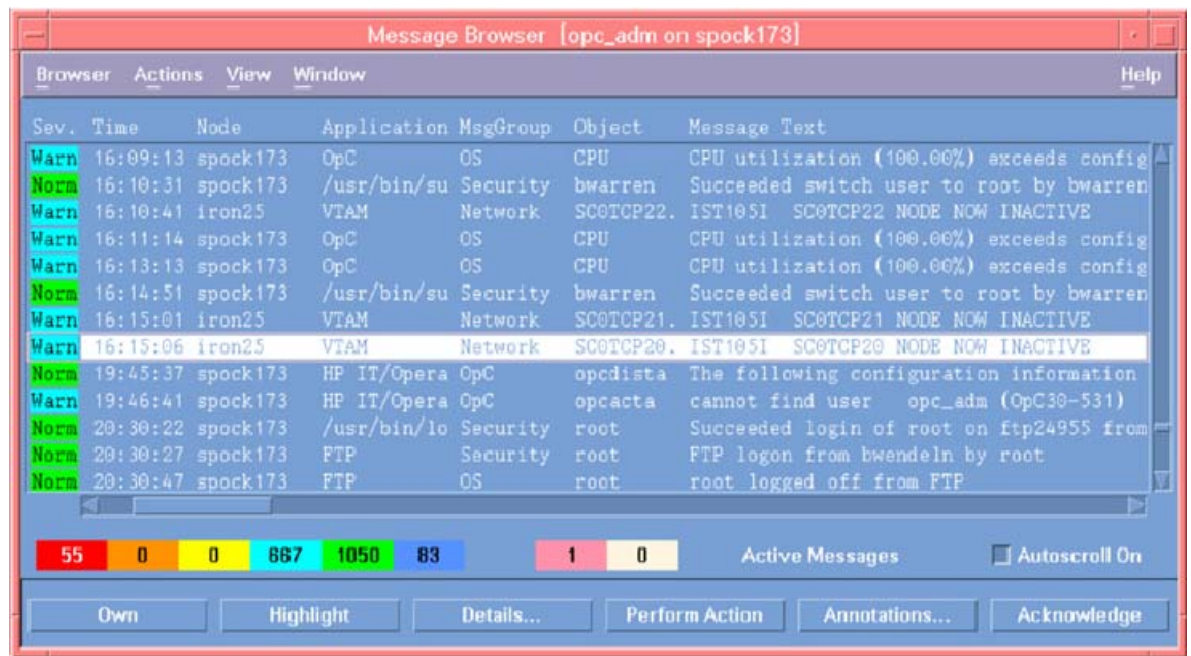


About the Message Browser Window

The Message Browser window is a central information component of OVO. This window lists all events for which an individual OVO operator is responsible. It is also a point of control for all operator actions.

Figure 6-2 shows a Message Browser window with mainframe messages supplied by OV OS/390.

Figure 6-2: Message Browser Window

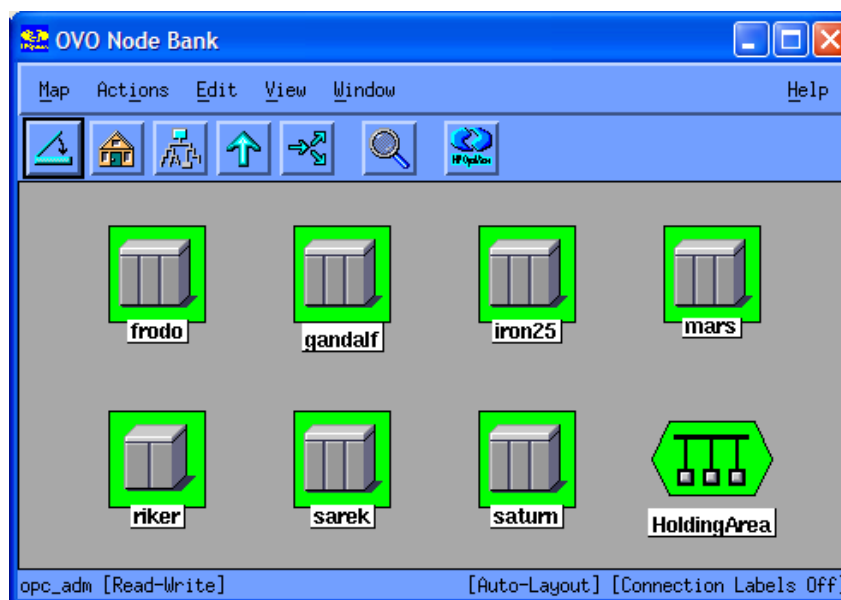


About the Node Bank Window

The Node Bank window shows all nodes for which an individual OVO operator is responsible. It also provides an overview of node hierarchies for larger message environments. Like the Message Browser window, the Node Bank window provides color-coded status information. OV OS/390 adds a node for each monitored mainframe LPAR.

Figure 6-3 shows the Node Bank window with an S/390 mainframe node defined.

Figure 6-3: Node Bank Window

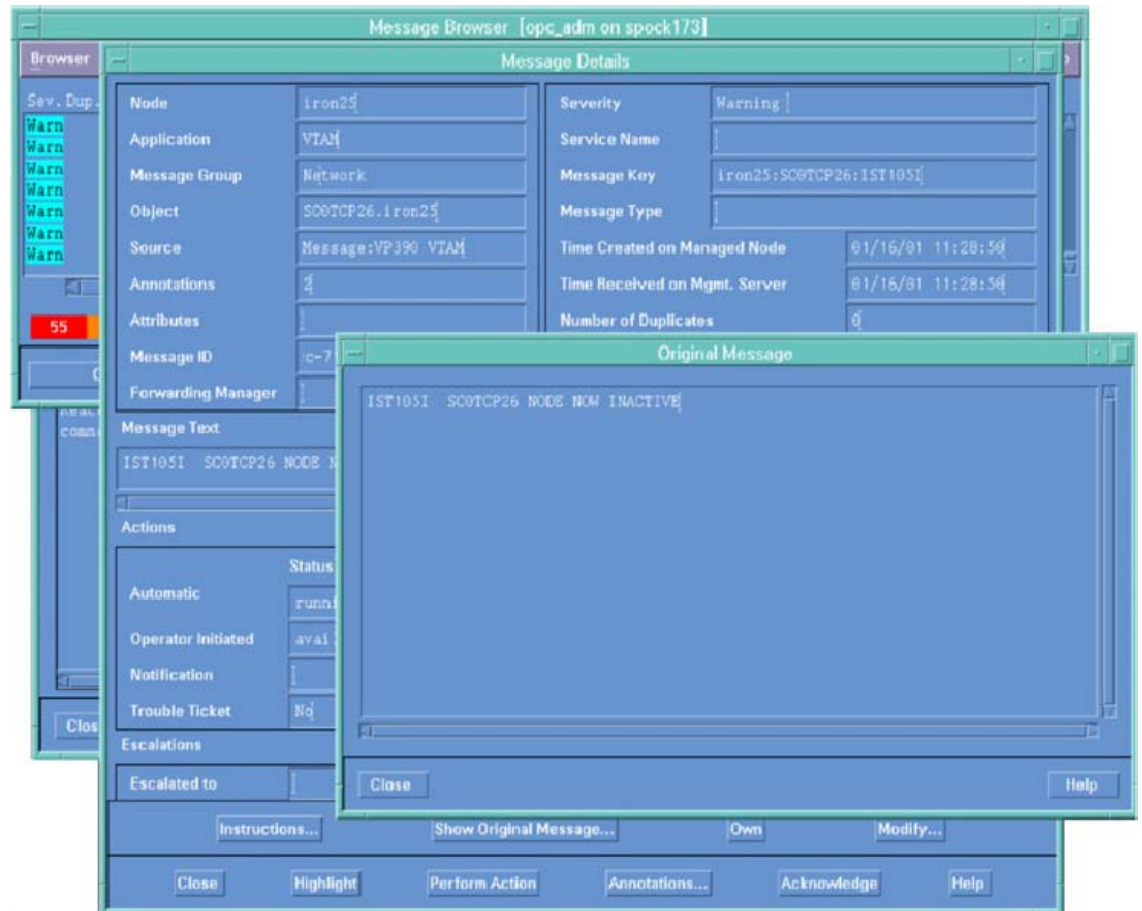


About the Message Detail Window

The Message Detail window shows detailed information about all message attributes. It also provides full access to all actions, annotations, escalations, and other activities associate with application and system messages.

Figure 6-4 shows the Message Detail window for a mainframe message received via OV OS/390.

Figure 6-4: Message Detail Window

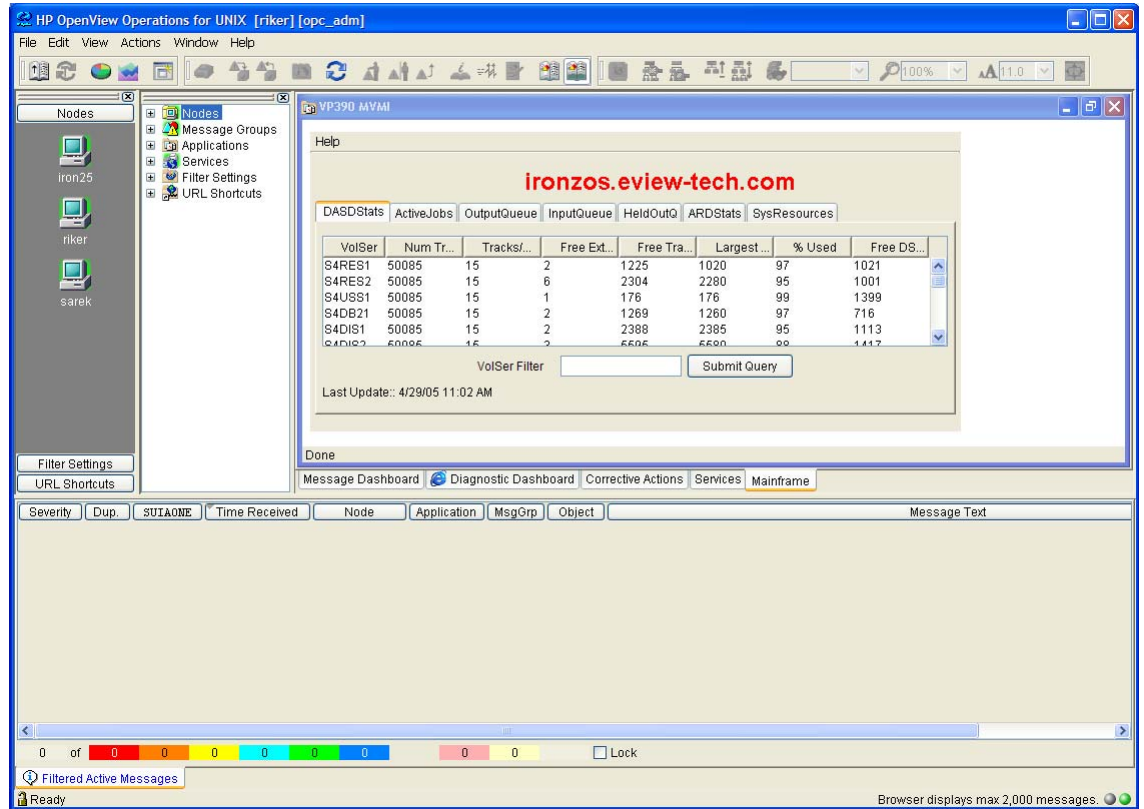


Managing Using the Mainframe Visual Management Interface (MVMI)

OV OS/390 integrates with the OpenView Operations Java console. The OV OS/390 Mainframe Visual Management Interface (MVMI) is a Java applet that provides an interactive tool in which the operator can view and manipulate the following:

- JES2 Held, Input, and Output queues
- Direct Access Storage Device (DASD) information
- Active Jobs
- Address Space Performance data
- System Resource statistics

Figure 7-1: OVO Java console with OV OS/390 Mainframe Visual Management Interface



DASD Statistics

The DASD Statistics display enables the operator to monitor online DASD volumes. This display provides information about DASD capacity, utilization and VTOC (Volume Table of Contents) usage.

From the DASD Statistics window, the operator may provide a filter to display a subset of online DASD volumes.

Figure 7-2: DASD Statistics Window

Help

ironzos.eview-tech.com

DASDStats ActiveJobs OutputQueue InputQueue HeldOutQ ARDStats SysResources

VolSer	Num Tr...	Tracks/...	Free Ext...	Free Tra...	Largest ...	% Used	Free DS...
S4RES1	50085	15	2	1225	1020	97	1021
S4RES2	50085	15	6	2304	2280	95	1001
S4USS1	50085	15	1	176	176	99	1399
S4DB21	50085	15	2	1269	1260	97	716
S4DIS1	50085	15	2	2388	2385	95	1113
S4DIS2	50085	15	2	5595	5590	99	1417

VolSer Filter

Last Update:: 4/29/05 11:02 AM

Active Jobs

The Active Jobs display enables the operator to monitor jobs that are currently active on the selected z/OS system. The process gathers information on the active jobs such as jobname, stepname, and performance group.

From the Active Jobs window, the operator may cancel active jobs or adjust the jobs' performance by changing the current performance group.

Figure 7-3 shows an Active Jobs display with mainframe information supplied by OV OS/390.

Figure 7-3: Active Jobs Display

The screenshot shows a web-based interface for monitoring active jobs. At the top, there is a navigation bar with tabs: DASDStats, ActiveJobs (selected), OutputQueue, InputQueue, HeldOutQ, ARDStats, and SysResources. Below the tabs is a table with the following columns: Job N..., Step ..., Proc S..., JobID, Owner, Status, PGN, Disp P..., and Real. The table contains four rows of data:

Job N...	Step ...	Proc S...	JobID	Owner	Status	PGN	Disp P...	Real
JES2AUX	JES2AUX				N/S	0	FE	39
VMCF	VMCF	IEFPROC			N/S	0	FE	35
BPXOINIT	BPXOINIT	BPXOINIT			N/S	0	FF	57
FTPD1	STEP1		STC00780	FTPD	OUT	0	FF	141

Below the table, there is a "JobName Prefix" input field, a "Submit Query" button, a "Cancel" button, and a "Cancel/Dump" button. At the bottom, there is a "Last Update: 4/29/05 11:06 AM" timestamp and a "Search in the sorted column" input field.

JES2 Output Queue

The Output Queue display enables the operator to view a list of jobs awaiting output. Output information such as destination, number of records, and creation date is displayed in the window.

From the Output Queue window the operator can purge, hold, release or change priority of jobs.

Figure 7-4: JES2 Output Queue

The screenshot shows a web-based interface for managing JES2 jobs. At the top, there is a 'Help' link and the URL 'ironzos.eview-tech.com'. Below the URL is a navigation menu with tabs for 'DASDStats', 'ActiveJobs', 'OutputQueue' (which is selected), 'InputQueue', 'HeldOutQ', 'ARDStats', and 'SysResources'. The main area contains a table with the following data:

Job N...	Job ID	Owner	Priority	Class	Forms	Destin...	TOT-R...	CRDA...
EVOOSIM	JOB01326	NTIBJW	144	A	STD	LOCAL	6	4/14/05
EVOOSIM	JOB01326	NTIBJW	144	A	STD	LOCAL	1153	4/14/05
EWVP390	JOB01329	NTIBJW	144	A	STD	LOCAL	226	4/14/05
EWVP390	JOB01329	NTIBJW	144	A	STD	LOCAL	1342	4/14/05

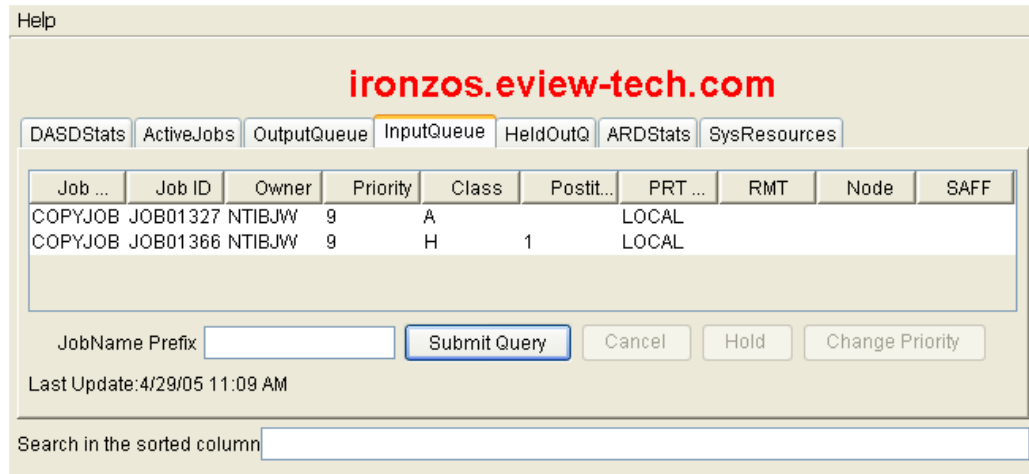
Below the table, there is a 'JobName Prefix' input field, a 'Submit Query' button, and three buttons: 'Purge', 'Hold', and 'Release'. At the bottom, there is a 'Last Update: 4/29/05 11:08 AM' timestamp and a search bar labeled 'Search in the sorted column'.

JES2 Input Queue

The Input queue display enables the operator to view a list of jobs on the input queue waiting for execution.

From the Input Queue window the operator can cancel, hold or change the priority of the waiting jobs.

Figure 7-5: JES2 Input Queue



JES2 Held Queue

The Held Queue display provides the operator with a list of jobs that have held output. Output information such as destination, number of records is provided in the display.

From the Held Queue display the operator can purge or release jobs.

Figure 7-6: JES2 Held Queue

Help

ironzos.eview-tech.com

DASDStats ActiveJobs OutputQueue InputQueue **HeldOutQ** ARDStats SysResources

Job N...	Job ID	Owner	Priority	Class	ODISP	Destin...	TOT-R...	CRDA...
NFSS	STC00052	NFSS	144	K	HOLD	LOCAL	49	8/22/04
NTIJRM	TSU00053	NTIJRM	144	K	HOLD	LOCAL	485	8/22/04
NFSC	STC00055	NFSC	144	K	HOLD	LOCAL	39	8/22/04
NTIJRM	TSU00056	NTIJRM	144	K	HOLD	LOCAL	484	8/22/04

JobName Prefix

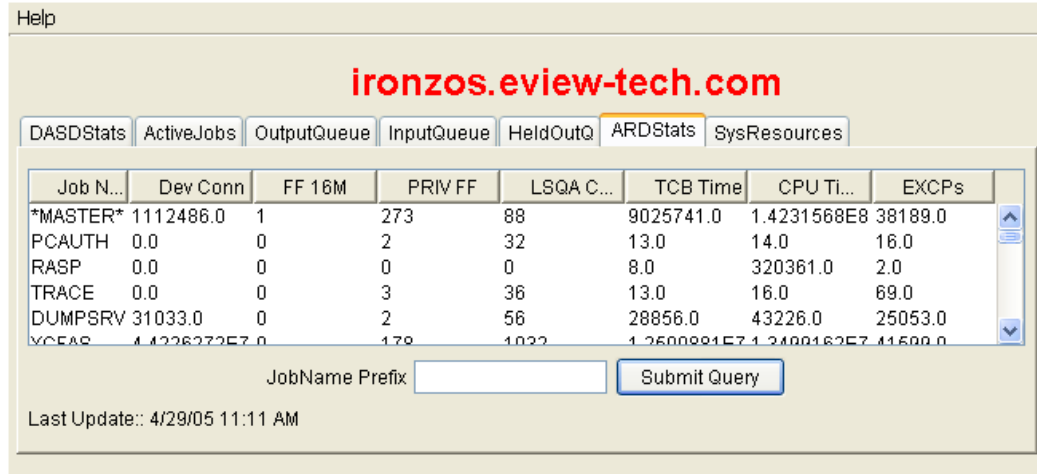
Last Update: 4/29/05 11:10 AM

Search in the sorted column

Address Space Statistics

The Address Space panel displays performance information about current address spaces on the z/OS system. Information about memory usage, CPU usage, and I/O activity is displayed for the operator.

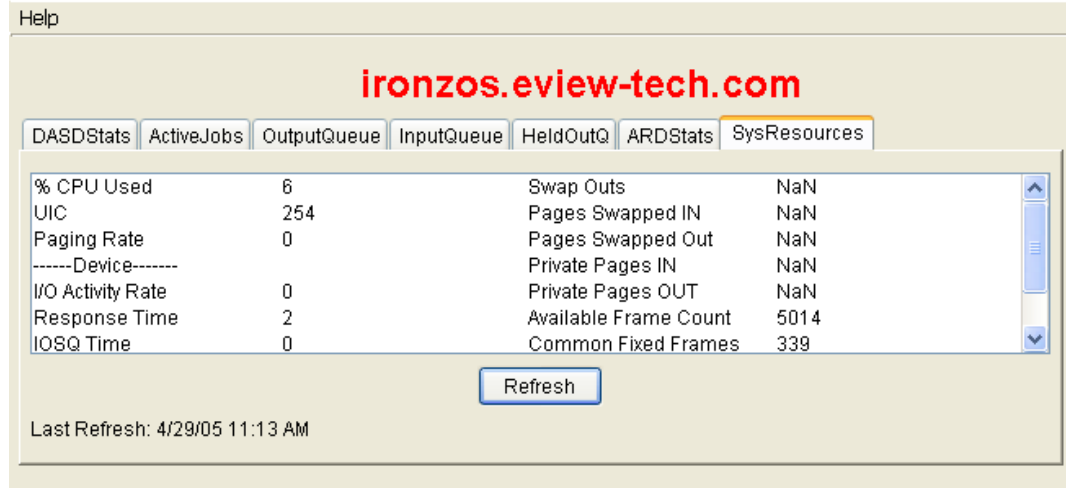
Figure 7-7: Address Space Statistics



System Resource Statistics

The System Resource Statistics displays information about current overall system performance.

Figure 7-8: System Resource Statistics



Collecting z/OS Performance and DASD Utilization Data

This chapter outlines the OV OS/390 collection of mainframe performance data and forwarding to OpenView for integration with other performance reporting tools.

Reporting on Performance and DASD Utilization Data

OV OS/390 provides the capability to collect a subset of performance data that is collected by the IBM Resource Monitor Facility (RMF) and utilization statistics for online Direct Access Storage Device (DASD) volumes.

Collected data is stored in either the OVO agent performance sub-agent (CODA) data store or in OpenView Performance Agent (OVPA) log files.

Collected data is available for reporting for using available OpenView products such as OpenView Performance Manager or OpenView Reporter.

Figure 8-1: Performance Manager

