



**Bar Code Medication Administration (BCMA)
BCMA Backup System (BCBU)
InterSystems Caché Installation Setup**

Version 3.0

April 2016

**Department of Veterans Affairs (VA)
Office of Information and Technology (OIT)
Product Development (PD)**

Revision History

Date	Revision	Description	Author
04/2016	PSB*3*91	Document update for installation of Cache version 2014.	REDACTED
04/2015	PSB*3*84	Document updated by REDACTED. Entire document reformatted.	REDACTED
07/2011	PSB*3*65	Footers updated; removed HSITES and added Product Development, removed Vista. Renamed instances of CACHE to Caché throughout the document. Updated version to reflect BCMA v3.0 version.	
08/2003	PSB*2*17	Original Released Bar Code Medication Administration Backup System (BCBU) InterSystems Caché Workstation Installation Setup Guide.	

Revision History

Contents

1	InterSystems Caché Installation Setup	1
1.1	Caché Configuration Manager	6
1.1.1	Adding a Database.....	7
1.1.2	Adding a Namespace.....	12
1.1.3	Global and Routine Mapping	16
1.1.4	Global Mapping.....	17
1.1.5	Routine Mapping.....	19
1.1.6	Cache Licenses install	21
1.1.7	Removing Read/Archive Properties	22
1.2	Telnet Instructions.....	22
1.3	Setting up Telnet and Terminal Users.....	34
1.4	Setting up the BCMA Shortcut.....	40
1.4.1	Edit a TRM or VTRM device.....	45

1 InterSystems Caché Installation Setup

This section illustrates step-by-step installation of Caché v2014, for use with Bar Code Medication Administration Backup System (BCBU) Workstation.

The Caché software was downloaded from the VA FTP sites and is located under the corresponding version of the CACHE folder. To start the setup locate the downloaded executable and run it.

Accept the license agreement and click **Next**.

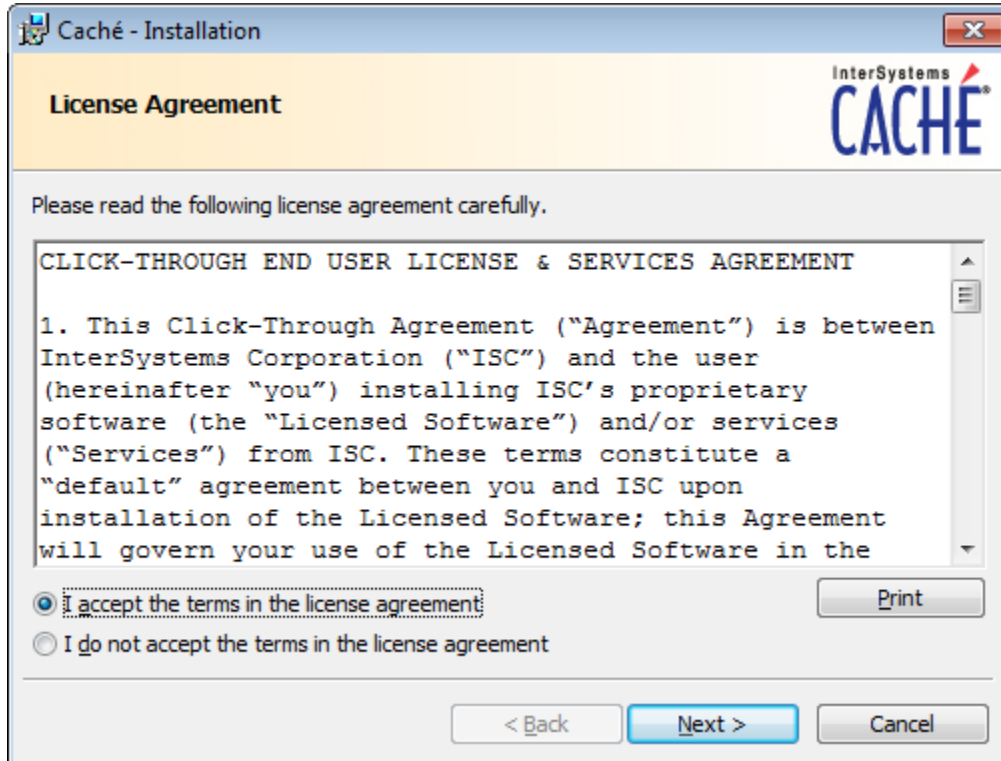


Figure 1

Click **NEXT** at the Define Cache Instance Name.

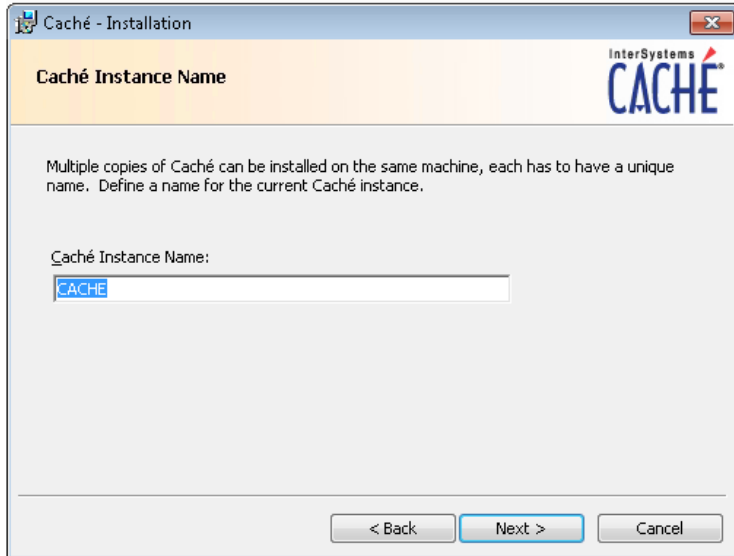


Figure 2

Click **Next** at Destination Folder.

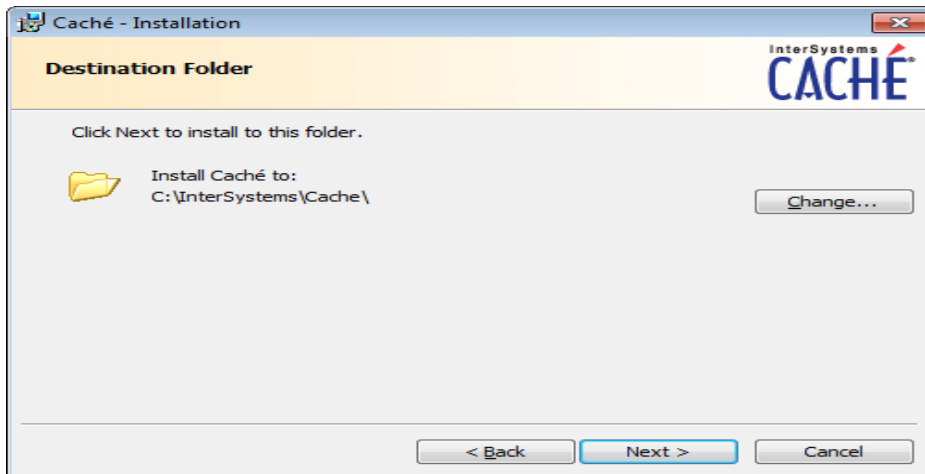


Figure 3

Choose **Development** and click **Next**.

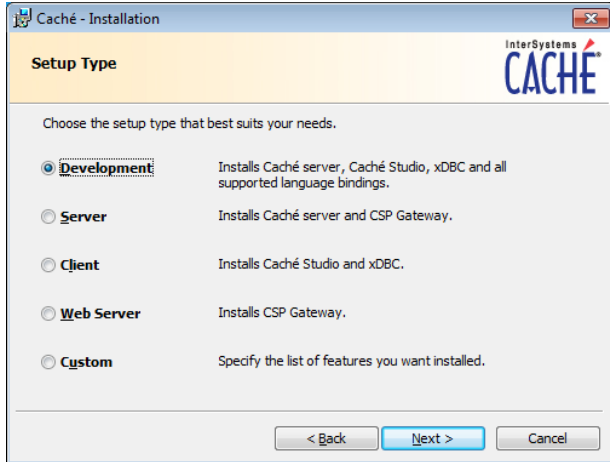


Figure 4

Continue following the instructions and accept the defaults for your system.

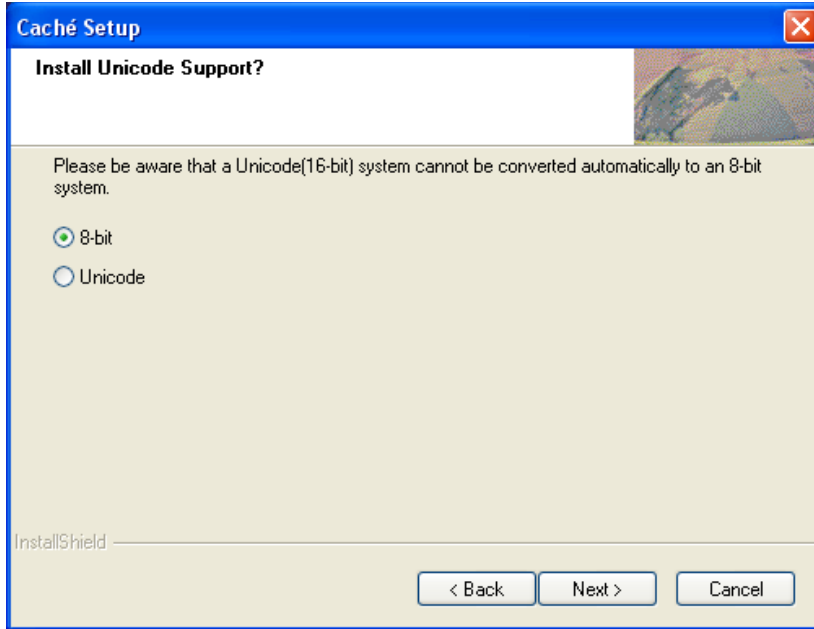


Figure 5

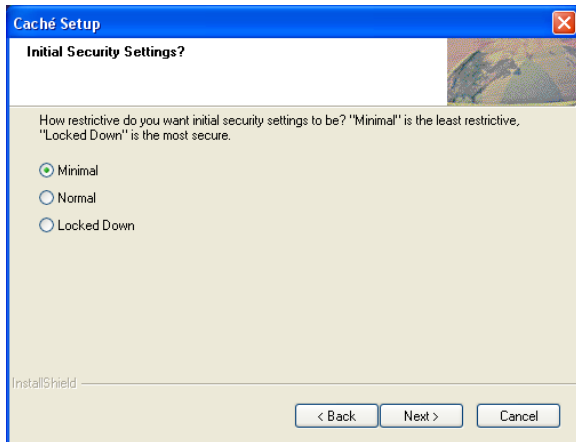


Figure 6

Click **Install**.

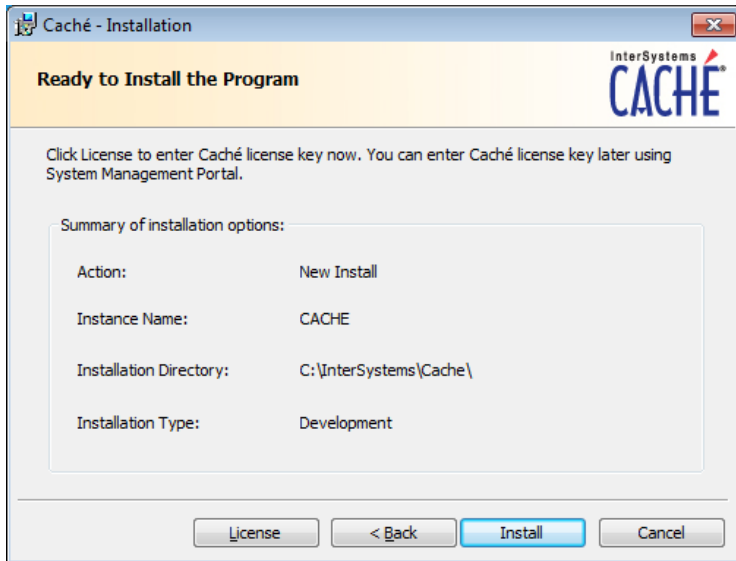


Figure 7

Uncheck **Display the Getting Started** page and click **Finish**.

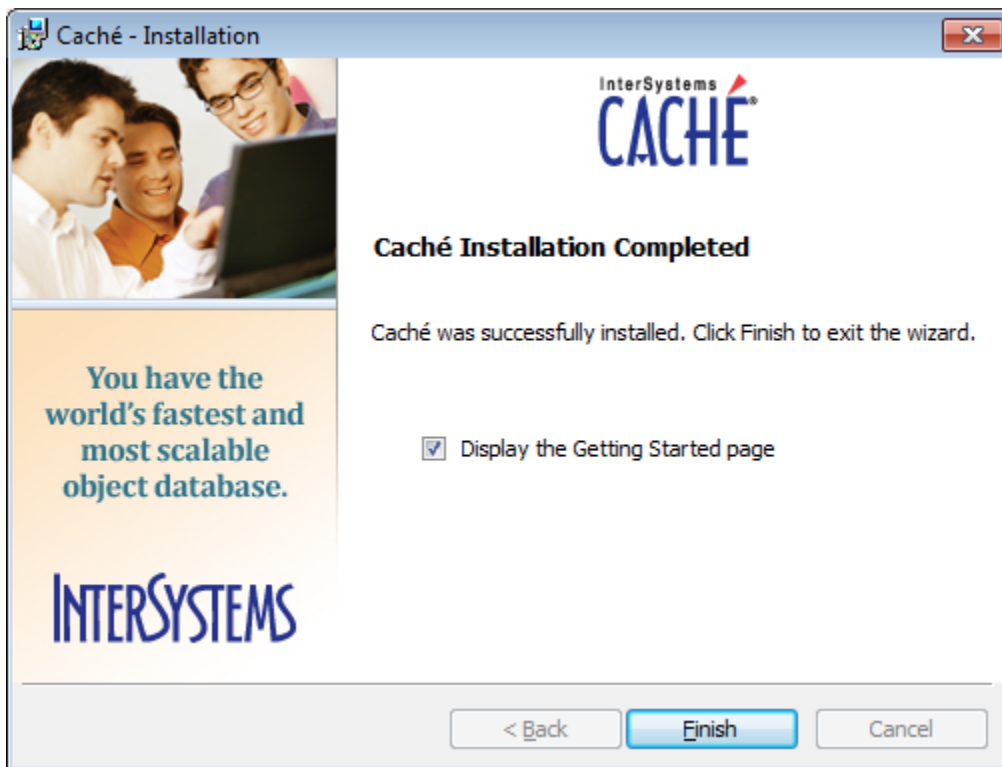


Figure 8

Upon the completion of a successful installation, a "Blue Cube" will appear on the PC toolbar in the lower right hand side of the screen.

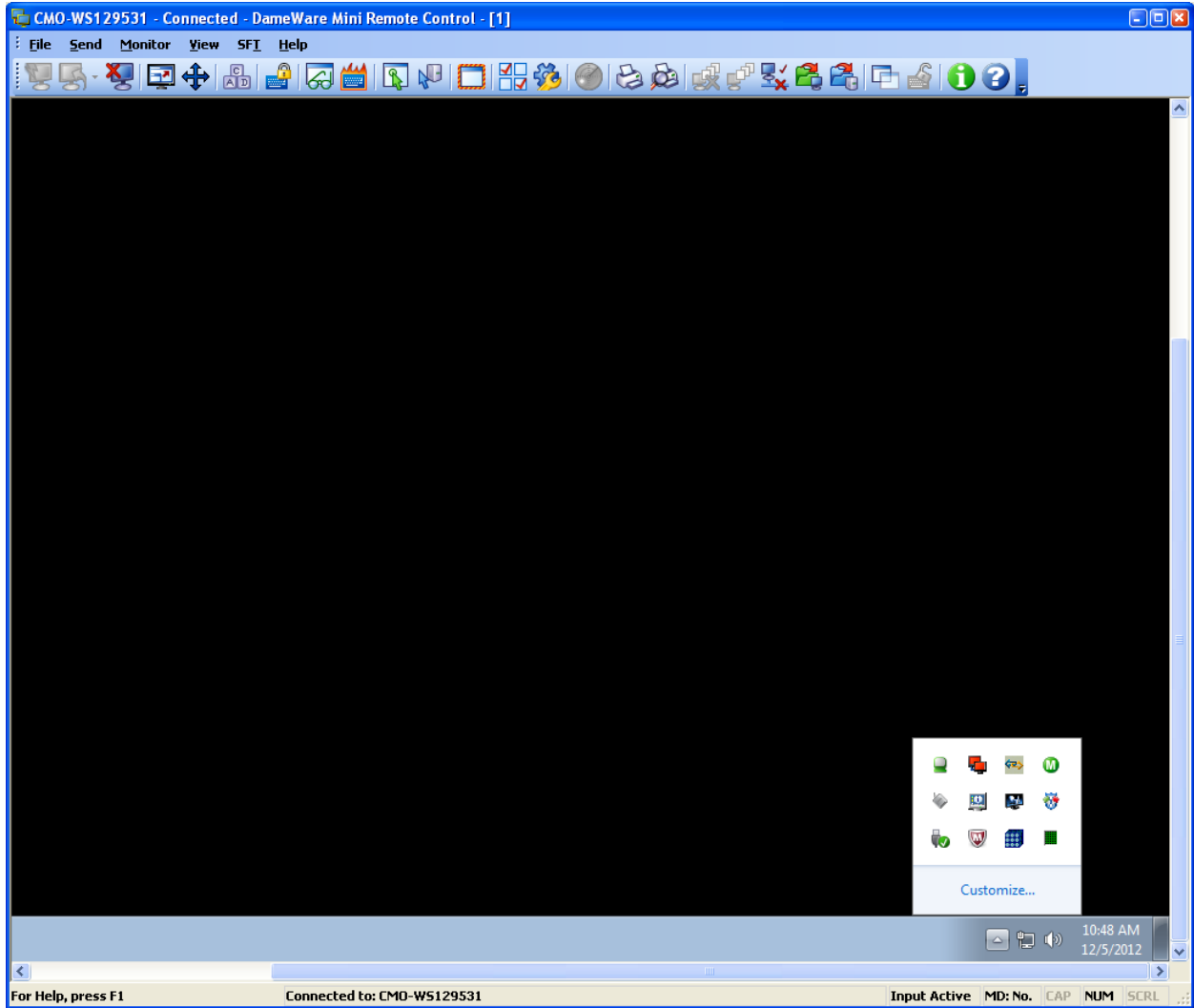


Figure 9

1.1 Caché Configuration Manager

Caché must be configured with databases, namespaces, and routines by using the Management Portal located on the Caché cube menu options.

Right clicking on the cube will display the menu options for Caché, and then choose **Management Portal**.

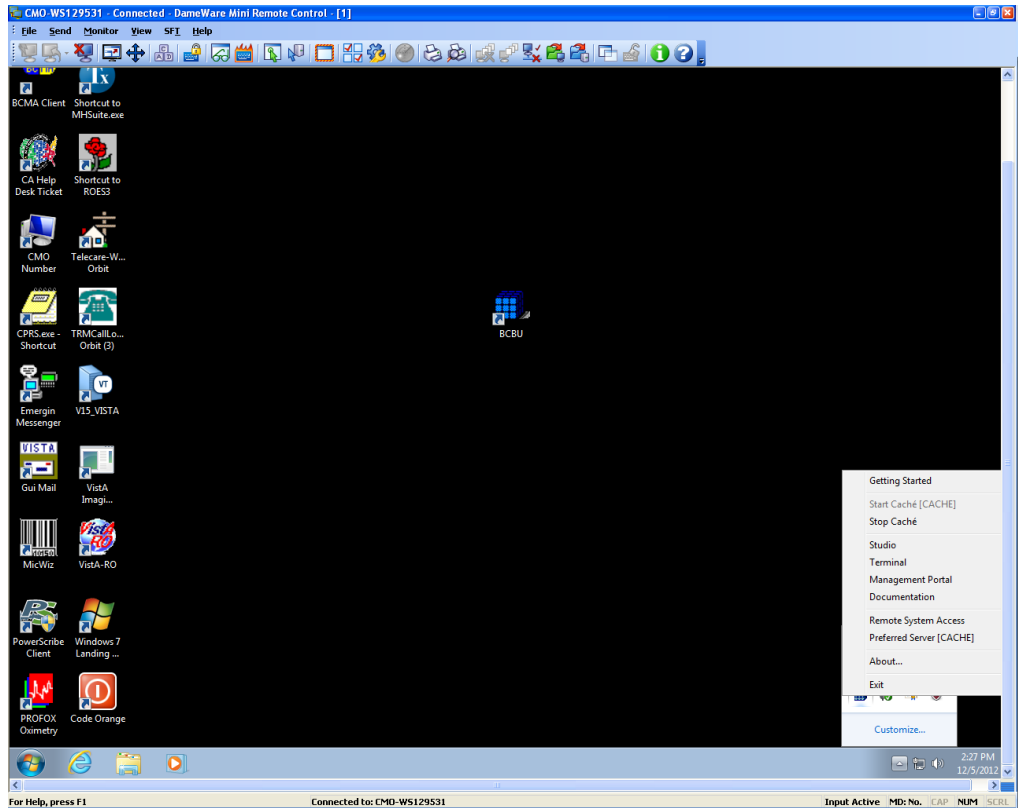


Figure 10

1.1.1 Adding a Database

The first step is to add a Database. From the Main Screen, choose the **Menu** button and then **Configure Databases**.

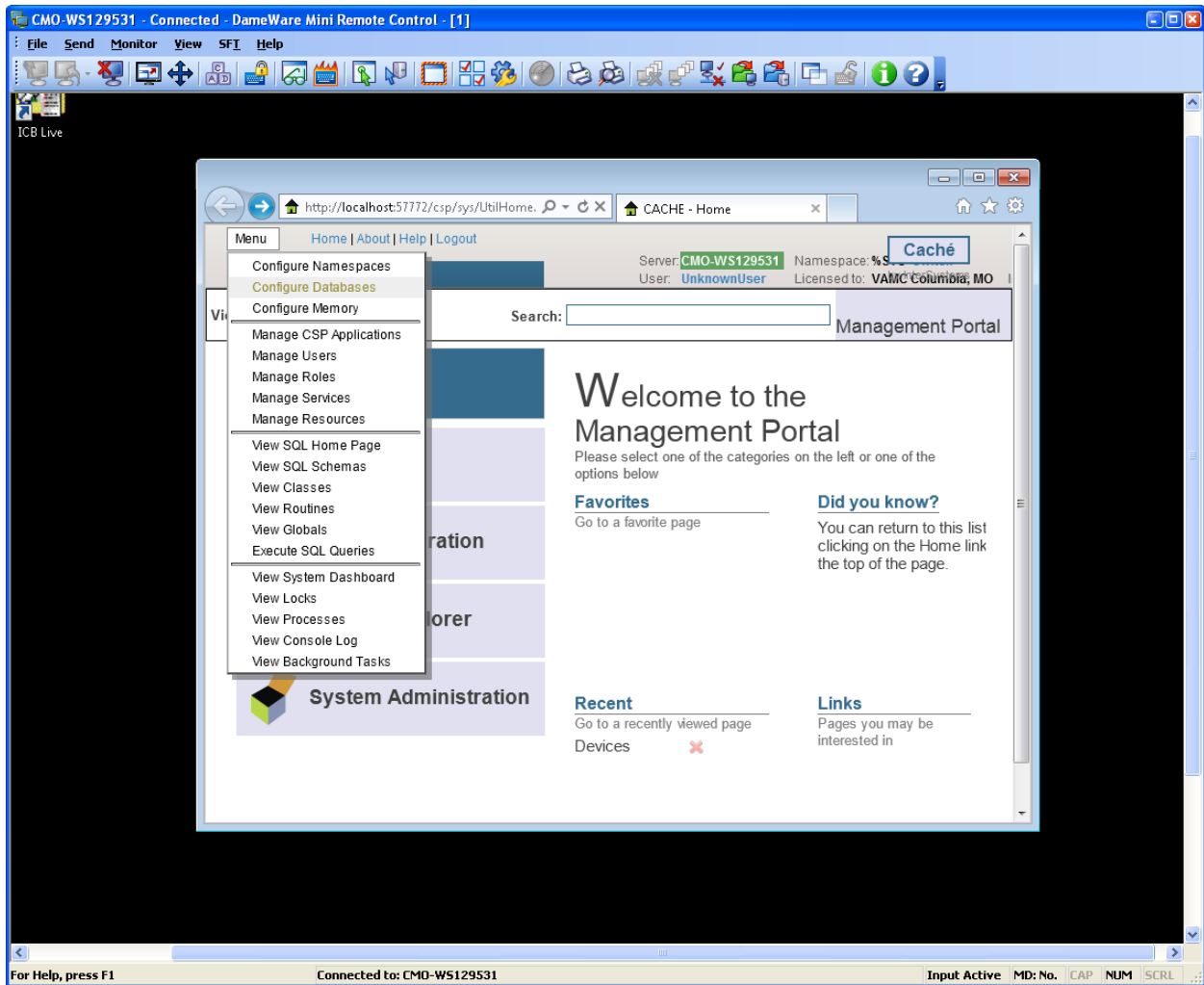


Figure 11

Select the **Local Database** option and then **Create New Database** button.

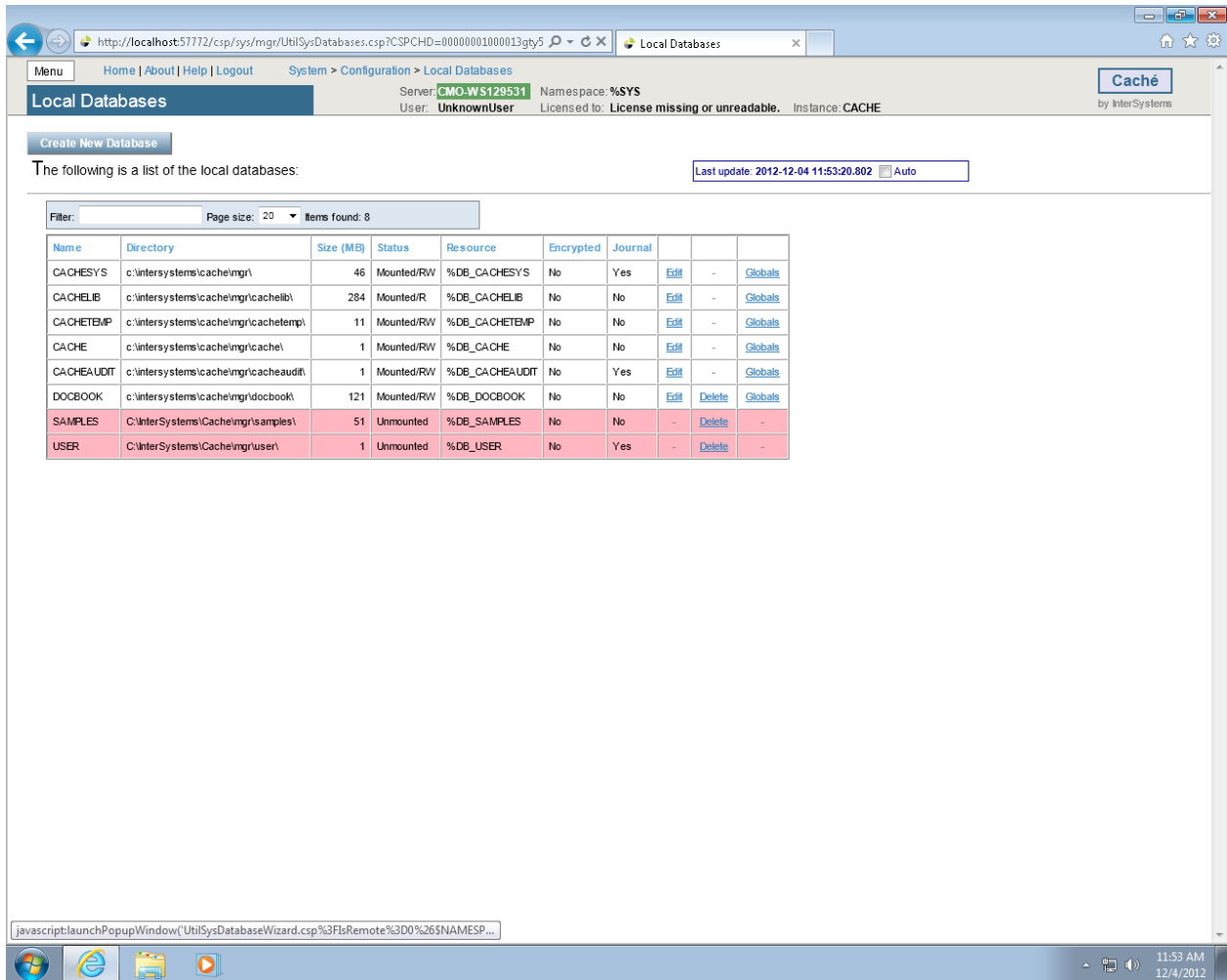


Figure 12

Type **VISTA** as the name of the database and enter **C:\BCMABU** into the Directory Selected field. Click **NEXT** to continue.

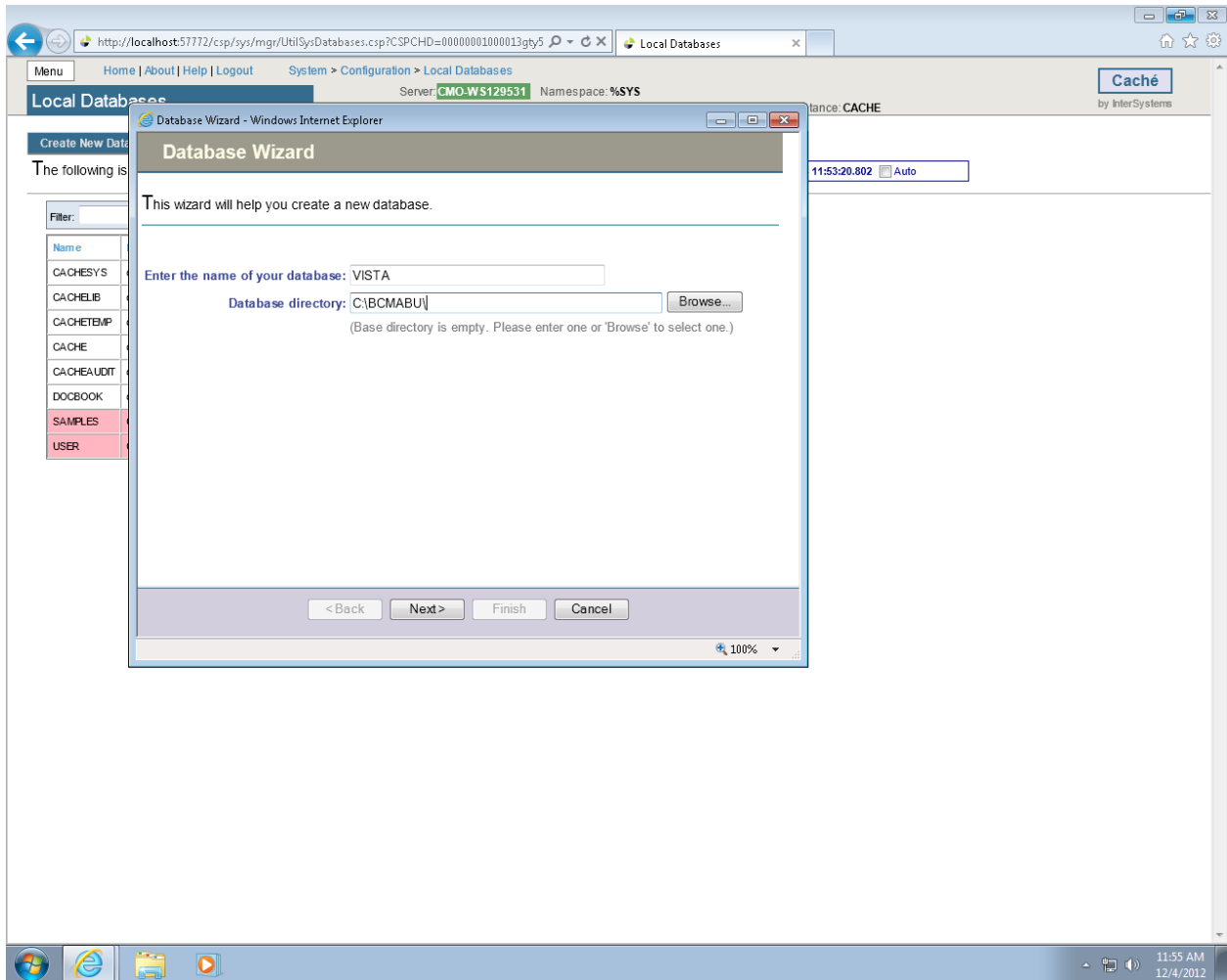


Figure 13

Verify values entered and click **FINISH**.

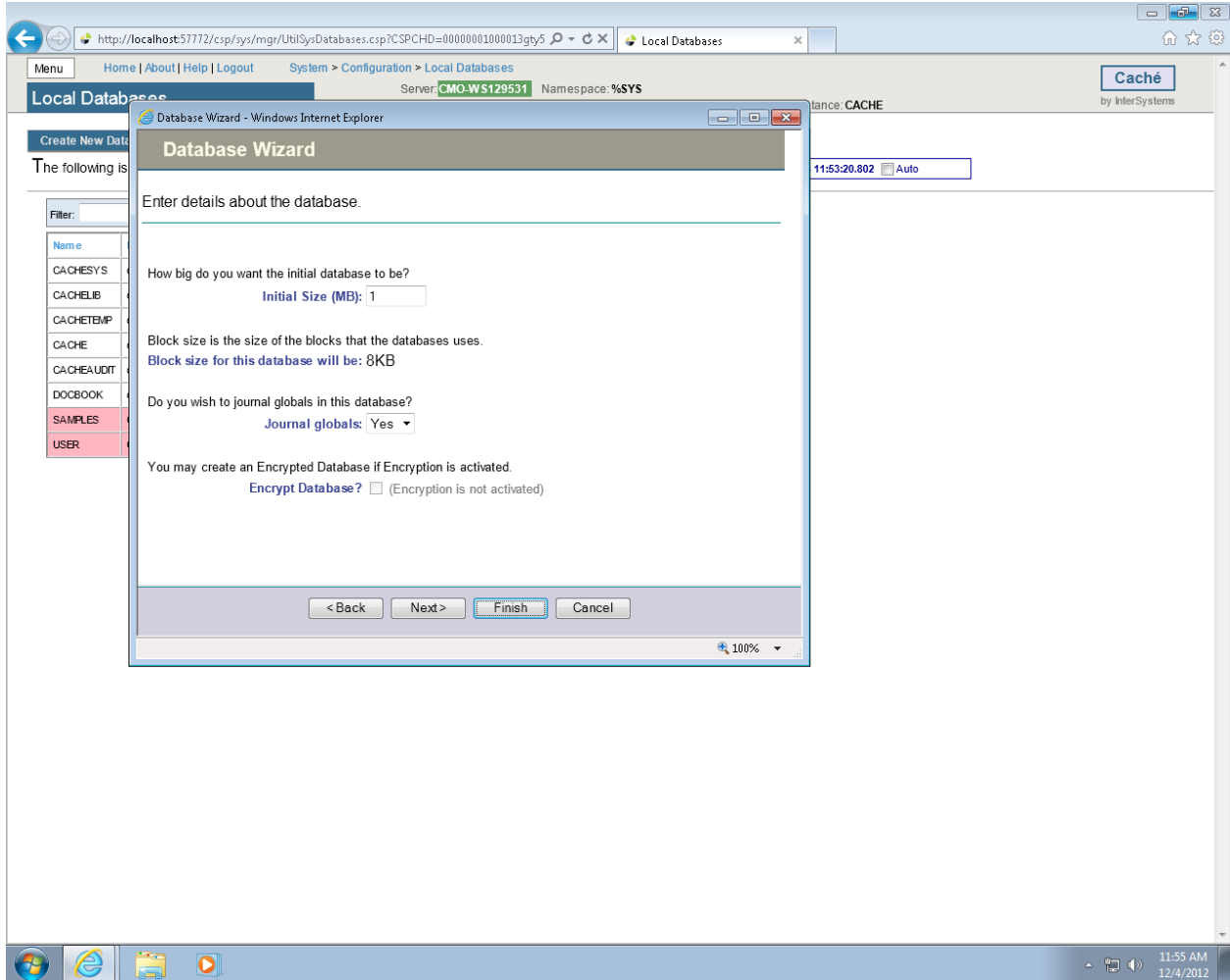


Figure 14

The newly created database should now appear in the list (bottom of the list) with C:\BCMABU\ as its directory.

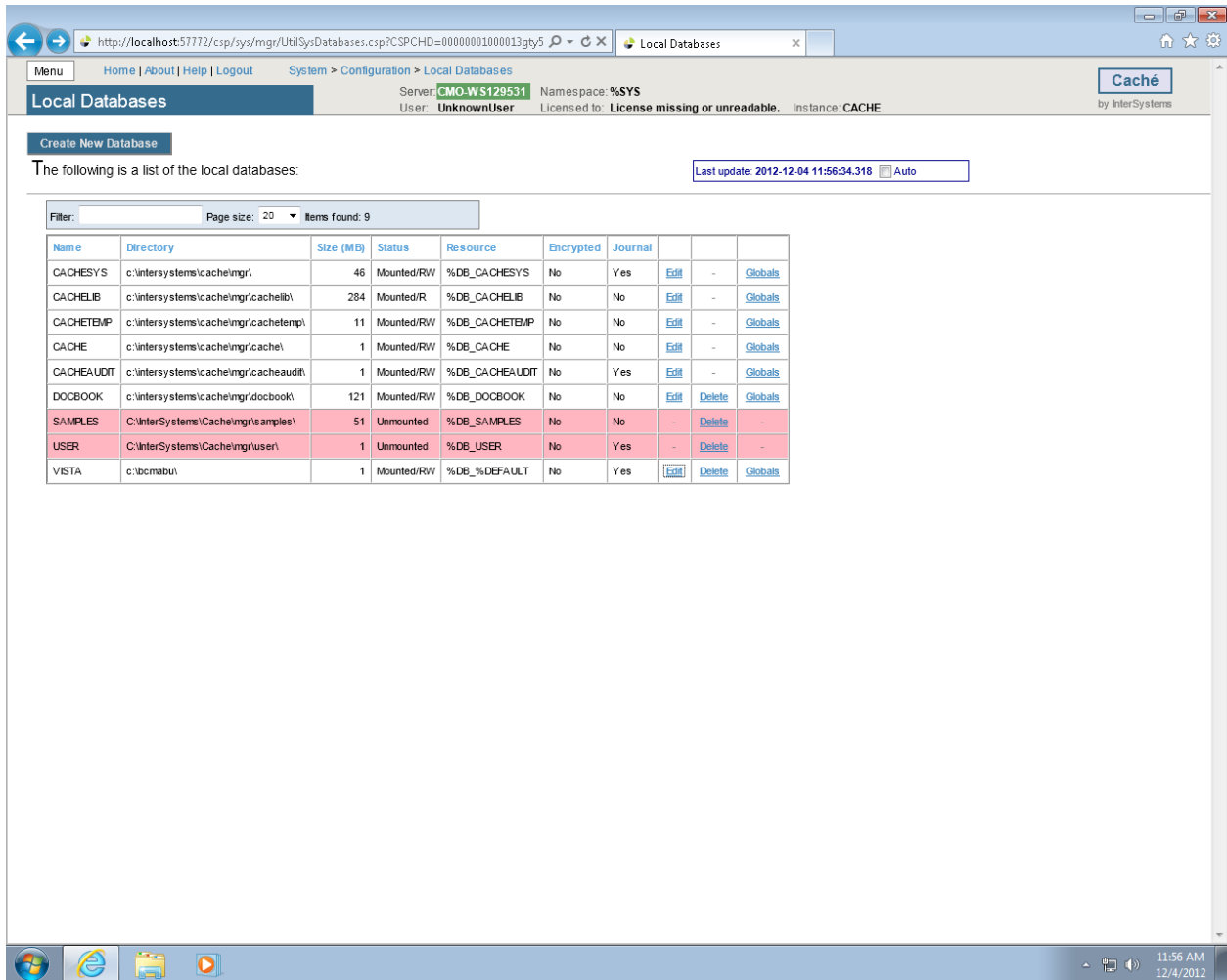


Figure 15

1.1.2 Adding a Namespace

We will create the namespace VISTA and attach it to the VISTA database.

Click the **MENU** button and choose **Configure Namespaces**.

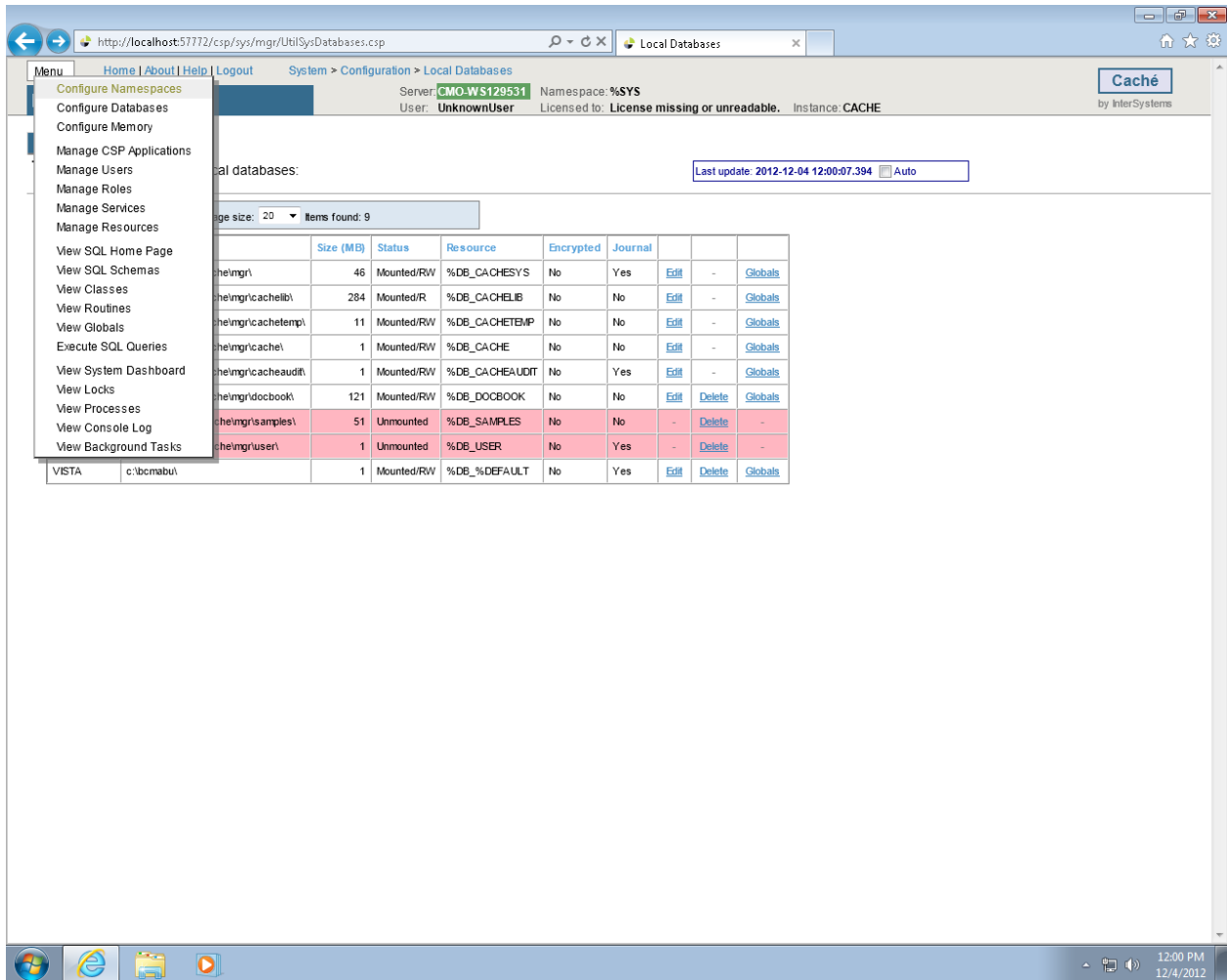


Figure 16

Click Create **New Namespace** button.

InterSystems Caché Installation Setup

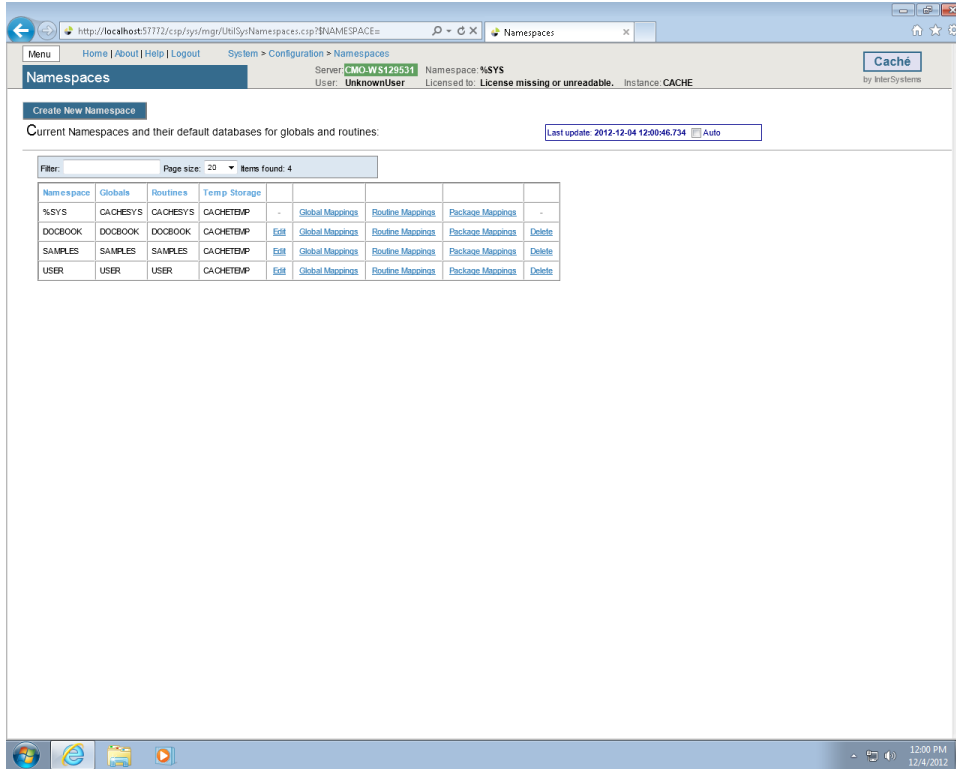


Figure 17

Type **VISTA** as the namespace and select **VISTA – C\BCMABU** as the existing database. Click **Save**.

Menu Home | About | Help | Logout System > Configuration > Namespaces > New Namespace

New Namespace* Server: **ISH-LT7COWNKE** Namespace: **%SYS** **Caché**
User: **UnknownUser** Licensed to: **Dallas OI Field Office** Instance: **CACHE**
by InterSystems

Save Cancel **New Namespace**

Use the form below to create a new namespace:

Name of the namespace
Required.

The default database for this namespace is a Local Database
 Remote Database

Select an existing database
Required.

Create a default Web application for this namespace

Copy namespace mappings from

Figure 18

VISTA namespace should be seen in the listing of Caché Namespaces.

Current Namespaces and their default databases for globals and routines:

Namespace	Globals	Routines	Temp Storage	Global Mappings	Routine Mappings	Package Mappings	Delete
%SYS	CACHESYS	CACHESYS	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	-
DOCBOOK	DOCBOOK	DOCBOOK	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
SAMPLES	SAMPLES	SAMPLES	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
USER	USER	USER	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
VISTA	VISTA	VISTA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete

Figure 19

1.1.3 Global and Routine Mapping

Global and Routine Mappings are created under the Configuration Namespaces option by selecting Global Mappings and Routine Mappings for the VISTA namespace.

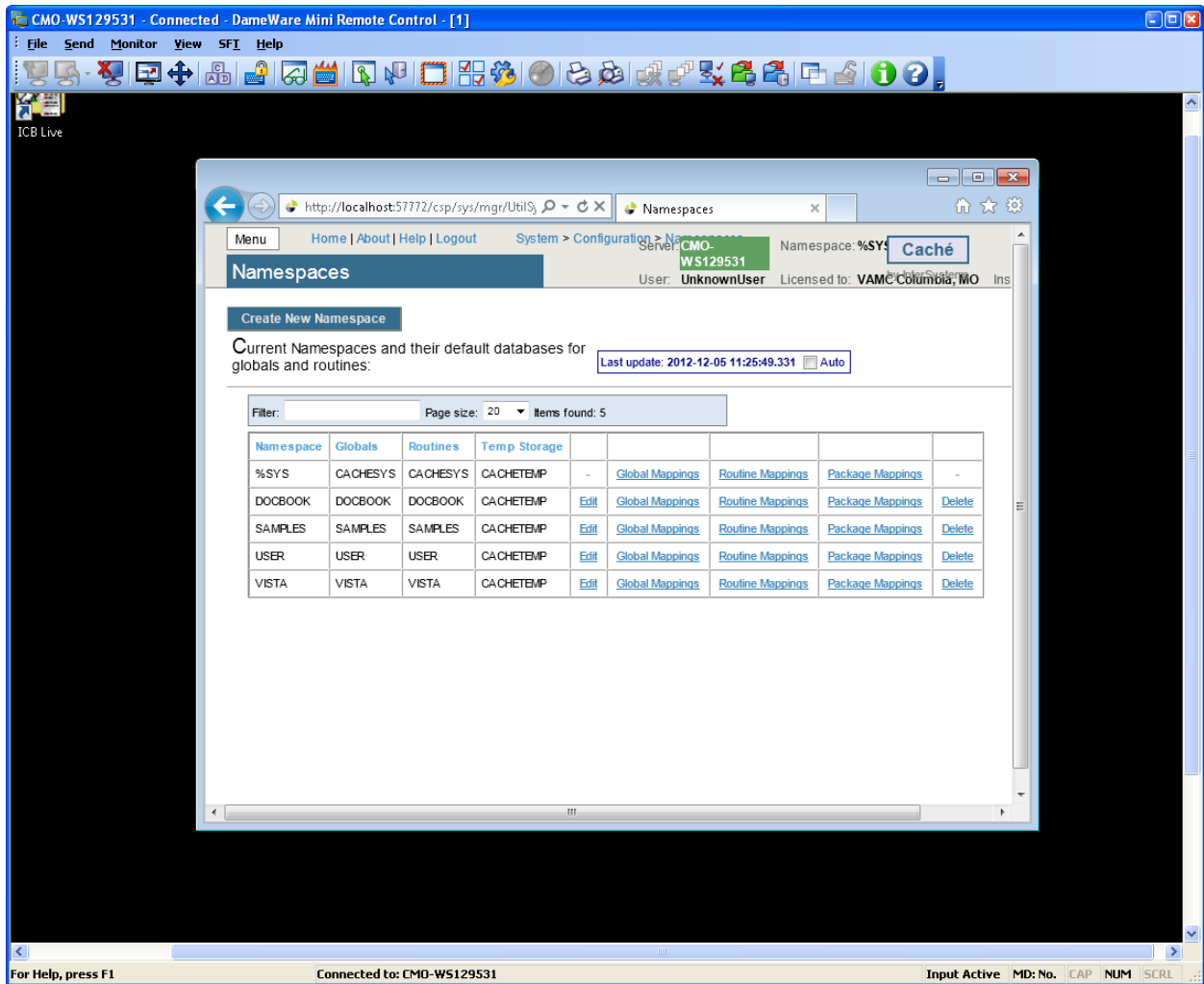


Figure 20

1.1.4 Global Mapping

Click Global Mappings for the **VISTA** namespace. Then click **New** to create the global mapping definition as shown in the following slide.

InterSystems Caché Installation Setup

The screenshot shows the 'Global Mappings' configuration page in the InterSystems Caché web interface. The breadcrumb navigation is 'System > Configuration > Namespaces > Global Mappings'. The page title is 'Global Mappings'. The server information is: Server: ISH-LT7COWNKE, User: UnknownUser, Namespace: %SYS, Licensed to: Dallas OI Field Office, Instance: CACHE. There are buttons for 'New', 'Save Changes', 'Discard Changes', and 'Cancel'. A 'Global Mappings' button is also present on the right side of the header.

The global mappings for namespace VISTA are displayed below:

Global	Subscript	Database		
%Z*		VISTA	Edit	Delete

Figure 21

The Global Database Location is **VISTA** and the Global name is **%Z***. Click **Apply** (Figure 22) and **Save Changes**.

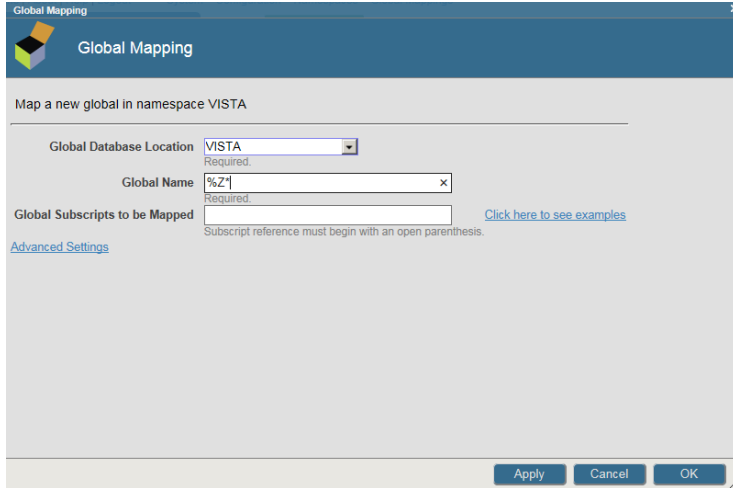


Figure 22

1.1.5 Routine Mapping

Click the **Menu** button (Figure 23) and then **Configure Namespaces**.

Select **Routine Mapping**.

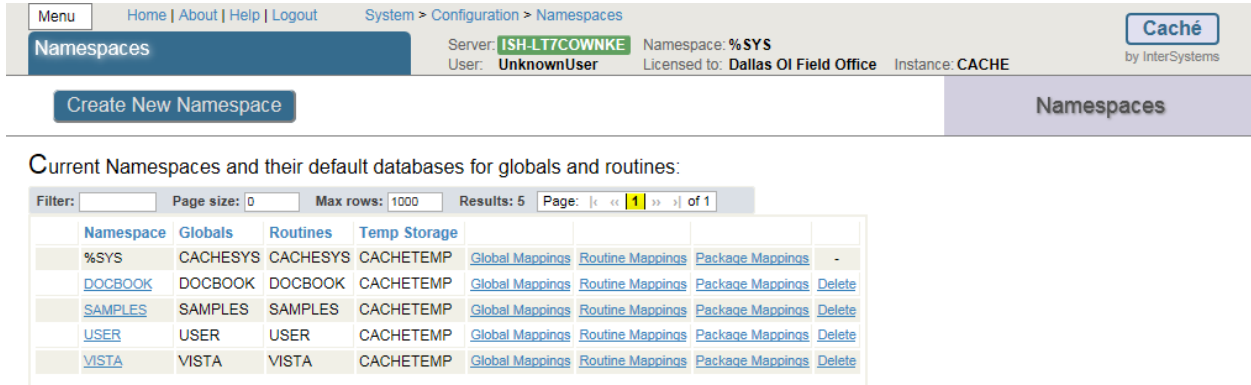


Figure 23

Select **New Routine Mapping**. Type the first routine name, **%DT***, (Figure 24) in the space provided and select **VISTA** as the routine database location. Click **Apply**. Repeat this procedure for routine names **%RCR**, **%XU*** and **%Z***. When complete, your routine mapping should appear as shown in Figure 25. Click **Save Changes** and close this window.

InterSystems Caché Installation Setup

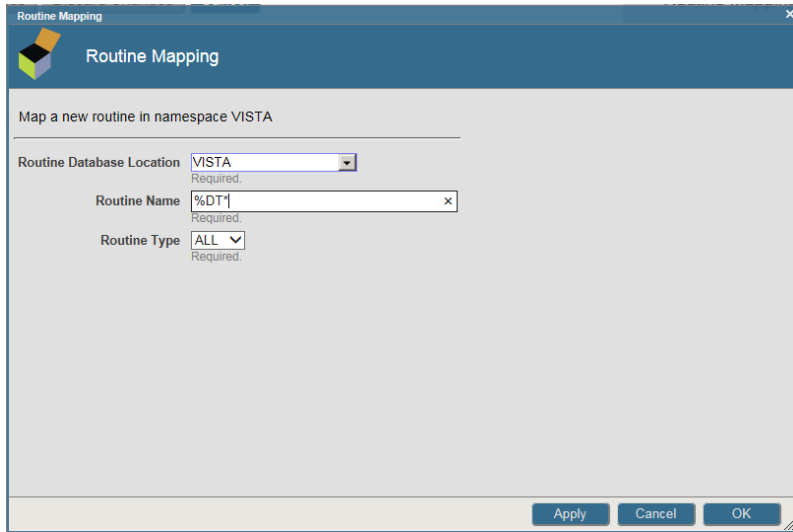


Figure 24

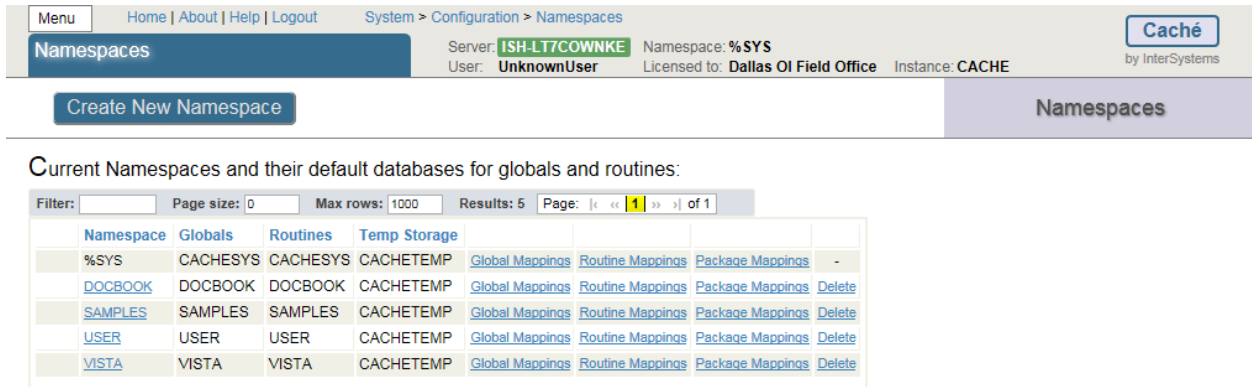


Figure 25

Shut down CACHÉ

Click the Blue Cube (PC toolbar in the lower right hand side of the screen) and choose Stop Cache.

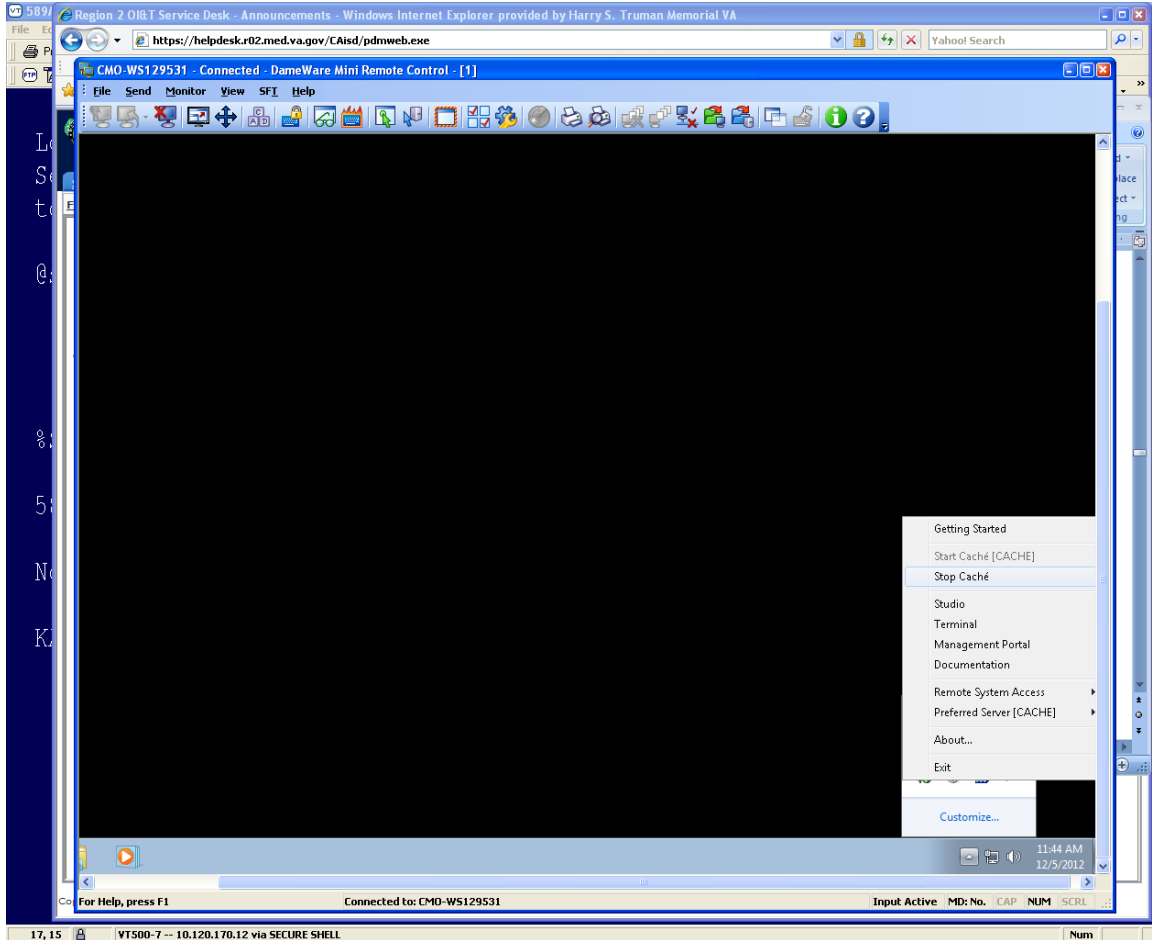


Figure 26

You will see the following screen as CACHE shuts down.



Figure 27

1.1.6 Cache Licenses install

The license information is a text file sent to you by InterSystems (cache.key).

Copy and paste into the C:\InterSystems\Cache\mgr folder.

CACHE.DAT

April 2016

Copy the **CACHÉ.DAT** file you downloaded from the VA FTP site and copy it to the **C:\BCMABU** folder.

You may receive a message stating the file is already present and do you want to replace it with the file you are importing. If so, answer **YES**.

1.1.7 Removing Read/Archive Properties

Using the "Windows Explorer", remove the Read and Archive Properties from the **CACHÉ.DAT** file. Right click "**CACHÉ.DAT**" and select "Properties" under the General Tab and Click Advance to remove Archive. Click Apply and then OK.

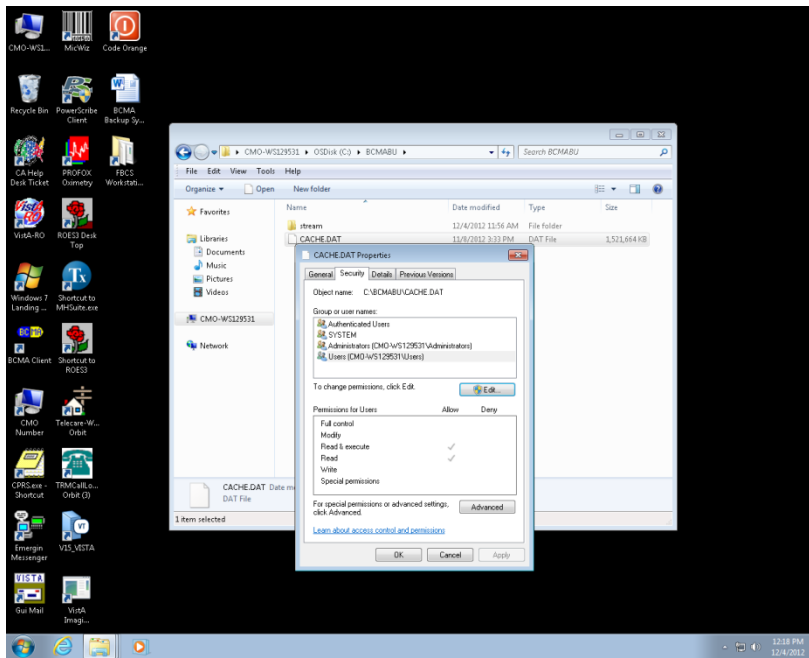


Figure 28

1.2 Telnet Instructions

Start Caché. Note: The Cache Cube icon is Gray in color at this point, not Blue.

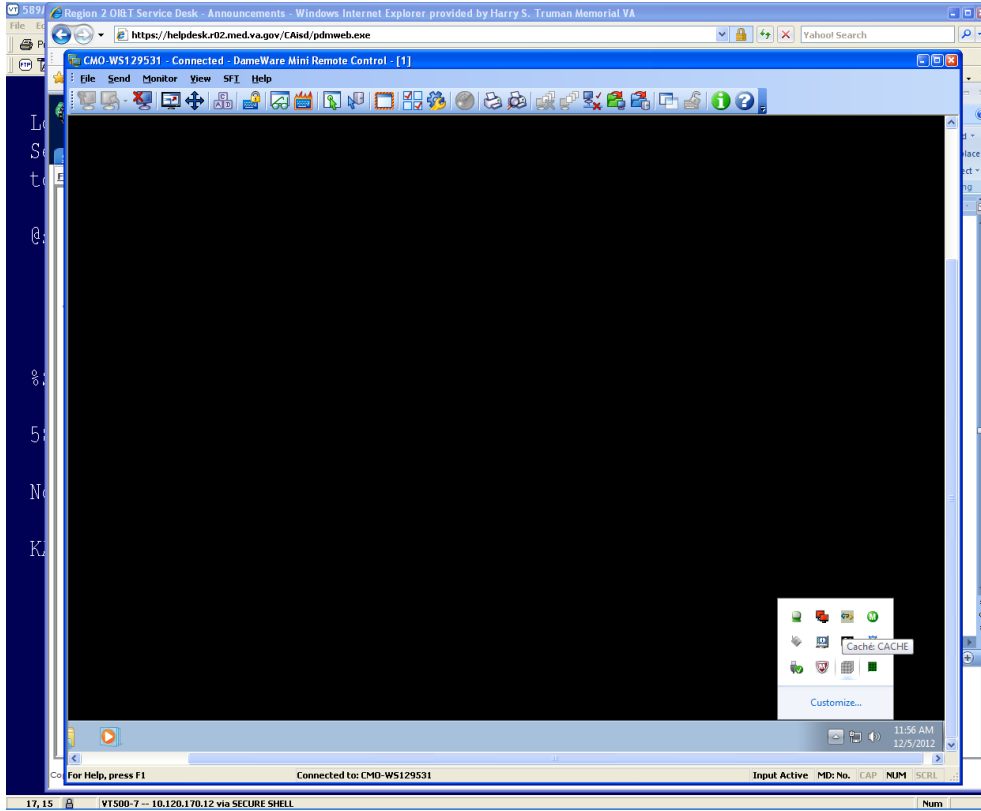


Figure 29

What we are going to do next is to move the **ZSTU** routine from the **VISTA** namespace to the **%SYS** namespace using the Management Portal.

Select Menu **button** then **View Routines**.

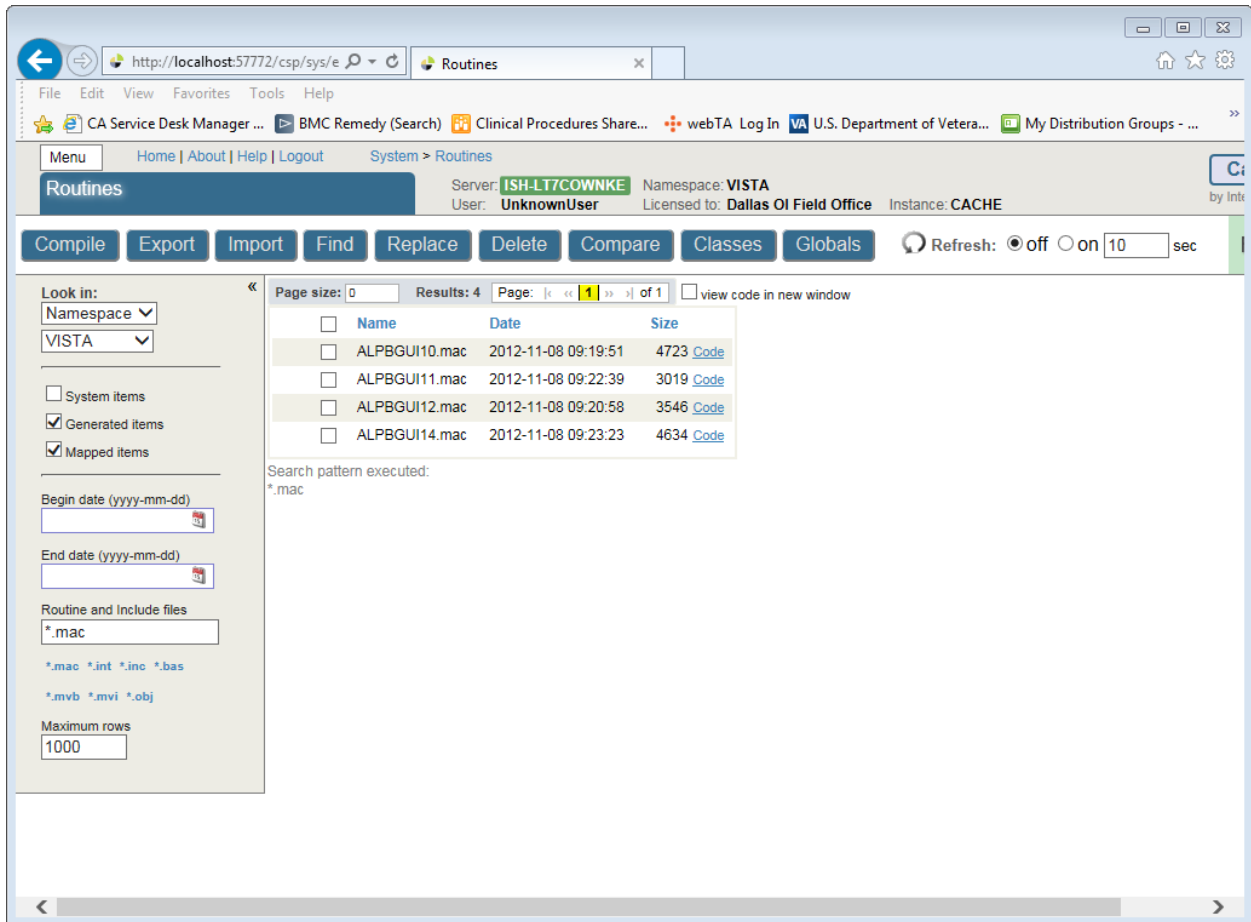


Figure 30

Select VISTA for the Look in Namespace on the left side of the screen.

Enter `ZSTU*.*` in the Routines box and click **Export**.

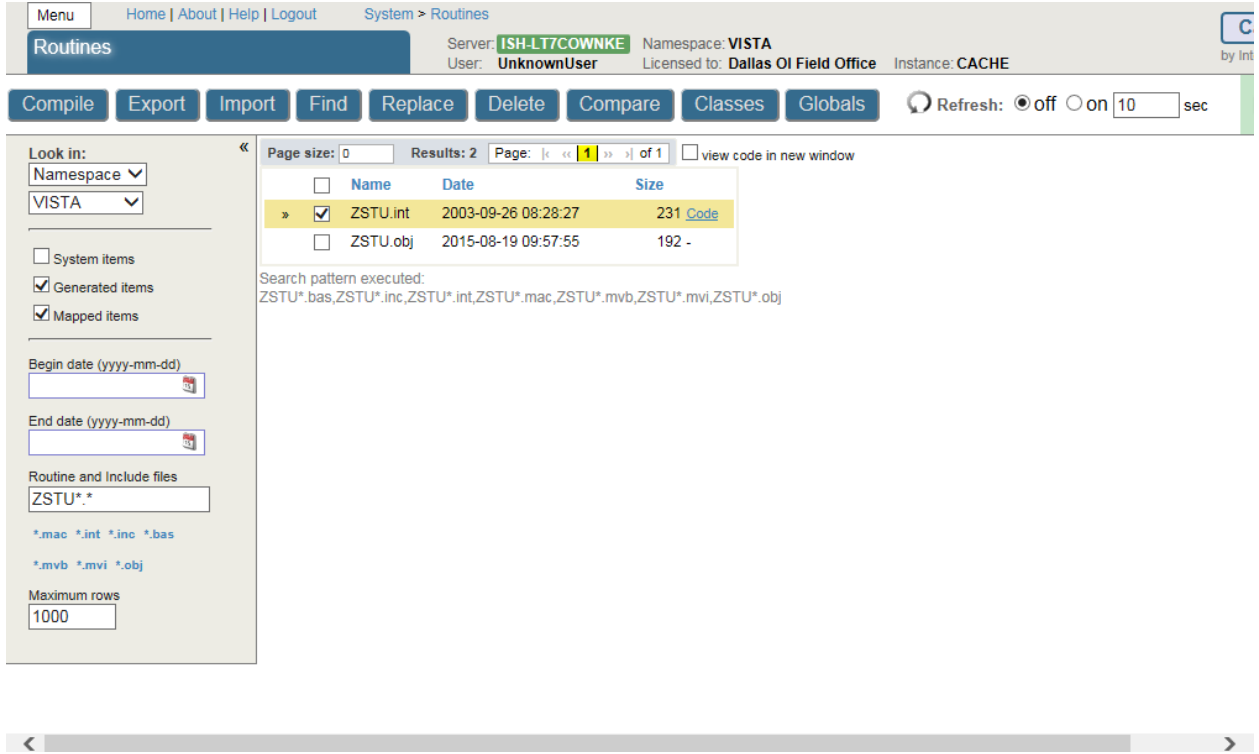


Figure 31

Make sure the check box is selected for the routine (ZSTU.int).

Click **Export**.

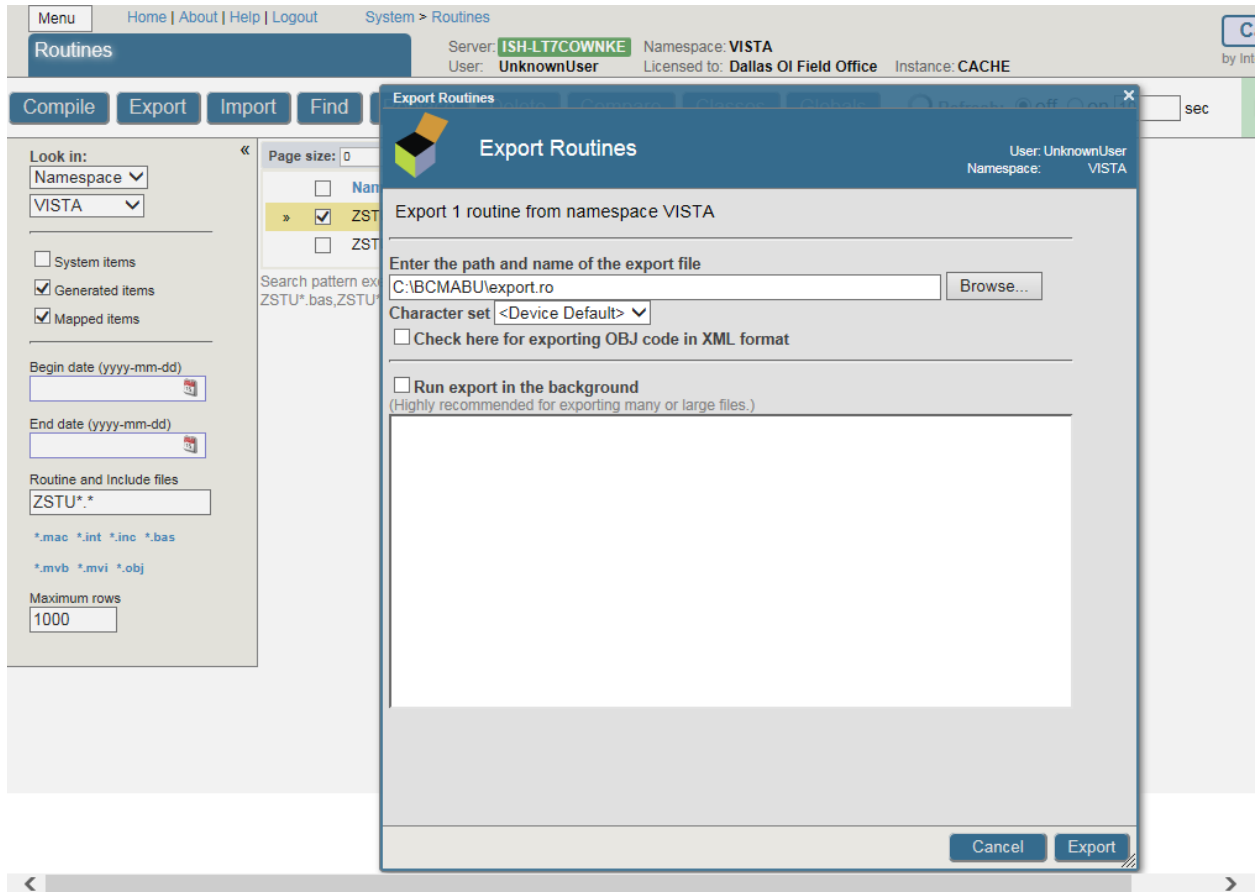


Figure 32

When finished, a message stating it was completed should appear, click **Done** when complete.

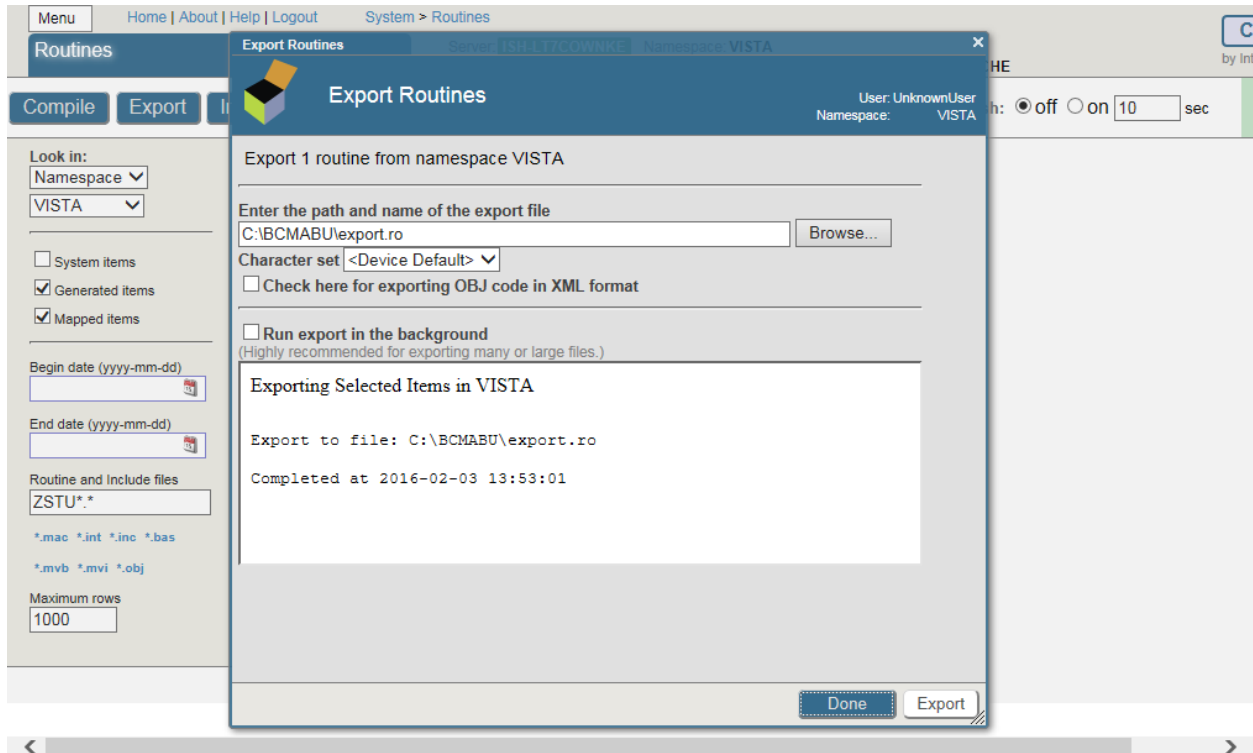


Figure 33

Click the **Menu** button and then **View Routines**. See steps 1 -6 to accomplish the following: Select the **%SYS** namespace (left side of screen). Select **Import** from across the top. Browse to the path where you exported the routine. Select the routine and click **OK**.

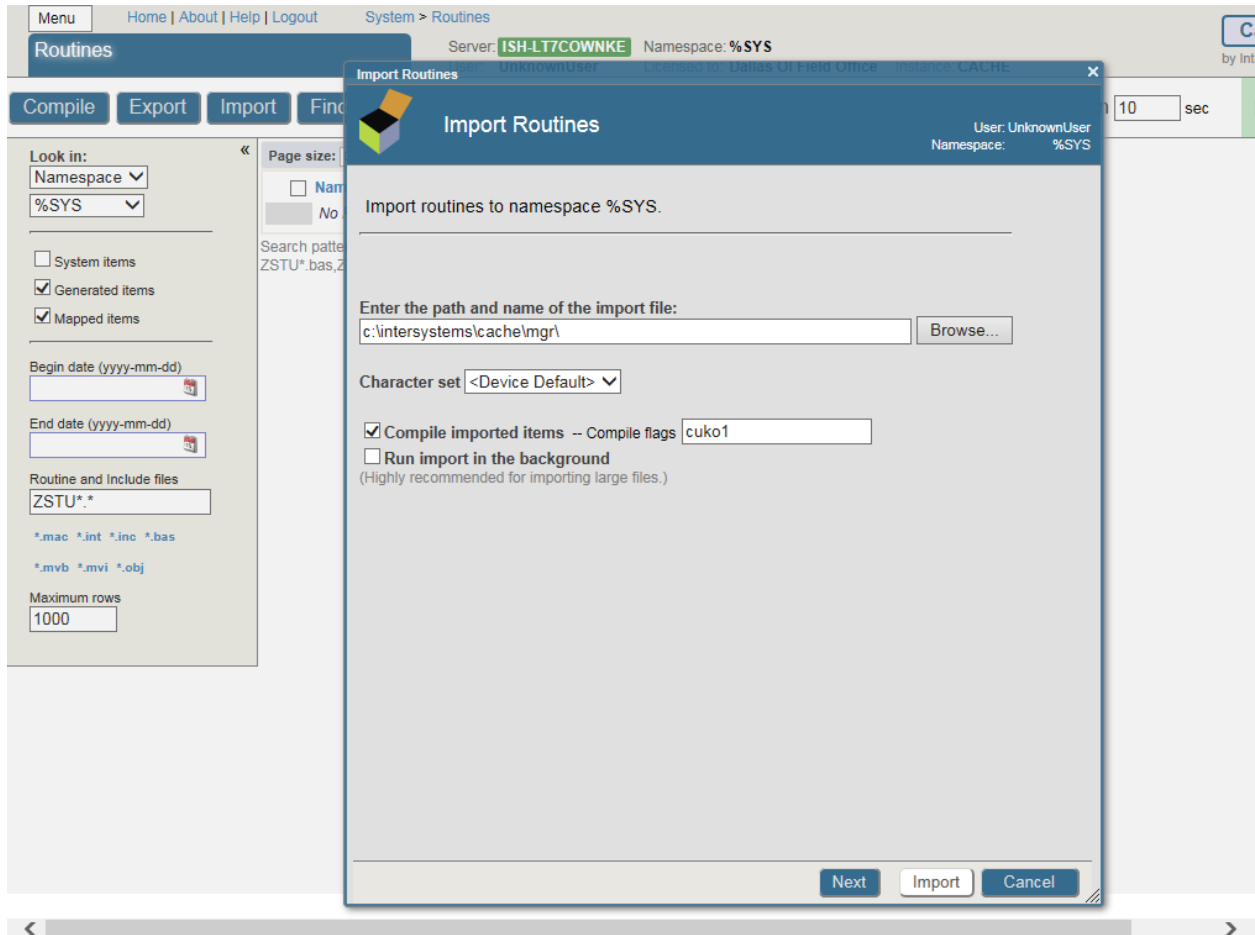


Figure 34

Step 1.

Click the **Browse** button.

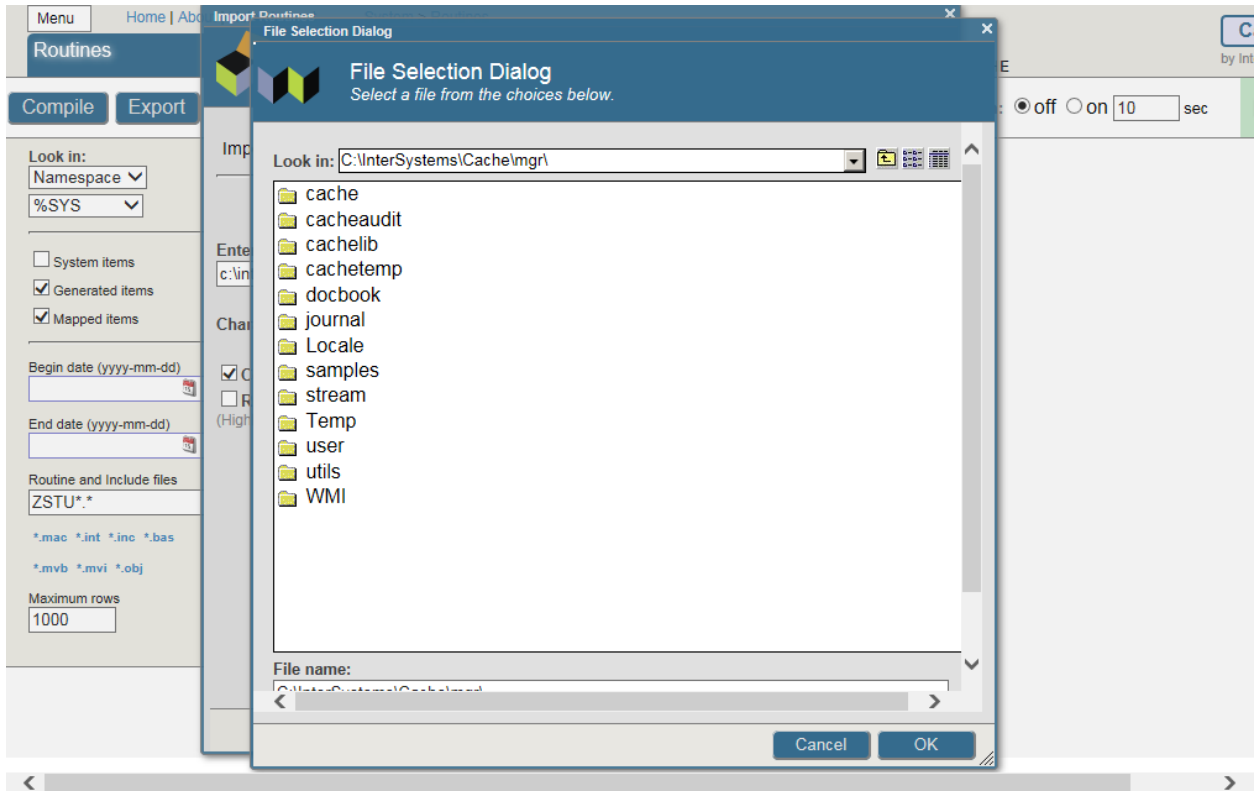


Figure 35

Step 2.

Use the folder icon  on the right to get to the C:

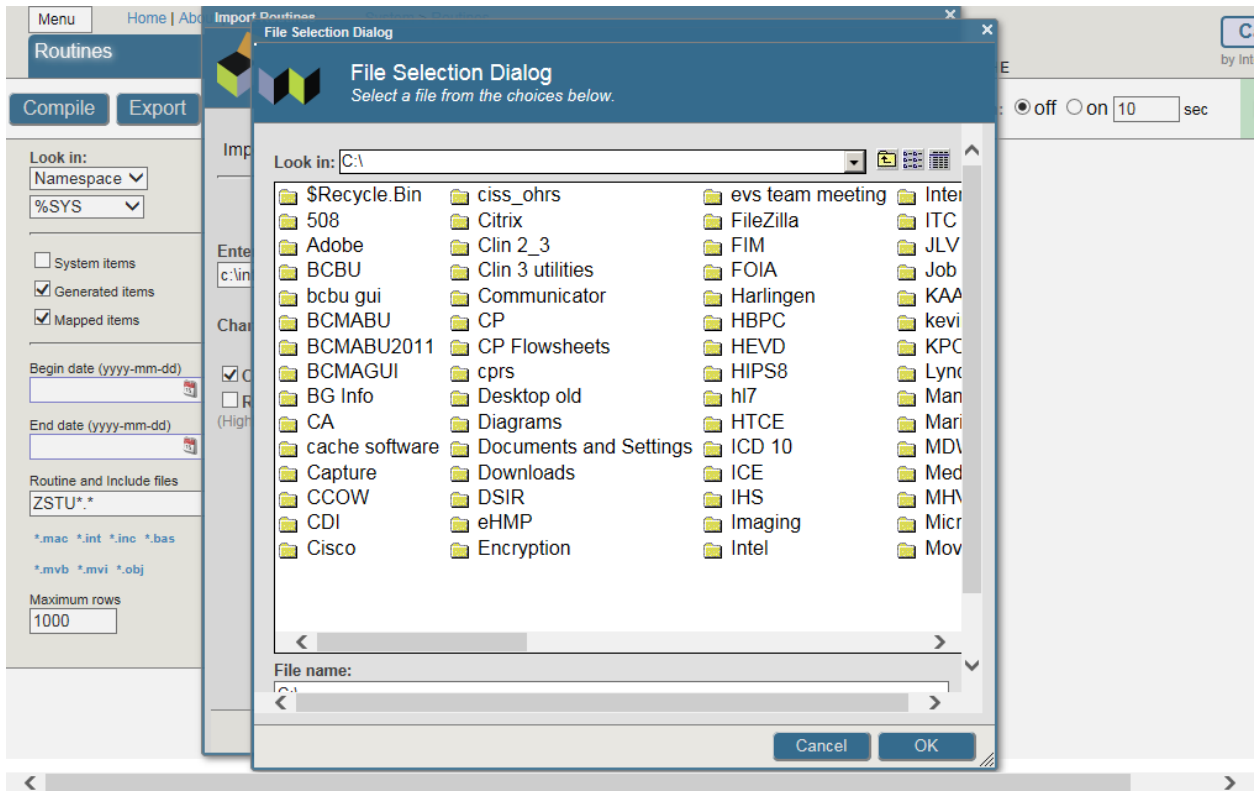


Figure 36

Step 3.

Click **BCMABU**.

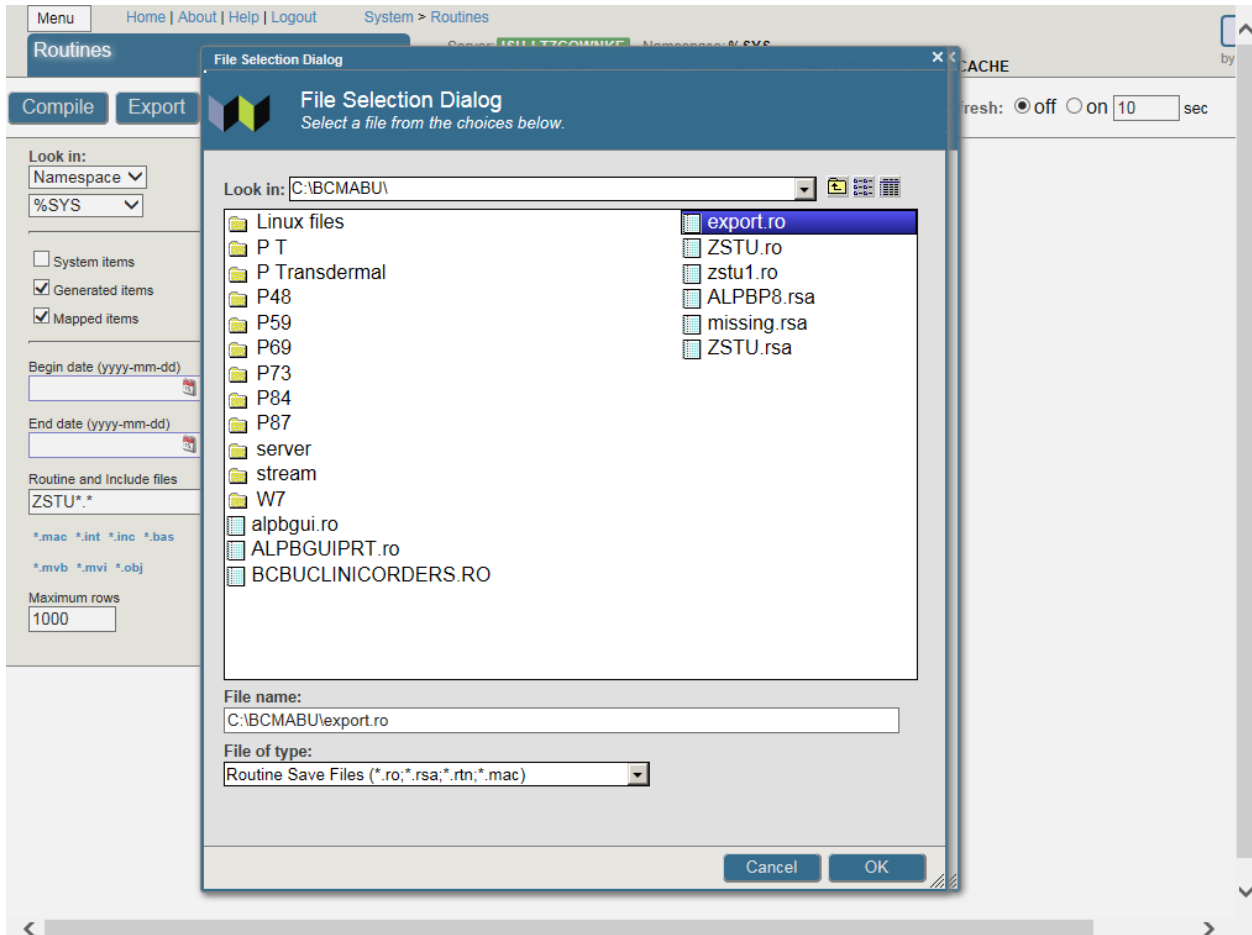


Figure 37

Step 4.

Click **export.ro** and then the **OK** button.

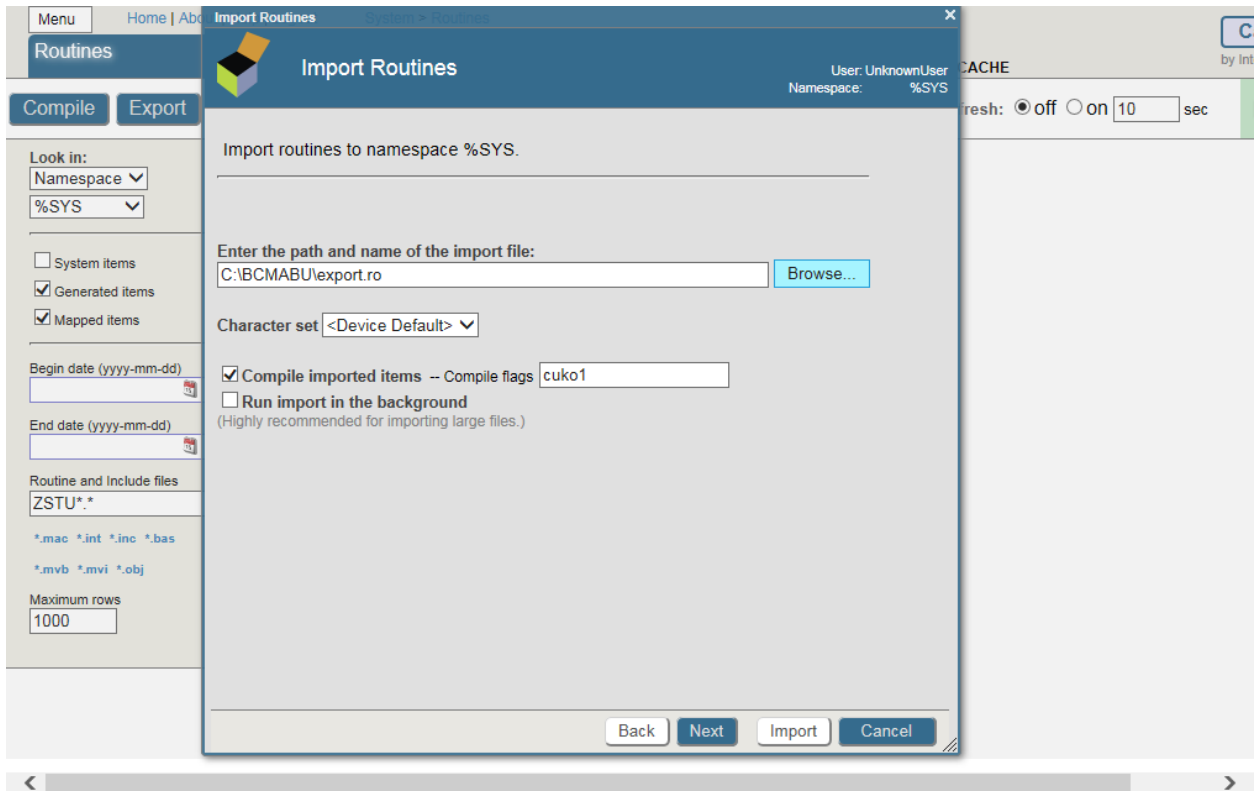


Figure 38

Step 5.

Click the **Next** button.

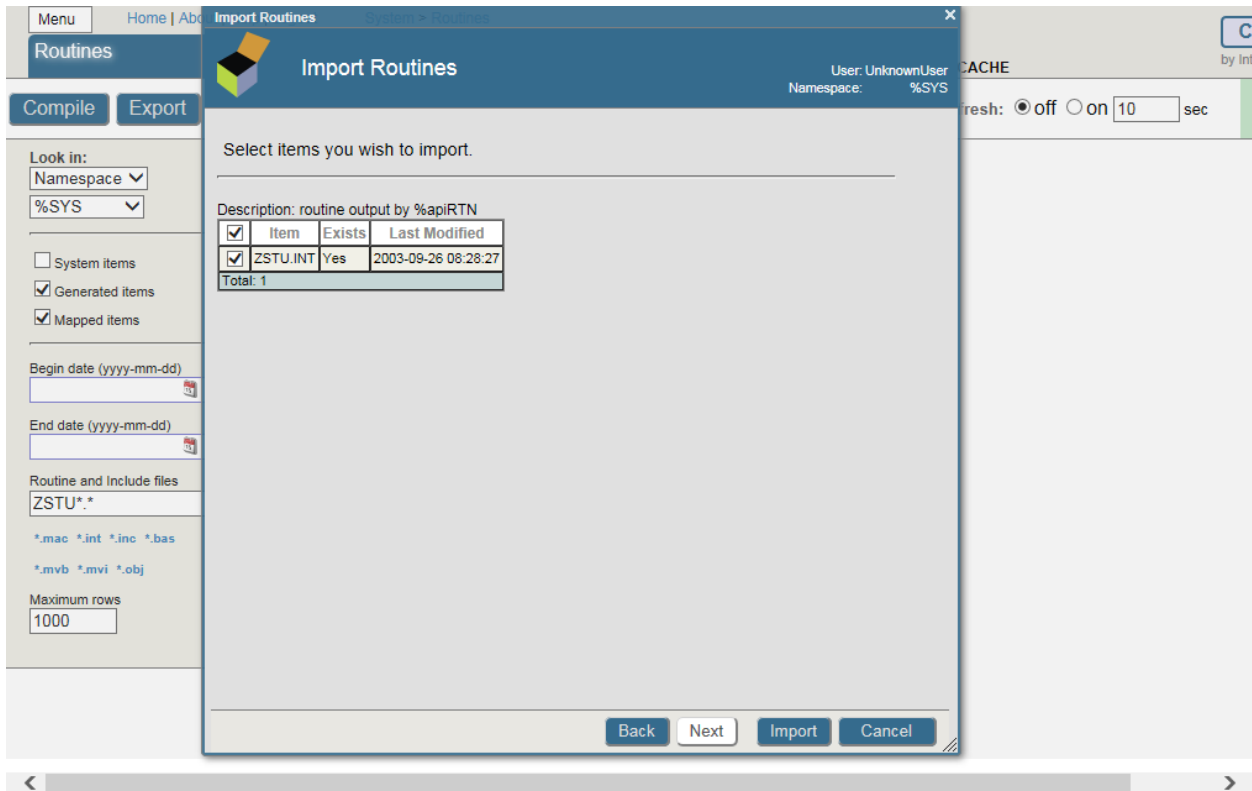
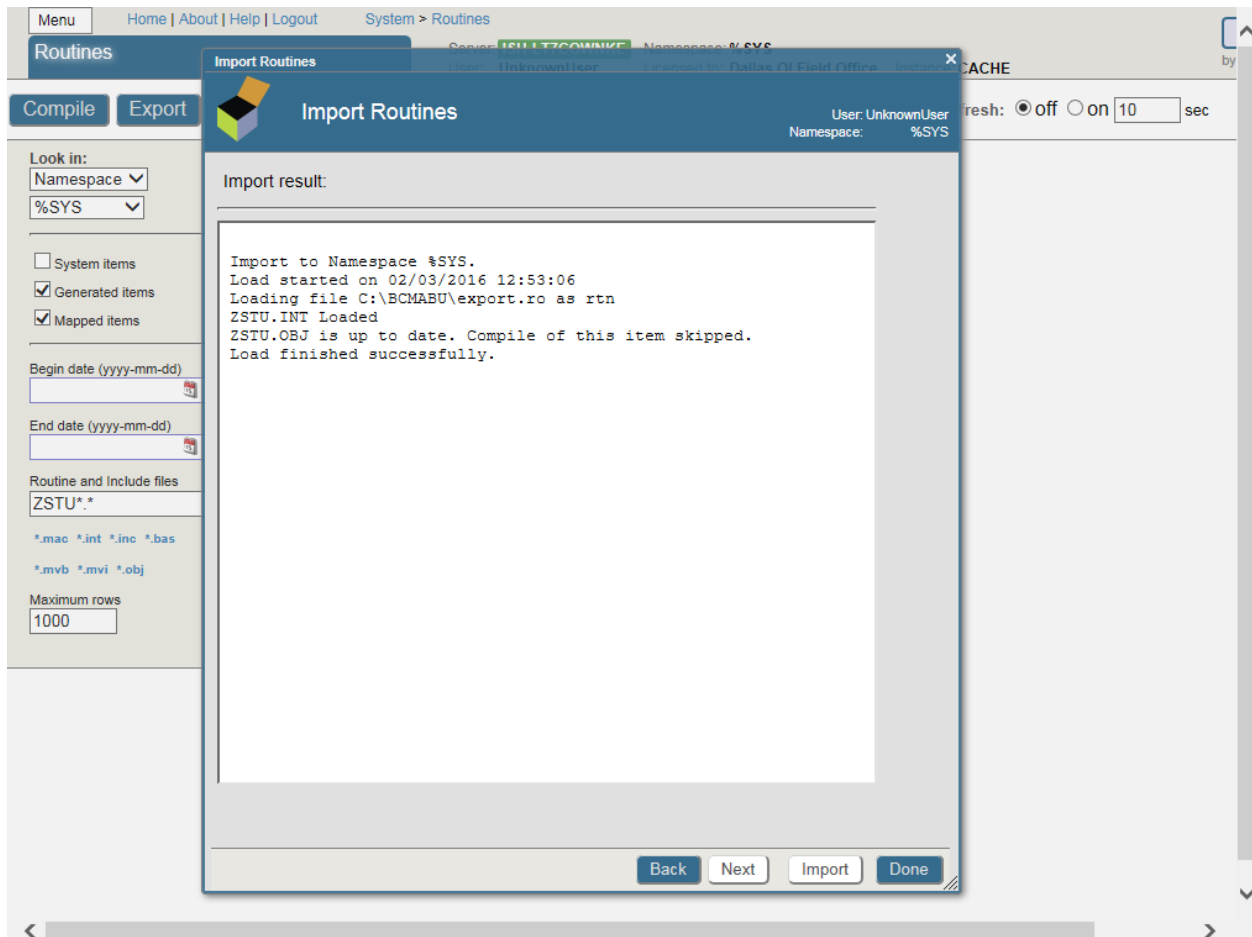


Figure 39

Step 6.

Make sure the box is checked by ZSTU.INT. Click **Import**. The successful completion message should appear as shown in the following screen.



Click Done.

Figure 40

1.3 Setting up Telnet and Terminal Users

We will be using the Management Portal to set up the Unknown User so the Telnet and Terminal Users will connect to the VISTA namespace using the routine ZU.

Click **HOME**.

From the **Menu** button select **Manage Users**. The User Accounts will be displayed.



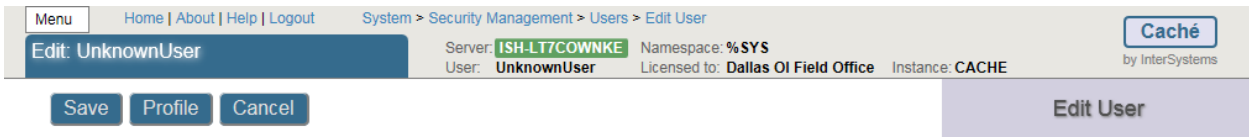
The following is a list of user definitions:

Name	Full Name	Enabled	Namespace	Routine	Type	
Admin	System Administrator	Yes			Cache password user	Delete Profile
CSPSystem	CSP Gateway user	Yes			Cache password user	Delete Profile
SuperUser	System Super user	Yes			Cache password user	Delete Profile
UnknownUser	Unauthenticated user	Yes	USER		Cache password user	- Profile
PUBLIC	(Internal use - not for login)	No			Cache password user	- Profile
SYSTEM	SQL System Manager	Yes			Cache password user	- Profile

Figure 41

Click on the **UnknownUser** to edit it. Select **VISTA** as the Startup Namespace and enter **^ZU** as the Startup Tag^Routine. Click **Save** then **Close this window**.

(Note: For programmer access, %PMODE in Default Tag^Routine.)



Edit definition for user UnknownUser:

General
Roles
SQL Privileges
SQL Tables
SQL Views
SQL Procedures

Name
Required.

Full Name

Comment

Password Enter new password Leave as is

Change password on next login

Password never expires

User enabled

Expiration Date
(yyyy-mm-dd)

Account Never Expires

Startup Namespace

Startup Tag^Routine

Two-Factor Authentication

Mobile Phone Service Provider [Create a new provider](#)

Mobile Phone Number

Figure 42

After the edits are done the screen should look like this.

The following is a list of user definitions:

Name	Full Name	Enabled	Namespace	Routine	Type
Admin	System Administrator	Yes			Cache password user Delete Profile
CSPSystem	CSP Gateway user	Yes			Cache password user Delete Profile
SuperUser	System Super user	Yes			Cache password user Delete Profile
UnknownUser	Unauthenticated user	Yes	VISTA	^ZU	Cache password user - Profile
PUBLIC	(Internal use - not for login)	No			Cache password user - Profile
SYSTEM	SQL System Manager	Yes			Cache password user - Profile

Figure 43

IMPORTANT NOTE: Stop and restart Caché. This will be the BCMA Backup Application. The start-up routine **ZSTU** will automatically start up TaskManager.

Verify certain parameters are set for proper operation.

From the Management Portal

Choose **Menu**, and then Manage Services. Click **%Service Telnet** (Figure 45) and set **%Service Telnet Enabled = Yes and Public = Yes**.

If not, click item and change the settings.

Services are the primary means by which users and computers connect to Caché. The following services are currently available:

Name	Enabled	Public	Authentication Methods	Allowed Connections	Description	Two-Factor Enabled
%Service_Bindings	Yes	N/A	Password,Unauthenticated	Unrestricted	Controls SQL or Objects	No
%Service_CSP	Yes	Yes	Password,Unauthenticated	Unrestricted	Controls CSP Gateway access	No
%Service_CacheDirect	Yes	Yes	Unauthenticated	Unrestricted	Controls Cache Direct	No
%Service_CallIn	Yes	Yes	Unauthenticated	Unrestricted	Controls the Call-In Interface	No
%Service_ComPort	No	Yes	Unauthenticated	Unrestricted	Controls COM ports attached to a Windows system	No
%Service_Console	Yes	Yes	Unauthenticated	Unrestricted	Controls CTERM (TRM:pid) and the Windows Console	No
%Service_DataCheck	No	N/A		Unrestricted	Controls this system as a DataCheck source	No
%Service_ECP	No	N/A		Unrestricted	Controls Enterprise Cache Protocol (ECP)	No
%Service_Login	Yes	No	Password	Unrestricted	Controls SYSTEM.Security.Login	No
%Service_MSMActivate	No	N/A	Unauthenticated	Unrestricted	Controls MSM Activate Protocol	No
%Service_Mirror	No	N/A		Unrestricted	Controls Mirroring	No
%Service_Monitor	No	N/A		Unrestricted	Controls SNMP and remote Monitor commands	No
%Service_Shadow	No	N/A		Unrestricted	Controls if this system can be the source of a shadow	No
%Service_Telnet	Yes	Yes	Unauthenticated	Unrestricted	Controls Telnet sessions on a Windows server	No
%Service_WebLink	No	N/A	Unauthenticated	Unrestricted	Controls Weblink	No

Figure 44

Edit Definition for Service %Service_Telnet

Service Name %Service_Telnet
Description Controls Telnet sessions on a Windows server

Service Enabled

Allowed Authentication Methods

Unauthenticated
 Password

Cancel Save

Figure 45

Return to **Home**, select **System Administration**, then **Configuration** then **Device Settings**, then **Telnet Settings** then **GO** under *View or edit telnet definitions*. Set Telnet **Port** to **19210**. Default setting is 23. (Figures 46-47)

InterSystems Caché Installation Setup

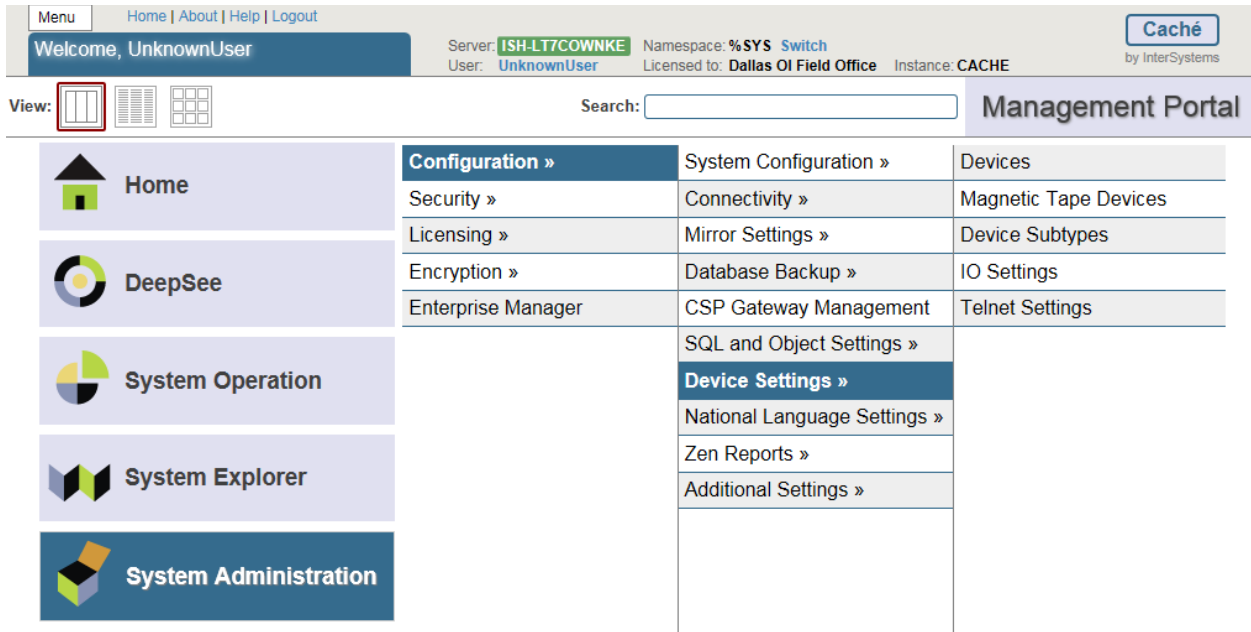
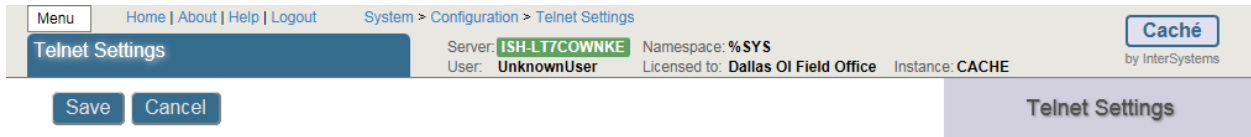


Figure 46



Use the form below to edit the telnet settings for the system: (these settings are for Windows operating system only)

DNS Lookup	ON
Telnet Port Number	19210 Required.

Figure 47

Click **Home**, then **Menu** then **Configure Memory**.

Menu Home | About | Help | Logout System > Configuration > Memory and Startup

Memory and Startup Server: **ISH-LT7COWNKE** Namespace: **%SYS** User: **UnknownUser** Licensed to: **Dallas OI Field Office** Instance: **CACHE** **Caché** by InterSystems

Save Cancel Memory and Startup

System Memory and Startup Settings

Platform: Windows (Intel)

Configure Memory Settings Automatically Manually

Memory Allocated for Routine Cache (MB)
Required.

Memory Allocated for 8KB Database Cache (MB)
Required.

Maximum Per-Process Memory (KB)
Required. (128-2147483648)

Auto-start on System Boot

Enable Long Strings

Superserver Port Number
Required.

System Mode

Figure 48

Make sure the “Auto-start on System Boot” is checked. If not, check it and click **Save**. Close this window.

Menu Home | About | Help | Logout System > Configuration > Memory and Startup

Memory and Startup Server: **ISH-LT7COWNKE** Namespace: %SYS
User: **UnknownUser** Licensed to: **Dallas OI Field Office** Instance: **CACHE**

Save Cancel

Caché by InterSystems

Memory and Startup

System Memory and Startup Settings

Platform: Windows (Intel)

Configure Memory Settings Automatically
 Manually

Memory Allocated for Routine Cache (MB)
Required.

Memory Allocated for 8KB Database Cache (MB)
Required.

Maximum Per-Process Memory (KB)
Required. (128-2147483648)

Auto-start on System Boot

Enable Long Strings

Superserver Port Number
Required.

System Mode

Figure 49

1.4 Setting up the BCMA Shortcut

To create the shortcut from scratch, right click anywhere on the desktop and select **New/Shortcut**.

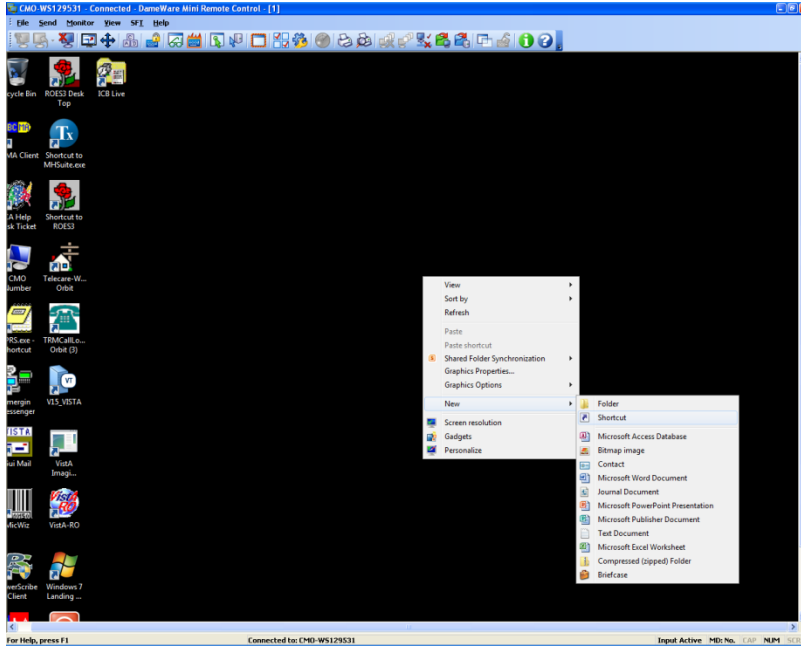


Figure 50

Enter **C:\InterSystems\Cache\bin\css.exe CTERMINAL CACHE** in the *Type the location of the item box*. Click **Next**.

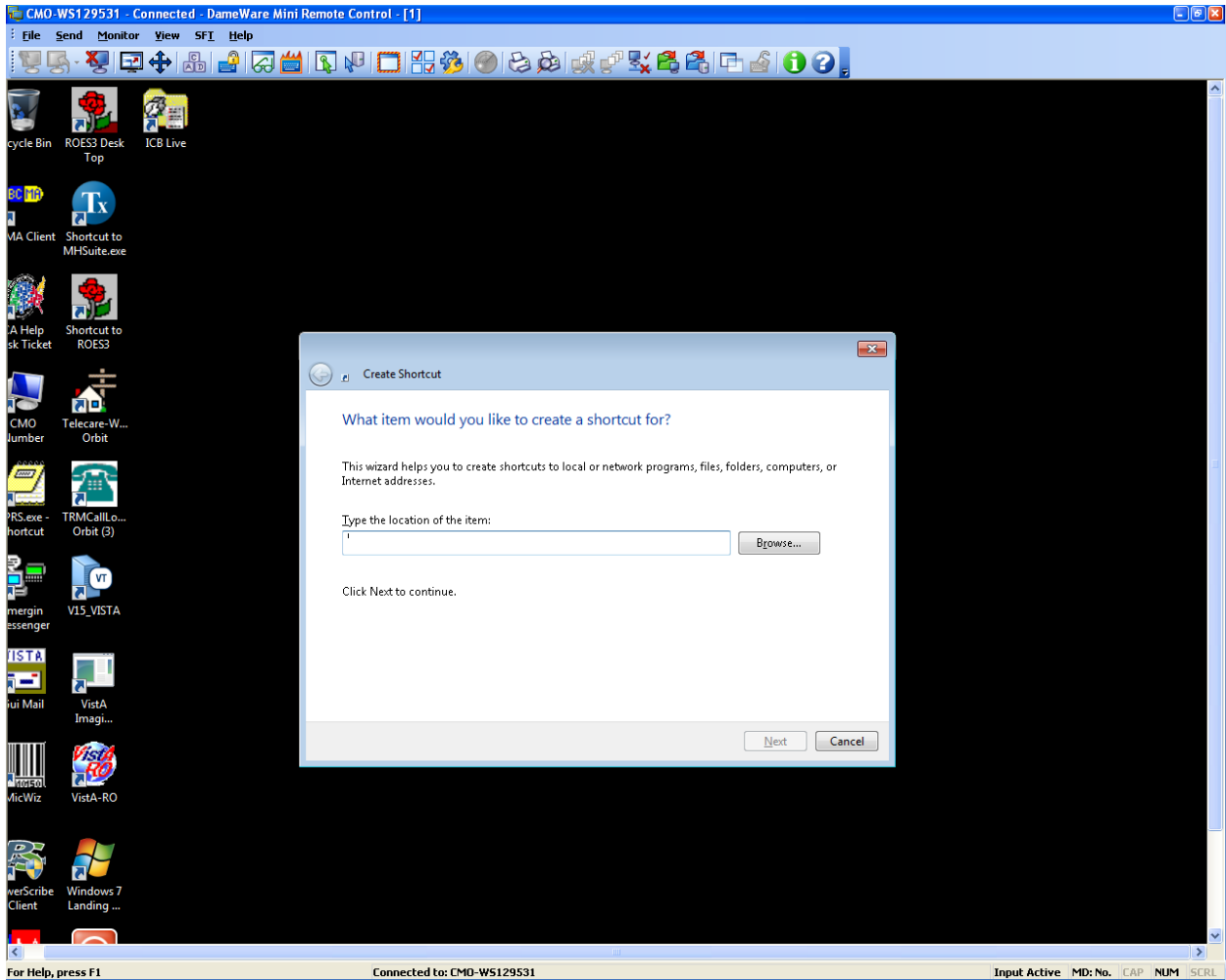


Figure 51

Enter BCBU in the *Type a name for this shortcut* and click Finish (Figure 52).

Copy the Shortcut BCBU Icon to the All User Desktop.

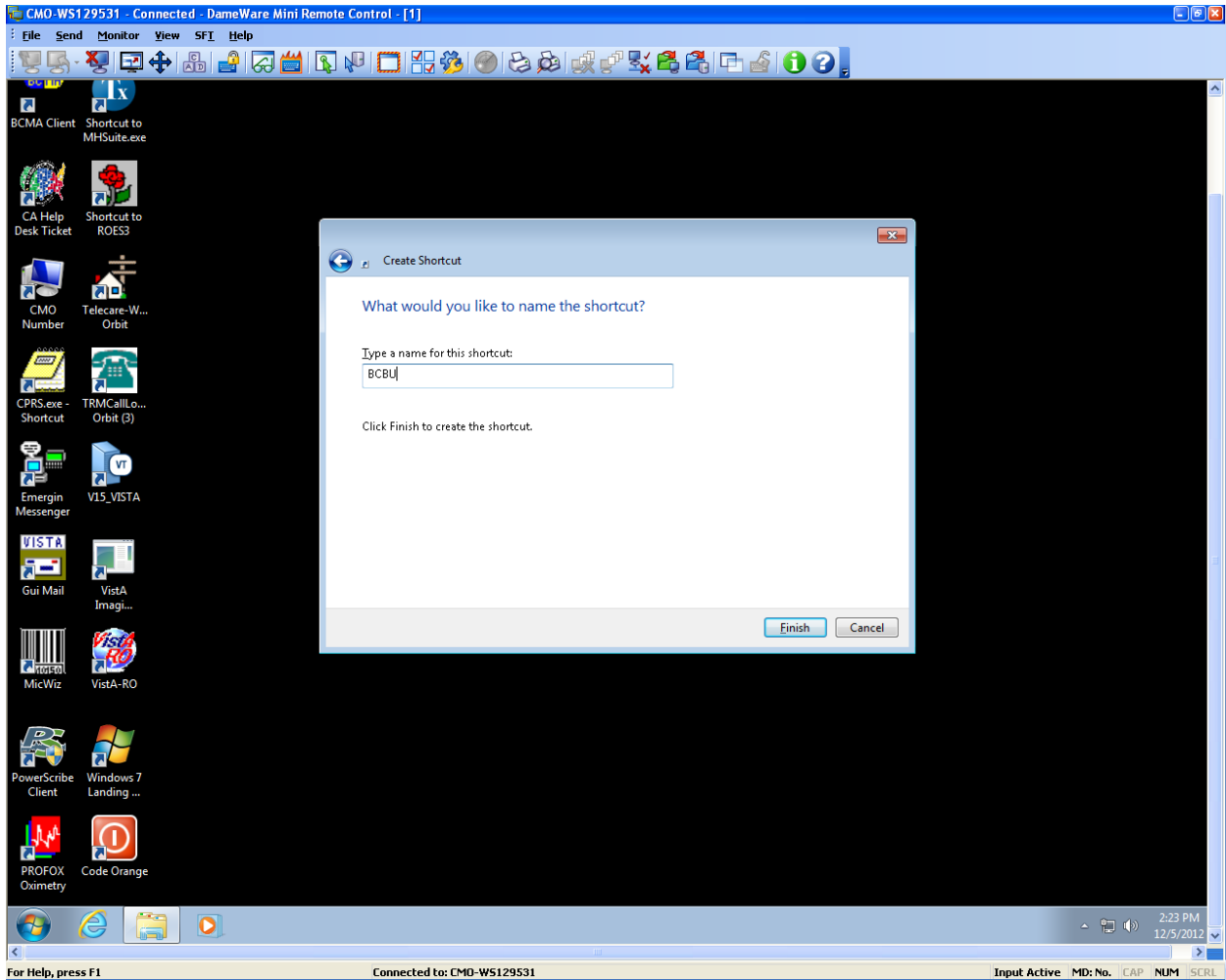


Figure 52

Double-click the BCBU shortcut icon to enter the Backup system on the PC Workstation. Use the appropriate access and verify code to access the system.

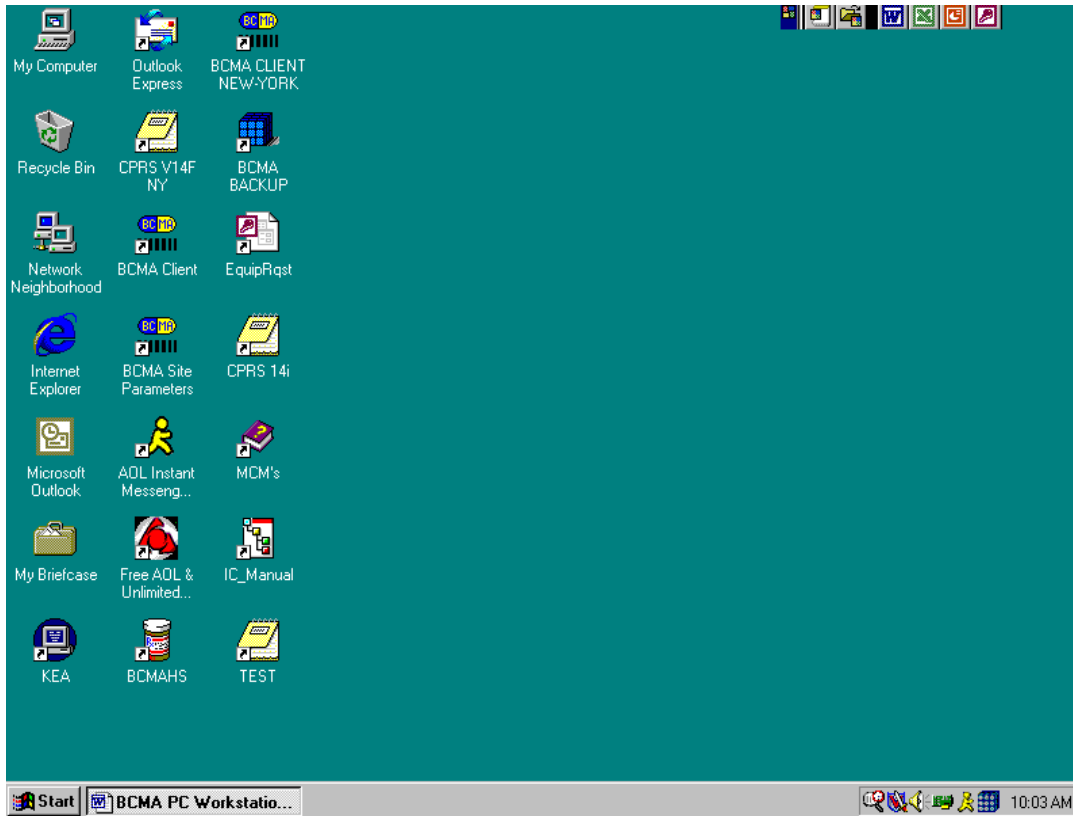


Figure 53

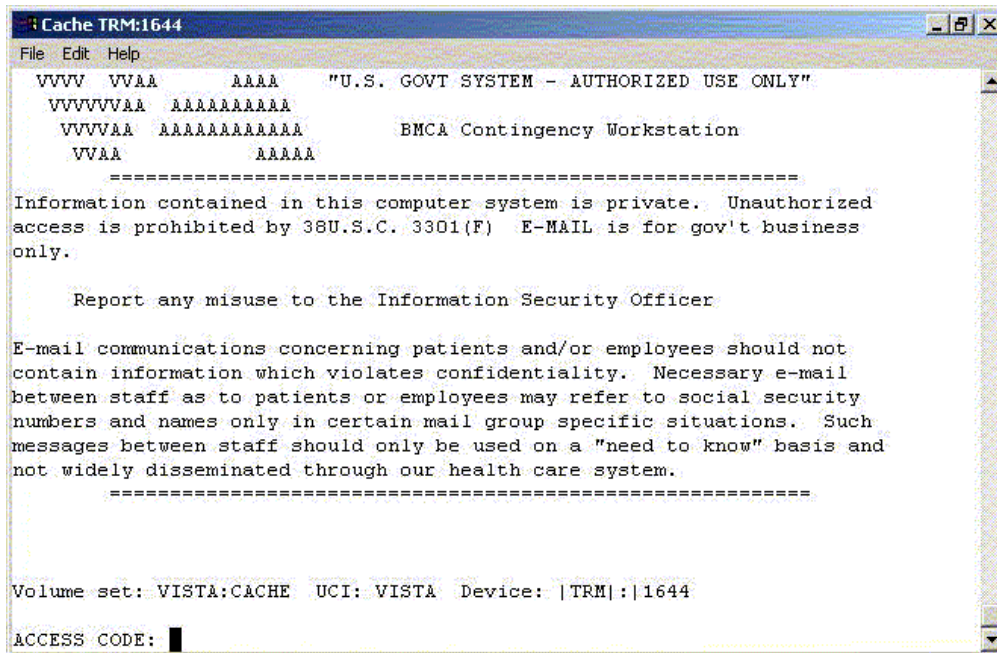


Figure 54

This completes the setup of InterSystems Caché on the BCBU contingency workstation. Refer to the BCBU VistA Install Guide to complete the package setup.

How to Setup the Printer in BCBU PC.

Hook up the printer to the PC.

Install the Window printer drivers.

Click BCBU icon on PC and log in as user that has programmer privileges.

Select Systems Manager Menu Option: *Device Management*

Select Device Management Option: *Device Edit*

Select Device Edit Option: *TRM, TRM, or VTRM Device Edit*

Select Terminal/Printer Device: BCBU

1.4.1 Edit a TRM or VTRM device

NAME: BCBU PRINTER LOCATION: BCBU WORKSTATION

\$I: |PRN| Name of the window's printer

Example: Window's printer is Lexmark T650 PS3, then enter |PRN| Lexmark T650 PS3

Alt \$I:

TYPE: TERMINAL

SUBTYPE: P-HP-P16

SIGN-ON/SYSTEM DEVICE: NO

VOLUME SET(CPU):

ASK DEVICE: NO

MARGIN WIDTH:

ASK PARAMETERS: NO

PAGE LENGTH:

QUEUING: FORCED

SUPPRESS FORM FEED:

Save and Exit.