Information Builders

iWay

iWay Application Adapter for MUMPS User's Guide

Version 7.0.x and Higher

August 16, 2018

Contents

Preface

This documentation describes how to install and configure the iWay Application Adapter for MUMPS.

Note: This Release 7.0.x content is currently being updated to support iWay Release 8.0.x software. In the meantime, it can serve as a reference for your use of iWay Release 8. If you have any questions, please contact *Customer_Success@ibi.com*.

How This Manual Is Organized

This manual includes the following chapters:

	Chapter/Appendix	Contents
1	Introducing the iWay Application Adapter for MUMPS	Provides an overview of the iWay Application Adapter for MUMPS. It also describes the features and components of the adapter.
2	Supported Platforms Matrix	Specifies version, platform, and database support information for iWay Application Adapter for MUMPS.
3	Installing the iWay Application Adapter for MUMPS	Describes how to install the software components that you need to set up and use the iWay Application Adapter for MUMPS.
A	MUMPS Adapter Services	Describes MUMPS adapter services.

Documentation Conventions

The following table describes the documentation conventions that are used in this manual.

Convention	Description
THIS TYPEFACE or this typeface	Denotes syntax that you must enter exactly as shown.
this typeface	Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option that you can click or select.
underscore	Indicates a default setting.

Convention	Description
Key + Key	Indicates keys that you must press simultaneously.
{ }	Indicates two or three choices. Type one of them, not the braces.
|	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
...	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...).
. . .	Indicates that there are (or could be) intervening or additional commands.

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Help Us to Serve You Better

To help our consultants answer your questions effectively, be prepared to provide specifications and sample files and to answer questions about errors and problems.

The following tables list the environment information our consultants require.

Platform	
Operating System	
OS Version	
JVM Vendor	
JVM Version	

The following table lists the deployment information our consultants require.

Adapter Deployment	For example, JCA, Business Services Provider, iWay Service Manager
Container	For example, WebSphere
Version	
Enterprise Information System (EIS) - if any	
EIS Release Level	
EIS Service Pack	
EIS Platform	

The following table lists iWay-related information needed by our consultants.

iWay Adapter	
iWay Release Level	
iWay Patch	

The following table lists additional questions to help us serve you better.

Request/Question	**Error/Problem Details or Information**
Did the problem arise through a service or event?	
Provide usage scenarios or summarize the application that produces the problem.	
When did the problem start?	
Can you reproduce this problem consistently?	
Describe the problem.	
Describe the steps to reproduce the problem.	
Specify the error message(s).	
Any change in the application environment: software configuration, EIS/database configuration, application, and so forth?	
Under what circumstance does the problem *not* occur?	

The following is a list of error/problem files that might be applicable.

- Input documents (XML instance, XML schema, non-XML documents)
- Transformation files
- Error screen shots
- Error output files
- Trace files
- Service Manager package to reproduce problem
- Custom functions and agents in use
- Diagnostic Zip
- Transaction log

For information on tracing, see the *iWay Service Manager User's Guide*.

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Chapter 1

Introducing the iWay Application Adapter for MUMPS

This section provides an overview of the iWay Application Adapter for MUMPS. It also describes the features and components of the adapter.

In this chapter:

MUMPS Overview

MUMPS (**M**assachusetts General Hospital **U**tility **M**ulti-**P**rogramming **S**ystem), or alternatively **M**, is a programming language, originally for use in the healthcare industry. It was designed for the production of multi-user database-driven applications. MUMPS is a language intended and designed to build database applications. The original implementations were interpreted, though newer implementations may be fully or partially compiled. Database interaction is transparently built into the language. The MUMPS language assumes the presence of a MUMPS hierarchical structure.

Globals

Variables using permanent storage are called Globals in MUMPS. Globals represent data as persistent sparse arrays, giving the MUMPS database the characteristics of a document-oriented database.

Subscripts

All variables (both RAM and disk-based) are hierarchical and can have child nodes (called subscripts in MUMPS terminology). Thus, the variable 'Car' can have subscripts "Door", "Steering Wheel", and "Engine", each of which can contain a value and have subscripts of their own. For example,

```
SET ^Car("Door","Color")="BLUE"
```

In MUMPS terminology, "Color" is the second subscript of the variable ^Car. Both the names of the child nodes, and the child nodes themselves, are called subscripts. Hierarchical variables are similar to objects with properties in object-oriented languages.

Features of the iWay Application Adapter for MUMPS

The iWay Application Adapter for MUMPS is an adapter that provides a means to exchange real-time business data between a MUMPS database and third-party application, database, or external business partner system. The adapter enables external applications for outbound processing with MUMPS. The adapter uses XML messages to enable non-MUMPS applications to communicate and exchange transactions with MUMPS using the following method.

Service Adapter. Applications use this capability to retrieve and manage information in a MUMPS database.

The iWay Application Adapter for MUMPS provides support for:

- Service interactions.
- MUMPS object repository metadata browser to build XML schemas and web services to handle adapter requests.

Component Information for the iWay Application Adapter for MUMPS

The adapter is comprised of a Server and Application component.

Server Component. The iWay Application Adapter server component for MUMPS communicates with a server-side component that receives synchronous requests for global data through a TCP/IP connection.

Application Component. The iWay Application Adapter for MUMPS works in conjunction with one of the following components:

- iWay Service Manager
- iWay Business Services Provider (iBSP)

When hosted in an iWay environment, the adapter is configured through iWay Service Manager and iWay Explorer. iWay Explorer is used to configure adapter connections and to create web services.

Chapter 2

Supported Platforms Matrix

iWay Software is committed to support the diverse environments and varied systems of our users through support for leading enterprise applications, platforms, and databases.

This section specifies version, platform, and database support information for iWay Application Adapter for MUMPS. It is designed to provide a consolidated view of MUMPS releases and the various operating systems and databases, on which they are supported.

In this chapter:

Overview

INTERSYSTEM CACHE is a NO SQL database, built on top of a pre-relational procedural language MUMPS accessed through the MUMPS listener. The iWay Application Adapter for MUMPS connects to the listener using TCP/IP to retrieve data from an organized set of Globals.

Supported Versions

iWay Application Adapter for MUMPS supports the INTERSYSTEM CACHE version 1.1 MUMPS on Windows.

Operating Systems

iWay Application Adapter for MUMPS supports all of the operating systems that are listed in the *iWay Installation and Configuration Guide* under *Operating System Requirements*.

Databases

iWay Application Adapter for MUMPS functions only with INTERSYSTEM CACHE database.

Java Development Kit (JDK)

iWay Application Adapter for MUMPS/CACHE supports the Java Development Kit (JDK) versions that are listed in the *iWay Installation and Configuration Guide* under *Java Requirements*.

Communication Modes

iWay Application Adapter for MUMPS supports the following communication mode:

- **Services.** The Services communication mode allows iWay Application Adapter for MUMPS to receive messages from the INTERSYSTEM CACHE MUMPS Server.

Object Types and Interfaces

iWay Application Adapter for MUMPS supports the Globals object type and interface.

Communication Types

iWay Application Adapter for MUMPS supports the Globals communication type, which is synchronous.

Operations

iWay Application Adapter for MUMPS supports the QUERY operation.

Data Types

iWay Application Adapter for MUMPS supports the string data type.

Other Functions

There is no known list related to other functions for iWay Application Adapter for MUMPS.

Known Limitations

iWay Application Adapter for MUMPS works only for the QUERY operation. It does not support CREATE, DELETE, and UPDATE operations.

In addition, EVENTS are not supported by the iWay Application Adapter for MUMPS.

Related Information for Specific iWay Releases

For more information, see the *iWay New Features Bulletin and Release Notes* documentation for a specific release (for example, iWay Version 7.0.2).

Chapter 3

Installing the iWay Application Adapter for MUMPS

This section describes how to install and set up the iWay Application Adapter for MUMPS.

In this chapter:

Prerequisites

This guide assumes that you have installed a MUMPS or Cache database (Cache utilizes MUMPS databases). If you have not installed the database, refer to the following sample installation procedure for guidance.

Note: iWay Application Adapter for MUMPS only supports InterSystems Caché databases on Windows platforms.

Procedure: How to Install the MUMPS Database

1. Run \Install\Cache\CachePCkit_*x*86.exe.
2. Read and accept the license agreement.
3. Select the destination folder in which the MUMPS database will be installed, for example, C:\Programs\InterSystems\Cache\.
4. Click *Install*.

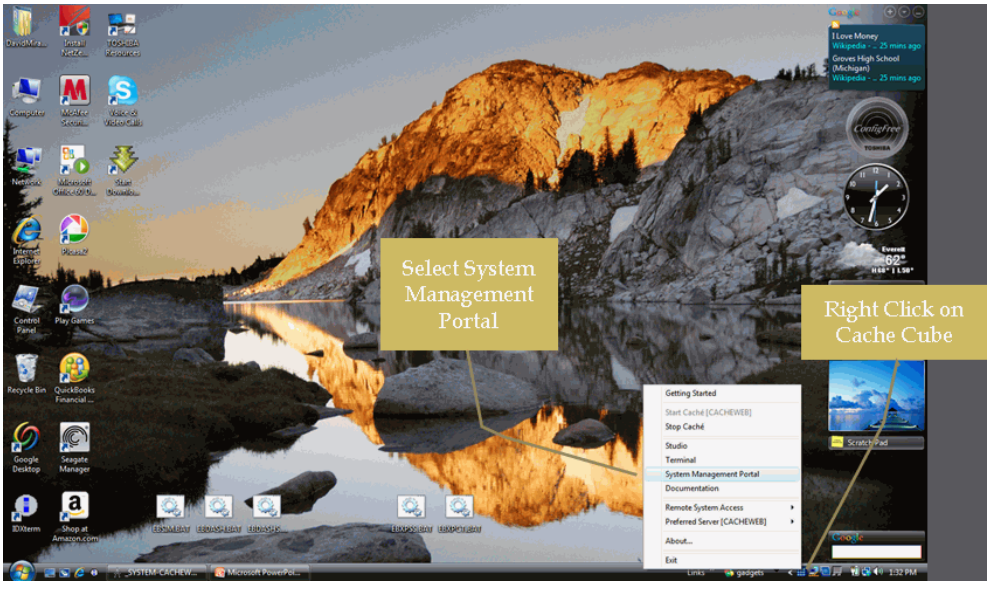
Installing the Server Component for the Adapter

The procedures in this topic describe how to install the server component of the iWay Application Adapter for MUMPS.

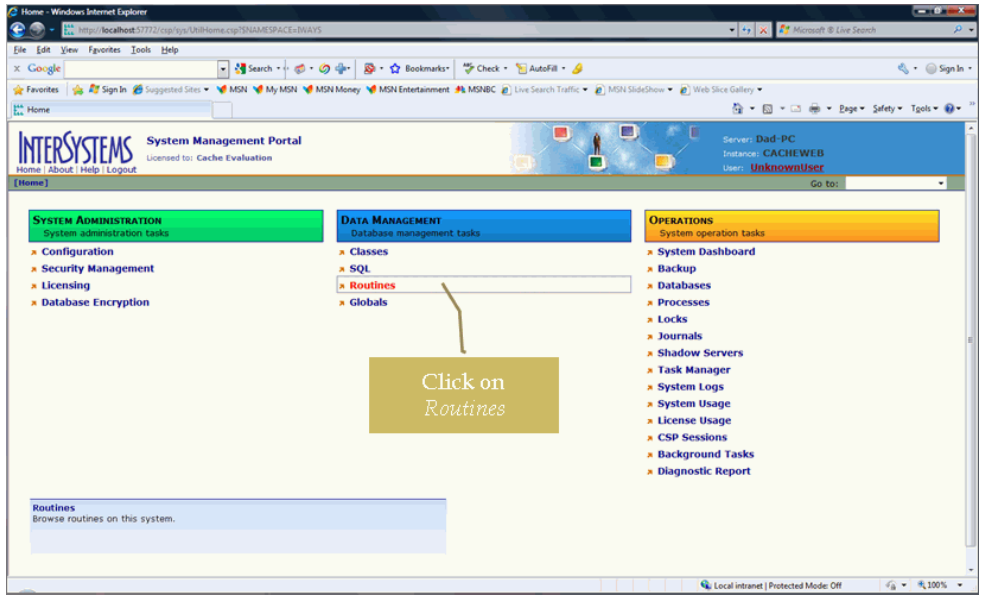
Procedure: How to Load the Server Routine

You can find your server files (*.ro) under the directory, \Install\ServerRoutines. Follow the steps below to load your server routine.

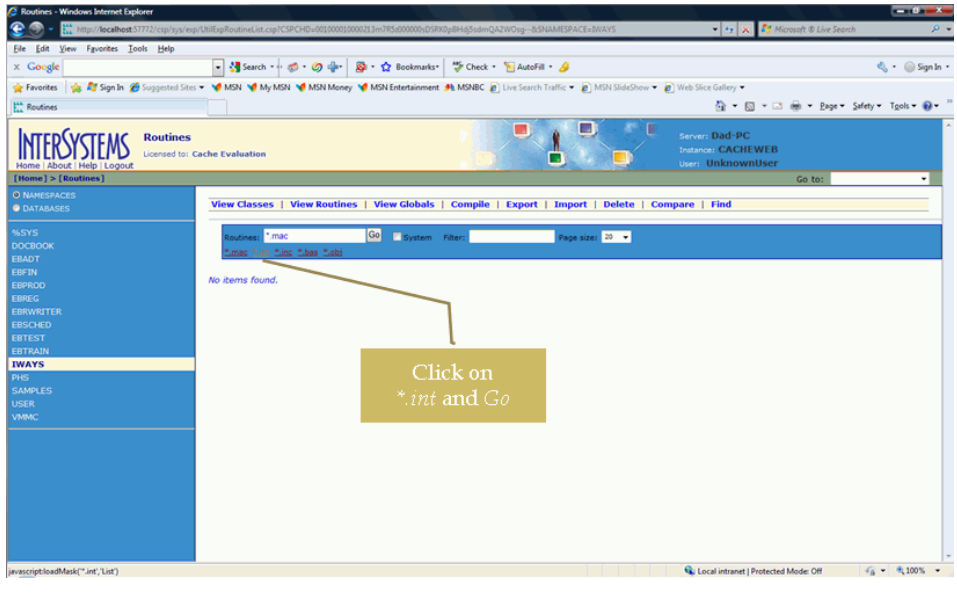
1. Right-click the Cache Cube  icon located on the taskbar and select *System Management Portal*.



2. In the System Management Portal Routines dialog box, under the Data Management task list, click *Routines*.

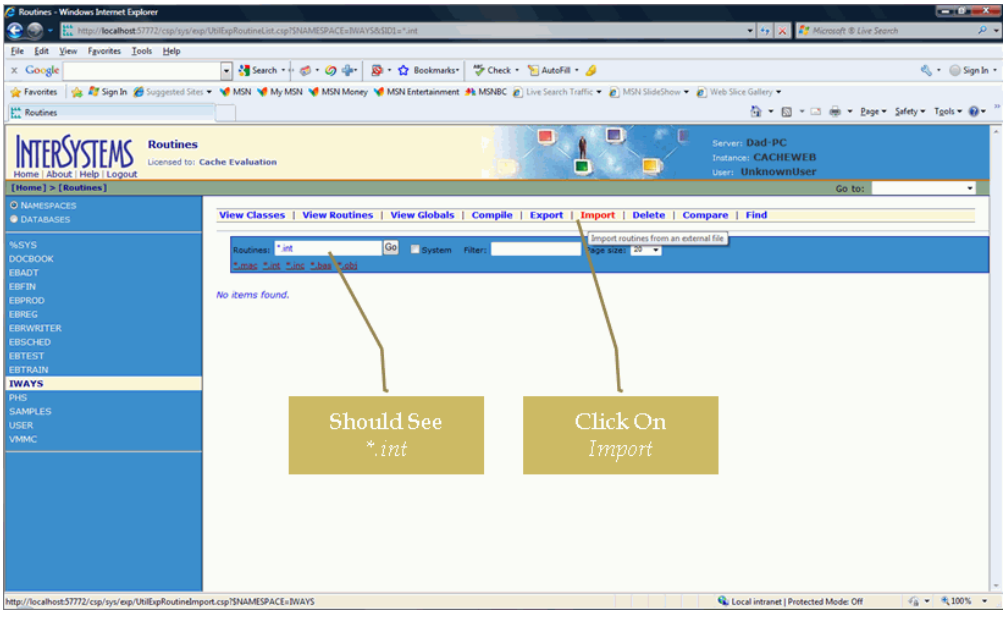


3. Select *IWAYS* under the NAMESPACES radio button, click **.int*, then *Go*.

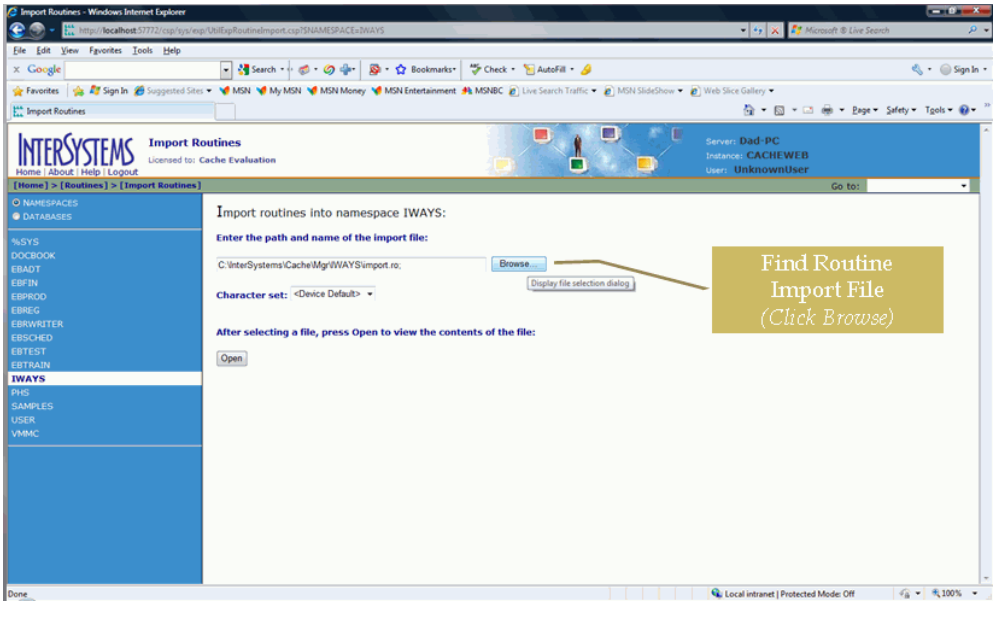


You will see **.int* in the Routines text bar.

4. Choose *Import* under the Routines task bar.



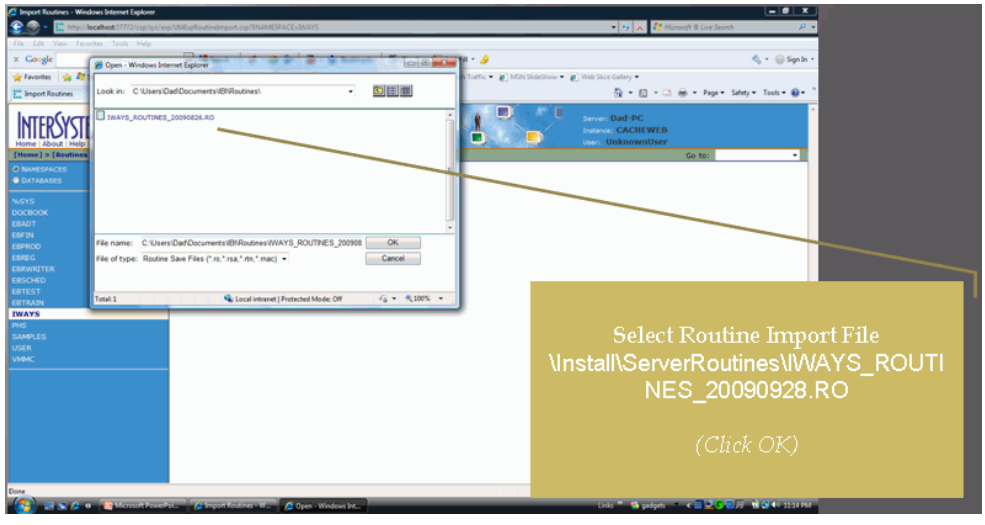
5. In the *Import Routines* dialog box, click the *Browse* button and search for the routine import file.



6. Once the browse windows opens, select the routines import file from the following directory:

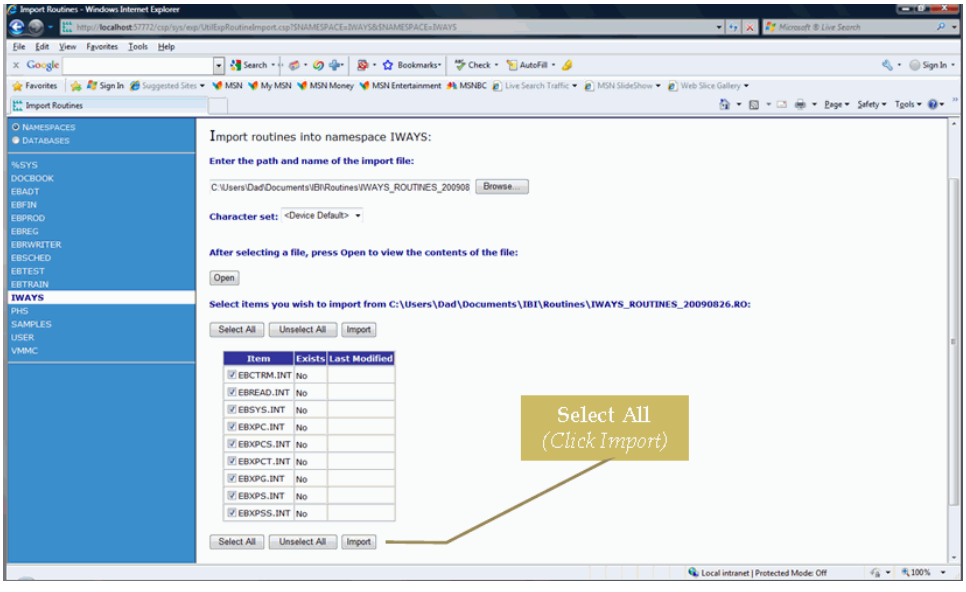
   `\Install\ServerRoutines\IWAYS_ROUTINES_20090928.RO`

7. Click *OK*.

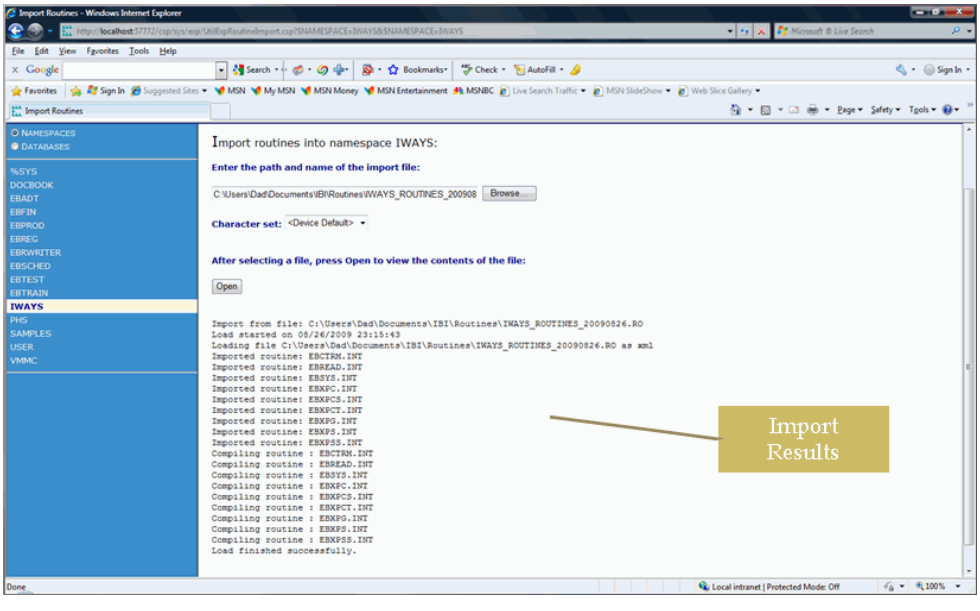


8. Click *Open* to view the contents of the file.

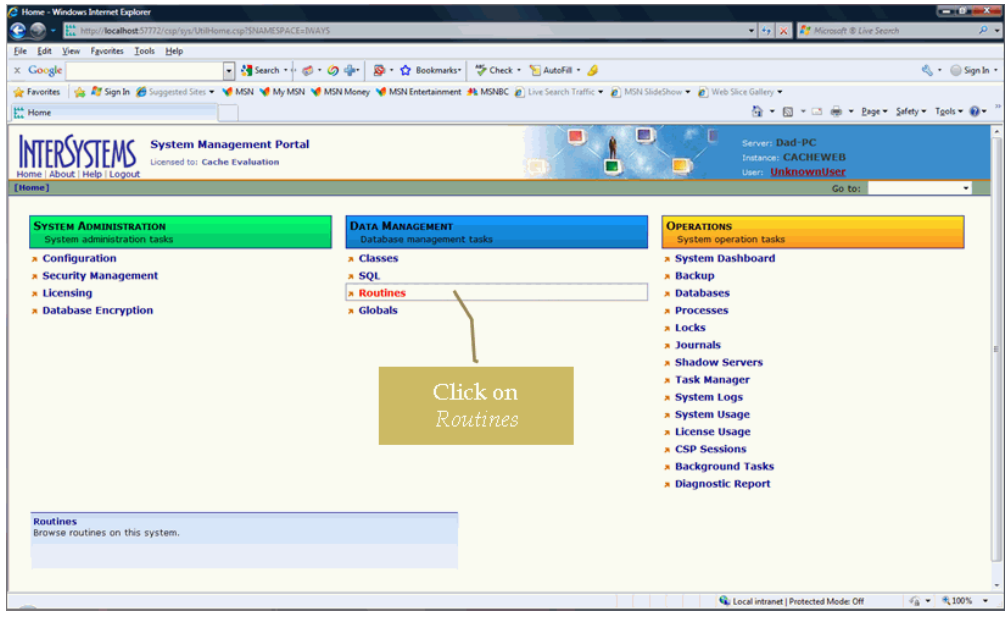
An Item box opens displaying a number of existing or non-existing files. Click *Select All* and choose *Import*.



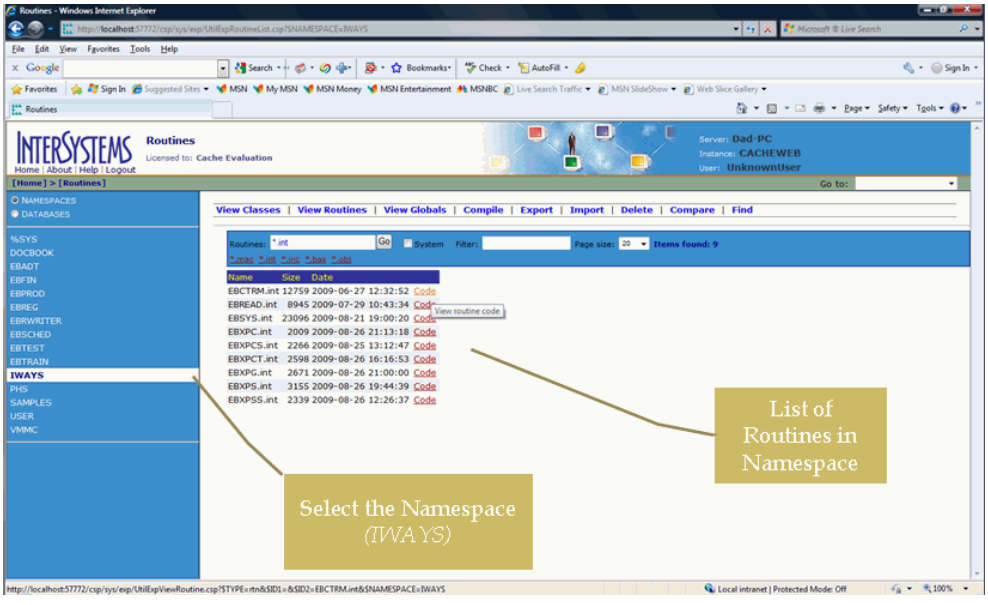
The results of your import are displayed in the following image.



9. To verify that the routines were successfully installed, navigate back to the home page and click the *Routines* link.



10. The server routines were successfully installed if they appear in the list, as shown in the following image.



Procedure: How to Create the Server Configuration Folder

Follow the steps below to create the server configuration folder.

1. Create a folder in which to run the server. For example, C:\programs\MUMPS.
2. Copy all files from \Install\Server to the new server directory.
3. Create a log file directory. For example, C:\programs\MUMPS\logs.
4. Modify the IWAY_PF.txt file, so that it points to the correct file locations.
5. Modify the SERVER.BAT file, so that it points to the correct location of the Cache install.

Procedure: How to Test the Server Component

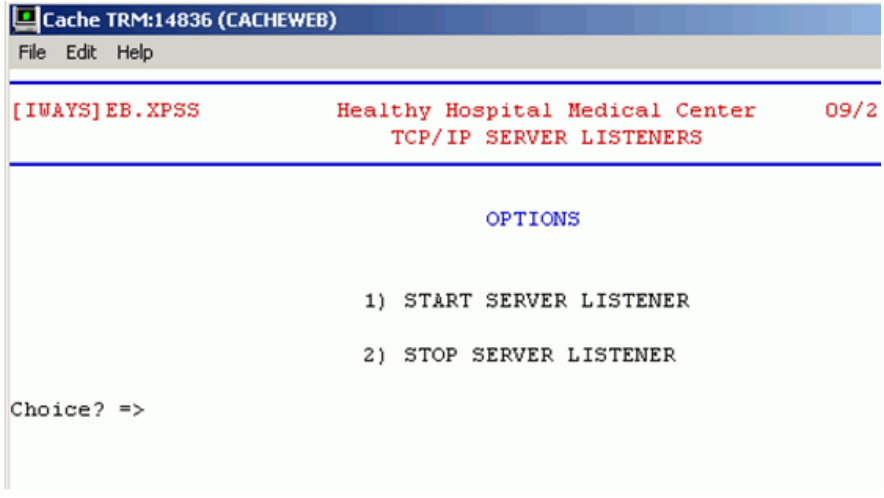
Follow the steps below to test the server component.

1. Open a command window and navigate to the folder where you downloaded the server bat files. Execute the *server.bat* command to start the server and specify the location of the server configuration file. For example:

   ```
   server.bat c:\programs\mumps\iway_pf.bat
   ```

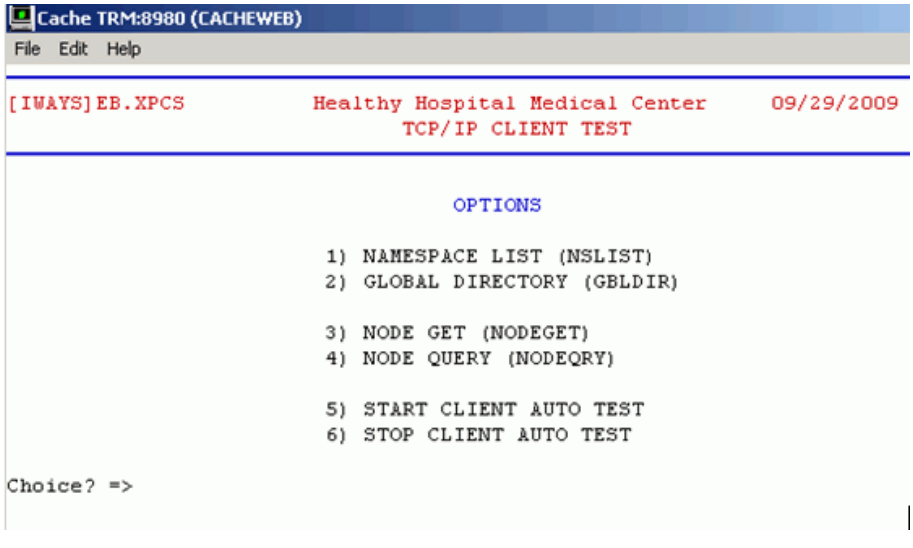
2. In the resulting window, select *1* to start the server and accept all default prompts.

Run *client.bat* from the command window to launch the server test client.

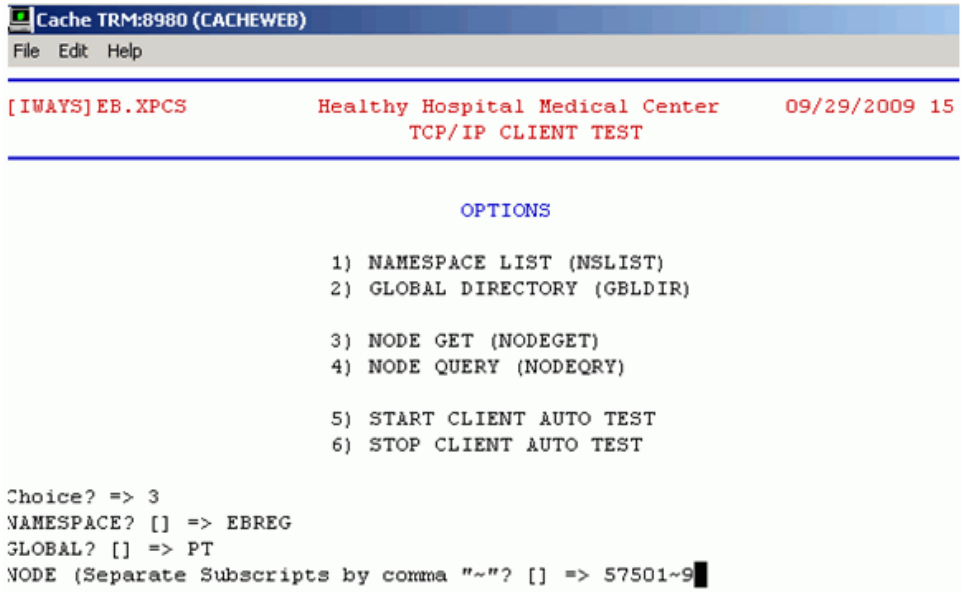


3. Select Option *1* and verify that you receive a valid namespace list.
4. Select Option *3* and enter the following values:

```
NAMESPACE:   IWAYS
GLOBAL:      PT
NODE:        57501~9
```



5. Observe the server and client consoles to ensure that you receive valid data.



Installing iWay Service Manager

For more information on installing iWay Service Manager (iSM) and the iWay Application Adapter for MUMPS, see the *iWay Installation and Configuration Guide*.

Note: After installation is complete, ensure that the iwmumps.jar file is located in the *<iSM_Home>*\lib directory.

Creating the Sample

This topic describes how to create the sample namespaces, databases, and data for use with the iWay Application Adapter for MUMPS.

Procedure: How to Create Sample Namespaces and Databases

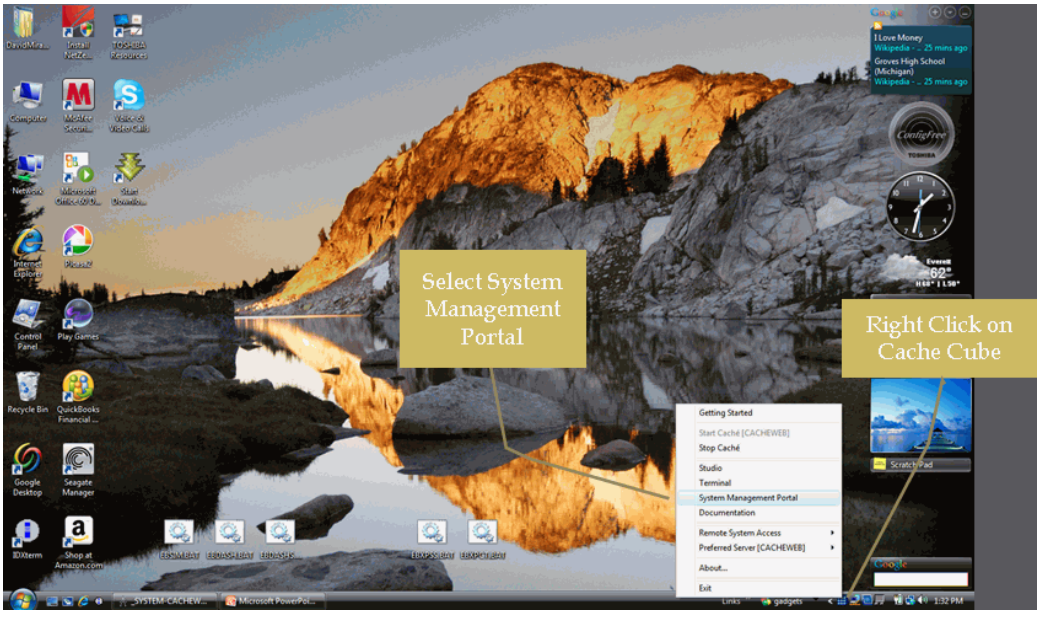
1. On the taskbar on the Windows desktop, right-click the *Cache Cube* icon, then click *System Management Portal* from the pop-up menu.
2. Under System Administration in the System Management Portal window, click *Configuration*.
3. Under System Configuration in the Configuration window, click *Local Databases*.
4. In the Local Databases window, click *Create New Database*.

5. In the Database Wizard window, in the field labeled Enter the name of your database, type *IWAYS*.
6. In the field labeled Database directory, click *Browse* to navigate to and select the sample path to the named database, *C:\InterSystems\Cache\Mgr\IWAYS*, then click *Next*.
7. In the Initial Size (MB) field in the Database Wizard window, type *10*, and click *Next*.
8. In the next window, click the *Use the default resource, %DB_%DEFAULT* radio button, and click *Next*.
9. In the final Database Wizard window, click *Finish*.
10. In the Local Databases window, under Create New Database, select *IWAYS* in the Name column, and click *Edit*.
11. In the Maximum Size (MB) field in the Database Properties window, type *50* and in the Expansion Size (MB) field, type *10*.
12. In the Configuration window, under System Configuration, click *Namespaces*, and then click *Create New Namespace*.
13. In the New Namespace window, in the field labeled Name of the namespace, type *IWAYS*.
14. From the drop-down list for the field labeled Select an existing database, click the Associate Database named *IWAYS*.
15. In the New Namespace window, click *Save*.
    You are returned to the Namespaces window. The newly created namespace, IWAYS, appears in the list of namespaces in the window.

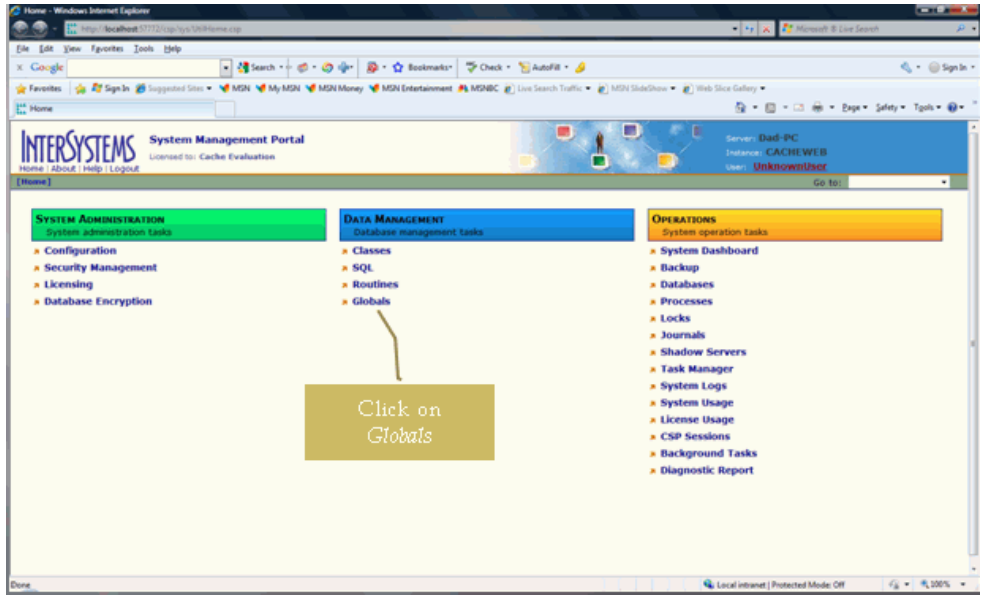
Procedure: How to Load Sample Data

Follow the steps below to load sample data.

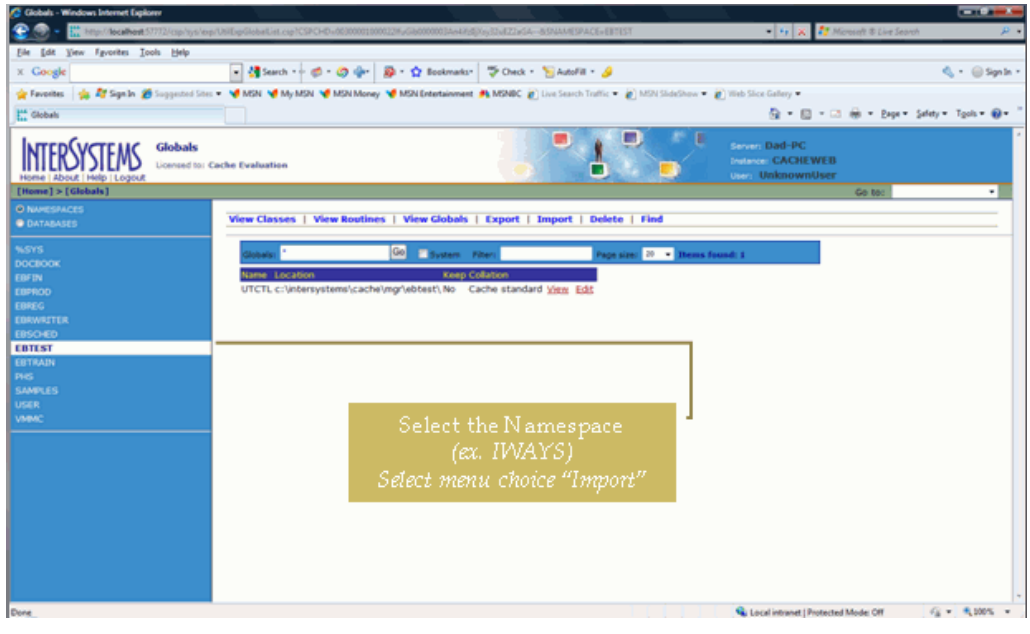
1. Right-click the Cache Cube  icon located on the taskbar and select *System Management Portal*.



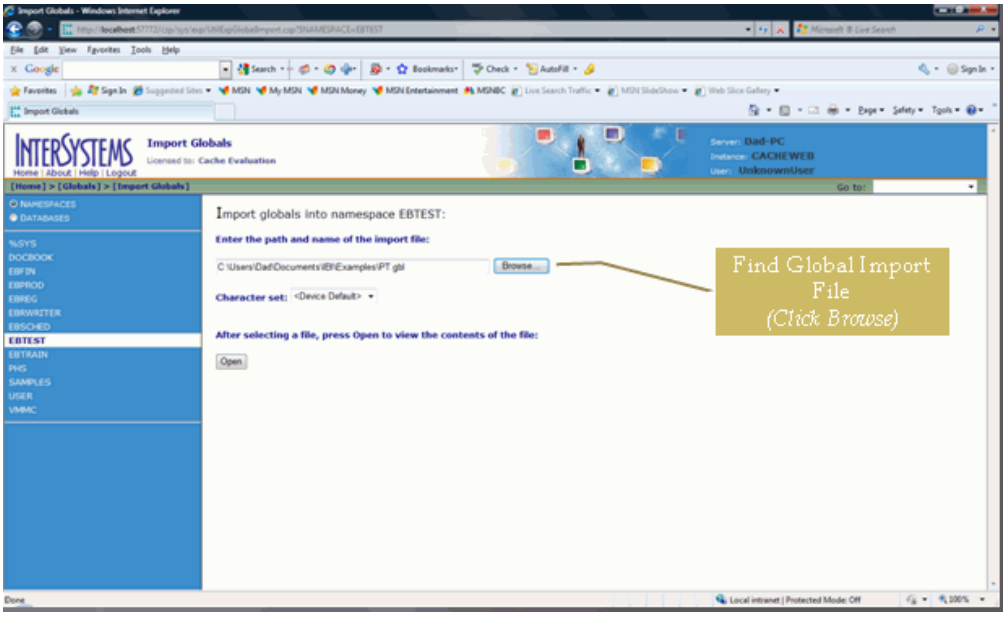
2. The System Management Portal dialog box opens. Under the Data Management task list, click *Globals*.



3. Select the Namespace, for example, *IWAYS*, and choose *Import* from the pull-down menu.



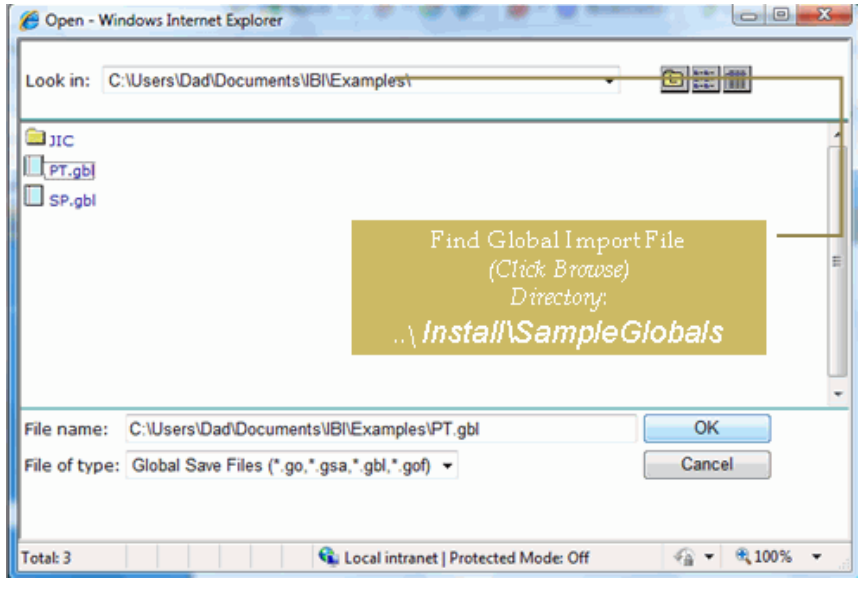
4. In the Import Globals dialog box, click *Browse* to search for the global import file.



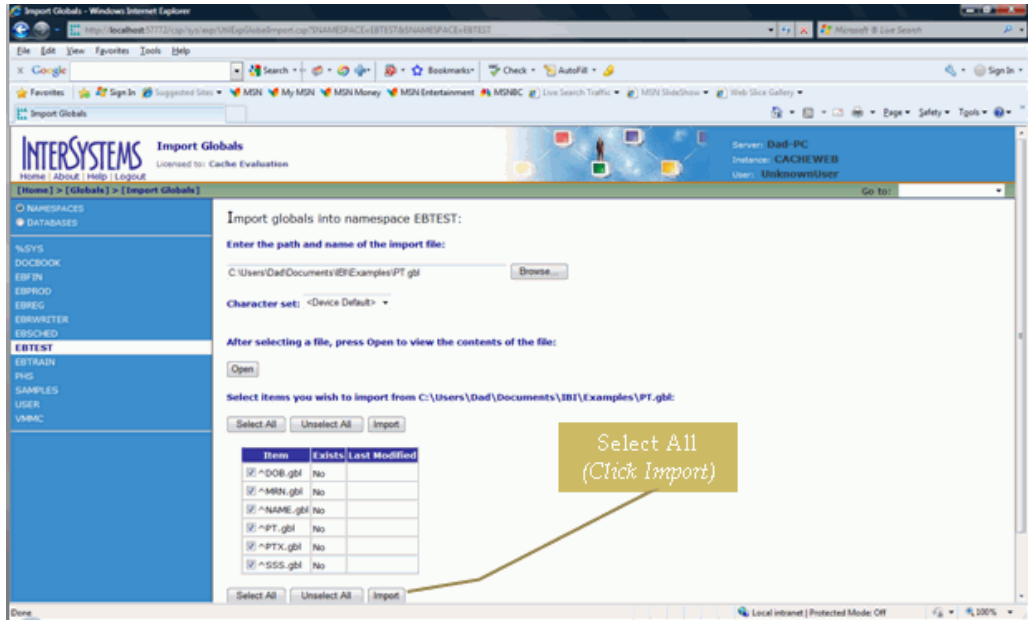
You can find the global input file in the following directory:

`\Install\SampleGlobals`

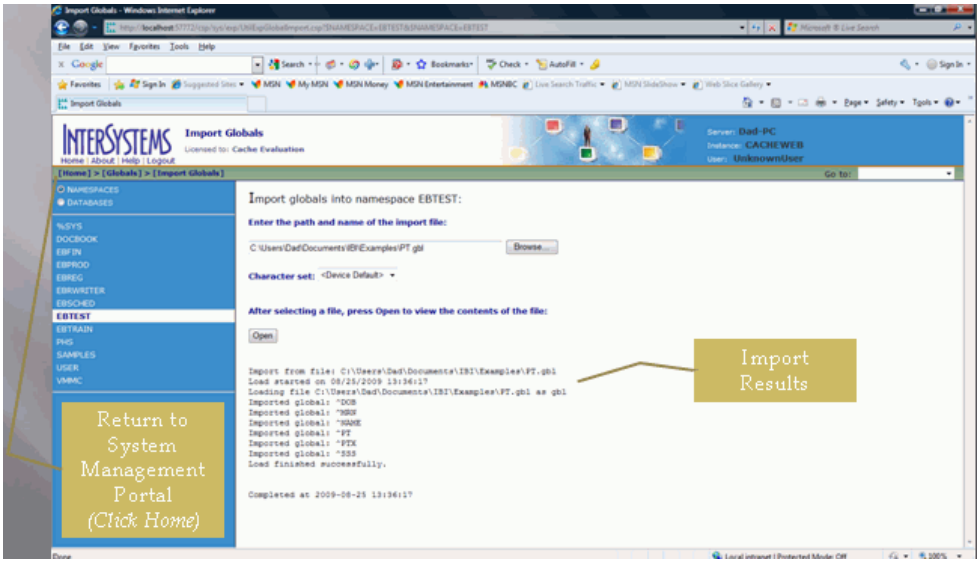
5. Click *OK*.



6. An Item box opens displaying a number of existing or non-existing files. Click *Select All* to ensure that all files are selected and click *Import*.

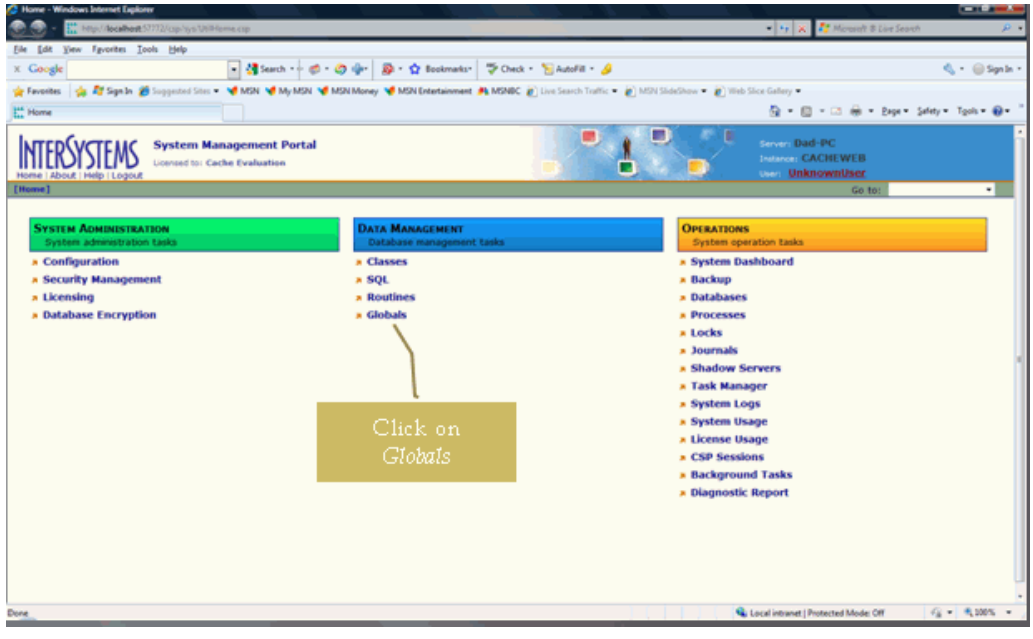


The results of your import screen are displayed in the following image.

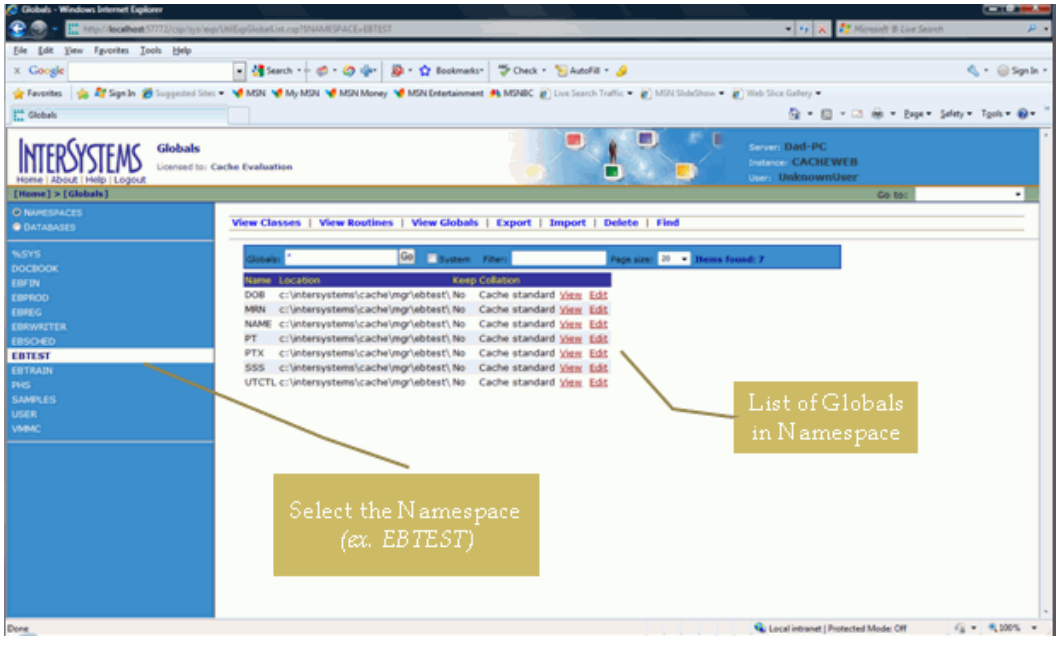


Note: To return to the System Management Portal, click *[Home]* on the left side of the screen.

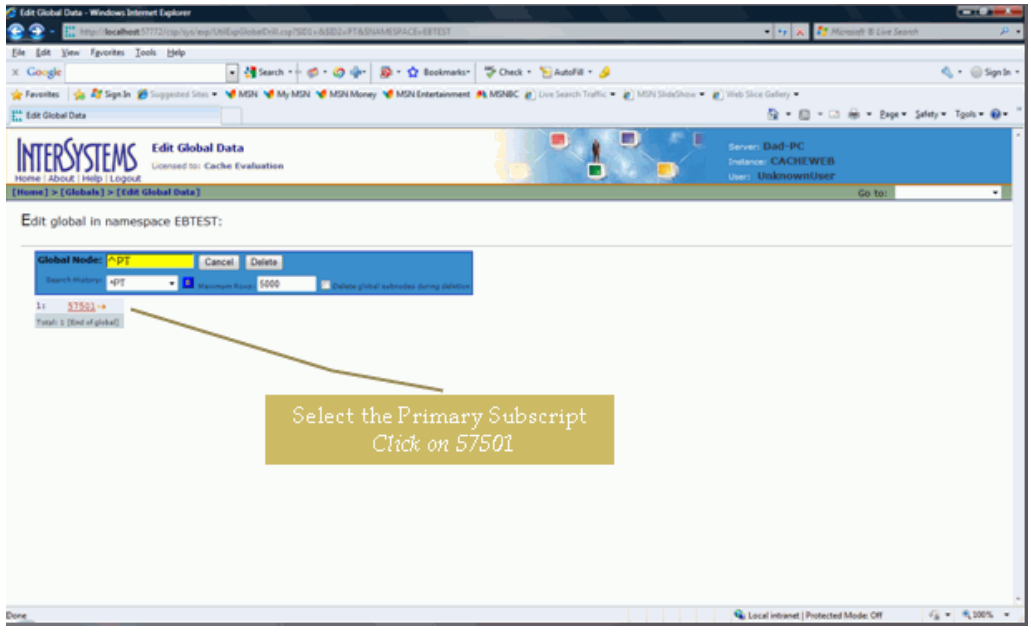
To repeat the global import procedures for all .gbl and .go files, look in the ..\Install \SampleGlobals directory and click *Globals* in the Data Management task list.



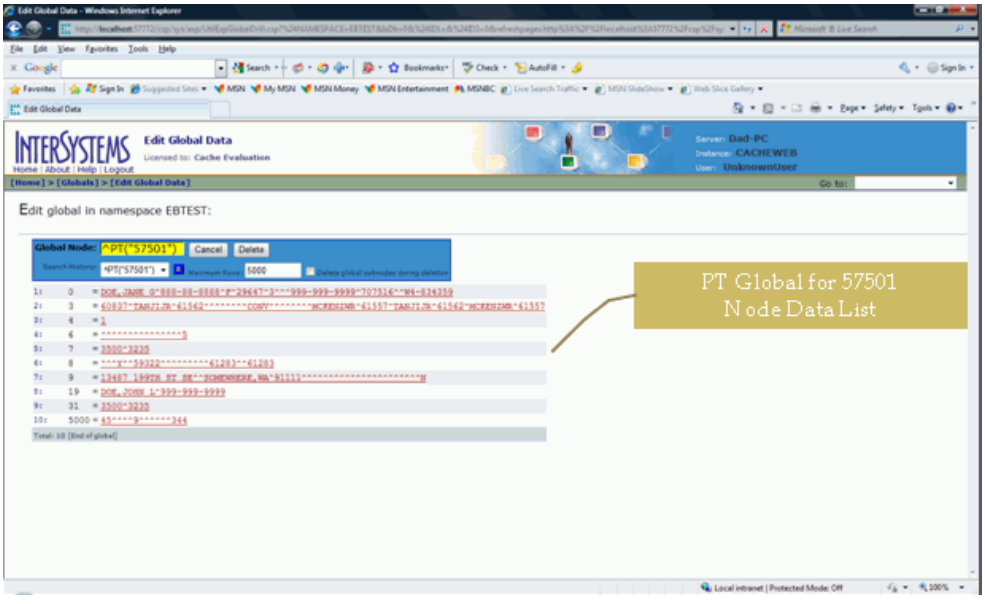
The list of Globals in the Namespace appear, as shown in the following image.



To view one of the sample globals loaded in the previous step, select the primary subscript and click the *57501* link.



The contents of the PT Global for subscript 57501 are displayed, as shown in the following image.



Example: Sample Request Document

A request may contain empty Subscript nodes to indicate a wildcard, in which case the service returns all globals in the specified range. If an incomplete set of subscripts is provided, the server assumes wildcards for those subscripts. For example,

```
<tns:GetGlobals xmlns:tns="http://schemas.ibi.com/iwmumps/services"
location="Mumps/GetGlobals">
  <tns:Namespace>SITEREG</tns:Namespace>
  <tns:Global>BI</tns:Global>
  <tns:Subscritps>
    <tns:Subscript></tns:Subscript>
    <tns:Subscript>461748</tns:Subscript>
  </tns:Subscritps>
</tns:GetGlobals>
```

would match and return all of these globals:

```
^BI(2,461748,0)
^BI(2,461748,100)
^BI(2,461748,101)
^BI(2,461748,122)
^BI(2,461748,122,1,0)
^BI(2,461748,122,1,0,0)
^BI(2,461748,122,1,2,0)
```

Appendix A

MUMPS Adapter Services

This section describes MUMPS adapter services.

In this appendix:

RPCS Invocation

The iWay Application Adapter for MUMPS RPCS service allows you to invoke any M routine and returns the result. The namespace, routine, starting tag, and routine parameters are supplied in the request. The tag is optional. If it is not provided, then the routine will be executed from the beginning.

```
<tns:RPCS location="mumps/RPCS" xmlns:tns="http://schemas.ibi.com/iwmumps/
services">
  <tns:Namespace>VISTA</tns:Namespace>
  <tns:Routine>DILFD</tns:Routine>;
  <tns:Tag>VFILE</tns:Tag>;
  <tns:Parameters>
    <tns:Param>100001</tns:Param>
  </tns:Parameters>
</tns:RPCS>
```

The response is a simple document containing the value returned by the routine.

```
<RPCSResponse xmlns="http://schemas.ibi.com/iwmumps/services">
    <Value>1</Value>
</RPCSResponse>
```

RPCD Invocation

The iWay Application Adapter for MUMPS RPCS service allows you to invoke any M routine using the M "DO" statement. The request is similar to RPCS.

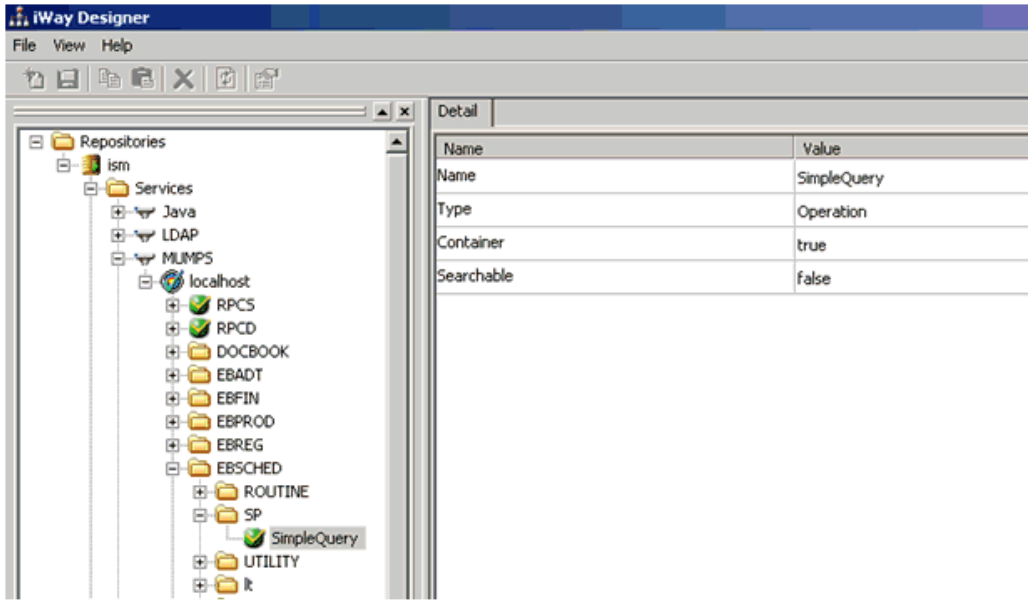
```
<tns:RPCD location="mumps/RPCD" xmlns:tns="http://schemas.ibi.com/iwmumps/
services">
  <tns:Namespace>VISTA</tns:Namespace>
  <tns:Routine>DID</tns:Routine>
  <tns:Tag>FILE</tns:Tag>
  <tns:Parameters>
    <tns:Param>100003</tns:Param>
    <tns:Param>N</tns:Param>
    <tns:Param>NAME;GLOBAL NAME</tns:Param>
    <tns:Param>iWay</tns:Param>
    </tns:Parameters>
</tns:RPCD>
```

If the routine is known to store values in a set of globals, those globals are returned in the response. Otherwise, the response is empty.

```
<RPCDResponse xmlns="http://schemas.ibi.com/iwmumps/services">
   <Global name="iWay">
      <Subscript>GLOBAL NAME</Subscript>
      <Value>^DIZ(100003,</Value>
   </Global>
   <Global name="iWay">
      <Subscript>NAME</Subscript>
      <Value>ZZINDIVIDUAL</Value>
   </Global>
</RPCDResponse>
```

Simple Query

Every global node exposes a SimpleQuery service, as shown in the following image.



This service allows you to retrieve sets of globals given a set of subscript conditions. A sample query is shown in the following example. It queries for the set of SP globals with three subscripts, the first subscript of which must be between 77501 and 77009 inclusive.

```
<tns:SimpleQuery location="mumps/EBSCHED/SP/SimpleQuery"
xmlns:tns="http://schemas.ibi.com/iwmumps/services">
<tns:Global name="SP">
  <tns:Subscript>
   <tns:conditions>
    <tns:gteq>57501</tns:gteq>
    <tns:gteq>77009</tns:gteq>
   </tns:conditions>
  </tns:Subscript>
  <tns:Subscript />
  <tns:Subscript />
 </tns:Global>
</tns:SimpleQuery>
```

A subscript node must be provided for each subscript in the global being queried. Empty nodes are considered wild cards. Any number of condition nodes may be specified for a subscript and are grouped as an "or" condition.

Each condition node may specify a sequence of one or more of the following operators:

- gt
- lt
- eq
- lteq
- gteq
- follows

All operators within a condition are grouped as an "and" operation.

Unless otherwise specified, the service treats all operands as strings and the MUMPS string comparison rules apply. If numeric comparison is desired, a subscript node may be attributed, as shown in the following example:

```
<tns:Subscript type="numeric">
 <tns:conditions>
  <tns:gteq>57501</tns:gteq>
  <tns:gteq>77009</tns:gteq>
 </tns:conditions>
</tns:Subscript>
```

As another example, the following request provides the set of SP nodes with three subscripts whose first subscript is 57501, second subscript is either 60887 or 60981, and third subscript is any value:

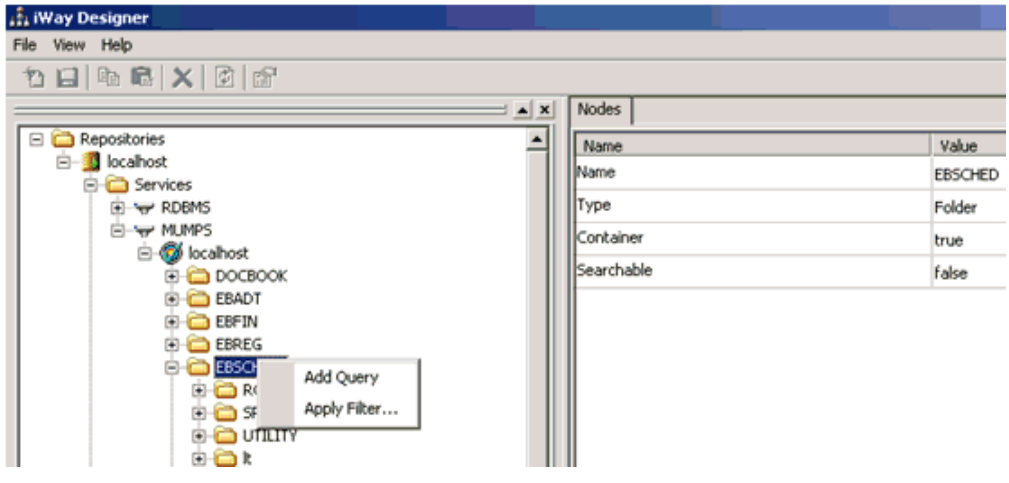
```
<tns:SimpleQuery location="mumps/EBSCHED/SP/SimpleQuery"
 xmlns:tns="http://schemas.ibi.com/iwmumps/services">
 <tns:Global name="SP">
  <tns:Subscript>
   <tns:conditions>
    <tns:gteq>57501</tns:gteq>
   </tns:conditions>
  </tns:Subscript>
  <tns:Subscript>
   <tns:conditions>
    <tns:eq>60887</tns:eq>
   </tns:conditions>
   <tns:conditions>
    <tns:eq>60981</tns:eq>
   </tns:conditions>
  </tns:Subscript>
  <tns:Subscript />
 </tns:Global>
</tns:SimpleQuery>
```

A fragment of the response for this request is provided below. Individual subscripts are broken out, but the value is given as raw data only since the adapter can know nothing about its format. Similarly, this service can not translate MUMPS date and time values.

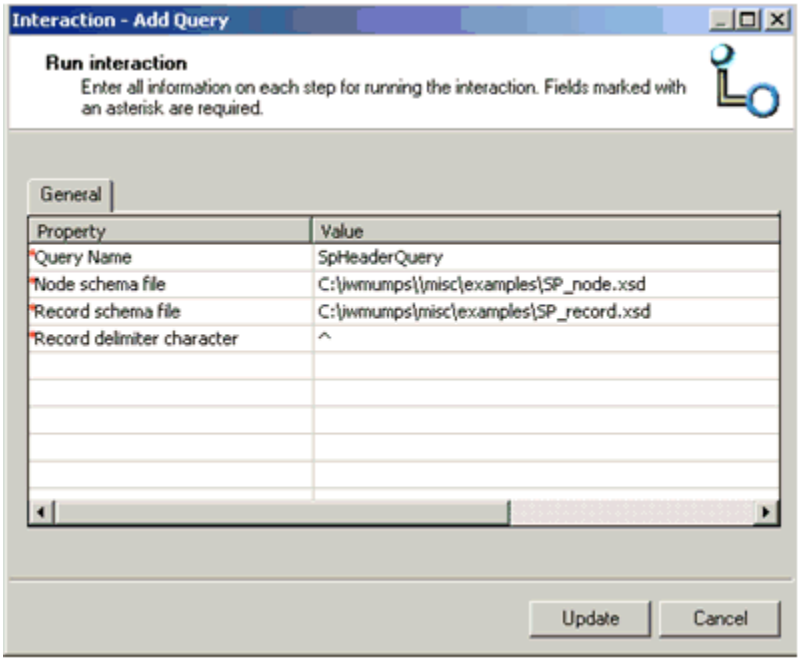
```
<SimpleQueryResponse xmlns="http://schemas.ibi.com/iwmumps/services">
   <Global name=SP">
     <Subscript>57501</Subscript>
     <Subscript>60887</Subscript>
      <Subscript>32400</Subscript>
      <Value>A^190^5^1108OV0000*1102
^2^SCHROELL^^^^^^88^60884,50315^35^^^^^STOVALLS^60887,30468^^^^^^511326^^^^^
^^1778^^^^7</Value>
   </Global>
   <Global name="SP">
      <Subscript>57501</Subscript>
      <Subscript>60981</Subscript>
      <Subscript>38400</Subscript>
      <Value>A^190^5^1128OV0000*1122
^2^MORROWKF^^^^^^88^60977,37502^35^^^^^STOVALLS^60981,37368^^^^^^1711762^^^^
^^^4795^^^^7</Value>
   </Global>
```

Schema-Based Queries

Any number of schema-based queries may be added by using the *Add Query* interaction on a namespace node in the metadata tree of the adapter.



You must supply two XSD files: one describing the subscripts of the global (its key) and one describing the fields that comprise the value of the global. The service assumes that MUMPS global values are delimited strings so the value of the delimiter character must also be specified.



Each of the schema files should define a single complex type the elements of which define the subscripts or the fields in the delimited string. The date and time schema types may be used. The adapter will convert the MUMPS values into XSD dates and times and vice versa.

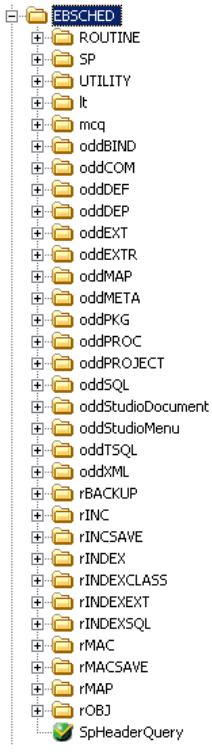
The following is a sample schema file for the three subscripted SP globals:

```
<xs:schema
 xmlns:xs="http://www.w3.org/2001/XMLSchema"
 targetNamespace="http://schemas.ibi.com/iwmumps/sample"
 xmlns:tns="http://schemas.ibi.com/iwmumps/sp"
 elementFormDefault="qualified">
  <xs:element name="SP">
    <xs:complexType>
     <xs:sequence>
         <xs:element name="ID" type="xs:string"/>
         <xs:element name="DT" type="xs:date"/>
         <xs:element name="TM" type="xs:time"/>
     </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

The schema for the values of these globals is shown in the following example:

```
<xs:schema
 xmlns:xs="http://www.w3.org/2001/XMLSchema"
 targetNamespace="http://schemas.ibi.com/iwmumps/sample"
 xmlns:tns="http://schemas.ibi.com/iwmumps/sp"
 elementFormDefault="qualified">
  <xs:element name="ApptHeader">
    <xs:complexType>
      <xs:sequence>
           <xs:element name="INTERNAL_STAT" type="xs:string" minOccurs="0"
maxOccurs="1"/>
  <xs:element name="TEST_PROV" type="xs:string" minOccurs="0"
maxOccurs="1"/>
  <xs:element name="VT" type="xs:string" minOccurs="0" maxOccurs="1"/>
  <xs:element name="INTERNAL_SLOT" type="xs:string" minOccurs="0"
maxOccurs="1"/>
  <!--  ... and so forth ... -->
  <xs:element name="NO_SHOW_INI" type="xs:string" minOccurs="0"
maxOccurs="1"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

Once the service is created, it appears at the bottom of the namespace metadata tree, as shown in the following image.



A sample request document for the service is provided below. Subscript conditions are specified using the same format as the SimpleQuery service.

```
<tns:SpHeaderQuery
  location="mumps/EBSCHED/SpHeaderQuery"
  xmlns:tns="http://schemas.ibi.com/iwmumps/services">
    <tns:ID>
  <tns:conditions>
   <tns:eq>57501</tns:eq>
  </tns:conditions>
 </tns:ID>
 <tns:DT />
 <tns:TM>
  <tns:conditions>
   <tns:eq>15:30:00</tns:eq>
  </tns:conditions>
 </tns:TM>
</tns:SpHeaderQuery>
```

This request returns all appointments for patient number 57501, which were scheduled for 3:30 PM on any date. The following is an example of the response document that is returned:

```
<SpHeaderQuery xmlns="http://schemas.ibi.com/iwmumps/services">
   <Global>
      <SP>
         <ID>57501</ID>
         <DT>2008-10-14</DT>
         <TM>15:30:00</TM>
      </SP>
      <ApptHeader>
         <INTERNAL_STAT>C</INTERNAL_STAT>
         <TEST_PROV>347</TEST_PROV>
         <VT>6</VT>
         <INTERNAL_SLOT>1186OV3000*1186 </INTERNAL_SLOT>
         <NO_DOCUMENTATION0>6</NO_DOCUMENTATION0>
         <SCHED_INI_SLASH_TERM_NUM>SCHROELL</SCHED_INI_SLASH_TERM_NUM>
         <CAN_OR_BMP_INI_AND_TERM>TANJIJR</CAN_OR_BMP_INI_AND_TERM>
         <CAN_DT>2008-10-13</CAN_DT>
         <DEPT>88</DEPT>
         <NO_DOCUMENTATION1>61278,61076</NO_DOCUMENTATION1>
         <LOC_SHORT_NM>34</LOC_SHORT_NM>
         <CAN_REASONS>7</CAN_REASONS>
         <NO_DOCUMENTATION7>61282,39201</NO_DOCUMENTATION7>
         <RESCHEDULED_APPT_DT>2008-10-14</RESCHEDULED_APPT_DT>
         <RESCHEDULED_APPT_TM>11:30:00</RESCHEDULED_APPT_TM>
         <SEQ>6379</SEQ>
         <RESCHED_FROM_DT>2008-10-20</RESCHED_FROM_DT>
         <RESCHED_FROM_TIME>11:30:00</RESCHED_FROM_TIME>
         <ORGANIZATION>7</ORGANIZATION>
      </ApptHeader>
   </Global>
   <Global>
      <SP>
         <ID>57501</ID>
         <DT>2009-07-17</DT>
         <TM>15:30:00</TM>
      </SP>
```

```
<ApptHeader>
         <INTERNAL_STAT>C</INTERNAL_STAT>
         <TEST_PROV>347</TEST_PROV>
         <VT>6</VT>
         <INTERNAL_SLOT>1186OV3000*1186 </INTERNAL_SLOT>
         <NO_DOCUMENTATION0>6</NO_DOCUMENTATION0>
         <SCHED_INI_SLASH_TERM_NUM>MCKENZWR</SCHED_INI_SLASH_TERM_NUM>
         <CAN_OR_BMP_COMM>r/s</CAN_OR_BMP_COMM>
         <CAN_OR_BMP_INI_AND_TERM>MCKENZWR</CAN_OR_BMP_INI_AND_TERM>
         <CAN_DT>2009-07-15</CAN_DT>
         <DEPT>88</DEPT>
         <NO_DOCUMENTATION1>61556,50616</NO_DOCUMENTATION1>
         <LOC_SHORT_NM>34</LOC_SHORT_NM>
         <CAN_REASONS>7</CAN_REASONS>
         <NO_DOCUMENTATION7>61557,55720</NO_DOCUMENTATION7>
         <RESCHEDULED_APPT_DT>2009-08-03</RESCHEDULED_APPT_DT>
         <RESCHEDULED_APPT_TM>12:00:00</RESCHEDULED_APPT_TM>
         <SEQ>5595</SEQ>
         <ORGANIZATION>7</ORGANIZATION>
      </ApptHeader>
   </Global>
</SpHeaderQuery>
```

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iWay

iWay Application Adapter for MUMPS User's Guide

Version 7.0.x and Higher

DN3502258.0418

Information Builders, Inc.
Two Penn Plaza
New York, NY 10121-2898