
PeopleTools 8.60: Integration Broker Service Operations Monitor

October 2022

PeopleTools 8.60: Integration Broker Service Operations Monitor
Copyright © 1988, 2022, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, and MySQL are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <https://docs.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <https://docs.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <https://docs.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Contents

Preface: Preface.....	vii
Understanding the PeopleSoft Online Help and PeopleBooks.....	vii
Hosted PeopleSoft Online Help.....	vii
Locally Installed Help.....	vii
Downloadable PeopleBook PDF Files.....	vii
Common Help Documentation.....	vii
Field and Control Definitions.....	viii
Typographical Conventions.....	viii
ISO Country and Currency Codes.....	viii
Region and Industry Identifiers.....	ix
Translations and Embedded Help.....	ix
Using and Managing the PeopleSoft Online Help.....	x
PeopleTools Related Links.....	x
Contact Us.....	x
Follow Us.....	x
Chapter 1: Understanding the Integration Broker Service Operations Monitor.....	13
Service Operations Monitor Features.....	13
Service Operations Monitor Components.....	13
Service Operations Monitor Security.....	14
Chapter 2: Filtering Service Operation Data.....	17
Filtering Service Operation Data.....	17
Selecting Filtering Criteria.....	17
Saving Filtering Selections.....	17
Chapter 3: Monitoring Asynchronous Service Operations.....	19
Understanding Asynchronous Service Operations Statuses.....	19
Processing Statuses for Asynchronous Service Operations.....	19
Asynchronous Service Operation Status of Done with Error Link Enabled.....	21
Blocked Queues and Processing Statuses.....	22
Stalled Queues and Processing Statuses.....	22
Filtering Asynchronous Service Operation Data.....	22
Viewing Monitor Output for Asynchronous Service Operation Data.....	24
Monitoring Asynchronous Service Operation Transactions.....	26
Monitoring Asynchronous Service Operation Instances.....	27
Monitoring Publication Contracts.....	28
Monitoring Subscription Contracts.....	28
Viewing Queue Partitioning Information.....	29
Chapter 4: Viewing Asynchronous Service Operation Details.....	31
Understanding Viewing Asynchronous Service Operation Details.....	31
Common Elements Used to View Asynchronous Service Operation Details.....	31
Viewing Asynchronous Service Operation Instance Details.....	33
Viewing Asynchronous Publication Contracts Details.....	36
Viewing and Working with Publication Actions.....	36
Viewing Publication Information Details.....	36
Viewing Asynchronous Subscription Contracts Details.....	37
Viewing and Working with Subscription Actions.....	37
Viewing and Working with Subscription Information.....	38

Setting the Data Length View Limit for Displaying XML.....	38
Viewing Logical Transformation XML Output.....	39
Chapter 5: Monitoring Synchronous Service Operations.....	41
Understanding Synchronous Service Operation Statuses.....	41
Filtering Synchronous Service Operations Data.....	41
Viewing Monitor Output for Synchronous Service Operations Data.....	42
Viewing Synchronous Service Operation Transaction Information.....	42
Viewing Synchronous Service Operation General Information.....	43
Chapter 6: Viewing Synchronous Service Operation Instance Details.....	45
Viewing Synchronous Service Operation Details.....	45
Chapter 7: Viewing Integration Gateway Logging Data for Service Operations.....	49
Viewing Integration Gateway Logging Data in the Service Operations Monitor.....	49
Understanding Viewing Integration Gateway Logging Data in the Service Operations Monitor.....	49
Prerequisites for Viewing Integration Gateway Logging Data in the Service Operations Monitor.....	50
Enabling Integration Gateway Message Logging in the Service Operations Monitor.....	50
Changing the Storage Directory for Integration Gateway Transaction Logs.....	51
Viewing Integration Gateway Logging Data for Service Operation Transactions.....	52
Chapter 8: Resubmitting and Canceling Service Operations for Processing.....	55
Understanding Resubmitting and Canceling Service Operations for Processing.....	55
Understanding Resubmitting and Canceling Future-Dated Publications.....	55
Resubmitting and Canceling Individual Service Operations.....	55
Resubmitting and Canceling Service Operations in Bulk.....	55
Chapter 9: Viewing Service Operation IB Info Data.....	57
Viewing IB Info Data.....	57
Chapter 10: Viewing Service Operation Errors.....	59
Understanding Viewing Service Operation Errors.....	59
Common Elements Used to View Service Operation Errors.....	59
Viewing Asynchronous Service Operation Instance Errors.....	60
Viewing Asynchronous Publication Contract Errors.....	60
Viewing Asynchronous Subscription Contract Errors.....	60
Viewing Synchronous Service Operations Errors.....	61
Chapter 11: Viewing and Editing Service Operation XML.....	63
Understanding Viewing and Editing Service Operation XML.....	63
Asynchronous Service Operation XML.....	63
Synchronous Service Operation XML.....	63
Viewing Service Operation XML.....	64
Editing Service Operation XML.....	64
Chapter 12: Viewing Service Operation Nonrepudiation Signature Information.....	67
Understanding Viewing Service Operation Nonrepudiation Signature Information.....	67
Viewing Nonrepudiation Signatures in XML Format.....	67
Chapter 13: Running Batch Error Notification Processes.....	69
Understanding Batch Error Notification.....	69
Prerequisites for Using Batch Error Notification.....	70
Creating Static Error Notification Lists.....	71
Running Batch Error Notifications.....	71
Chapter 14: Archiving Service Operation Instances.....	73
Understanding Archiving Service Operation Instances.....	73
Archiving Service Operations.....	73
Retrieving Archived Messages.....	73

Chapter 15: Running Batch Service Operation Archiving Processes.....	75
Understanding Running Batch Service Operation Archiving Processes.....	75
Prerequisites for Running Batch Service Operation Archiving Processes.....	75
Running Batch Service Operation Archiving Processes.....	75
Chapter 16: Viewing System Performance Statistics.....	79
Understanding Messaging System Performance Statistics.....	79
Service Operation Types.....	79
Processing Components.....	79
Overhead Processing.....	80
Processing Times.....	81
Using the Statistics Pages.....	82
Enabling the System Performance Statistics Feature.....	86
Searching for System Performance Statistics.....	87
Common Elements Used to Search for System Performance Statistics.....	87
Searching for Performance Statistics.....	88
Viewing Messaging System Performance Statistics.....	88
Common Elements Used to View Messaging System Performance Statistics.....	89
Viewing Inbound Asynchronous Statistics.....	90
Viewing Outbound Asynchronous Statistics.....	93
Viewing Inbound Synchronous Service Operation Statistics.....	96
Viewing Outbound Synchronous Statistics.....	100
Purging System Performance Statistics.....	106
Chapter 17: Managing Down Nodes.....	107
Understanding Managing Down Nodes.....	107
Viewing Transaction Information for Down Nodes.....	107
Clearing Transaction Data for System Node Restart.....	108
Chapter 18: Pausing, Testing, and Pinging Nodes.....	109
Understanding Pausing Nodes.....	109
Adding Pause Times to Local Nodes.....	109
Deleting Pause Times.....	110
Testing Local Nodes.....	110
Pinging Remote Nodes.....	111
Chapter 19: Pausing and Starting Queues.....	113
Pausing Queues.....	113
Starting Queues.....	114
Chapter 20: Cleaning Up Orphaned Data From Segment Batch Processing Errors.....	115
Understanding Cleaning Up Orphaned Data from Segment Batch Process Errors.....	115
Cleaning Up Orphaned Data from Segment Batch Processing Jobs.....	115
Chapter 21: Using Custom-Defined Components to View Service Operations Data.....	117
Understanding Using Custom-Defined Components to View Service Operation Data.....	117
Specifying Service Operations to Associate to Custom-Defined Components.....	117
Associating Service Operations to Custom-Defined Components.....	117
Chapter 22: Purging Runtime Service Operations Monitor Tables.....	121
Purging Runtime Monitor Tables.....	121
Chapter 23: Using the Service Operations Monitor Component Interface.....	123
Using the Monitor Component Interface.....	123
Chapter 24: Using PeopleCode to Read and Write Errors to the Asynchronous Error Queue.....	125
Using PeopleCode Methods to Read and Write Errors to the Asynchronous Error Queue.....	125

Preface

Understanding the PeopleSoft Online Help and PeopleBooks

The PeopleSoft Online Help is a website that enables you to view all help content for PeopleSoft applications and PeopleTools. The help provides standard navigation and full-text searching, as well as context-sensitive online help for PeopleSoft users.

Hosted PeopleSoft Online Help

You can access the hosted PeopleSoft Online Help on the [Oracle Help Center](#). The hosted PeopleSoft Online Help is updated on a regular schedule, ensuring that you have access to the most current documentation. This reduces the need to view separate documentation posts for application maintenance on My Oracle Support. The hosted PeopleSoft Online Help is available in English only.

To configure the context-sensitive help for your PeopleSoft applications to use the Oracle Help Center, see [Configuring Context-Sensitive Help Using the Hosted Online Help Website](#).

Locally Installed Help

If you're setting up an on-premise PeopleSoft environment, and your organization has firewall restrictions that prevent you from using the hosted PeopleSoft Online Help, you can install the online help locally. See [Configuring Context-Sensitive Help Using a Locally Installed Online Help Website](#).

Downloadable PeopleBook PDF Files

You can access downloadable PDF versions of the help content in the traditional PeopleBook format on the [Oracle Help Center](#). The content in the PeopleBook PDFs is the same as the content in the PeopleSoft Online Help, but it has a different structure and it does not include the interactive navigation features that are available in the online help.

Common Help Documentation

Common help documentation contains information that applies to multiple applications. The two main types of common help are:

- Application Fundamentals
- Using PeopleSoft Applications

Most product families provide a set of application fundamentals help topics that discuss essential information about the setup and design of your system. This information applies to many or all applications in the PeopleSoft product family. Whether you are implementing a single application, some combination of applications within the product family, or the entire product family, you should be familiar with the contents of the appropriate application fundamentals help. They provide the starting points for fundamental implementation tasks.

In addition, the *PeopleTools: Applications User's Guide* introduces you to the various elements of the PeopleSoft Pure Internet Architecture. It also explains how to use the navigational hierarchy, components, and pages to perform basic functions as you navigate through the system. While your application or implementation may differ, the topics in this user's guide provide general information about using PeopleSoft applications.

Field and Control Definitions

PeopleSoft documentation includes definitions for most fields and controls that appear on application pages. These definitions describe how to use a field or control, where populated values come from, the effects of selecting certain values, and so on. If a field or control is not defined, then it either requires no additional explanation or is documented in a common elements section earlier in the documentation. For example, the Date field rarely requires additional explanation and may not be defined in the documentation for some pages.

Typographical Conventions

The following table describes the typographical conventions that are used in the online help.

<i>Typographical Convention</i>	<i>Description</i>
Key+Key	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For Alt+W , hold down the Alt key while you press the W key.
... (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe ().
[] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.
⇒	This continuation character has been inserted at the end of a line of code that has been wrapped at the page margin. The code should be viewed or entered as a single, continuous line of code without the continuation character.

ISO Country and Currency Codes

PeopleSoft Online Help topics use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

ISO country codes may appear as country identifiers, and ISO currency codes may appear as currency identifiers in your PeopleSoft documentation. Reference to an ISO country code in your documentation does not imply that your application includes every ISO country code. The following example is a country-specific heading: "(FRA) Hiring an Employee."

The PeopleSoft Currency Code table (CURRENCY_CD_TBL) contains sample currency code data. The Currency Code table is based on ISO Standard 4217, "Codes for the representation of currencies," and also relies on ISO country codes in the Country table (COUNTRY_TBL). The navigation to the pages where you maintain currency code and country information depends on which PeopleSoft applications you are using. To access the pages for maintaining the Currency Code and Country tables, consult the online help for your applications for more information.

Region and Industry Identifiers

Information that applies only to a specific region or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a region-specific heading: "(Latin America) Setting Up Depreciation"

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in the PeopleSoft Online Help:

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in the PeopleSoft Online Help:

- USF (U.S. Federal)
- E&G (Education and Government)

Translations and Embedded Help

PeopleSoft 9.2 software applications include translated embedded help. With the 9.2 release, PeopleSoft aligns with the other Oracle applications by focusing our translation efforts on embedded help. We are not planning to translate our traditional online help and PeopleBooks documentation. Instead we offer very direct translated help at crucial spots within our application through our embedded help widgets. Additionally, we have a one-to-one mapping of application and help translations, meaning that the software and embedded help translation footprint is identical—something we were never able to accomplish in the past.

Using and Managing the PeopleSoft Online Help

Select About This Help in the left navigation panel on any page in the PeopleSoft Online Help to see information on the following topics:

- Using the PeopleSoft Online Help.
- Managing hosted Online Help.
- Managing locally installed PeopleSoft Online Help.

PeopleTools Related Links

[PeopleTools 8.60 Home Page](#)

[PeopleSoft Search and Kibana Analytics Home Page](#)

"PeopleTools Product/Feature PeopleBook Index" (Getting Started with PeopleTools)

[PeopleSoft Online Help](#)

[PeopleSoft Information Portal](#)

[PeopleSoft Spotlight Series](#)

[PeopleSoft Training and Certification | Oracle University](#)

[My Oracle Support](#)


[Oracle Help Center](#)

Contact Us

Send your suggestions to psft-infodev_us@oracle.com.

Please include the applications update image or PeopleTools release that you're using.

Follow Us

<i>Icon</i>	<i>Link</i>
	<u>YouTube</u>

Icon	Link
	Twitter@PeopleSoft_Info.
	PeopleSoft Blogs
	LinkedIn

Chapter 1

Understanding the Integration Broker Service Operations Monitor

Service Operations Monitor Features

The Integration Broker Service Operations Monitor provides the following features:

- Status on queues, nodes, and individual service operations.
You can also view and edit service operation XML.
- Control and administration of domains that have publication and subscription (pub/sub) servers running against the current database.
Ability to activate or deactivate domains, recover from stalls, and so forth.
- Workflow notification of error messages and archival of service operations.
- Batch processes for error notification and service operation archival.

Service Operations Monitor Components

There are thirteen components associated with the Service Operations Monitor that are located within Monitor and Administration menus in the PeopleSoft Pure Internet Architecture navigation structure.

The following components are located under the Monitor menu. Access them by selecting **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring**.

<i>Term</i>	<i>Definition</i>
Asynchronous Services	Use this component to monitor asynchronous service operations and view information about service operation instances, publication contracts and subscription contracts.
Asynchronous Details	View asynchronous service operation details, including information about the service operation instance, its publication or subscription contracts, error messages, and service operation instance XML. If transformations have been applied to the service operation, you can view the transformed XML for the publication and subscription contracts.
Synchronous Services	Use this component to view synchronous service operations.

Term	Definition
Synchronous Details	View synchronous service operation details and service operation errors, and view request and response XML (before or after transformation).
Error Notification	Run batch processes to receive notification of issues affecting the messaging system.
Archive Monitor Data	Run the batch process to archive service operations.
Statistics	View runtime performance statistics for asynchronous and synchronous transactions that flow through the messaging system. View statistics in numeric or graphical format.

The following components are located under the Administration menu in the PeopleSoft Pure Internet Architecture navigation structure. Access them by selecting **PeopleTools > Integration Broker > Service Operations Monitor > Administration**.

Term	Definition
Domain Status	View and maintain domain status and activate pub/sub server domain. Use this component to also setup domain failover.
Node Status	View node status. Ping node.
Queue Status	View and maintain queue status.
Segment Cleanup	Delete orphaned data after segment batch processing errors.
User Details Component	Define a custom component to review service operation transaction details for a specific service operation.
Monitor Setup Options	Define parameters for using the system performance statistics feature and for setting the data length view limit for loading XML data into the monitor. Enable gateway logging.

Service Operations Monitor Security

This section discusses service operations monitor security.

Understanding Service Operations Monitor Security

Upon accessing the monitor, you can see a list of all transactions in the system, but to see specific information about a transaction and to view transaction details, you must have permission to the service operation.

Understanding Service Operations Monitor Security for REST Consumer Transactions

To view REST-based consumer service operation information in the Service Operation Monitor, you must set the **Log Detail** option on the routing definition to *Header and Details*, as well as set permissions to the service operation.

Related Links

["Setting Permissions to Service Operations" \(Integration Broker\)](#)

["Configuring Routing Definitions" \(Integration Broker\)](#)

Chapter 2

Filtering Service Operation Data

Filtering Service Operation Data

Before you begin monitoring the integration system, there are a few general guidelines that enable you to quickly drill down to the information you need.

When monitoring asynchronous and synchronous service operations, the Service Operations Monitor provides information about the entire integration system, you need to understand how to filter the information to reduce the number of items. For instance, rather than sifting through every service operation in the entire system, the Service Operations Monitor enables you to filter by publishing node, queue, service operation name, publish date and time, live and archived service operations, and so on.

Selecting Filtering Criteria

When you filter data in the Asynchronous Services component or the Synchronous Services component, the value you set on one page in the component is carried forward to other pages in the component.

Related Links

[Filtering Asynchronous Service Operation Data](#)

[Filtering Synchronous Service Operations Data](#)

Saving Filtering Selections

You can save your filtering options so that the next time you use it, your previous filtering choices are set automatically.

To save filtering selections:

1. Select the filtering options on one of the Asynchronous Services or Synchronous Services component pages.
2. Click **Refresh** button.

Clicking **Refresh** not only refreshes the page according to the most recent filtering selections, it also saves the most recent filtering selections to the database. The system then associates a given set of filtering selections with your user ID. The next time that you sign in and launch the Services Operation Monitor, the system displays the service operation data according to your most recent filtering selections.

Note: In situations where multiple people are signing in with the same user ID, it is possible that their changes may collide with each other if more than one is refreshing the monitor pages at the same time. In such cases the system displays the message, 'Data updated by another user.'

Chapter 3

Monitoring Asynchronous Service Operations

Understanding Asynchronous Service Operations Statuses

This section provides an overview of how to:

- Processing statuses for asynchronous service operations.
- Processing errors.
- Blocked queues and processing statuses.
- Stalled queues and processing statuses.

Processing Statuses for Asynchronous Service Operations

For asynchronous service operations, the Service Operations Monitor displays different statuses as service operations progress through the system.

The typical status progression for asynchronous service operations is:

1. *New*.
2. *Started*.
3. *Working*.
4. *Done*.

However, the Service Operations Monitor can display any of the statuses listed in the following table.

Status	Description
<i>Canceled</i> .	The item has been canceled. The system cannot process the item until you resubmit it.

Status	Description
<i>Done.</i>	<p>This status indicates different outcomes, depending on the type of process that you are monitoring.</p> <p>For operation instances this status indicates that the operation instance has completed processing and that the publication or subscription contracts have been created.</p> <p>For publication contracts this status indicates that publication contract was successfully sent to the external system. This can include publications sent using guaranteed or best effort delivery.</p> <p>For subscription contracts the status indicates that the subscription notification processed successfully.</p>
<i>Done NoAck.</i>	<p>This status appears for publication contracts sent in <i>Best Effort</i> delivery mode and indicates that the publication contact was successfully sent, but no acknowledgement was received.</p>
<i>Edited.</i>	<p>The publication data for the item has been edited. Processing does not resume until you resubmit the item.</p>
<i>Error.</i>	<p>An error occurred during processing. Manual intervention is required.</p>
<i>Hold.</i>	<p>This field is used in conjunction with message segmentation and future-dated publications.</p> <p>The status of a segmented message is <i>Hold</i> while the system is processing the segments in the message.</p> <p>The status of a future-dated publication is <i>Hold</i> until the date and time specified to process the publication is reached.</p>
<i>New.</i>	<p>Either the item has been written to the database but has not been dispatched yet, or the item has just been resubmitted.</p>
<i>Retry.</i>	<p>The system encountered an intermittent error during processing. The system retries service operations with this status automatically.</p>
<i>Started.</i>	<p>The dispatcher is in the process of passing the item to a handler, but the handler has not received it yet.</p>
<i>Submit.</i>	<p>This status indicates that a process schedule instance has been created for the transaction.</p>
<i>Timeout.</i>	<p>The system has reached the maximum retry count to send a service operation.</p>

Status	Description
<i>Working.</i>	The handler has accepted the item and is currently processing it.

Asynchronous Service Operation Status of Done with Error Link Enabled

The status for a service operation typically displays *Error* in the Service Operations Monitor when the system cannot create a publication or subscription contract or if there is some other framework error (for example a SQL error).

However, there are situations when the system displays a status of *Done* for an operation instance, publication contract, or subscription contract, yet also displays an *Error* link indicating that it encountered a problem during processing.

This can occur when:

- Attempting to publish a service operation that contains segmented messages to a node that is not segment aware.
- The routing on a publication contract is inactive.
- There is no service operation handler for a subscription contract.
- And so on.

The system sets the status for an operation instance, publication contract, or subscription contract to *Done* when it has successfully created the instance or contract. In each of the cases described in the list, the system encounters an error after it has evaluated the transaction and has successfully created the operation instance or contract. The system therefore displays an *Error* link that you can use to access the corresponding error message. The system does not send the service operation until the error is corrected.

The following table lists the pages where you can access an Error link should any of these situations occur:

Type	Error Link Location
Operation instance	Asynchronous Services – Operation Instances page. (PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Monitor Asynchronous Services and click the Operation Instances tab.)
Publication contract	Asynchronous Details page. (PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > View Asynchronous Details..)
Subscription contract	Asynchronous Details page. (PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > View Asynchronous Details.)

Blocked Queues and Processing Statuses

Queues preserve the order in which service operations are processed.

The pub/sub system guarantees that items are processed in the order they are sent. If a service operation has a status of *Error*, *Timeout*, or *Edited*, the service operation queue becomes blocked and no processing occurs until you resolve the problem with the service operation.

For publications, queues are partitioned in queues by sub queues.

For publication contracts, queues are further partitioned into queues by sub queue and target node. If a queue is ordered, items in that queue and in the same queue are processed in the order sent. The dispatcher does not begin processing an item until all items ahead of it in the queue have the status *Done* or *Cancelled*. An item with a status of *Error*, *Timeout*, or *Edited* blocks all items behind it in the same queue. If the remote node is unavailable, the dispatcher does not attempt to process the contract and the queue is blocked until the remote node becomes available. That is why publication contracts are partitioned by target node.

If a queue is unordered, an item (such as the publication, publication contract, or subscription contract) never blocks another item. All items are processed in parallel.

Stalled Queues and Processing Statuses

Stalls do not occur by design. They are caused by gaps in functionality, user errors, defects, and so forth.

For example, a queue can become stalled when:

- Multiple domains access the same database and one of the domains is shut down abnormally.

Items may be stalled in the *Started* or *Working* status.

Note: You can use the Domain Status page to correct the problem.

- A change occurs to the pub/sub runtime tables through direct SQL.

The copies of the database tables that dispatchers have in memory are not updated. In this situation, you must reboot the dispatchers.

Filtering Asynchronous Service Operation Data

Use the following filter criteria to reduce your search results. The value you set on one page in the Asynchronous Services component is carried forward to all pages of this component. Unless stated otherwise, the fields display on all pages of the Asynchronous Services component.

<i>Field or Control</i>	<i>Description</i>
Archived	The Archived check box enables you to search for either archived or live service operation data. To search archived data, select the check box. To search live data, clear the check box.

Field or Control	Description
Correlation ID	<p>This field appears on the Operation Instances page, Publication Contracts page, and Subscription Contracts page in the Asynchronous Services component.</p> <p>A correlation ID is an identifier used to correlate messages, sent separately, into a single transaction.</p> <p>To view service operations with a specific correlation ID, enter or select a value in the Correlation ID field.</p>
External Service Name	<p>This field appears on the Operation Instances page in the Asynchronous Services component only.</p> <p>Enter the name of the inbound service operation received from an integration partner. This name is equivalent to the routing alias.</p>
Group By	<p>This field appears on the Monitor Overview page in the Asynchronous Services component only.</p> <p>Use the drop-down list box to select how to group returned data. The valid values are:</p> <ul style="list-style-type: none"> • <i>Queue</i>. (Default.) Displays results by queue name. • <i>Service Operation</i>. Displays results by service operation name.
Publish Node, Node Name	<p>Indicates the node that published the service operation.</p> <hr/> <p>Note: The Service Operations Monitor only allows you to view information for the local system (database). However, the queues for the local database can contain service operations published by remote nodes, as well the local node. There is only one local node for a database.</p> <hr/>
Queue Level	<p>This field appears on the Monitor Overview page in the Asynchronous Services component only.</p> <p>The valid options are:</p> <ul style="list-style-type: none"> • <i>Oper Inst</i> (Operation Instance). (Default.) • <i>Pub Con</i> (Publication Contract). • <i>Sub Con</i> (Subscription Contract).
Queue Name	<p>To view service operation data within a specific queue, select the appropriate queue value in the Queue Name drop-down list box.</p>

Field or Control	Description
Refresh	Click the button to apply the filtering criteria selected. When you click the Refresh button the system saves your search criteria for subsequent searches.
Status	To view service operation data by status, select the status criteria from the Status drop-down list box. The status options reflect the status columns that appear on the Monitor Overview page.
Time Period	The Time Period group box features four fields for searching by date and time: From Date , To Date , From Time and To Time . If you complete just the date fields, the time fields automatically populate from 12:01 a.m. to 11:59 p.m. When left blank, no date or time is used as part of the search criteria.
Transaction ID	To search for a specific transaction, enter the transaction ID.
User View	Check the <i>User Level View</i> box to display information only for those service operations to which you are assigned permission list access.

On the pages where filtering applies, you enter your filtering criteria in the Message Criteria group box. The result set appears in the status grid directly below the filtering options.

Related Links

[Understanding Asynchronous Service Operations Statuses](#)

Viewing Monitor Output for Asynchronous Service Operation Data

After you filter and search for asynchronous service operations data in the pages of the Asynchronous Services pages, the output displays in grid format at the bottom of the pages.

The following page elements display data related to integrations using asynchronous service operations in the grids:

Field or Control	Description
Alias	<p>Service operation alias name, if defined for the service operation.</p> <p>The Alias field, in conjunction with the Service Operation Version field, helps to differentiate when there are two routings on the same node with different aliases, for example, when transformations are in use.</p>
Details	<p>Each row of filtering results on the Operation Instances page, Publication Contracts page and Subscription Contracts page displays a Details link. Click the link to view the data in the Asynchronous Details page, where you can view service operation properties, details about any service operation errors that have occurred, and view service operations in XML format.</p>
Orig Trans ID	<p>The original transaction ID generated and used for the service operation instance.</p> <p>As contracts are created another transaction ID is created for each publication or subscription contract. However, the original transaction ID is always available as a reference.</p>
Publishing Node	Name of the node sending node.
Queue Name	<p>The name of the queue used for the transaction.</p> <ul style="list-style-type: none"> • <i>Running</i>. The queue is running. • <i>Paused</i>. The queue is paused.
Queue Status	Indicates the status of the queue. The possible values are:
Remote Details	<p>The Remote Details link appears if the node where a transaction is being sent is defined in the integration network.</p> <p>Click the link to view the details of the remote system's monitor data for the transaction ID.</p>
Segment Number	When implementing message segments, indicates the number of the segment message.
Service Operation	Name of the service operation.
Service Operation Version	Version of the service operation.
Status	Status of the service operation in the system.
Subscriber Node	Name of the receiving node.

Field or Control	Description
Sub Queue	If queue partitioning exists for a queue, a Sub Queue column appears in the Results grid on the Operation Instances page, Publication Contracts page and Subscription Contracts page . Click the link to open the Sub Queue Message Queue page to view all transactions in the sub queue.
Time Stamp	Date and time of the transaction.
Transaction ID	The unique identifier assigned to the transaction by the system.

Related Links

[Understanding Asynchronous Service Operations Statuses](#)

Monitoring Asynchronous Service Operation Transactions

Use the **Monitor Overview** page for a high-level overview of the status of asynchronous service operation transactions. You can group transactions by queue or service operation for viewing.

To access this page, select **PeopleTools > Integration Broker > Service Operations Monitor > Asynchronous Services**.

This example shows the Asynchronous Services – Monitor Overview page.

Queue Name	Queue Status	Error	New	Started	Working	Done	Retry	Timeout	Edited	Canceled	Hold	Submit	Done/NoAck
QE_FLIGHTPLAN_CHNL	Running	0	0	0	0	21	0	0	0	0	0	0	0
USER_PROFILE	Running	0	0	0	0	1	0	0	0	0	0	0	0

After you search for queue information to view, the Results grid displays the results of your search.

This page displays search results by queue name or service operation name, depending on the selection you make in the **Group By** drop-down list box.

The processing status of service operations displays in the status columns (for example, *Error*, *New*, *Started*, and so on).

Most of the time, the status for a service operation that appears in the Result grid is *Done*. This means that the service operation instance arrived in the publication queue (creating the service operation headers only). However, other statuses can appear. For instance, if the pub/sub system is down, the status is *New*. If there are transformation or PeopleCode errors, the service operation status is *Error*. In addition, if you access the Service Operations Monitor at certain times, you might see a status of *Started* or *Working*. Use the other pages in this component to view more comprehensive status information.

The number of operation instances in a particular status display as a linked value. Click the link to open the data in the Operation Instances page where you can view more detailed information.

Related Links

[Filtering Asynchronous Service Operation Data](#)

[Viewing Monitor Output for Asynchronous Service Operation Data](#)

[Understanding Asynchronous Service Operations Statuses](#)

[Monitoring Asynchronous Service Operation Instances](#)

Monitoring Asynchronous Service Operation Instances

The Operation Instances page enables you to monitor the status and details related to individual asynchronous service operation instances.

To access the Operation Instances page, select **PeopleTools > Integration Broker > Monitor Integrations > Monitor > Monitor Asynchronous Services** and click the Operation Instances tab.

This examples shows the Asynchronous Services – Operation Instances page.

Select	Transaction ID	Queue Name	Publishing Node	Sub Queue	Status	Creation Dttm	Publish Dttm	Last Upd Dttm
<input type="checkbox"/>	ac750c3f-2f54-11e2-bbd0-9b2ec88a362c	QE_FLIGHTPLAN_CHNL	QE_CRM	0abecb26d-2f54-11e2-8ed9-8e357e3d7e7e	Done	11/15/2012 11:45:49.981000AM	11/15/2012 11:45:48.272000AM	11/15/2012 11:45:50AM
<input type="checkbox"/>	ac750c40-2f54-11e2-bbd0-9b2ec88a362c	QE_FLIGHTPLAN_CHNL	QE_CRM	1abecb26d-2f54-11e2-8ed9-8e357e3d7e7e	Done	11/15/2012 11:45:49.816000AM	11/15/2012 11:45:48.272000AM	11/15/2012 11:45:50AM
<input type="checkbox"/>	ac750c41-2f54-11e2-bbd0-9b2ec88a362c	QE_FLIGHTPLAN_CHNL	QE_CRM	2abecb26d-2f54-11e2-8ed9-8e357e3d7e7e	Done	11/15/2012 11:45:49.667000AM	11/15/2012 11:45:48.272000AM	11/15/2012 11:45:50AM

After you select your filtering options, click the **Refresh** button.

Related Links

[Filtering Asynchronous Service Operation Data](#)

[Viewing Monitor Output for Asynchronous Service Operation Data](#)

[Understanding Asynchronous Service Operations Statuses](#)

[Understanding Resubmitting and Canceling Service Operations for Processing](#)
[Understanding Viewing Asynchronous Service Operation Details](#)
[Viewing Queue Partitioning Information](#)

Monitoring Publication Contracts

The Publication Contracts page shows outbound publication transactions to send to remote nodes.

To access the page, select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Monitor Asynchronous Services**. Then click the Publication Contracts tab.

The following example shows the Asynchronous Services – Publication Contracts page.

Transaction ID	Queue Name	Publishing Node	SubNode	Segment Number	Service Operation	Service Operation Version	Alias	Time Stamp	Remote Details
				0					Details

The system does not create publication contracts for routings to the local node.

Descriptions of the page elements that appear on the page are described elsewhere in this section.

Related Links

[Viewing Monitor Output for Asynchronous Service Operation Data](#)
[Understanding Asynchronous Service Operations Statuses](#)
[Filtering Service Operation Data](#)
[Viewing Queue Partitioning Information](#)
[Understanding Viewing Asynchronous Service Operation Details](#)
[Understanding Resubmitting and Canceling Service Operations for Processing](#)

Monitoring Subscription Contracts

The Subscription Contracts page enables you to view transactions to which the local node subscribes. Subscription contracts for remote nodes do not appear.

To access this page, select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Monitor Asynchronous Services**. Then click the Subscription Contracts tab.

This example shows the Asynchronous Services – Subscription Contracts page.

Note: When viewing the status of bulk subscription contracts (such as 100,000 or more) using an Oracle Solaris operating system and an Oracle database, your browser session may close unexpectedly. As a result, you should filter the number of subscription contracts for which to view status information. To do so, use the settings in the Time Period box to filter information by date and time. The volume of service operations in the system determines the best values to enter.

Related Links

[Understanding Asynchronous Service Operations Statuses](#)

[Filtering Service Operation Data](#)

[Viewing Monitor Output for Asynchronous Service Operation Data](#)

[Viewing Queue Partitioning Information](#)

[Understanding Viewing Asynchronous Service Operation Details](#)

[Understanding Resubmitting and Canceling Service Operations for Processing](#)

Viewing Queue Partitioning Information

If queue partitioning exists for a queue, a Sub Queue column appears in the Results grid on the Monitor Overview page, the Publication Contracts page, and the Subscription Contracts page of the Asynchronous Services component.

If you click the sub queue name link, the Sub Queue Operation Instances page displays and you can view all service operations in the sub queue in the order in which they will be processed. You can also resubmit service operations or cancel the submission of service operations on this page.

Note: When viewing sub queue info, even if the primary page was displaying archived data, this page always shows current data.

This example shows the Sub Queue Operation Instances page.

Operation Instances						
Sub Queue Operation Instances						
Queue Name		QE_FLIGHTPLAN_CHNL		Sub Queue		0abecb26d-2f54-11e2-8ed9-8e357e3d7e7e
Queue Status		Running				
Selected Operation Instance						
Publishing Node			QE_CRM			
			Transaction ID ac750c3f-2f54-11e2-bbd0-9b2ec88a362c			
Operation Queue						
						Find View All First 1 of 1 Last
	Select	Publishing Node	External Service Name	Status	Timestamp	
1	<input type="checkbox"/>	QE_CRM	QE_FLIGHTPLAN.VERSION_1	Done	11/15/2012 11:45:48.272000AM	Details

If more than one row of data appears in the Operation Queue grid, the row in bold is the row you were viewing on the previous page.

Descriptions of the page elements that appear on the page are described elsewhere in this section.

Related Links

[Viewing Monitor Output for Asynchronous Service Operation Data](#)

Viewing Asynchronous Service Operation Details

Understanding Viewing Asynchronous Service Operation Details

The Asynchronous Details component (IB_MONITOR_DET) enables you to gather in-depth information about a specific asynchronous service operation. It also enables you to perform tasks such as correct errors and resubmit service operations.

Note: The pages and tabs in the Asynchronous Details component appear in read-only mode if you do not have the proper permissions.

Related Links

[Viewing Asynchronous Service Operation Instance Details](#)

[Viewing Asynchronous Publication Contracts Details](#)

[Viewing Asynchronous Subscription Contracts Details](#)

[Setting the Data Length View Limit for Displaying XML](#)

[Viewing Logical Transformation XML Output](#)

Common Elements Used to View Asynchronous Service Operation Details

<i>Field or Control</i>	<i>Description</i>
Cancel	Click the Cancel button to cancel processing attempts for a service operation. This button is enabled when a service operation has a status of <i>New</i> , <i>Retry</i> , <i>Time Out</i> , <i>Error</i> , or <i>Edited</i> .
Edit XML	An Edit XML link appears when there are errors with the transaction. Click the link to edit the service operation instance, publication contract or subscription contract XML to correct errors. If you do not have appropriate permission for the particular service operation being viewed, this link is disabled.

Field or Control	Description
Error Messages	<p>This link can appear in the service operation instance details section, the publication contracts section, or the subscription contracts section.</p> <p>Click the link to view error messages for these items.</p> <p>If the link is disabled, there are no errors to view or you do not have the appropriate permissions to view the information.</p>
Handler Tester	<p>This control appears on the Asynchronous Details page only when viewing details for subscription contracts.</p> <p>Click the link to launch the service operation Handler Tester populated with the data from the subscription contract transaction.</p>
Last Update Date/Time	Displays the date and time the transaction was last updated.
Process Identifier	Identifies the process ID on the local application server.
Resubmit	<p>Click the Resubmit button to resubmit a service operation for processing. This button is enabled when a service operation has a status of <i>Time Out</i>, <i>Error</i>, <i>Edited</i>, or <i>Cancelled</i>. If a service operation contains an error or has timed out, typically you can just correct the problem and resubmit the service operation. After you edit a service operation, the status becomes <i>Edited</i>. When you resubmit the service operation, the status changes, yet again, to <i>New</i>.</p> <p>If you do not have appropriate permission for the particular service operation being viewed, this button is disabled.</p>
Retry Count	If the first attempt to deliver the service operation failed, this value reflects the number of times the system has attempted to resend the service operation.
Segment	<p>If using message segments, indicates the segment number for which the page or section is displaying information.</p> <p>If you are using non-segmented messages, a value of <i>1</i> appears.</p> <p>When working with asynchronous operation instance details, use the Segment drop-down list box to select a different segment for which to view information. Click the Refresh button to refresh the page.</p>
Service Operation	Indicates the name of the service operation.

Field or Control	Description
Status	Status of the service operation in the system. Descriptions of the possible service operation statuses are described elsewhere in this topic.
Transaction ID	Displays the unique identifier that the system assigns to each transaction.
Transaction Type	Indicates the transaction type. The valid values are: <ul style="list-style-type: none"> • <i>Inbound synchronous.</i> • <i>Outbound synchronous.</i>
Version(Service operation)	Indicates the service operation version.
View IB Info	Click the link to view IB info. If you do not have appropriate permission for the particular service operation being viewed, this link is disabled.
View XML	Click the link to view XML for the service operation instance, publication contract or subscription contract. If you do not have appropriate permission for the particular service operation being viewed, this link is disabled.

Viewing Asynchronous Service Operation Instance Details

Use the Asynchronous Details page (IB_MONITOR_DET) to view asynchronous service operation instance details. To access the page, select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > View Asynchronous Details**.

This example illustrates the fields and controls on the Asynchronous Details page. You can find definitions for the fields and controls later on this page.

Asynchronous Details

Transaction ID: ac750c3f-2f54-11e2-bbd0-9b2ec88a362c

External Service Name: QE_FLIGHTPLAN.VERSION_1

Publishing Node: QE_CRM *Segment: 1 Refresh

Queue Name: QE_FLIGHTPLAN.CHNL View XML Archive

Queue Status: Running

Queue Sequence ID: Not Applicable - Unordered Queue

Sub Queue: 0abecb26d-2f54-11e2-8ed9-8e357e3d7e7e

Original Publishing Node: QE_CRM

Status: DONE Uncompressed Data Length: 8684

Data Length View Limit: 100000

[View IB Info](#)

Subscription Contracts								
Action Name	*Segment	Status						
GEN_UPG_HANDLER_18802	1	Done	View XML	Resubmit	Cancel	View Error/Info	View IB Info	Handler Tester
GEN_UPG_HANDLER_21703	1	Done	View XML	Resubmit	Cancel	View Error/Info	View IB Info	Handler Tester

The section at the top of the Asynchronous Details page provides general information pertaining to a particular service operation instance to assist in troubleshooting.

At the bottom of the page, a Publication Contracts grid appears when you are monitoring outbound asynchronous integrations. When you are monitoring inbound asynchronous integrations, a Subscription Contracts grid appears at the bottom of the page. These grid are described elsewhere in the documentation.

See the following topics:

- [Viewing Asynchronous Publication Contracts Details.](#)
- [Viewing Asynchronous Subscription Contracts Details.](#)

The Asynchronous Details page features the following fields and controls:

Field or Control	Description
External Service Name	Indicates the name of the service operation sent by the sending node.
Publishing Node	Identifies the name of the sending node.
Queue Name	Identifies the queue to which the service operation is associated.
Queue Status	Indicates the status of the queue. The possible values are: <ul style="list-style-type: none"> • <i>Running</i>. The queue is running. • <i>Paused</i>. The queue is paused.

Field or Control	Description
Queue Sequence ID	Identifies the sequence of a particular service operation in a queue. This field is applicable to only service operations in ordered queues.
Sub Queue	If queue partitioning exists for a queue, indicates the name of the sub queue to which the service operation is associated.
Original Publishing Node	Indicates the name of the original sending node. In most cases the original publishing node and the publishing node are the same. However, if the service operation goes through a hub, the original publishing node and publishing node differ.
Refresh	Click the button to refresh page data.
Archive	Click the Archive button to archive a service operation. This button is enabled when a service operation has a status of <i>Done</i> or <i>Cancelled</i> and no associated contract has pending work. If the queue is not set up for archiving, the Archive button is replaced with a Delete button.
Uncompressed Data Length	Indicates the size of the XML service operation in bytes.
Data Length View Limit	Indicates the maximum size of an XML document in bytes that is automatically loaded in the XML Viewer page. The default is <i>100000</i> bytes. Set this property in the Service Operations Monitor using the Monitor Setup Options page. See Setting the Data Length View Limit for Displaying XML .

Other page elements that appear on the page are discussed elsewhere the documentation.

Related Links

[Common Elements Used to View Asynchronous Service Operation Details](#)

[Understanding Resubmitting and Canceling Service Operations for Processing](#)

[Viewing IB Info Data](#)

[Understanding Viewing Service Operation Errors](#)

[Understanding Viewing and Editing Service Operation XML](#)

Viewing Asynchronous Publication Contracts Details

Use the Publication Contracts section of the Asynchronous Details page to view asynchronous publication contract details.

This example shows the Publication Contracts section of the Asynchronous Details page. It features an Action tab and an Information tab.

Subscriber Node	*Segment	Status				
QE_LOCAL	1	Done	View XML	<input type="button" value="Resubmit"/>	<input type="button" value="Cancel"/>	Error Messages View IB Info

Note: The section displays only when there are publication contracts associated with the service operation.

Viewing and Working with Publication Actions

The Actions tab reveals all the nodes subscribing to a particular service operation and the current status of the publication contract, as in whether the publication has been successfully posted to the subscribing node.

The Actions tab in the Publication Contracts section provides the following information.

<i>Field or Control</i>	<i>Description</i>
Subscriber Node	Identifies the name of the subscribing or receiving node.

Other page elements that appear on the page are discussed elsewhere in this section.

Related Links

[Common Elements Used to View Asynchronous Service Operation Details](#)

[Understanding Resubmitting and Canceling Service Operations for Processing](#)

[Viewing IB Info Data](#)

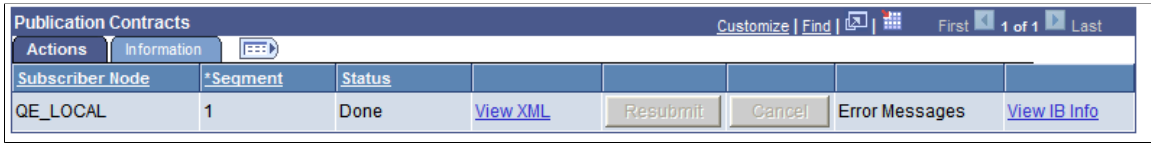
[Understanding Viewing Service Operation Errors](#)

[Understanding Viewing and Editing Service Operation XML](#)

Viewing Publication Information Details

The Information tab reveals details about the publication transaction, including the transaction ID, the transaction time stamp, and so on.

This example shows the Information tab in the Publication Contracts section of the Asynchronous Details page.



The Information tab contains the following information about the publication contract:

<i>Field or Control</i>	<i>Description</i>
Signature	<p>When nonrepudiation is implemented, this page element displays as a hyperlink.</p> <p>Click the link to view nonrepudiation information associated with the publication contract.</p>

Other page elements that appear on the page are discussed elsewhere in this section.

Related Links

[Common Elements Used to View Asynchronous Service Operation Details](#)

[Understanding Viewing Service Operation Nonrepudiation Signature Information](#)

Viewing Asynchronous Subscription Contracts Details

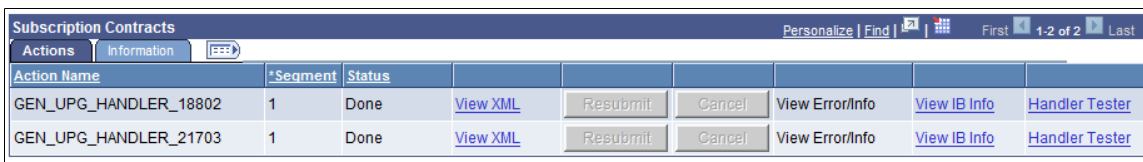
Use the Subscription Contracts section of the Asynchronous Details page to view asynchronous subscription contract details. The following example shows this section:

Note: The section displays only when there are subscription contracts associated with the service operation.

Viewing and Working with Subscription Actions

The **Actions** tab of the Subscription Contracts section of the Asynchronous Services page reveals the status of a particular subscription contract.

This example shows the Actions tab in the Publication Contracts section of the Asynchronous Details page.



Note: The page elements that appear on the page are discussed elsewhere in this section.

Related Links

[Common Elements Used to View Asynchronous Service Operation Details](#)

[Understanding Resubmitting and Canceling Service Operations for Processing](#)

[Viewing IB Info Data](#)

[Understanding Viewing Service Operation Errors](#)

[Understanding Viewing and Editing Service Operation XML](#)

Viewing and Working with Subscription Information

The Information tab reveals details about the subscription transaction, including the transaction ID, the transaction time stamp, and so on.

This example shows the Information tab in the Subscription Contracts section of the Asynchronous Details page.

Subscription Contracts						
Customize Find [Icons] First 1-6 of 6 Last						
Actions Information [EFF]						
Transaction ID	Last Update Date/Time	Retry Count	Process Identifier	Transaction Type	Service Operation	Version
3db577fa-8071-11de-b2c5-fb06d5954f3e	08/03/2009 2:04:43PM	1	5388	Inbound Asynchronous	QE_FLIGHTPLAN	VERSION_1

Note: The page elements that appear on the page are discussed elsewhere in this section.

Related Links

[Common Elements Used to View Asynchronous Service Operation Details](#)

Setting the Data Length View Limit for Displaying XML

The data view length limit determines the size of service operation XML (in bytes) that is automatically loaded into the XML Viewer in the Asynchronous Details component.

The default is *100000* bytes.

If the limit is exceeded, you are given the option of downloading and uploading the XML to view it or make changes.

You can change the default value using the Monitor Setup Options page in the Services Operations Monitor.

To set the data length view limit:

1. Select **PeopleTools > Integration Broker > Service Operations Monitor > Administration > Monitor Setup Options**.

The Monitor Setup Options page appears.

2. In the **Data Length View Limit** box, enter a value in bytes.

Note: Do not enter a negative value.

Click the **Save** button.

Viewing Logical Transformation XML Output

If an asynchronous subscription contract or publication contract contains a logical transformation, you can view the logical transformation output.

To view logical transformation XML output:

1. Select **PeopleTools >Integration Broker >Service Operations Monitor >Monitoring >View Asynchronous Details**.

The Asynchronous Details page appears.

2. On the Actions tab in the Publication Contracts or Subscription Contracts section, click the **View XML** link. The IB XML Page appears and displays the service operation XML.
3. Click the **View Logical Transform** link.

Another IB XML Page appears and displays the logical transformation XML for the transaction.

Note: The **View Logical Transform** link appears only if the transaction has a logical transformation.

4. Click the **Return** button to return to the IB XML Page to view the service operation XML. Click the **Return** button again to return to the Asynchronous Details page.

Chapter 5

Monitoring Synchronous Service Operations

Understanding Synchronous Service Operation Statuses

For synchronous service operations, the Service Operations Monitor displays the following statuses as synchronous service operations progress through the integration system:

Status	Description
<i>Done.</i>	Indicates the synchronous request was successful.
<i>Error:</i>	Indicates that an error occurred during processing. Manual intervention is required.

Filtering Synchronous Service Operations Data

Use the Synchronous Services page to filter and view inbound synchronous service operations data in the integration system. To access the page, select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Monitor Synchronous Services**.

This example illustrates the fields and controls on the Synchronous Services page. You can find definitions for the fields and controls later on this page.

The screenshot shows the 'Synchronous Services' page interface. It includes search filters for 'Node Name', 'Service Operation', and 'Status'. There are checkboxes for 'Archived' and 'User Level View'. A 'Time Period' section contains 'From Date', 'To Date', 'From Time', and 'To Time' fields, along with a 'Refresh' button. Below the filters is a 'Result' bar with 'Customize', 'Find', 'View All', and pagination controls ('First', '1 of 1', 'Last'). The main table has columns: 'Timestamp', 'Transaction ID', 'Service Operation', 'Version', 'Trans Type', 'Publishing Node', 'Status String', and a 'Details' link.

Use the following filter criteria when working with the Synchronous Services page to reduce your search results.

Field or Control	Description
Node Name	Identifies the name of the sending node.
Service Operation	Identifies the name of the service operation for which to view data.
Archived	The Archived check box enables you to search for either archived or live service operation data. To search archived data, select the check box. To search live data, clear the check box.
User Level View	Check the User Level View box to display information only for those service operations to which you are assigned permission list access.
Status	To view service operation data by status, select the status criteria from the Status drop-down list box. The status options reflect the status columns that appear on the Monitor Overview page.
Refresh	Click the button to apply the filtering criteria selected. When you click the Refresh button the system saves your search criteria for subsequent searches.
Time Period	The Time Period group box features four fields for searching by date and time: From Date , To Date , From Time , and To Time . When left blank, no date or time is used as part of the search criteria. If only the date fields are populated, the system automatically fills in the time fields.

Related Links

[Understanding Synchronous Service Operation Statuses](#)

Viewing Monitor Output for Synchronous Service Operations Data

After you filter and search for synchronous service operations data on the Synchronous Services page, the output displays in a Results grid at the bottom of the page.

Viewing Synchronous Service Operation Transaction Information

Use the Transactions tab on the Synchronous Services page to view information about the transactions, such as the time of the transaction, transaction ID, general service operation information, and more.

This example illustrates the fields and controls on the Transactions tab. You can find definitions for the fields and controls later on this page.

Result							
Customize Find View All First 1-5 of 5 Last							
Transactions		Information					
Timestamp	Transaction ID	Service Operation	Version	Trans Type	Publishing Node	Status String	
07/27/09 12:46:14.671000PM	24d2e9c5-7ae6-11de-8c83-8c6987acee34	QE_FLIGHTPLAN_UNSTRUCT_SYNC	VERSION_1	OutSync	QE_LOCAL	ERROR	Details

You can view the following data in the section:

Field or Control	Description
Timestamp	Identifies the date and time that the service operation instance was last processed.
Transaction ID	Displays the transaction ID, the unique identifier that the system assigns to each transaction.
Service Operation	Indicates the name of the service operation.
Version	Indicates the version of the service operation.
Trans Type	Identifies the transaction type. Values are: <ul style="list-style-type: none"> <i>OutSync</i>: Outbound Synchronous. <i>InSync</i>: Inbound Synchronous.
Publishing Node	Indicates the sending node.
Status String	Displays the status of the transaction.
Details	Click the link to open the Synchronous Details page for the service operation to view more in-depth data about the transaction.

Viewing Synchronous Service Operation General Information

Use the Information tab on the Synchronous Services page to view information about the publisher, including the node from which the transaction was published, timestamp information, and more.

This example illustrates the fields and controls on the Information tab. You can find definitions for the fields and controls later on this page.

Result					
Customize Find View All First 1-5 of 5 Last					
Transactions		Information			
Publisher	Last Upd DtTm	NRID	Dest Pub Node	Final Dest Node	
QEDMO	07/27/09 12:46:14PM		QE_IBTGT		Details

You can view the following data in the section:

Field or Control	Description
Publisher	Indicates the name of the sending node.
Last Upd Dt Tm	Indicates the date and time the transaction was last updated.
NRID (Nonrepudiation ID)	Displays when nonrepudiation is implemented. Identifies a unique number used to associate a service operation instance with the nonrepudiation log.
Dest Pub Node	Identifies the name of the node where the service operation will be sent.
Final Dest Node	Identifies the name of the node of the final destination for the service operation.
Details	Click the link to open the Synchronous Details page for the service operation to view more in-depth data about the transaction.

Chapter 6

Viewing Synchronous Service Operation Instance Details

Viewing Synchronous Service Operation Details

The Synchronous Detail page provides read-only information about synchronous service operations in the system. It also enables you to view signature information for a service operation if it was processed with nonrepudiation logic.

To access the page, select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Monitor Synchronous Services**.

This example illustrates the fields and controls on the Synchronous Details page. You can find definitions for the fields and controls later on this page.

Synchronous Details

Transaction ID: 24d2e9c5-7ae6-11de-8c83-8c6987acee34
Service Operation: QE_FLIGHTPLAN_UNSTRUCT_SYNC
Service Version: VERSION_1
Transaction Type: OutSync
Status: ERROR [Error Messages](#)

Publisher: QEDMO **Non-Repudiation ID:**
Destination Publish Node: QE_IBTGT **Updated:** 07/27/09 12:46:14PM
Publishing Node: QE_LOCAL
Final Destination:
Pub/Sub Timestamp: 07/27/09 12:46:14.671000PM
Log Type: [View XML](#) [View IB Info](#)

The page displays data in the following page elements:

Field or Control	Description
Archive	Click the button to archive the synchronous service operation.
Delete	Click the delete button to delete the transaction from the database.
Destination Publish Node	Identifies the name of the node where the service operation was sent.

Field or Control	Description
Error Messages	Click the link to view error messages associated with the processing of the service operation.
Final Destination	Identifies the name of the node of the final destination for the service operation.
Log Type	<p>Select a value from the drop-down list box and click the View XML link to view the corresponding information.</p> <hr/> <p>Note: For synchronous service operations, to view full service operation details in XML you must set a parameter in the routing definition for the service operation. On the Routing-Routing Definitions page, from the Log Detail drop-down list box select <i>Header and Detail</i>.</p> <hr/> <p>Values are:</p> <ul style="list-style-type: none"> • <i>Request Original</i>: Displays the original request data in XML format. • <i>Request Transformed</i>: Displays transformed request data, if applicable, in XML format. • <i>Response Original</i>: Displays the original response data in XML format. • <i>Response Transformed</i>: Displays the transformed response data, if applicable, in XML format.
Non-Repudiation ID	Identifies a unique number used to associate a service operation instance with the nonrepudiation log.
Publisher	Publisher of the service operation. This is usually the user ID of the person in the publishing system who triggered the publication.
Pub/Sub Timestamp	Identifies the date and time that the service operation instance was last processed.
Service Operation	Identifies the name of the service operation published.
Service Version	Identifies the version of the service operation published.
Signature	If a service operation is sent with a signature, a Signature link appears next to the Non-Repudiation ID field. When you click the Signature link, the service operation signature appears in XML format.

Field or Control	Description
Status	Identifies the status of the service operation. Descriptions of the possible service operation statuses are described elsewhere in this topic.
Transaction Type	Identifies the transaction type. Values are: <ul style="list-style-type: none"> • <i>OutSync</i>: Outbound Synchronous. • <i>InSync</i>: Inbound Synchronous.
Unique Identifier	Displays the transaction ID, the unique identifier that the system assigns to each transaction.
Updated	Identifies the date and time the service operation was last updated.
View IB Info	Click the link to view IB info in XML format for the service operation, such as transaction ID.
View XML	Click to view the service operation content in XML format.

Related Links

[Understanding Synchronous Service Operation Statuses](#)

[Understanding Resubmitting and Canceling Service Operations for Processing](#)

[Viewing IB Info Data](#)

[Understanding Viewing and Editing Service Operation XML](#)

[Understanding Viewing Service Operation Nonrepudiation Signature Information](#)

Viewing Integration Gateway Logging Data for Service Operations

Viewing Integration Gateway Logging Data in the Service Operations Monitor

This topic discusses how to:

- Enable integration gateway logging in the Service Operations Monitor.
- Change the storage directory for integration gateway logs.
- View integration gateway logging data for service operation transactions.

Understanding Viewing Integration Gateway Logging Data in the Service Operations Monitor

This section provides an overview of viewing integration gateway logging data for service operations from the Service Operations Monitor.

Integration Gateway Logging Data

You can generate and view integration gateway logging data on an on-demand basis for outbound requests in the Service Operations Monitor.

When on-demand logging is enabled in the Service Operations Monitor, the integration gateway creates log files corresponding to the transaction IDs of outbound requests, that is <transaction ID>.html. Depending on the log level set, the standard integration gateway message log will also contain the transactional message logging data. Data logged also includes the URL of the gateway performing the logging, including the transaction ID and IP address. If you have implemented inbound load balancing using virtual application server domains, this information will help you determine the gateway that is performing the logging.

The location of the transaction logs is controlled by the integration gateway property `ig.transactionLog.directory`. By default the property is set to the following value:

```
<PIA_HOME>/peoplesoft/PSIGW.war/WEB-INF/directory
```

The default gateway logging data location is the same default directory for regular error and message logging. If you set the log level in the Service Operation Monitor to one of the error logging levels, the file is placed in the same directory as the `errorLog.html` file. If you set the log level in the Service Operation Monitor to one of the message logging levels, the file is placed in the same directory as the `msgLog.html` file.

As the transactional data in the Service Operations Monitor is archived or deleted, the system deletes the associated transactions gateway log file. You can also delete this file at anytime.

Integration Gateway Logging Data Access

When gateway logging is enabled, a View Gateway Logs link appears on the Asynchronous Details page for asynchronous transactions and on the Synchronous Details page for synchronous transactions to access the logs from PIA.

As described earlier, the default location for the logs is `<PIA_HOME>/peoplesoft/PSIGW.war/WEB-INF/directory`. Since `/WEB-INF` is not a public directory, the log files are not viewable from PIA by default, but they can be accessed via the file system.

To view gateway logs from PIA using the **View Gateway Log** links you must set the following path in the **Gateway Logging URL** field on the Monitor Setup Options page to a publicly accessible path, such as:

```
<PIA_HOME>/peoplesoft/PSIGW.war/
```

Important! Before you change the write location of the gateway logging data consider potential security issues that doing so may present.

Prerequisites for Viewing Integration Gateway Logging Data in the Service Operations Monitor

Before you can view log data for asynchronous or synchronous transactions you must enable gateway message logging in the monitor, as described in the next section.

In addition, to view synchronous log data you must also enable logging on the routing definition used at runtime for the service operation.

In order to enable Transactional Logging, you must set the `ig.transactionLog.enable` property to true in the `integration.properties` file on the gateway. The default setting is false which disables Transactional Logging.

Related Links

"Configuring Routing Definitions" (Integration Broker)

Enabling Integration Gateway Message Logging in the Service Operations Monitor

Before you can view integration gateway message log data for service operation transactions in the Service Operations Monitor, you must enable the feature using the Monitor Setup Options page.

To access the Monitor Setup Options page, select **PeopleTools >Integration Broker >Service Operations Monitor >Administration >Monitor Setup Options**.

This example illustrates the Monitor Setup Options page showing gateway logging enabled in the Service Operations Monitor.

Monitor Setup Options

Data Length View Limit:

Enable Gateway Logging

*On Demand Log Level: ▼

Gateway Logging URL:

To enable integration gateway message logging in the Service Operations Monitor:

1. Access the Monitor Setup Options page (**PeopleTools >Integration Broker >Service Operations Monitor >Administration >Monitor Setup Options.**)
2. Check the **Enable Gateway Logging** box.
3. From the **On Demand Log Level** drop-down list box, select a logging level. The valid options are:
 - 1. Log standard gateway exception errors.
 - 2. Log all errors and warnings. (Default.)
 - 3. Log errors, warnings and important information.
 - 4. Log errors, warnings, important and standard information.
 - 5. Log errors, warnings important, standard and low importance information.
4. Click the *Save* button.

This procedure enables you to access gateway logs from the file system. To access the log information from PIA in the Service Operations Monitor using the Asynchronous Details page or the Synchronous Details page, you must also change the default storage directory for the transaction logs. The next section describes changing the storage directory for the transaction logs.

Changing the Storage Directory for Integration Gateway Transaction Logs

Log files are written to the directory specified in the `ig.transactionLog.directory` property in the `integrationGateway.properties` file. By default this value is set to the path of the current gateway directory.

When the default directory location is specified, you can access the logs manually in the file system, however, the log files are not accessible in PIA using the View Gateway Log links on the Asynchronous Details page and the Synchronous Details page. You must change the directory location to a public-facing directory, such as `<PIA_HOME>/peoplesoft/PSIGW.war/`, or another location of your choosing.

Important! Before you change the write location of the gateway logging data consider potential security issues that doing so may present.

To change the storage directory for integration gateway transaction log files:

1. Create a new directory for storing the log files on the system.
2. Set the `ig.transactionLog.directory` property in the `integrationGateway.properties` file to the new storage location.

See "Accessing Gateway Setup Properties" (Integration Broker Administration)

This property is located in the Transaction Logging section of the file.

3. Set the new directory location in the Monitor Setup Options page in the PeopleSoft Pure Internet Architecture.
 - a. Access the Monitor Setup Options page (**PeopleTools >Integration Broker >Service Operations Monitor >Administration >Monitor Setup Options.**)
 - b. In the **Gateway Logging URL** field enter the path or URL to the new storage directory.
 - c. Click the Save button.

Viewing Integration Gateway Logging Data for Service Operation Transactions

This table describes the navigation paths for viewing gateway logging data for service operation transactions using the Service Operations Monitor.

<i>Transaction Type</i>	<i>Navigation</i>	<i>Comments</i>
Asynchronous	<ol style="list-style-type: none"> 1. Select PeopleTools >Integration Broker >Service Operations Monitor >Monitoring >View Asynchronous Details. 2. Select the transaction that contains the logging data that you want to view. The Asynchronous Details page appears. 3. In the Publications Contracts section, select the Information tab. 4. Click the View Gateway Logs link. 	<p>Before you can view log data you must enable gateway message logging in the monitor. Performing this task is discussed earlier in this topic.</p>

<i>Transaction Type</i>	<i>Navigation</i>	<i>Comments</i>
Synchronous	<ol style="list-style-type: none"><li data-bbox="537 254 964 365">1. Select PeopleTools >Integration Broker >Service Operations Monitor >Monitoring >View Synchronous Details.<li data-bbox="537 394 964 478">2. Select the transaction that contains the logging data that you want to view. The Synchronous Details page appears.<li data-bbox="537 508 964 535">3. Click the View Gateway Logs link.	<p data-bbox="1011 254 1472 365">Before you can view log data you must enable gateway message logging in the monitor. Performing this task is discussed earlier in this topic.</p> <p data-bbox="1011 394 1472 535">In addition, to view synchronous log data you must also enable logging using the Log Detail field on the routing definition used at runtime for the service operation. See "Configuring Routing Definitions" (Integration Broker)</p>

Chapter 8

Resubmitting and Canceling Service Operations for Processing

Understanding Resubmitting and Canceling Service Operations for Processing

You can resubmit and cancel service operations but only if you have permissions for them. If you attempt to resubmit or cancel a service operation for which you do not have permission, the system ignores the action.

Related Links

[Understanding Resubmitting and Canceling Future-Dated Publications](#)

[Resubmitting and Canceling Individual Service Operations](#)

[Resubmitting and Canceling Service Operations in Bulk](#)

Understanding Resubmitting and Canceling Future-Dated Publications

You can cancel a future-dated publication as you would any other service operation.

However, when you cancel a future-dated publication, the future date information is not retained. So if you subsequently resubmit the publication, the system immediately submits it for processing.

Resubmitting and Canceling Individual Service Operations

To resubmit or cancel individual service operations, select the check box next to the appropriate service operation and click the **Resubmit** or **Cancel** button.

To deselect a service operation, clear the check box next to the service operation.

Resubmitting and Canceling Service Operations in Bulk

You can resubmit and cancel service operations for processing in bulk using the Service Operations Monitor.

Service operations to resubmit in bulk must be in one of the following statuses:

- *Cancelled.*
- *Edited.*
- *Error.*
- *Timeout.*

Service operations to cancel in bulk must be in one of the following statuses:

- *Edited.*
- *Error.*
- *Hold.* (Service operation must be in *Hold* status as well as future-dated.)
- *New.*
- *Retry.*
- *Timeout.*

In addition to the **Clear All**, **Resubmit** and **Cancel** buttons, you can also use the following links when resubmitting and canceling service operations in bulk.

Field or Control	Description
Select All	Click to select all service operations in the results grid to resubmit or cancel. After you click this link, click the Resubmit or Cancel button as appropriate.
Deselect All	Click the link to deselect all service operations in the results grid.

Viewing Service Operation IB Info Data

Viewing IB Info Data

A **View IB Info** link appears in several locations on the Asynchronous Details page and enables you to view IB info data for asynchronous service operations instances, publication contracts and subscription contracts. In addition, a **View IB Info** link displays on the Synchronous Details page and enables you to view IB info data for synchronous service operation as well.

When you click the **View IB Info** link, the View IB Info page appears and displays information such as requesting node, transaction ID, content type, and so on.

This example illustrates the View IB Info page.



```
Integration Broker Monitor
View IB Info

Message-ID: <-123.123.123.123@nowhere >
Mime-Version: 1.0
Content-Type: multipart/related; boundary="Integration_Server_MIME_Boundary"
Content-ID: PeopleSoft-Internal-Mime-Message
PeopleSoft-ToolsRelease: 8.48

--Integration_Server_MIME_Boundary
Content-Type: text/plain; charset=UTF-8
Content-Transfer-Encoding: 8bit
Content-ID: IBInfo
Content-Disposition: inline

<?xml version="1.0"?>
<IBInfo><TransactionID><![CDATA[]]></TransactionID><ExternalOperationName><![CDATA[]]>
></ExternalOperationName><OperationType></OperationType><From><RequestingNode><![CDATA[]]>
></RequestingNode><RequestingNodeDescription><![CDATA[]]></RequestingNodeDescription><NodePassword><![CDATA[]]>
></NodePassword><ExternalUserName><![CDATA[]]></ExternalUserName><ExternalUserPassword><![CDATA[]]>
></ExternalUserPassword><AuthToken><![CDATA[]]></AuthToken><WSA-ReplyTo><![CDATA[]]></WSA-ReplyTo><NodeDN><![CDATA[]]></NodeDN><OrigUser><![CDATA[]]></OrigUser><OrigNode><![CDATA[]]></OrigNode><OrigProcess><![CDATA[]]>
></OrigProcess><OrigTimeStamp></OrigTimeStamp><DirectGatewayRequest></DirectGatewayRequest><SyncServiceTimeout>
</SyncServiceTimeout><ExternalMessageID><![CDATA[]]>
></ExternalMessageID><SegmentsUnOrder>N</SegmentsUnOrder><ConversationID><![CDATA[]]></ConversationID><WSA-
MessageID><![CDATA[]]></WSA-MessageID><InReplyToID><![CDATA[]]></InReplyToID><DataChunk><![CDATA[]]>
></DataChunk><DataChunkCount><![CDATA[]]></DataChunkCount></From><WS-Security><WSTokenType><![CDATA[]]>
></WSTokenType><WS-Security><To><DestinationNode><![CDATA[]]></DestinationNode><FinalDestinationNode><![CDATA[]]>
```

When you are done reviewing the data, click the **Return** button to return to the previous page.

Viewing Service Operation Errors

Understanding Viewing Service Operation Errors

The Service Operations Monitor provides you with the ability to view service operation error information when the error occurs during the processing of asynchronous service operation instances, publication contracts, subscription contracts, and subscription service operation instances.

Related Links

[Viewing Asynchronous Service Operation Instance Errors](#)

[Viewing Asynchronous Publication Contract Errors](#)

[Viewing Asynchronous Subscription Contract Errors](#)

[Viewing Synchronous Service Operations Errors](#)

Common Elements Used to View Service Operation Errors

<i>Field or Control</i>	<i>Description</i>
Description	Displays a description of the error.
Error Message	Displays the error message.
Error Timestamp	Displays the date and time that the error occurred.
Return	When you have completed reviewing the error information, click the button to return to the previous page.
Segment Index	Indicates the index of the segment inside a message. If a message has three segments, you can look at each segment by the index. Segment index 1 is the first segment, segment index 2 is the second segment, and segment index 3 is the third segment.

Viewing Asynchronous Service Operation Instance Errors

When an error occurs while processing an asynchronous service operation instance, an **Error Message** link appears in the operation instance section of the Asynchronous Details page. Click the link to access the Instance Error Messages page and information about the error.

This example illustrates the Instance Error Messages page.

Instance Error Messages

Errors				
Error Timestamp	Error Message	Description	Int Broker Error Location	
07/27/2009 12:46:14.671000PM	Integration Gateway: No response received from Gateway	The Gateway did not send back a IBResponse		

The fields displayed in this section are discussed in the [Common Elements Used to View Service Operation Errors](#) topic.

Viewing Asynchronous Publication Contract Errors

When an error occurs while processing a publication contract, an **Error Message** link appears on the Asynchronous Details page in the Publication Contracts section on the Actions tab. Click the link to access the page and information about the error.

This example shows the Publication Contract Error Messages page.

Publication Contract Error Messages

Errors				
Error Timestamp	Segment Index	Error Message	Description	
08/03/2009 2:13:47.468000PM	0	PublicationContractManager::ProcessError/RetryResponse (); 'Integration Gateway - External System Contact Error (158,10721)'.		
08/03/2009 2:13:47.484000PM	0	Integration Gateway - External System Contact Error	Integration Gateway was not able to contact the external system. The network location specified may be incorrect, or the site is permanently or temporarily down.	

The fields displayed in this section are discussed in the [Common Elements Used to View Service Operation Errors](#) topic.

Viewing Asynchronous Subscription Contract Errors

When an error occurs while processing a subscription contract, an **Error Message** link appears on the Asynchronous Details page in the Subscription Contracts section on the Actions tab. Click the link to access the page and information about the error.

This example illustrates the Subscription Contract Error Messages page.

Subscription Contract Error Messages

Errors				
Error Timestamp	Segment Index	Error Message	Description	
08/03/2009 2:25:10.593000PM	0	A fatal PeopleCode SQL error occurred. Please consult your system log for details.		
08/03/2009 2:25:10.593000PM	0	SQL error in Exec. (2,280) QE_FLIGHTPLAN.FLIGHTPROFILE.OnExecute Name:OnNotify PCPC:5151 Statement:65		
08/03/2009 2:25:10.593000PM	0	Attempt to call abstract method/property OnError of object class PS_PT.Integration.INotificationHandler. (180,845)		

The fields displayed in this section are discussed in the [Common Elements Used to View Service Operation Errors](#) topic.

Viewing Synchronous Service Operations Errors

When an error occurs with a synchronous service operation transaction, an **Error Messages** link appears on the Synchronous Details page. Click the link to access the Instance Error Messages page and details about the error.

This example illustrates the fields and controls on the Instance Error Message page. You can find definitions for the fields and controls later on this page.

Instance Error Messages

Errors				
Error Timestamp	Error Message	Description	Int Broker Error Location	
07/27/2009 12:46:14.671000PM	Integration Gateway: No response received from Gateway	The Gateway did not send back a IBResponse		

The page displays the following information:

Field or Control	Description
Int Broker Error Location	Displays the location of the error in the PeopleSoft Integration Broker system, if known.

Other fields that display in this section are discussed elsewhere in the documentation.

Related Links

[Common Elements Used to View Service Operation Errors](#)

Viewing and Editing Service Operation XML

Understanding Viewing and Editing Service Operation XML

The Service Operations Monitor enables you to view service operation XML for asynchronous service operation instances, asynchronous publication contracts, asynchronous subscription contracts and for synchronous service operation instances.

Note: You can view and edit XML only if you have the appropriate service operation permission.

Asynchronous Service Operation XML

If viewing or editing XML for a publication or subscription contract, the transformed XML appears if any transformations were applied for the publication contract or subscription contract. Use the **View XML** link or the **Edit XML** link in the service operation instance section to view and edit the original XML that was received.

Synchronous Service Operation XML

In certain situations, the XML content of a service operation isn't visible in the Service Operations Monitor. This is because of the way service operation data is logged. Initially, the log data (including the service operation XML) for any transaction is held in system memory.

With synchronous transactions, PeopleSoft Integration Broker retains the log data in memory for a longer period, to allow for certain operations to complete. The delay before you can view the XML content in the Synchronous Details component depends on several factors, including the details of the integration and whether you're at the sending or the receiving end of the transaction. If you don't see the service operation XML content right after the service operation was transmitted, exit the Synchronous Details component and wait for a minute, then reopen the service operation and check the XML view again.

Note: For synchronous service operations, to view full service operation details in XML you must set a parameter in the routing definition for the service operation. On the Routing-Routing Definitions page, from the **Log Detail** drop-down list box select *Header and Detail*.

Related Links

[Viewing Service Operation XML](#)

[Editing Service Operation XML](#)

Viewing Service Operation XML

You can view the XML for an asynchronous service operation instance, publication contract, subscription contract or synchronous service operation by clicking the **View XML** link. When you click the link, the IB XML page appears and displays the data in read-only format.

This example shows the IB XML Page displaying XML in read-only format.



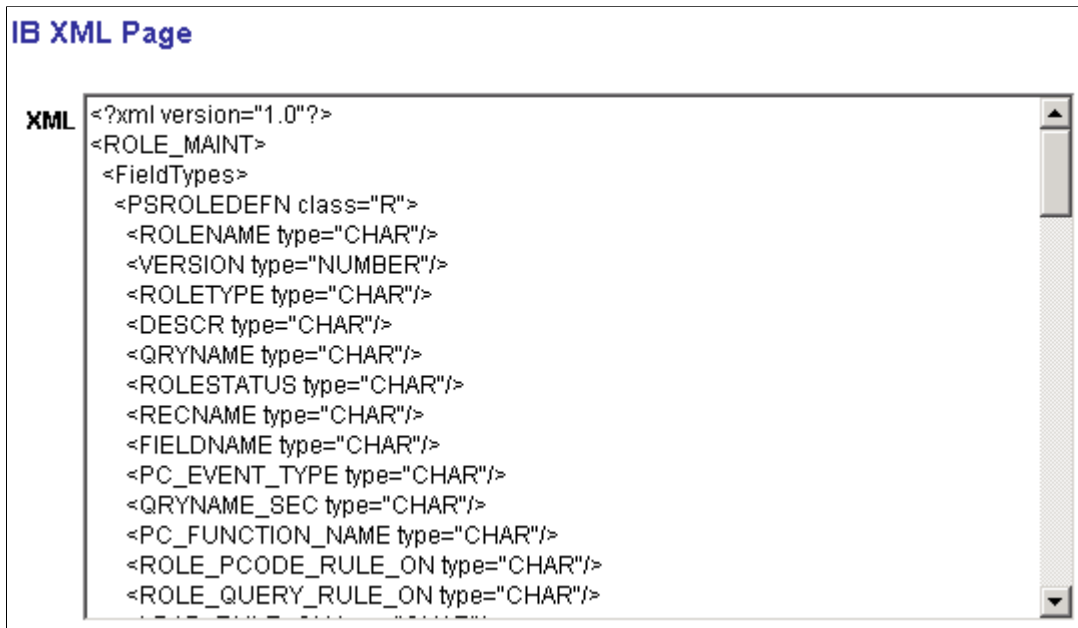
The screenshot shows a window titled "IB XML Page" with a text area containing XML code. The XML code is as follows:

```
XML <?xml version="1.0"?>
<PSRF_REPORT_CREATE>
  <FieldTypes>
    <PSRF_RCREAT_WRK class="R">
      <PRCSINSTANCE type="NUMBER"/>
      <CONTENTID type="NUMBER"/>
      <DBNAME type="CHAR"/>
      <PRCSTYPE type="CHAR"/>
      <PRCSNAME type="CHAR"/>
      <PSRF_REPORT_NAME type="CHAR"/>
      <PSRF_REPORT_DESCR type="CHAR"/>
      <PSRF_FOLDER_NAME type="CHAR"/>
      <PSRF_FOLDER_PATH type="CHAR"/>
      <EXPIRATION_DATE type="DATE"/>
      <PSRF_REPORT_URL type="CHAR"/>
      <PSRF_CREATION_DTTM type="DATETIME"/>
    </PSRF_RCREAT_WRK>
  </FieldTypes>
</PSRF_REPORT_CREATE>
```

Editing Service Operation XML

When an error occurs processing an asynchronous service operation instance, publication contract subscription contract, or synchronous service operation instance, an *Edit XML* link appears. Click the link to access the IB XML Page and to correct errors in the XML.

This example illustrates the IB XML Page.



The screenshot shows a window titled "IB XML Page" with a text area containing XML code. The code is as follows:

```

XML <?xml version="1.0"?>
<ROLE_MAINT>
  <FieldTypes>
    <PSROLEDEFN class="R">
      <ROLENAME type="CHAR"/>
      <VERSION type="NUMBER"/>
      <ROLETYPE type="CHAR"/>
      <DESCR type="CHAR"/>
      <QRYNAME type="CHAR"/>
      <ROLESTATUS type="CHAR"/>
      <RECNAME type="CHAR"/>
      <FIELDNAME type="CHAR"/>
      <PC_EVENT_TYPE type="CHAR"/>
      <QRYNAME_SEC type="CHAR"/>
      <PC_FUNCTION_NAME type="CHAR"/>
      <ROLE_PCODE_RULE_ON type="CHAR"/>
      <ROLE_QUERY_RULE_ON type="CHAR"/>

```

To edit XML you must have the appropriate permissions to the service operation and the service operation must have a status of *New*, *Error*, *Retry*, *Timeout*, *Edited* or *Cancelled*.

When you have completed editing the XML click the **Save** button to save your changes. Click the **Return** button to return to the Asynchronous Details page.

Viewing Service Operation Nonrepudiation Signature Information

Understanding Viewing Service Operation Nonrepudiation Signature Information

If an asynchronous or synchronous service operation is sent with a signature you can view the nonrepudiation signature in XML format.

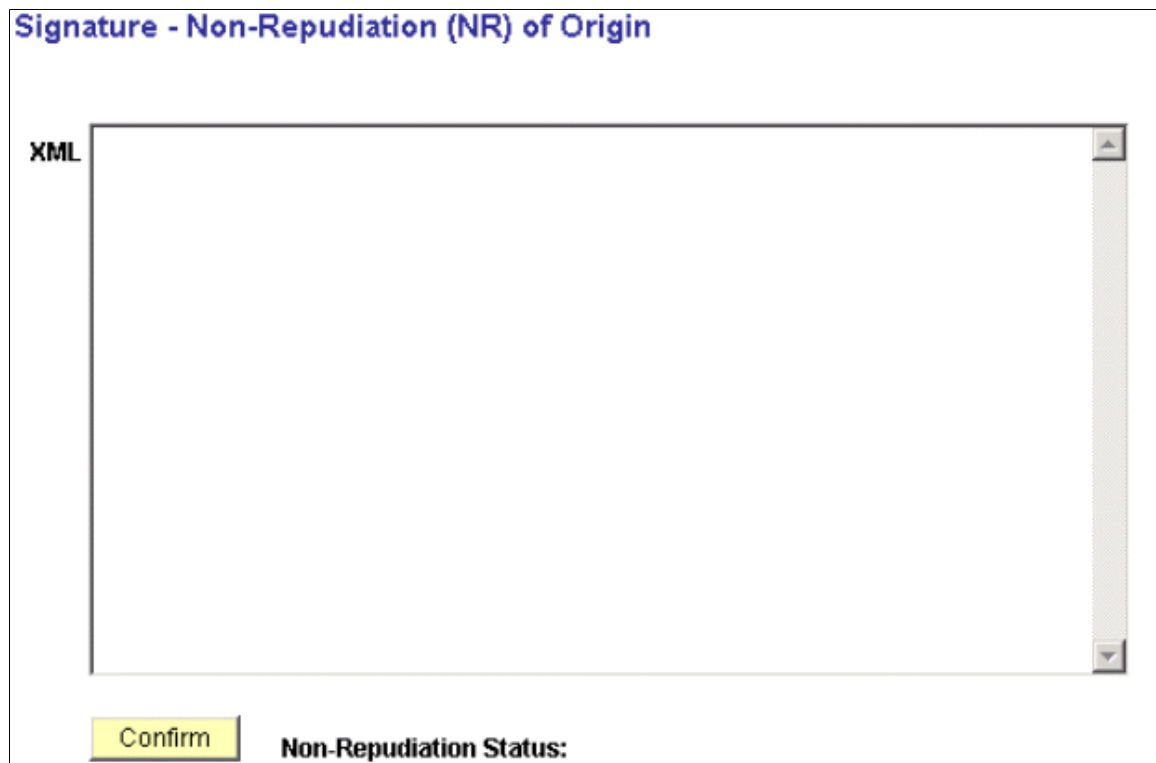
Related Links

[Viewing Nonrepudiation Signatures in XML Format](#)

Viewing Nonrepudiation Signatures in XML Format

The Signature (NR) page displays nonrepudiation information for asynchronous service operations.

This example shows the Signature-Non-Repudiation (NR) of Origin page.



The **Signature** link to this page appears only if the service operation is sent with a signature. When you click the *Signature* link, the service operation signature appears in XML.

Click the **Confirm** button to confirm the nonrepudiation status. Click the **Return** button to return to the previous page.

Running Batch Error Notification Processes

Understanding Batch Error Notification

Although you can easily use the Service Operations Monitor to scan your system for service operations, that approach requires you to launch the Service Operations Monitor on a scheduled basis to search for any issues affecting the messaging system. The Error Notification component (PT_ERR_RUNCNL) provides access to an Application Engine batch program, *PT_AMM_WF*, that you can schedule to run on a recurring basis.

The *PT_AMM_WF* process is designed notify users to report on service operations which are in *Error* or *Timeout* status in the Service Operation Monitor.

The *PT_AMM_WF* process reports errors and time-out issues one time. The expectation is that after issues are reported, that they are resolved. During subsequent runs of the process, the system reports only new issues found, and does not report previous issues that may still be unresolved.

Note: You can use *PT_AMM_WF* to notify users of errors relating to asynchronous service operations only.

To access the program, select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Monitoring Errors**.

The following table describes the information for which *PT_AMM_WF* scans, how it notifies administrators, and what administrators should do after receiving an error notification.

Step	Task	Description
1	Query Message Queues	The program scans the following messaging queues in the database in search of service operation with a status of either <i>Error</i> or <i>Timeout</i> . <ul style="list-style-type: none">• Publications Contracts Queue• Subscriptions Contracts Queue
2	Trigger Workflow	Upon encountering a service operation status of either <i>Error</i> or <i>Timeout</i> , <i>PT_AMM_WF</i> sends a workflow to all users assigned to the APP_MSG_ADMINISTRATOR role at runtime. The query for this role associates a service operation with a user through the service operation's queue name property. All users that have at least read-access to the service operation queue are notified.

Step	Task	Description
3	Resolve Issue	Administrators also receive a new worklist item reflecting the problematic service operation. To access the service operation, an administrator clicks the item in the worklist. The link leads to the Asynchronous Details component. The component is presented with the specified service operation loaded.

Related Links

[Prerequisites for Using Batch Error Notification](#)

[Creating Static Error Notification Lists](#)

[Running Batch Error Notifications](#)

Prerequisites for Using Batch Error Notification

To enable the workflow notification functionality, you need to have the following items in place within security definitions:

- Grant access to the PT_AMM_DUMMY component interface. Navigate to **PeopleTools > Security > Permissions and Roles > Permission Lists > Component Interfaces**.
- Assign users to the APP_MSG_ADMINISTRATOR role using **PeopleTools > Security > Permissions and Roles > Roles > Members**.

PeopleSoft delivers the APP_MSG_ADMINISTRATOR role.

- Add email addresses for users assigned to the APP_MSG_ADMINISTRATOR role to their user profiles so that they can receive the notification.

To complete this task, select **PeopleTools > Security > User Profiles > User Profiles > Edit Email Addresses**

- Grant users read-only access (at a minimum) to the service operation queue.

In addition you must set several PeopleSoft Workflow default options using the Set Worklist Defaults page (WF_SYS_DEFAULTS). Note that after you set these options you must reboot the application server.

To set the workflow default options for using batch error notification:

1. Access the Set Worklist Defaults page (select **PeopleTools > Workflow > Defaults & Messages > Set Worklist Defaults**).
2. In the System Default User section, select the system User ID.
3. In the System Wide Route Processing section, select the **Email Active** box.

4. Click the **Save** button.
5. Restart the application server.

Related Links

- "Managing Permission Lists" (Security Administration)
- "Managing Roles" (Security Administration)
- "Setting Workflow System Defaults" (Workflow Technology)

Creating Static Error Notification Lists

By default, error notifications are sent to all users who can monitor the service operation queue; these are users assigned to the Query role. However, you can send error notifications to a static list of users that belong to the *APP_MSG_ADMINISTRATOR* role. To do so you must turn off the Use Query to Route Workflow option for the *APP_MSG_ADMINISTRATOR* role, and assign specific users to the role.

To view users assigned to the *APP_MSGADMINISTRATOR* role, run the *ROLE_APP_MSG_ADMINISTRATOR* query.

To create a static error notification list:

1. Turn off the User Query to Route Workflow option.
 - a. Select **PeopleTools >Security >Permissions and Roles >Roles**.
 - b. Select and open the *APP_MSG_ADMINISTRATOR* role.
 - c. Click the Workflow tab.
 - d. In the **Workflow Routing Options** box, clear the **Use Query to Route Workflow** option, and click **Save**.
2. Assign specific users to the *APP_MSG_ADMINISTRATOR* role.

See "Specifying User Profile Attributes" (Security Administration).

Running Batch Error Notifications

You use the Error Notification page (*PT_ERR_RUNCNTL*) to run the *PT_AMM_WF* process. To access the page, select **PeopleTools > Integration Broker > Service Operations Monitor >Monitoring > Monitoring Errors**.

This example illustrates the fields and controls on the Error Notification page. You can find definitions for the fields and controls later on this page.

To run PT_AMM_WF:

1. Select **PeopleTools > Integration Broker > Monitor Integrations > Monitoring Errors**.
2. Select an existing run control ID, or add a new one using the **Add** button.

The Error Notification page appears.

3. Select a process frequency.

Options are:

- *Process Once*. Select to run PT_AMM_WF manually.
- *Process Always*. Select to run PT_AMM_WF constantly.
- *Don't Run*. Select to disable a recurring PT_AMM_WF run.

4. Add a request ID and description.

These attributes uniquely identify a run control. You only see the IDs when you have a list of run controls.

5. In the **URL** field, enter the PeopleSoft Pure Internet Architecture URL to provide in the email error notification. Users use the URL to link to the error.

The URL of the current web server displays in this field by default.

6. Click **Run**.
7. Click **OK** on the Process Scheduler Request page to submit the process.

Archiving Service Operation Instances

Understanding Archiving Service Operation Instances

For asynchronous service operations, archiving is determined at the queue level. To archive asynchronous service operation instances you must activate archiving on the service operation queue.

For synchronous service operations, archiving is determined by the user by selecting service operation instances to archive.

Related Links

["Adding Queue Definitions" \(Integration Broker\)](#)

Archiving Service Operations

You can archive service operation instances one at a time from the Asynchronous Details component or the Synchronous Details component by clicking the **Archive** button that appears on the right side of the page.

Related Links

[Understanding Viewing Asynchronous Service Operation Details](#)

[Viewing Synchronous Service Operation Details](#)

Retrieving Archived Messages

You can retrieve archived service operation instances from the following pages in the Asynchronous Services component: Monitor Overview page, Operation Instances page, Publication Contracts page, and Subscription Contracts page.

To retrieve archived service operations instances, select the **Archive** check box and click **Refresh**. Archived service operations appear in the results grid on the page. For any returned row, click the **Details** link to view the service operation header and service operation content.

Running Batch Service Operation Archiving Processes

Understanding Running Batch Service Operation Archiving Processes

For performance and general maintenance reasons you may want to archive older service operations to clear space on the live runtime monitor tables.

You use the Run Archive page (RUN_APMSGARCH) to invoke the Application Engine process APPMSGARCH.

Using the APPMSGARCH process to archive service operation data is the batch approach. You can also archive individual service operations using the **Archive** option that appears on the Asynchronous Services-Monitor Overview page and on the Synchronous Services page.

See [Monitoring Asynchronous Service Operation Instances](#) [Viewing Synchronous Service Operation Details](#)

Related Links

[Prerequisites for Running Batch Service Operation Archiving Processes](#)

[Running Batch Service Operation Archiving Processes](#)

Prerequisites for Running Batch Service Operation Archiving Processes

Before you run a batch service operation archive process, inactivate the pub/sub server domain. Re-activate the pub/sub server domain after you run the process.

Related Links

"Activating Pub/Sub Server Domains" (Integration Broker Administration)

Running Batch Service Operation Archiving Processes

This topic discusses how to:

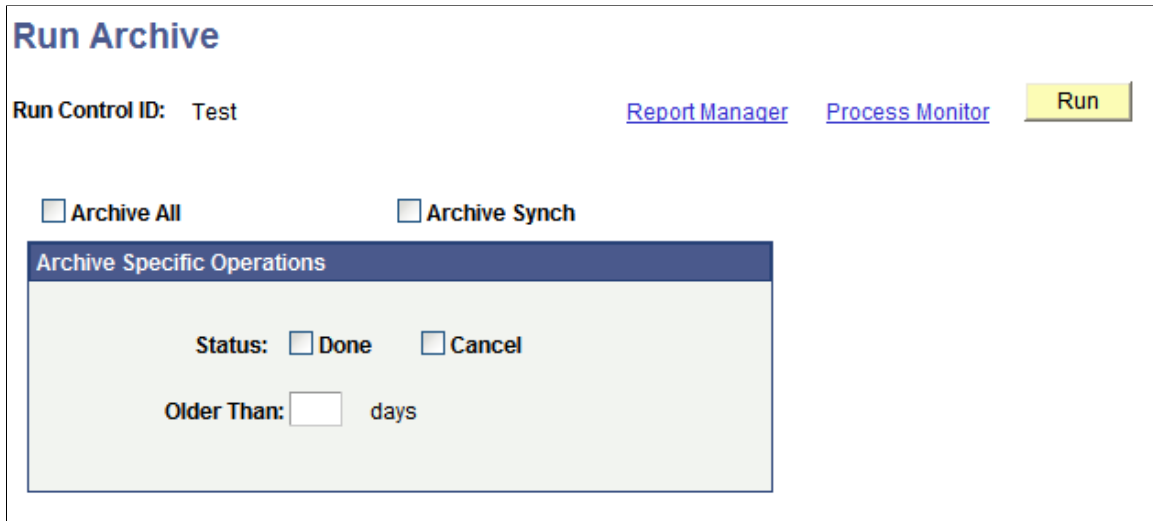
- Access the Run Archive page.
- Archive asynchronous service operations in batch mode.

- Archive synchronous service operations in batch mode.

Accessing the Run Archive Page

To access the Run Archive page, select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Archive Monitor Data**.

This example illustrates the fields and controls on the Run Archive page. You can find definitions for the fields and controls later on this page.



Archiving Asynchronous Service Operations in Batch Mode

To archive asynchronous service operations in batch mode:

1. Access the Run Archive page:
 - a. Select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Archive Monitor Data**.
 - b. Select an existing run control ID or add a new one.
The Run Archive page appears.

2. Select the service operations to archive using the following controls:

<i>Field or Control</i>	<i>Description</i>
Archive All	Select this check box to archive all asynchronous service operations in the messaging system with a status of <i>Done</i> or <i>Cancel</i> , regardless of how long they have been in the messaging system.

<i>Field or Control</i>	<i>Description</i>
Done	Select this box to archive asynchronous service operations in the messaging system with the corresponding operation instances in the status of <i>Done</i> .
Cancel	Select to archive only those asynchronous service operations in the messaging system with the corresponding operation instances in the status of <i>Cancel</i> .
Older Than	Enter a numeric value between 1 and 999. Do not enter 0 (zero) or a decimal value. Messages older, in days, than the value that you enter will be archived. This option archives service operations based on days. If the date is August 15, 2012, service operations dated August 13, 2012 and earlier are archived.

3. Click the **Run** button.

The Process Scheduler Request page appears.

4. Make the appropriate selections and click **OK**.

Archiving Synchronous Service Operations in Batch Mode

To archive synchronous service operations in batch mode:

1. Access the Run Archive page:
 - a. Select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Archive Monitor Data**.
 - b. Select an existing run control ID or add a new one.

The Run Archive page appears.

2. Select the service operations to archive using the following controls:

<i>Field or Control</i>	<i>Description</i>
Archive Synch	Check the box to archive all synchronous service operations in the messaging system.

Field or Control	Description
Older Than	<p>Enter a numeric value between 1 and 999. Do not enter 0 (zero) or a decimal value. Messages older, in days, than the value that you enter will be archived.</p> <p>This option archives service operations based on days. If the date is <i>August 15, 2012</i>, service operations dated August 13, 2012 and earlier are archived.</p>

Note: The **Done** and **Cancel** controls do not apply to archiving synchronous transactions. They apply only to archiving asynchronous transactions. Selecting the **Done** control or **Cancel** control triggers asynchronous transactions to be archived as well, according to the processing logic described in the previous section about batch archiving asynchronous service operations.

3. Click the **Run** button.
The Process Scheduler Request page appears.
4. Make the appropriate selections and click **OK**.

Related Links

"Understanding Process Monitor" (Process Scheduler)

"Understanding Report Manager" (Process Scheduler)

Viewing System Performance Statistics

Understanding Messaging System Performance Statistics

The Service Operations Monitor provides a Statistics page that enables you to view performance statistics for asynchronous and synchronous service operations that flow through PeopleSoft Integration Broker. The statistics can help you to identify bottlenecks and other performance issues in your integration system.

Service Operation Types

The Service Operation Monitor provides performance statistics for the following service operation transaction types:

- Inbound asynchronous.
- Outbound asynchronous.
- Inbound synchronous.
- Outbound synchronous.

Definitions for these service operations are provided elsewhere in the product documentation.

See "Service Operation Types" (Integration Broker).

Processing Components

The following table lists the system processing components for which PeopleSoft Integration Broker captures performance statistics and briefly describes the types of processing that each performs:

Term	Definition
Application Server	The application server performs all data handling, processing event handlers, performs security, routes service operations, performs transformations, and manages load balancing and primary/secondary processing, and more.
Broker (Handler)	The broker analyzes all service operations in the queue and determines the transaction type. Based on the transaction type, it creates a subscription contract, publication contract, or both.

Term	Definition
Gateway	<p>On inbound requests, the integration gateway performs request serialization/deserialization, request authentication, applies transformations, and performs the Jolt request to the application server. On outbound requests, the integration gateway applies transformations, and determines the target connector for the request and hands off the request accordingly.</p> <p>For statistics to display for the integration gateway processing you must enable the statistics feature on the integration gateway.</p> <p>See Enabling the System Performance Statistics Feature.</p>
Publication (Contract Handler)	The publication contract handler routes service operations to another destination.
Remote Server	When you perform synchronous transactions with PeopleSoft system, those systems send back processing statistics with their requests and/or responses. These statistics appear in the category Remote Server on the statistics pages.
Subscription (Contract Handler)	The subscription contract handler runs PeopleCode associated with a service operation.
Tuxedo Queue	<p>PeopleSoft Integration Broker includes a set of Oracle Tuxedo servers that monitor database tables and process items in the tables. The processing can include running PeopleCode programs, creating publication and subscription contracts, and so forth.</p> <p>Several of the Statistics pages provide information for the processing on these queues.</p>

Overhead Processing

When you view the statistical details of system processing, some of the numbers fall into the categories of *Overhead*. and *Connection Overhead*.

Statistics in these categories are for miscellaneous processing that do not fall into the major categories shown, but count toward the overall processing on a component or for the transaction.

The following table lists types of overhead processing that can be included in these categories. The information in the table is not exhaustive, and other items, processing, and even system configuration and capacity may contribute to overhead processing statistics generated on your system:

Component	Example of Overhead Processing
All	<ul style="list-style-type: none"> • Calls between processing. • Receiving/handing off a transaction to another component. • Internal processing. • And so on.
Broker handler	<ul style="list-style-type: none"> • Time taken to determine the contracts to create. • And so on.
Integration gateway	<ul style="list-style-type: none"> • Determining the connector to use for a transaction. • Data deserialization and serialization. • Authentication. • Performing the Jolt request to the application server. • And so on.
Application server	<ul style="list-style-type: none"> • Authentication. • Data compression. • And so on.

Processing Times

Note the following information regarding processing times that appear in the Statistics pages:

- All processing times are averages.
- Processing times are displayed in milliseconds (ms.).
- Processing times appear in the following format: Avg.(x) nn.nn ms.

The value of *x* in parentheses is the number of transactions on which the average processing time is based.

The value of *nn.nn* is the average processing time in milliseconds (ms.).

- Processing times of less than one millisecond appear as *00.00 ms*.
- In some instances the system displays *No Data Available* for a system component.

In such situations no processing was performed on the component.

As an example, the link for the Gateway component might display *No Data Available* if you were viewing statistics for transactions processed with the InBoundPublish method, whereby the integration gateway is bypassed to publish transactions.

Using the Statistics Pages

PeopleSoft Integration Broker provides a Statistics page where you select the service operation transaction type of the performance statistics to view. To access the page select **PeopleTools >Integration Broker >Service Operations Monitor >Monitoring >Messaging System Statistics**.

Use the Statistics page to select the service operation transaction type of the system performance statistics to view.

Statistics

Use the following links to view the respective messaging runtime performance data. You can view raw numeric data and different charts. Each link opens a separate browser window. For local synchronous use the Outbound Synchronous link.

Asynchronous	Synchronous
Inbound Asynchronous	Inbound Synchronous
Outbound Asynchronous	Outbound Synchronous

[Purge All Statistics Files](#)

The Statistics page presents four categories of service operation transaction types for which you can view performance statistics.

After you select a service operation transaction type, a separate window appears that contains a search dialog box. The search dialog box that appears is based on the transaction type you selected. Use the page to enter search criteria for data to retrieve and view.

Use the Inbound Asynchronous page to search for inbound asynchronous messaging system performance statistics to view.

Inbound Asynchronous

Search Criteria

Publish Node:

Queue Name:

Service Operation:

Time Period

From Date: To Date:

From Time: To Time:

[Averages and Analysis](#)

Subscription Timing Data						
Orig Transaction ID	Transaction ID	Segment	Action Name	Service Operation	Queue Name	Publishing Node
		0				

After you enter your search criteria and press the **Refresh** button, the system displays the search results in the results. If you enter no search criteria and simply press the **Refresh** button, the system displays all performance statistics in the database for the transaction type.

This example shows a completed search for inbound asynchronous performance statistics for the publishing node *QE_LOCAL*. The results grid shows general data about the transactions in numeric format.

Inbound Asynchronous

Search Criteria

Publish Node: Refresh

Queue Name:

Service Operation:

Time Period

From Date: **To Date:**

From Time: **To Time:**

[Averages and Analysis](#)

Subscription Timing Data							Customize Find View All	First 1-20 of 30 Last
Orig Transaction ID	Transaction ID	Seqment	Action Name	Service Operation	Queue Name	Publishing Node		
0f8b9478-5d9f-11dc-8772-a0ee43355c0e	101b3818-5d9f-11dc-b5b9-a6fe77530150	1	Flight_app_eng	FLIGHTPLAN	FLIGHT_QUEUE_2	QE_LOCAL		
10044c48-5d9f-11dc-8772-a0ee43355c0e	1022dc08-5d9f-11dc-b5b9-a6fe77530150	1	Flight_app_eng	FLIGHTPLAN	FLIGHT_QUEUE_3	QE_LOCAL		
13f97a20-5031-11dc-bfe3-9c7de7c8962e	14cc5a00-5031-11dc-b68b-b7cb2da4ac8b	1	YOYO	PARTS_ASYNC	FLIGHTQUEUE	QE_LOCAL		
1e6a5810-5033-11dc-80c5-9c7de7c8962e	1eb53840-5033-11dc-b68d-b7cb2da4ac8b	1	Async	ALICE_POLL_ASYNC	ALICE	QE_LOCAL		
5f962430-5035-11dc-8222-9c7de7c8962e	5ff35aa0-5035-11dc-b68d-b7cb2da4ac8b	1	Async	ALICE_POLL_ASYNC	ALICE	QE_LOCAL		
60b08258-5da1-11dc-8772-a0ee43355c0e	613d1798-5da1-11dc-b5ba-a6fe77530150	1	Flight_app_eng	FLIGHTPLAN	FLIGHTQUEUE	QE_LOCAL		
61200f08-5da1-11dc-8772-a0ee43355c0e	61433458-5da1-11dc-b5bb-a6fe77530150	1	Flight_app_eng	FLIGHTPLAN	FLIGHTQUEUE	QE_LOCAL		

The Subscription Timing Data grid in the previous graphic shows partial results of all results returned.

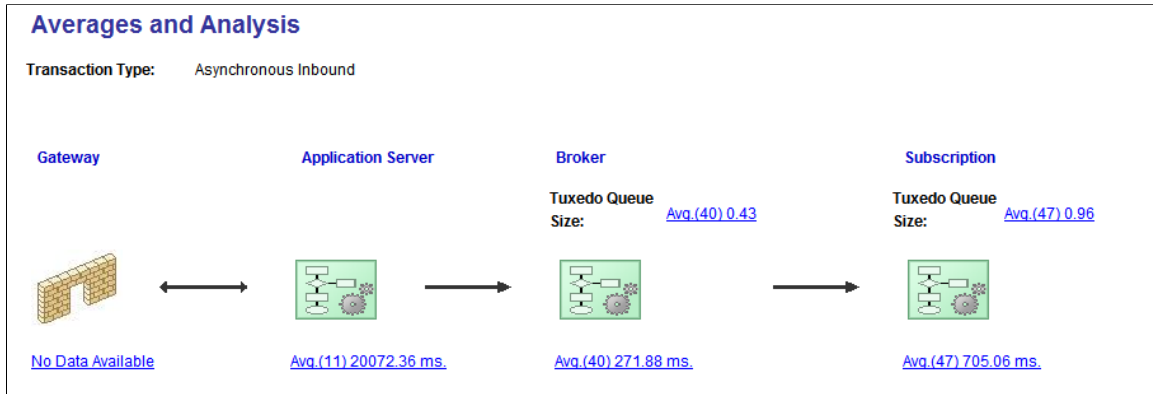
The results grid shows general data about the transactions in numeric format.

Note: Due internal system processing, not all transactions profiled display in the results grid. However averages displayed are accurate.

Based on the transaction type of the data you're viewing, the system displays additional options to view more detailed data and data in graphical format.

For example, when you click the Averages and Analysis link for inbound asynchronous system performance data, a graphical display of the messaging system component displays. Next to each graphic is a numeric link, which corresponds to the amount of processing time on the component.

This example shows the Averages and Analysis page for inbound asynchronous transactions.

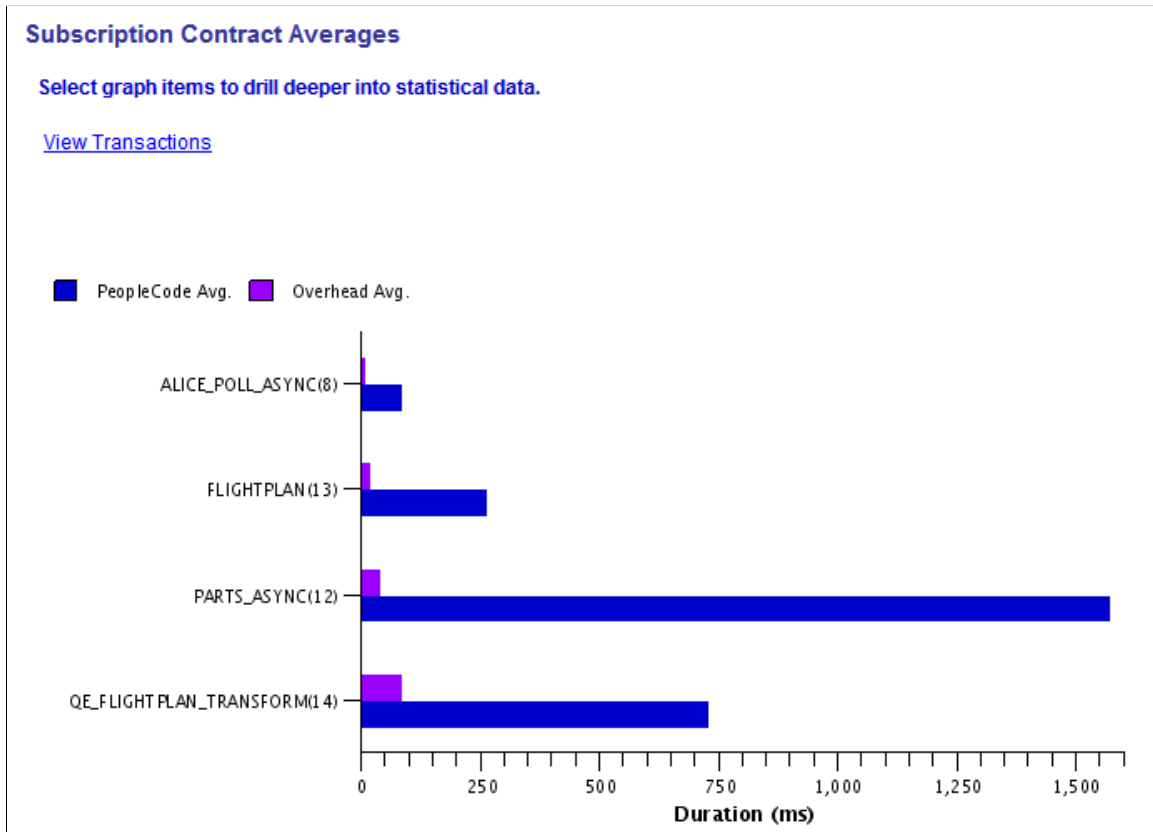


The flow of the transactions are from left to right. In this case you are viewing inbound asynchronous processes, therefore the integration gateway receives the requests and sends the Jolt requests to the application server. The broker evaluates the subscription contracts, and then subscription processing takes place.

Click the links under each component to view more detailed information about processing times during system processing.

When you click the link under the Subscription on the Averages and Analysis page, the Subscription Contract Averages page appears.

This example shows the Subscription Contract Averages page.



The Subscription Contract Averages page depicts subscription processing times in graphical format. In this example, the bar chart shows the average time for PeopleCode processing and overhead processing for the service operations *ALICE_POLL_ASYNC*, *FLIGHTPLAN*, *PARTS_ASYNC*, and *QE_FLIGHTPLAN_TRANSFORM*. The number in parentheses next to each service operation name is the number of transactions involving that service operation reflected in the data.

To view the transactions that comprise the graphical representation shown, click the **View Transactions** link. The transactions appear in the Subscription Contracts Details grid of the Subscription Contract Details page..

This example shows the Subscription Contract Details page. The information in the Subscription Contract Details grid is the raw data on which the graphs are based on the Subscription Contract Averages page.

Subscription Contract Details						
Orig Transaction ID	Transaction ID	Tuxedo Queue Size	Service Operation	Queue Name	PeopleCode	Timestamp
13f97a20-5031-11dc-bfe3-9c7de7c8962e	14cc5a00-5031-11dc-b68b-b7cb2da4ac8b	0	PARTS_ASYNC	FLIGHTQUEUE	1272	08/21/2007 2:54:26.000000PM
6948bde0-5031-11dc-809e-9c7de7c8962e	69a15ec0-5031-11dc-b68b-b7cb2da4ac8b	0	ALICE_POLL_ASYNC	ALICE	161	08/21/2007 2:56:47.000000PM
6a24ea60-5032-11dc-80c5-9c7de7c8962e	6a6fca90-5032-11dc-b68d-b7cb2da4ac8b	0	ALICE_POLL_ASYNC	ALICE	60	08/21/2007 3:03:58.000000PM
1e6a5810-5033-11dc-80c5-9c7de7c8962e	1eb53840-5033-11dc-b68d-b7cb2da4ac8b	0	ALICE_POLL_ASYNC	ALICE	50	08/21/2007 3:09:01.000000PM
722940b0-5033-11dc-80c5-9c7de7c8962e	72589f80-5033-11dc-b68d-b7cb2da4ac8b	0	ALICE_POLL_ASYNC	ALICE	60	08/21/2007 3:11:20.000000PM
fe5b2d80-5033-11dc-81c6-9c7de7c8962e	fed25e20-5033-11dc-b68d-b7cb2da4ac8b	0	ALICE_POLL_ASYNC	ALICE	60	08/21/2007 3:15:16.000000PM
b48b1e60-5034-11dc-820c-9c7de7c8962e	b53026a0-5034-11dc-b68d-b7cb2da4ac8b	0	ALICE_POLL_ASYNC	ALICE	70	08/21/2007 3:20:22.000000PM

Note that this is a partial example and does not show all the data on which the bar charts in the previous graphic are based.

Enabling the System Performance Statistics Feature

To view messaging system performance information, you must enable the statistics feature on the Monitor Setup Options page in the Service Operations Monitor as well as on integration gateway through the `integrationGateway.properties` file.

The setting in the Service Operations Monitor enables the system to capture performance statistics for activity on the application server. The setting on the integration gateway enables the system to capture performance statistics for activity on the integration gateway.

If you enable the feature only in the Service Operations Monitor and not on the integration gateway, the system captures statistics only for activity on the application server and does not capture any information for activity on the integration gateway.

Note: It is recommended that you enable the statistics feature on both the application server and on the integration gateway.

You do not need to perform any setup tasks in the integration gateway or in the Service Operations Monitor to capture performance statistics on the remote PeopleSoft system. The sending PeopleSoft system includes an identifier in the message request that prompts the remote PeopleSoft system for performance information. This information is returned as part of the response message.

To enable the statistics feature on the application server:

1. Select **PeopleTools > Integration Broker > Configuration > Integration Broker Options**.

The System Setup Options page appears.

2. Check the **IB Profile Status On** check box.
3. Click the **Save** button.

To enable the statistics feature on the integration gateway:

1. Access the integrationGateway.properties file.
2. Locate the **Profile Information** section at the end of the file.
3. Set the ig.ProfileInformation property to *TRUE*.
4. Save the file and refresh the integration gateway.

Searching for System Performance Statistics

This section describes how to search for performance statistics to view.

Common Elements Used to Search for System Performance Statistics

<i>Field or Control</i>	<i>Description</i>
Publish Node	The sending node.
Queue Name	Name of the queue used to send or receive the integration.
Refresh	Click the button to refresh the page based on the search criteria entered. The results display in the grid at the bottom of the page.
Service Operation	Name of the service operation for which to display statistics.
Subscriber Node	Name of the node that subscribes to the service operation.

Field or Control	Description
Time Period	<p>The Time Period group box features four fields for searching by date and time: From Date, To Date, From Time and To Time.</p> <p>All must be left blank or all must be populated. When left blank, no date or time is used as part of the search criteria.</p>

Searching for Performance Statistics

To search for system performance statistics:

1. Select **PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Messaging System Statistics**. The Statistic page displays.
2. Click the link that corresponds to the transaction type for which you want to view statistics. The choices are:
 - *Inbound Asynchronous*.
 - *Outbound Asynchronous*.
 - *Inbound Synchronous*.
 - *Outbound Synchronous*.

This options enables you to view statistics for local synchronous transaction in addition to those for outbound synchronous transactions.

A separate page appears that contains a Search Criteria dialog box.

3. Enter values in the Search Criteria dialog box, based on the data you want to view.
See [Common Elements Used to Search for System Performance Statistics](#).
4. Click the **Refresh** button.

The system displays the results in numeric format in the grid under the search dialog box.

Viewing Messaging System Performance Statistics

This section discusses how to:

- View inbound asynchronous messaging system statistics.
- View outbound asynchronous messaging system statistics.
- View inbound synchronous messaging system statistics.
- View outbound asynchronous messaging system statistics.

Related Links

[Using the Statistics Pages](#)

Common Elements Used to View Messaging System Performance Statistics

<i>Field or Control</i>	<i>Description</i>
Action Name	The name of the service operation handler.
Connection Time Total Avg.(Connection Time Total Average)	<p>When viewing outbound synchronous transactions, the value displayed on the link label indicates the average processing time between local and remote servers. This time includes the processing time of sending the request to the integration partner, as well as receiving the response.</p> <p>When viewing outbound asynchronous transactions, the value displayed on the link label indicates the average processing time between integration gateway and the remote system.</p> <p>Click the link to view separate statistics for application server and remote server processing.</p>
Integration Service Total	Complete processing time for the specific transaction.
Orig Transaction ID(Original Transaction ID)	<p>Original transaction IDs are associated with asynchronous transactions only.</p> <p>The system creates an original transaction ID when it creates the message instance.</p> <hr/> <p>Note: An original transaction ID is different than a transaction ID. An original transaction ID is associated with a message instance, and a transaction ID is associated with a publication or subscription contract</p> <hr/>
Purge All Statistic Files,Purge All Synchronous Timings,Purge All Subscription Timings,Purge All Publication Timings	<p>Click one of these buttons to purge performance statistics for the given transaction type.</p> <hr/> <p>Warning! The Purge All Statistics Files button will permanently delete data on all the Statistics page. The other buttons permanently delete statistics on the page on which they appear.</p> <hr/> <p>Use these options when you are done using the statistics or want to view new performance statistics.</p> <p>These options are discussed in additional detail elsewhere in this topic.</p> <p>See Purging System Performance Statistics.</p>

Field or Control	Description
Segment	<p>When a service operation contains segmented message, this field indicates the number of the message segment.</p> <p>If a service operation does not contain a segmented message, the field displays a value of <i>1</i>.</p> <p>The default value of this field is <i>1</i>.</p>
Sync Total(Synchronous Total)	<p>Displays when working with outbound synchronous transactions.</p> <p>Indicates the total processing time for a single synchronous transaction.</p>
Transaction ID	The unique identifier for the transaction assigned by the system.
TCA(Target Connector Adapter)	<p>Displays when viewing outbound synchronous transactions</p> <p>This field indicates the processing time of the adapter to connect to an integration partner and receive a response for a single transaction.</p>
Timestamp	Displays the date and time that the service operation flowed through the system.
Transaction Local Avg.(Transaction Local Average)	<p>This link displays when working with inbound synchronous statistics.</p> <p>The value displayed on the link label indicates the average processing time for all selected transactions on the local system.</p> <p>Click the link to view more detailed information for application server processing times.</p>
Transaction Total Avg.(Transaction Total Average)	<p>Displays when working with synchronous statistics.</p> <p>The value displayed on the link label indicates the average processing time (request and response) for all selected transactions.</p> <p>Click the link to view statistics for application server, integration gateway, and remote server processing.</p>

Viewing Inbound Asynchronous Statistics

Initial search results for inbound asynchronous messaging system performance statistics display in the Subscription Timing Data grid. The data in grid provides high-level information about the transactions. The fields that appear in this grid are described elsewhere in this section.

See [Common Elements Used to View Messaging System Performance Statistics](#).

Click the Averages and Analysis link to show performance statistics for integration gateway, application server, broker handler, and subscription contract processing times. The Averages and Analysis page for inbound asynchronous transactions is shown earlier in this topic.

See [Using the Statistics Pages](#).

The Averages and Analysis page shows the flow of transactions in graphical format. The flow of the transaction(s) is from left to right. The integration gateway receives the requests and sends the Jolt requests to the application server. The application server performs any service authentication and passes the requests to the subscription broker. The broker evaluates the transactions and creates the subscription contracts.

The following table lists the links that display on the Averages and Analysis page when viewing inbound asynchronous transactions. It also lists the names of the pages that open when you click a link and describes the data that may display. The actual data that displays depends on the makeup of the transactions.

Field or Control	Description
Gateway	<p>The value that displays on the link label is the average processing time for the selected transactions on the integration gateway.</p> <p>Click the link to open the Gateway Averages page. Use the page to view the statistics that comprise the integration gateway processing average. They can include:</p> <ul style="list-style-type: none"> • <i>Gateway Connector Avg.</i> (Gateway Connector Average). Connector processing of the transaction. • <i>Gateway Transform Avg.</i> (Gateway Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.
Application Server	<p>The value that displays on the link label is the average processing time for the selected transactions on the application server.</p> <p>Click the link to open the Server Averages page. Use this page to view the statistics that comprise the application server processing average. They can include:</p> <ul style="list-style-type: none"> • <i>Sever DB Avg.</i> (Sever Database Average). Processing data on the application server database. • <i>Server Overhead Avg.</i> (Server Overhead Average). Application server overhead.

Field or Control	Description
Broker	<p>The value that displays on the link label is the average publication broker processing time for the selected transactions.</p> <p>Click the link to open the Broker Averages page. Use this page to view the statistics that comprise the publication broker processing average. They can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). OnRoute PeopleCode processing. • <i>Transform Avg.</i> (Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing
(Broker) Tuxedo Queue Size	<p>The value that displays on the link label is average Oracle Tuxedo queue size at the time the broker processed the request.</p> <p>Click this link to open the Tuxedo Queue Size page. Use this page to view the average queue size during the processing of each service operation.</p> <p>The average queue size is the average number of processes or items in the queue waiting for processing at the time the service operation was processed.</p>
Subscription	<p>The value that displays on the link label is the average subscription handler processing time for the selected transaction.</p> <p>Click the link to open the Subscription Contract Averages page. Use this page to view the statistics that comprise the average subscription handler processing time. They can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). Processing time for Notification PeopleCode. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing
(Subscription) Tuxedo Queue Size	<p>The value that displays on the link label is the average Oracle Tuxedo queue size at the time the subscription handler processed the request.</p> <p>Click the link to open the Tuxedo Queue Size page. Use this page to view the average queue size during the processing of each service operation.</p> <p>The average queue size is the average number of processes or items in the queue waiting for processing at the time the service operation was processed.</p>

Viewing Outbound Asynchronous Statistics

Use the Outbound Asynchronous page to search for statistics for outbound asynchronous integrations.

This example illustrates the Outbound Asynchronous page.

Outbound Asynchronous

Search Criteria

Publish Node:

Queue Name:

Service Operation:

Subscriber Node:

Time Period

From Date: To Date:

From Time: To Time:

Local Async

[Averages and Analysis](#)

Customize Find View All First 1-6 of 6 Last						
Orig Transaction ID	Transaction ID	Segment	Subscriber Node	Service Operation	Queue Name	Publishing Node
21e20358-50ca-11dc-854b-9c7de7c8962e	2240c0f8-50ca-11dc-b68d-b7cb2da4ac8b	1	WSDL_NODE	PARTS_ASYNC	FLIGHTQUEUE	QE_LOCAL
42c0d530-5047-11dc-8318-9c7de7c8962e	42e581b0-5047-11dc-b68d-b7cb2da4ac8b	1	WSDL_NODE	PARTS_ASYNC	FLIGHTQUEUE	QE_LOCAL
a8126e88-50c8-11dc-847e-9c7de7c8962e	ad5c4ea8-50c8-11dc-b68d-b7cb2da4ac8b	1	WSDL_NODE	PARTS_ASYNC	FLIGHTQUEUE	QE_LOCAL
6ff777e0-51bc-11dc-8e40-b1d25380b151	b8c5cec0-575d-11dc-8e94-be1db5d4d84c	1	WSDL_NODE	PARTS_ASYNC	FLIGHTQUEUE	QE_LOCAL
bfde0d60-5041-11dc-822a-9c7de7c8962e	c039bca0-5041-11dc-b68d-b7cb2da4ac8b	1	WSDL_NODE	PARTS_ASYNC	FLIGHTQUEUE	QE_LOCAL
f6568850-5047-11dc-83a1-9c7de7c8962e	f70642e0-5047-11dc-b68d-b7cb2da4ac8b	1	WSDL_NODE	PARTS_ASYNC	FLIGHTQUEUE	QE_LOCAL

Initial search results for outbound asynchronous messaging system performance statistics display in the Publication Timing Data grid under the Search Criteria dialog box.

The data in grid provides high-level information about the transactions. The fields that appear in this grid are described elsewhere in this section.

See [Common Elements Used to View Messaging System Performance Statistics](#).

Click the Averages and Analysis link to show performance statistics for subscription broker and publication handler processing times.

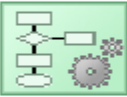
This example illustrates the fields and controls on the Averages and Analysis page. You can find definitions for the fields and controls later on this page.

Averages and Analysis

Transaction Type: Asynchronous Outbound

Broker

Tuxedo Queue Size: [Avg.\(6\) 0.00](#)

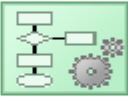


[Avg.\(6\) 1720.50 ms.](#)

→

Publication

Tuxedo Queue Size: [Avg.\(6\) 0.00](#)



[Avg.\(6\) 87552.67 ms.](#)

Publication Breakdown	
Publication Avg.:	Avg.(6) 6222.33 ms.
Connection Time Total Avg.:	Avg.(6) 81330.33 ms.

Return

The Averages and Analysis page shows the flow of transactions in graphical format. The flow of the transaction(s) is from left to right: the broker evaluates the transactions and creates the publication contracts, and the publication handler processes the contracts.

The Publication Breakdown box shows the average time for creating the publication contracts as well as average time for connecting to perform the posts to the integration gateway.

The following table lists the links that display on the Averages and Analysis page when viewing statistics for outbound asynchronous transactions. It also lists the names of the pages that open when you click a link and describes the data that may display. The actual data that displays depends on the makeup of the transactions.

Field or Control	Description
Broker	<p>The value that displays on the link is the average broker processing time for the selected transactions.</p> <p>Click the link to open the Broker Averages page. Use this page to view the statistics that comprise the broker processing average. They can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). OnRoute PeopleCode processing. • <i>Transform Avg.</i> (Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.
(Broker) Tuxedo Queue Size	<p>The value that displays on the link label is average Oracle Tuxedo queue size at the time the broker processed the request.</p> <p>Click this link to open the Tuxedo Queue Size page. Use this page to view the average queue size during the processing of each service operation.</p> <p>The average queue size is the average number of processes or items in the queue waiting for processing at the time the service operation was processed.</p>
Publication	<p>The value that displays on the link is the overall average processing time for publication contracts.</p> <p>Click the link to open the Publication Contract Averages. Use this page to view the statistics that comprise the overall publication contract processing average. They can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). PeopleCode processing for OnSend and OnReceive PeopleCode events. • <i>Transform Avg.</i> (Transformation Average). Transformation processing. • <i>Connector Avg.</i> (Connector Average). Connector processing time. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.

Field or Control	Description
(Publication) Tuxedo Queue Size	<p>The value that displays on the link label is the average Oracle Tuxedo queue size at the time the publication handler processed the request.</p> <p>Click this link to open the Tuxedo Queue Size page. Use this page to view the average queue size during the processing of each service operation.</p> <p>The average queue size is the average number of processes or items in the queue waiting for processing at the time the service operation was processed.</p>
Publication Average	<p>The value that displays on the link label is the average total publication time for the selected transactions.</p> <p>Click the link to open the Publication Contract Averages page. Use the page to view the publication statistics that are included in the publication average. They can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). OnSend PeopleCode processing. • <i>Transform Avg.</i> (Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.
Connection Time Total Avg (Connection Time Total Average)	<p>The value that displays on the link label is the average connection processing time between the integration gateway and the remote system for the selected contracts.</p> <p>Click the link to open the Averages and Analysis page. Use the page to view connection processing statistics that comprise the connection time average. They can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). OnSend and OnAckReceive PeopleCode processing. • <i>Transform Avg.</i> (Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.

Viewing Inbound Synchronous Service Operation Statistics

Results for searching for inbound synchronous statistics appear in under the Search Criteria section of the Inbound Synchronous page.

This example shows sample search results for inbound synchronous statistics.

Inbound Synchronous

Search Criteria

Publish Node: Refresh

Service Operation:

Time Period

From Date: To Date:

From Time: To Time:

Transaction Total Avg. (ms.): [488.97 ms.](#)

Customize Find View All First 1-20 of 36 Last				
Transaction ID	Service Operation	Publishing Node	Integration Service Total	Timestamp
029aea10-57e4-11dc-8c2e-99d98ec7c260	QE_FLIGHTSYNC_TRANSFORM	ANONYMOUS	630	08/31/2007 10:02:52.000000AM
05c63120-57e3-11dc-8c1c-99d98ec7c260	QE_FLIGHTSYNC_TRANSFORM	ANONYMOUS	1392	08/31/2007 9:55:48.000000AM
06c58890-5732-11dc-970d-b1d25380b151	QE_FLIGHTSYNC_TRANSFORM	ANONYMOUS	30	08/30/2007 12:48:48.000000PM
15417f80-57df-11dc-8c0a-99d98ec7c260	QE_FLIGHTSYNC_TRANSFORM	ANONYMOUS	781	08/31/2007 9:27:36.000000AM
16ae3fc0-5735-11dc-971b-b1d25380b151	QE_FLIGHTSYNC_TRANSFORM	ANONYMOUS	20	08/30/2007 1:10:43.000000PM

The Inbound Synchronous Timing Data grid in the previous graphic shows partial results of all results returned.

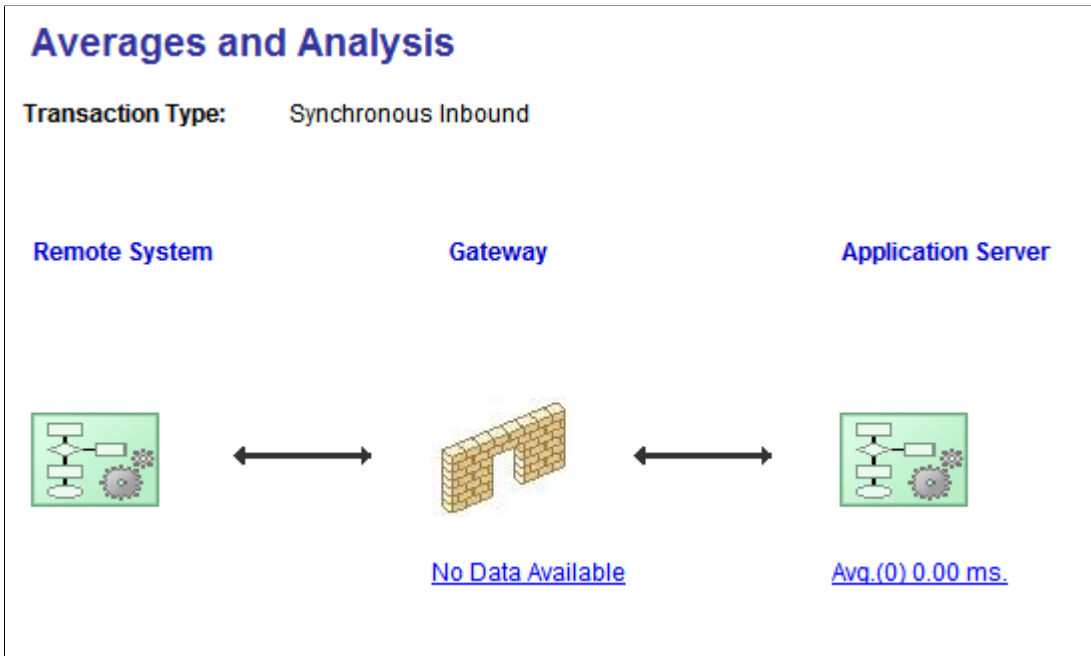
Initial search results for inbound synchronous messaging system performance statistics display in the Inbound Synchronous Timing Data grid under the Search Criteria dialog box.

The data in grid provides high-level information about the transactions. The fields that appear in this grid are described elsewhere in this section.

See [Common Elements Used to View Messaging System Performance Statistics](#).

The value that displays in the Transaction Total Avg field is the average total transaction processing time for the selected transactions. Click the link open the Averages and Analysis page to view the statistics that comprise the total transaction processing time average.

The following example shows the Averages and Analysis page for inbound synchronous transaction statistics



The Averages and Analysis page shows the flow of transactions in graphical format.

The flow of the transactions is from left to right. Remote servers send requests using HTTP to the integration gateway. The integration gateway sends the requests to the application server using Jolt requests.

The following table lists the links that display on the Averages and Analysis page when viewing statistics for inbound synchronous transactions. It also lists the names of the pages that open when you click a link and describes the data that may display. The actual data that displays depends on the makeup of the transactions.

Field or Control	Description
Remote System	<p>The value that displays on the link label is the average processing time on the remote server to send the request.</p> <p>The link appears only when the sending remote server is a PeopleSoft system. PeopleSoft systems send application server performance statistics with request messages.</p> <p>Click the link to open the Remote System Averages page. Use the page to view the statistics that comprise the average remote server processing time. The statistics displayed on this page can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). OnRequest and OnRoute PeopleCode processing. • <i>Transform Avg.</i> (Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.
Gateway	<p>The value that displays on the link label is the average processing time for the selected transactions on the integration gateway.</p> <p>Click the link to open the Gateway Averages page. Use the page to view the statistics that comprise the integration gateway processing average. They can include:</p> <ul style="list-style-type: none"> • <i>Gateway Connector Avg.</i> (Gateway Connector Average). Connector processing of the transaction. • <i>Gateway Transform Avg.</i> (Gateway Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.
Application Server	<p>The value that displays on the link label is the average processing time on the application server.</p> <p>Click the link to open the Local Server Averages page. Use this page to view the statistics that comprise the application server process average. They can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). OnRequest and OnRoute PeopleCode processing. • <i>Transform Avg.</i> (Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.

Viewing Outbound Synchronous Statistics

Results for searching for outbound synchronous statistics appear in under the Search Criteria section of the Outbound Synchronous page.

The following example shows sample search results for outbound synchronous statistics.

Outbound Synchronous

Search Criteria

Publish Node: Refresh

Service Operation:

Time Period

From Date: To Date:

From Time: To Time:

Transaction Total Avg.: [1927.73 ms.](#)

Transaction Local Avg. : [410.64 ms.](#) Connection Time Total Avg. : [1517.09 ms.](#)

Synchronous Timing Data					
Transaction ID	Service Operation	Publishing Node	Sync Total	TCA	Timestamp
2f58ff28-5d92-11dc-b19e-b579c58a162f	QE_FLIGHTPLAN_SYNC	QE_LOCAL	2203	2203	09/07/2007 3:32:18.000000PM
2f58ff28-5d92-11dc-b19f-b579c58a162f	QE_FLIGHTPLAN_SYNC	QE_LOCAL	2203	2143	09/07/2007 3:32:18.000000PM
327398a8-5d92-11dc-b19f-b579c58a162f	QE_FLIGHTPLAN_SYNC	QE_LOCAL	311	301	09/07/2007 3:32:21.000000PM
32751fd8-5d92-11dc-b19f-b579c58a162f	QE_FLIGHTPLAN_SYNC	QE_LOCAL	311	251	09/07/2007 3:32:21.000000PM

Initial search results for outbound synchronous messaging system performance statistics display in the Synchronous Timing Data grid under the Search Criteria dialog box.

The data in grid provides high-level information about the transactions. The fields that appear in this grid are described elsewhere in this section.

See [Common Elements Used to View Messaging System Performance Statistics](#).

In addition, three links appear on the page:

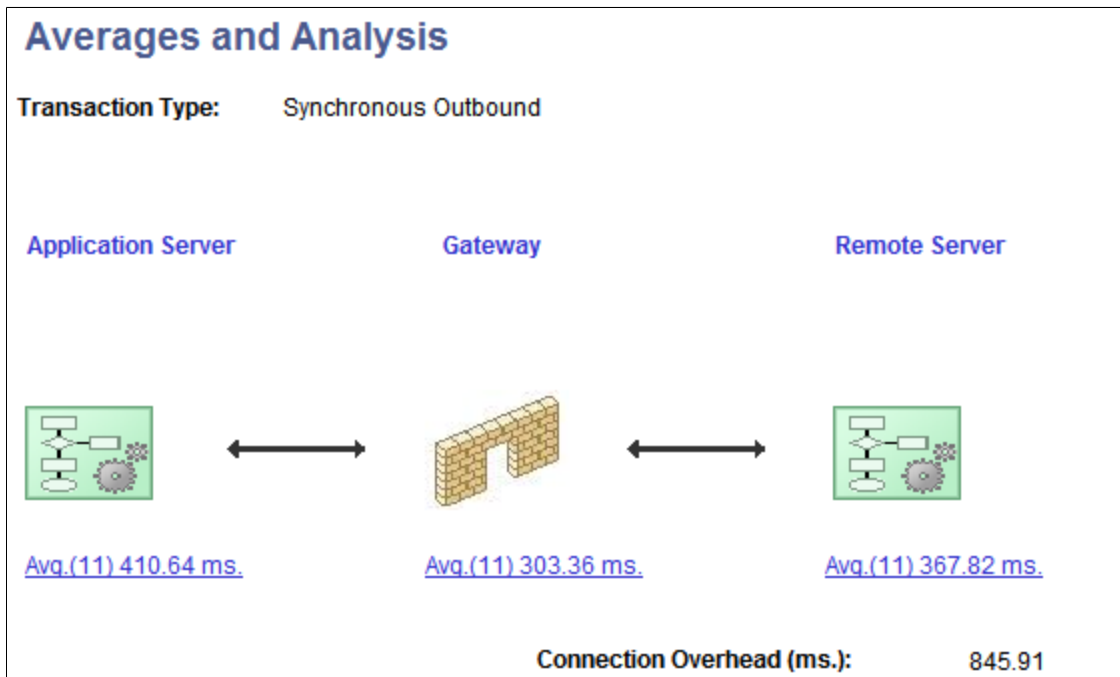
Field or Control	Description
Transaction Total Avg.(Transaction Total Average)	<p>The value that appears on the link label is the average total transaction processing time for the selected transactions. The total includes processing on local and remote servers, as well as the total connection time to remote servers.</p> <p>Click the link to open the Averages and Analysis page. Use this page to view the application server, gateway and remote server statistics that comprise the total transaction processing time average.</p>

Field or Control	Description
Transaction Local Avg.(Transaction Local Average)	<p>The value that appears on the link label is the average total processing time on the local server for the selected transactions.</p> <p>Click the link to open the Averages and Analysis page. Use this page to view the application server statistics that comprise the total average local transaction processing time average.</p>
Connection Time Total Avg.(Connection Time Total Average)	<p>The value that appears on the link label is the average total connection time between remote servers and local servers for the selected transactions.</p> <p>Click the link to open the Averages and Analysis page. Use this page to view the integration gateway and remote server statistics that comprise the connection time total average.</p>

Viewing Average Transaction Processing Time Statistics — Local and Remote Servers

From the outbound synchronous search results page, click the *Transaction Total Avg.* link.

This example illustrates the fields and controls on the Averages and Analysis page. You can find definitions for the fields and controls later on this page.



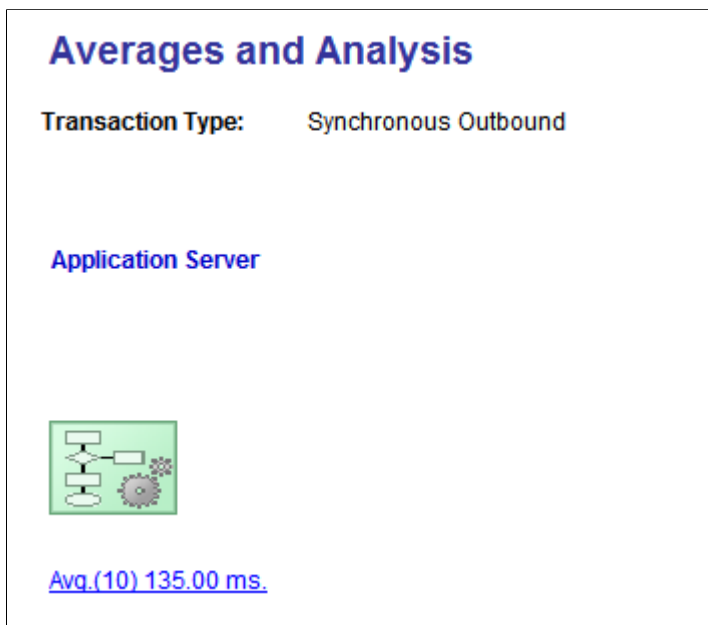
Field or Control	Description
Application Server	<p>The value that appears on the Application Server link label is the average processing time on the application server for the selected transactions. Click the link to open the Local Server Averages page. Use the Local Server Averages page to view the statistics that comprise the application server processing average. They can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). OnRoute PeopleCode processing. • <i>Transform Avg.</i> (Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.
Gateway	<p>The value that appears on the Gateway link label is the average processing time on the integration gateway for the selected transactions. Click the link to open the Gateway Averages page. Use the Gateway Averages page to view the statistics that comprise the gateway processing average. They can include:</p> <ul style="list-style-type: none"> • <i>Gateway Request Avg.</i> (Gateway Request Average). Processing of the request on the integration gateway. • <i>Gateway Response Avg.</i> (Gateway Response Average). Processing of the response on the integration gateway.

Field or Control	Description
Remote Server	<p>The value that appears on the Remote Server link label is the average processing time of the transactions on the remote system.</p> <p>The link appears only when the remote server is a PeopleSoft system. PeopleSoft systems send application server performance statistics with response messages.</p> <p>Click the link to open the Remote System Averages page. Use the Remote System Averages page to view the statistics that comprise the average remote server processing time. The statistics displayed on this page can include:</p> <ul style="list-style-type: none"> • <i>OnRequest Avg.</i> (OnRequest Average). Processing of OnRequest PeopleCode on the remote system. • <i>App. Server Receive Avg.</i> (Application Server Receive Average). Processing time for the request on the remote system, as well as generating a response. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.

Viewing Average Transaction Processing Time Statistics — Local Server Only

From the outbound synchronous search results page, click the *Transaction Local Avg.* link.

This example illustrates the fields and controls on the Averages and Analysis page. You can find definitions for the fields and controls later on this page.



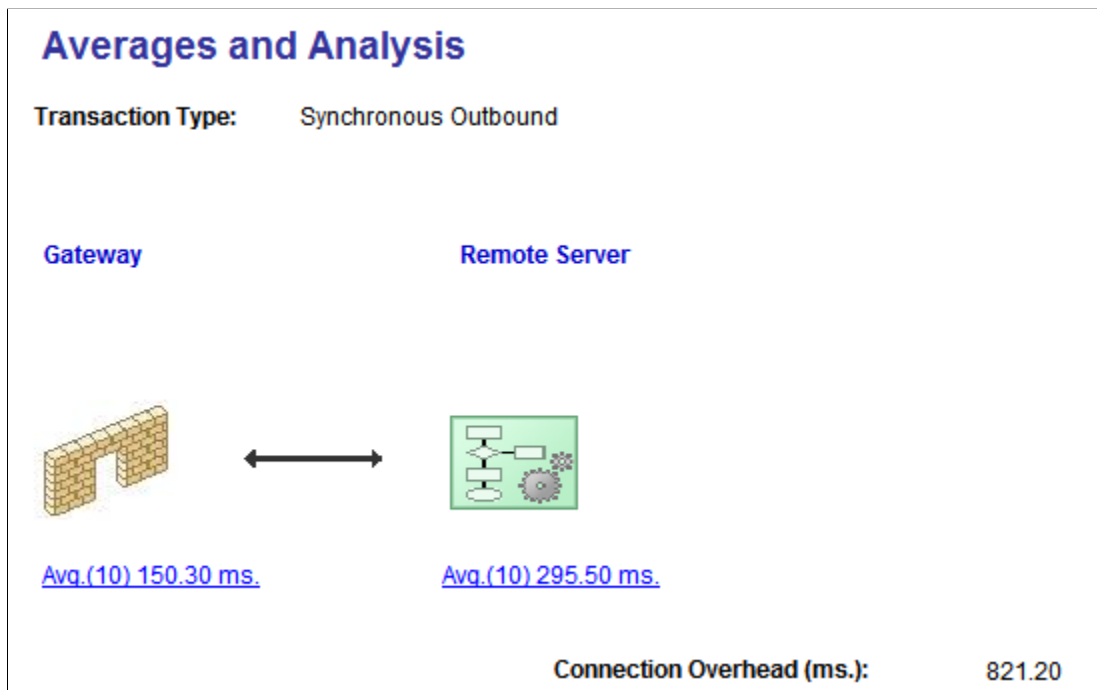
This example shows the average transaction processing time for outbound synchronous transactions.

Field or Control	Description
Application Server	<p>The value that appears on the application server link label is the average processing time on the application server for the selected transactions.</p> <p>Click the link to open the Local Server Averages page. Use this page to view the statistics that comprise the application server processing average. They can include:</p> <ul style="list-style-type: none"> • <i>PeopleCode Avg.</i> (PeopleCode Average). OnRoute PeopleCode processing. • <i>Transform Avg.</i> (Transformation Average). Transformation processing. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.

Viewing Average Transaction Connection Time Statistics

From the outbound synchronous search results page, click the *Connection Time Total Avg.* link.

This example illustrates the fields and controls on the Averages and Analysis page. You can find definitions for the fields and controls later on this page.



This example shows the average transaction connection time for synchronous outbound transactions.

The following table lists the links that display on the page. It also lists the names of the pages that open when you click a link and describes the data that may display. The actual data that displays depends on the makeup of the transactions.

Field or Control	Description
Gateway	<p>The value that appears on the link label is the average processing time on the integration gateway for the selected transactions.</p> <p>Click the link to open the Gateway Averages page. Use the page to view the statistics that comprise the average integration gateway processing time. They can include:</p> <ul style="list-style-type: none"> • <i>Gateway Request Avg.</i> (Gateway Request Average). Processing of the request on the integration gateway. • <i>Gateway Response Avg.</i> (Gateway Response Average). Processing of the response on the integration gateway.
Remote Server	<p>The value that appears on the link label is the average processing time on the remote server for the selected transactions. The link appears only when the remote server is a PeopleSoft system. PeopleSoft systems send back application server performance statistics with response messages.</p> <p>Click the link to open the Remote System Averages page. Use the page to view the statistics that comprise the average remote server processing time. Data appears on this page for transactions where the remote server is a PeopleSoft system.</p> <p>The statistics displayed on this page can include:</p> <ul style="list-style-type: none"> • <i>OnRequest Avg.</i> (OnRequest Average). Processing of OnRequest PeopleCode on the remote system. • <i>App. Server Receive Avg.</i> (Application Server Receive Average). Processing time for the request on the remote system, as well as generating a response. • <i>Overhead Avg.</i> (Overhead Average). Overhead processing.
Connection Overhead	<p>The value that appears on the link label includes miscellaneous connection processing times while sending the request from the integration gateway on the local system to the remote system, as well as connection time when the remote system returns a response to the local system.</p>

Purging System Performance Statistics

You can delete all statistics for transactions in the database or by transaction type.

Warning! Purging system performance statistics permanently deletes all statistics from the database for the transaction type selected.

The following table summarizes the location to delete performance statistics based on the transaction type you want to delete. The button to delete statistics data is located at the bottom the page listed. You need to scroll down to locate this button if there are a lot of search results on the page:

Transaction Type	Page	Navigation	Button
All	Statistics	PeopleTools >Integration Broker >Service Operations Monitor >Monitoring >Messaging System Statistics.	Purge All Statistics Files
Inbound Asynchronous	Inbound Asynchronous	From the Statistics page, click the Inbound Asynchronous link.	Purge All Subscription Timings
Outbound Asynchronous	Outbound Asynchronous	From the Statistics page, click the Outbound Asynchronous link.	Purge All Publication Timings
Inbound Synchronous	Inbound Synchronous	From the Statistics page, click the Inbound Synchronous link.	Purge All Synchronous Timings
Outbound Synchronous	Outbound Synchronous	From the Statistics page, click the Outbound Synchronous link.	Purge All Synchronous Timings

Managing Down Nodes

Understanding Managing Down Nodes

The Service Operations monitor enables you to view nodes that are down in the integration system and clear transaction data so the system can attempt to restart the node.

Viewing Transaction Information for Down Nodes

Use the Undelivered Node Transaction page (AMM_NODESDOWN) to view information about nodes that are down.

This example illustrates the fields and controls on the Undelivered Node Transaction page. You can find definitions for the fields and controls later on this page.

Undelivered Node Transactions				
Undelivered Node Transactions Customize Find View All [Print] [Grid] First 1 of 1 Last				
Node Name	Transaction Type	Service Operation	Version	External Operation Name

You can access this page using either of the following navigation paths:

- Select **PeopleTools >Integration Broker >Service Operations Monitor >Monitoring >Monitor Asynchronous Services >Publication Contracts** and click the *Transaction Retry Queue* link.
- Select **PeopleTools >Integration Broker >Service Operations Monitor >Administration >Node Status** and click the **Transaction Retry Queue** link.

You can work with the following page elements on the Undelivered Node Transaction page:

Field or Control	Description
Node Name	Name of the node that is down or not responding.
Transaction Type	Indicates the transaction type.
Service Operation	Indicates the name of the service operation that was being processed by the node when the node stopped responding.

Field or Control	Description
Version	Indicates the version of the service operation being processed.
External Operation Name	Indicates the name of the service operation sent by the sending node.

Clearing Transaction Data for System Node Restart

Undelivered node transaction information is stored in the Nodes Down table. The Force Retry All button on the Undelivered Node Transaction page enables you to clear the table so that the system can attempt to restart any nodes that are down.

For example, if a node is in the Nodes Down table and you change the URL of the node, the node becomes free because it is still treated as inoperative (or *down*) based on the old URL. When you click the Force Retry All button, the system retries starting the node.

Click the **Force Retry All** button on the Undelivered Node Transaction page to clear the Nodes Down table so that the system can restart any nodes that are down.

Pausing, Testing, and Pinging Nodes

Understanding Pausing Nodes

A pause time is an interval of time during which the node becomes inactive. When the pause time begins, the node is shut down until the pause time is scheduled to end.

You might schedule a pause time to perform maintenance tasks or devote server resources to an important batch run. For example, say that you have a complex batch program that runs on the same server as a particular node every Monday morning from 12:05 a.m. to 3:30 a.m. To make sure that the batch program has enough memory devoted to it, you can set a pause time for the node that runs from 12 a.m. to 4 a.m.

During a pause time, transactions are not published or received by the local system. When the system is paused, the node cannot accept service operations sent to it. Consequently, the publishing node must attempt to send transactions again later. The publishing node continues to send transactions until it exceeds the local time-out period. When this happens, the transaction assumes a *Timeout* status in the publisher's queue. The time-out period is an attribute of the publication queue, not the subscription queue.

If the system attempts to send a transaction while the node is paused, the system writes the transaction to the publication and subscription queues, but it cannot publish the transaction until the system is no longer in the paused state.

Note: Pause times do not appear in PeopleSoft Application Designer upgrade projects; you cannot upgrade them.

If you have domain failover configured for your integration system, it is disabled when a node is paused. However, there is a chance that failover could occur when you pause a node, due to the independent timing between domain failover logic and the PeopleSoft Integration Broker runtime environment. The chance of failover occurring during a node pause time increases if the failover time check (IB Failover Time) on the Failover Configuration page is set to a low number of minutes.

Related Links

"Setting Up Domain Failover" (Integration Broker Administration)

Adding Pause Times to Local Nodes

Use the Node Status page to add pause time to local nodes. To access the page select **PeopleTools >Integration Broker >Service Operations Monitor >Administration >Node Status.**

This example shows the Node Status page.

To add a node pause time:

1. Access the Node Status page (**PeopleTools >Integration Broker >Service Operations Monitor >Administration >Node Status**).
2. Click **Add Pause**.
3. Select a day of the week in the **Start Day** drop-down list box.
4. Enter a value in the **Start Time** edit box.
5. Select a day of the week in the **End Day** drop-down list box.
6. Enter a value in the **End Time** edit box.
7. After you have entered the appropriate start and end values to define your pause interval, click **OK**.

Deleting Pause Times

Use the Node Status page to delete pause times.

To delete an existing pause time:

1. Access the Node Status page (**PeopleTools >Integration Broker >Service Operations Monitor >Administration >Node Status**).
2. In the pause time list, locate the pause time (interval) to delete.
3. Click the **Delete** button to the right of the entry in the pause time list.

Testing Local Nodes

Use the Node Status page to test local nodes.

To test the local node:

1. Make sure you are logged on to the node that you want to test.
2. Access the Node Status page (**PeopleTools >Integration Broker >Service Operations Monitor >Administration >Node Status**).
3. Click the **Test Node** button.

Pinging Remote Nodes

Use the Node Status page to ping remote nodes.

A successful ping indicates that the remote node is available to receive transactions. An unsuccessful ping could indicate that the node, gateway, or both are not running.

To ping a remote node:

1. Access the Node Status page (**PeopleTools >Integration Broker >Service Operations Monitor >Administration >Node Status**).
2. In the Ping a Node to Determine Availability section, select the node in the **Message Node Name** drop-down list box to display a list of active nodes.

The Location column in the grid below reveals the locations defined for the node.

3. Click the **Ping Node** button.

The Node Information Section displays connector information defined for the node.

You can also ping remote nodes from the Send Master utility as well as the Simple Post utility.

Related Links

"Understanding Send Master" (Integration Broker Testing Utilities and Tools)

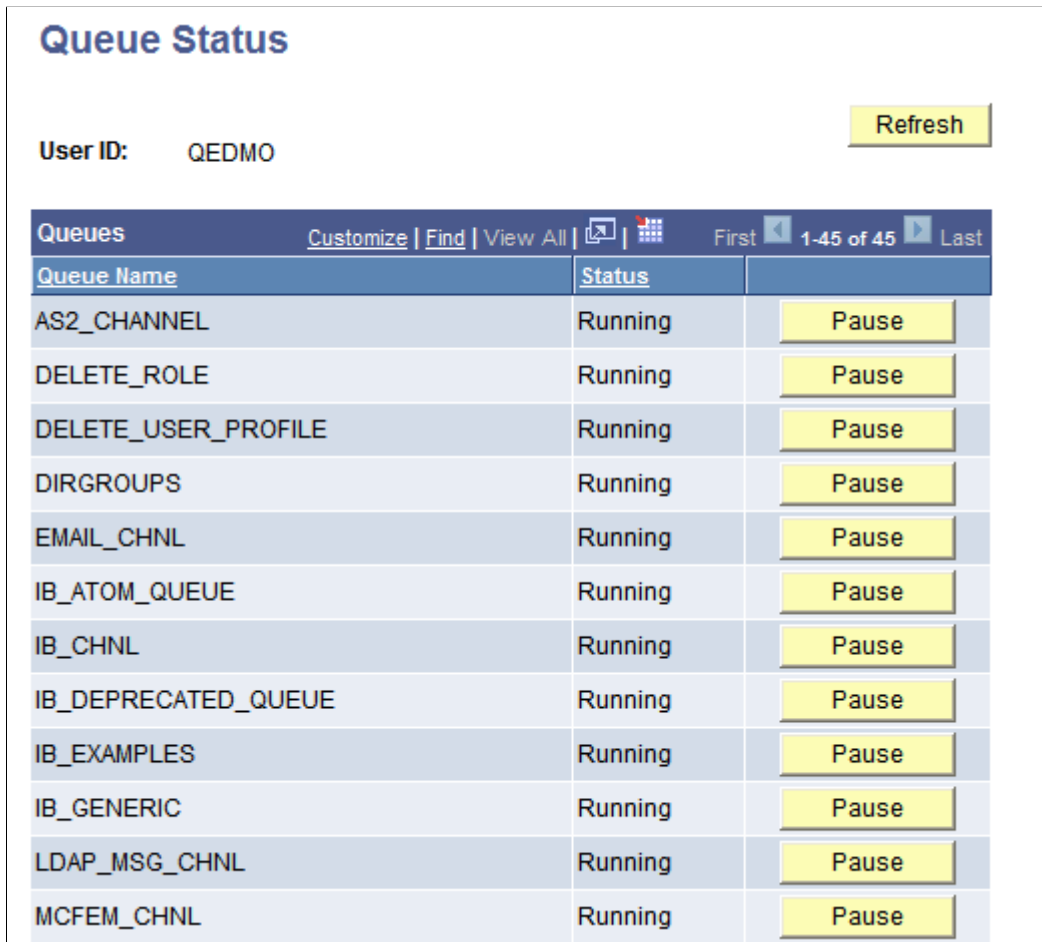
"Understanding the Simple Post Utility" (Integration Broker Testing Utilities and Tools)

Pausing and Starting Queues

Pausing Queues

Use the Queue Status page (IB_MONITOR_QUEUES) to pause queues on the local database.

This example shows the Queue Status page.



The screenshot shows the 'Queue Status' page for user 'QEDMO'. It features a 'Refresh' button and a table of queues. The table has columns for 'Queue Name', 'Status', and a 'Pause' button. All queues listed are currently 'Running'.

Queue Name	Status	Pause
AS2_CHANNEL	Running	Pause
DELETE_ROLE	Running	Pause
DELETE_USER_PROFILE	Running	Pause
DIRGROUPS	Running	Pause
EMAIL_CHNL	Running	Pause
IB_ATOM_QUEUE	Running	Pause
IB_CHNL	Running	Pause
IB_DEPRECATED_QUEUE	Running	Pause
IB_EXAMPLES	Running	Pause
IB_GENERIC	Running	Pause
LDAP_MSG_CHNL	Running	Pause
MCFEM_CHNL	Running	Pause

Each row in the Queues list displays the queue name and its current status. The label on the button indicates the status to which the queue will change when clicked.

To pause a queue:

1. Select **PeopleTools > Integration Broker > Service Operations Monitor > Administration > Queue Status**. The Queue Status page appears.
2. In the Queues list, locate the row that contains the queue to pause.

3. Click the **Pause** button at the end of the row.

Starting Queues

To start a queue:

1. Select **PeopleTools > Integration Broker > Service Operations Monitor > Administration > Queue Status**. The Queue Status page appears.
2. In the Queues list, locate the row that contains the queue to start.
3. Click the **Run** button at the end of the row.

Cleaning Up Orphaned Data From Segment Batch Processing Errors

Understanding Cleaning Up Orphaned Data from Segment Batch Process Errors

PeopleTools provides the ability to delete orphaned data left behind after a failed run of a batch segment processing program.

Warning! Perform this clean up only when you are certain that data is orphaned and no segment processing application engine processes are running.

If the batch program is in the middle of processing or if the batch program has abnormally terminated but is to be restarted at a later time, the orphaned data is really not orphaned. Deleting orphaned data in these situations may cause processing problems for the batch program.

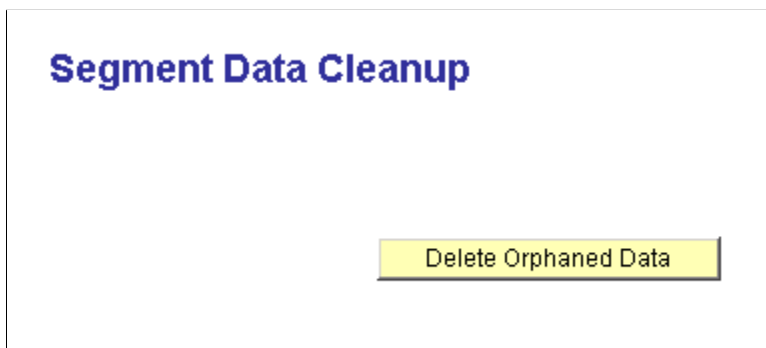
Related Links

"Using Restartable Processing for Publishing Large Messages in Batch" (Integration Broker)

Cleaning Up Orphaned Data from Segment Batch Processing Jobs

Use the Segment Data Cleanup page (IB_SEGMENTCLEANUP) to clean up orphaned data from segment batch processing jobs. To access the page select **PeopleTools >Integration Broker >Service Operations Monitor >Administration >Segment Data Cleanup**).

This example shows Segment Data Cleanup page.



Warning! Deleting orphaned data rows can corrupt pending data being processed. Be sure there are no running batch programs that process segment data. Any such program may be adversely affected by deleting orphaned data prematurely.

To clean up orphaned data:

1. Select **PeopleTools > Integration Broker > Service Operations Monitor > Administration**.
2. Click the **Delete Orphaned Data** button.

After the system has deleted any orphaned data, it displays a message indicating the deletion is complete.

Using Custom-Defined Components to View Service Operations Data

Understanding Using Custom-Defined Components to View Service Operation Data

You can create a custom component and associate it to a service operation and version. This enables you to navigate to the custom component when you click the **Asynchronous Details** or **Synchronous Details** link to view the details for the specified service operation.

Specifying Service Operations to Associate to Custom-Defined Components

To specify a service operation to associate to a custom-defined component:

1. Select **PeopleTools > Integration Broker > Administration > Custom-Defined Component**.
2. Click the **Add a New Value** tab.
3. In the **Service Operations** field, enter the name of the service operation.
4. Click the **Add** button.

The User Defined Components page appears and you can associate the service operation to the custom-defined component.

Associating Service Operations to Custom-Defined Components

Use the User Details Component page (PSIBUSERCOMP) to associate a service operation to a custom-defined component.


This example illustrates the fields and controls on the User Details Component page. You can find definitions for the fields and controls later on this page.


User Details Component


Service Operation: QE_FLIGHTPLAN


Service Operation Version: VERSION_1


Active

***Menu Name:** 

***Menu Bar Name:** 

***Bar Item Name:** 

***Panel Item Name:** 

***Action:** 

<i>Field or Control</i>	<i>Description</i>
Active	Indicates if the component is active. Clear the box to inactivate the component. By default the component is active.
Menu Name	From the drop-down list select the menu name where the page is located.
Menu Bar Name	From the drop-down list select the menu bar name where the page is located.
Bar Item Name	From the drop-down list select the bar item name.
Panel Item Name	From the drop-down list select the page name.

Field or Control	Description
Action	<p>From the drop-down list select the action for the page. The valid values are:</p> <ul style="list-style-type: none"> • <i>Add.</i> Select to add a new high-level key, such as a new employee ID or customer. Except in the case of effective dating, Add is used to insert a new current row or to update future rows. • <i>Corr. (Correction.)</i> Select to update any rows (history, current, and future) in an effective-dated record. Use only with effective-dated records. This is translated to correct history at runtime. • <i>Up/Dsp All. (Update/Display All.)</i> Select to update current and future rows in an effective-dated record. Use only with effective-dated records. Do not use these actions unless the main record that is associated with the page definitions is effective-dated. This is translated to include history at runtime. • <i>Upd/Display. (Update/Display.)</i> Select to update existing rows only.

Purging Runtime Service Operations Monitor Tables

Purging Runtime Monitor Tables

The PeopleSoft system provides a collection of Data Mover scripts that you can run to purge the runtime Service Operations Monitor tables within a database. These scripts reside in the PS_HOME\scripts directory on your file server. The following table describes the purpose of each script.

Warning! Shut down the application server before running any of the Data Mover scripts described in this section.

Script Name	Description
AppMsgPurgeAll.dms	Deletes queue data from every archive or live runtime Service Operations Monitor table in the database, regardless of status. Typically, you run this script after an upgrade or while switching from a demonstration to a production environment.
AppMsgPurgeArchive.dms	Deletes queue data from every archive runtime Service Operations Monitor table in the database.
AppMsgPurgeLive.dms	Deletes queue data from every live runtime Service Operations Monitor table in the database.

Using the Service Operations Monitor Component Interface

Using the Monitor Component Interface

The Service Operations Monitor includes a collection of inquiry methods that you can access with a component interface.

Use the MSGSTATUSSUMMARY component interface to extract information from the Service Operations Monitor. The output of the component interface reveals the amount of contracts that are in the queue. The contracts appear grouped by status and service operation or grouped by status and queue.

Use the following user-defined methods to extract information:

- FillPubConByMsg()
- FillPubConByChannel()
- FillSubConByMsg()
- FillSubConByChannel()

Beginning with PeopleTools 8.48, queues replaced channels from earlier PeopleTools 8.4x versions. As a result, once you have a rowset object pointing to ByChannel, reference QUEUENAME when working with the code.

The following example shows ASP code that accesses the MSGSTATUSSUMMARY component interface with COM.

```
'Create a peoplesoft session
Set oSession = server.CreateObject ("PeopleSoft.Session")
nStatus = oSession.Connect(1, oConnectString, oUserName, oPassword,0)

'Get the skeleton of the APPMSGMON CI
Set oCI = oSession.GetCompIntfc("MSGSTATUSSUMMARY")

'get an instance of the CI
nStatus = oCI.Get()
'execute the method to fill the collection

If oChoice = 1 then
    nStatus = oCI.FillPubConByChannel()
    'Set oRows to the properties collection
    Set oRows = oCI.PubConByChannel
End If

If oChoice = 2 then
    nStatus = oCI.FillPubConByMsg()
    'Set oRows to the properties collection
    Set oRows = oCI.PubConBymsg
End If

If oChoice = 3 then
```

```
nStatus = oCI.FillSubConByChannel()  
  'Set oRows to the properties collection  
  Set oRows = oCI.SubConByChannel  
End If  
  
If oChoice = 4 then  
  nStatus = oCI.FillSubConByMsg()  
  'Set oRows to the properties collection  
  Set oRows = oCI.SubConByMsg  
End If
```

Related Links

"Understanding Component Interfaces" (Component Interfaces)

Using PeopleCode to Read and Write Errors to the Asynchronous Error Queue

Using PeopleCode Methods to Read and Write Errors to the Asynchronous Error Queue

PeopleSoft provides the following two methods to read and write errors to the asynchronous error queue:

<i>Field or Control</i>	<i>Description</i>
GetMessageErrors	If an error occurs during processing of a service operation instance, publication contract or subscription contract, the error is read from the appropriate queue.
SetMessageError	If an error occurs during processing of a service operation instance, publication contract or subscription contract, the error is written to the appropriate queue.

Related Links

"IntBroker Class Methods" (PeopleCode API Reference)

