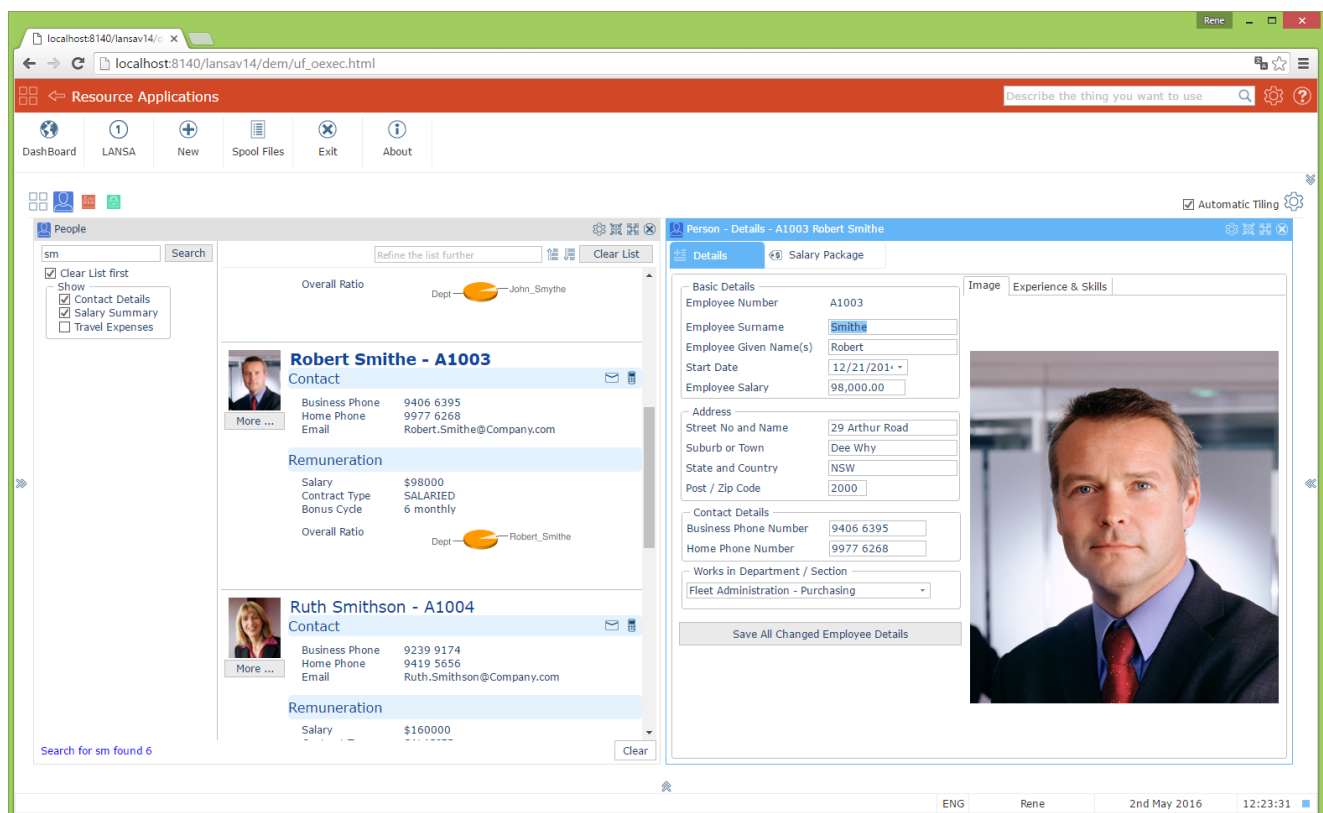


VLF-ONE

VLF-ONE is our new VLF Web offering which leverages the HTML5 capabilities of Visual LANSA Version 14. VLF-ONE gives you the advantage of coding using new Visual LANSA web (VL-WEB) features which are simple and easy to learn and use. Remember: LANSA = Advanced Software Made Simple.

We highly recommend building VLF-ONE applications, instead of VLF-WEB and VLF.NET applications. Why? Primarily because Web development is simpler using VLF-ONE, it also provides a responsive design experience on the web using various devices.

For VLF-WIN users VLF-ONE offers more functionality and an easy pathway to the web.



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In addition, VLF-ONE has:

- A clean, simple and modern UI.
- Stronger security.
- Enhanced message handling.
- Better customizable themes.
- More customizable 'snap-in' points.

VLF-ONE is equally suitable for building back office and core business applications i.e. you can build VLF-ONE applications for use in the corporate world. Note that VLF-ONE applications can be scaled up to contain hundreds or thousands of transaction screens/panels.

VLF-ONE is less suited for building web sites, public facing applications or applications for occasional or novice users. We recommend running VLF-ONE application on large screen devices (iPads and up) and not on standard size cell phones.

New Features

This section now outlines new features of the VLF-ONE Framework.

Instance List Search Field

A quick search field can be enabled for your instance list in VLF-ONE applications. If enabled, a search field appears above the instance list, and any value entered by the user are used to immediately filter the contents of the instance list.

The screenshot shows a web application window titled 'Employees'. On the left, there is a 'Clear List' checkbox and a search input field labeled 'Employee Surname' containing the letter 'S'. Below this is a 'Search' button. On the right, there is a 'Details' tab and a search input field containing 'Sm'. Below these is a table with two columns: 'Employee Num..' and 'Name'. The table contains the following data:

Employee Num..	Name
A1003	Smithe Robert
A1006	Smithers Jack
A1005	Smithse Peter
A0193	Smithson Fred
A1004	Smithson Ruth
A1002	Smythe John

If the user has not entered a search value in yet, placeholder text appears in the search field (this defaults to "Quick Search").

When the user enters a search string containing multiple words, then each word is searched for in the instance list contents (using an 'OR' SQL clause). All matching entries are then presented in the instance list. The search is case insensitive, and searches only the visible columns of the instance list.

Hide/Show Properties

When designing your Framework application, you can display only those properties which are applicable to the type of Framework you are creating.

Select the Advanced option to access less commonly used Framework properties.

Allow User to Re-Order Command Handler Tabs

If this option is checked for a business object, application or Framework, the user can re-order their command handler tabs using the Reorder Tabs option in the Change Settings menu. When this option is clicked, a menu is shown with an item for each tab. The user can then drag and drop these menu items to rearrange the command handler tabs.

Number	Address
A0907	33 Anne street
A1003	29 Arthur Road
A1006	8 Croydon Road
A1005	72 Mullane Avenue
A0193	121 Cutler Ave
A1004	41 William Road
A1002	20 Cobbitty Avenue
A1009	101 Sackville Road
A1008	22 Railway Parade
A1007	6 Anthony Avenue

The feature is not available when the Framework is running in tablet mode.

This property is in the Business Object, Application and Framework Command Display tab.

Allow User to Re-Order Columns

Users can now reorder command handler tabs and instance list columns.

If this option is checked, the user can rearrange the columns in the instance list.

In VLF-WIN, the user can drag and drop the columns directly.

In VLF-ONE, the user has a menu item in the Show/Hide Columns menu called Change Order. When this option is clicked, a menu showing all the columns is displayed. The users can then drag and drop these menu items to rearrange the instance list columns.

The property only applies to standard instance lists, not to Panel Instance lists or Custom Instance lists.

This property is in the Business Object Instance List/Relations tab.

Background Images

You can set a background image for VLF-ONE applications.

The shipped demonstration system demonstrates this new feature via reusable part DF_BACKPO.

DF_BACKPO is defined in the shipped demonstration Framework on the Web/RAMP details tab:

Show Information for

☒ VLF-WIN ☒ VLF-ONE ☒ Advanced

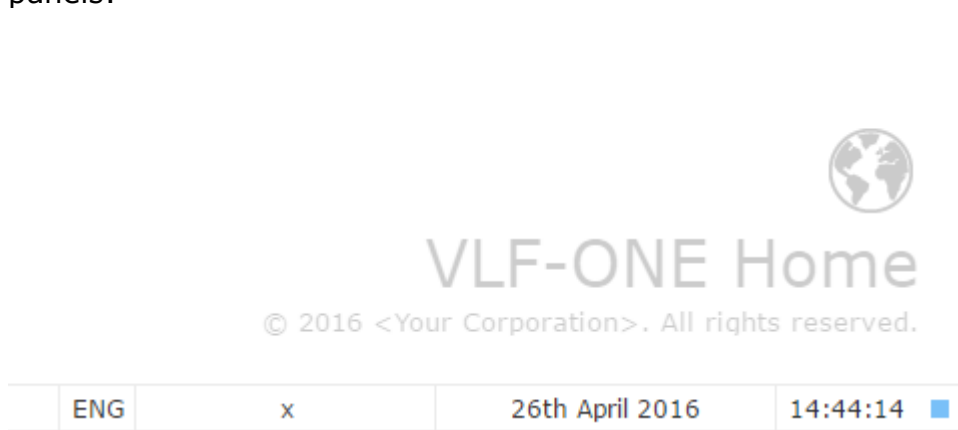
Identification Custom Properties Visual Styles Icons VLF-ONE Images Startup Commands Allowed Framework I

Web/RAMP Details User Administration Settings Instance List Relationships Summary

Web Design and Run Time Properties

IIP - Component to validate VLF-ONE user sign on	UF_OLOGON
VLF-ONE Slide In Panel Reusable Part (Top)	DF_SLIDTO
VLF-ONE Slide In Panel Reusable Part (Bottom)	DF_SLIDBO
VLF-ONE Slide In Panel Reusable Part (Left)	DF_SLIDLO
VLF-ONE Slide In Panel Reusable Part (Right)	DF_SLIDRO
VLF-ONE Settings Pane Reusable Part	DF_SETINO
VLF-ONE Assistance Pane Reusable Part	DF_ASSITO
VLF-ONE Background Pane Reusable Part	DF_BACKPO

At execution time causes the 'watermark' to appear at the bottom right of the main panels:



Associated Instances

VLF-ONE command handlers support the concept of an 'associated' instance.

When one or more instance level command handlers (CH) are displayed, each CH gets assigned with an 'associated' instance – in effect the `#avListManager.CurrentInstance` at the time the CH was first opened. This associated instance is a `#VF_LM003O` object – just like a Current or Selected instance.

The associated item is directly exposed as property `#Com_Owner.AssociatedInstance` and its data values can be accessed by method `#Com_Owner.GetAssociatedInstance`. In most situations these can be used just like `#avListManager.CurrentInstance` and `#avListManager.GetCurrentInstance`.

In typical applications where only one set of instance level command handlers can be concurrently open, `#avListManager.CurrentInstance` and `#Com_Owner.AssociatedInstance` can be used interchangeably.

However, if the business object allows multiple concurrently open instances, you will need to use the associated instance instead of the current or selected instance.

Refer to the shipped Advanced example named Multiple Instance. It uses VL reusable parts `DF_T61F1O` and `DF_T61H1O` as filter and command handler that allow up to 5 business object instances to be concurrently open.

It is important to note that when using multiple open instances, you should adopt a KISS design approach. Specifically, avoid using things like subtypes, peers, children, and conditionally available command handlers (tabs) to avoid getting into a complexity tangle.

Control the number of open command tabs

There is a new option to control how many instances of the instance level command tab containers may be concurrently open in VLF-ONE.

This property controls how many instances of the instance level command tab containers may be concurrently open.

As a usage example, imagine a business object named Orders with a Details instance level command.

Setting this option to 3 indicates that the Details of up to three orders could be concurrently displayed.

The default and minimum value is 1, the maximum value is 9.

Using any value other than 1 means additional design and resource usage considerations apply to your application.

This property is in the Command Display tab.

Hide instance list toolbars in VLF-ONE

The instance list toolbar can be hidden in VLF-ONE applications.

New option to upload Framework design

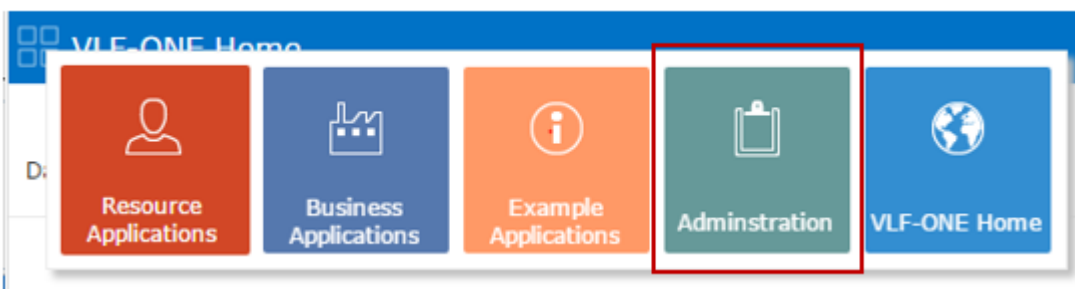
You can upload your Framework design to the server using Upload Script in the Execute Framework as VLF-ONE Application dialog.

Maintain users, authorities and custom properties in VLF-ONE

Users, Authority and Custom property features are now fully functional in VLF-ONE.

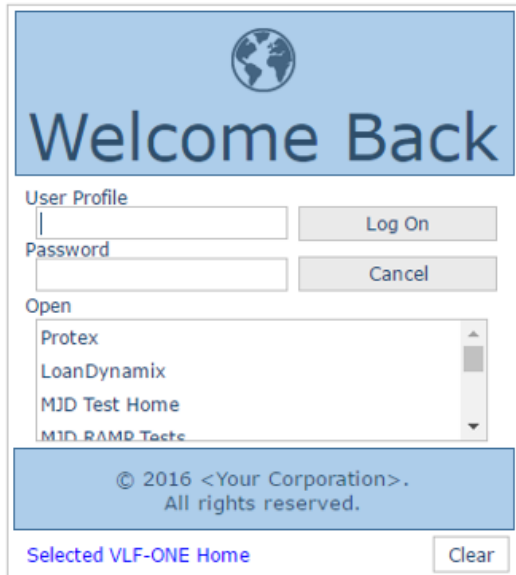
Users, their authorities and associated custom property settings can now be maintained in VLF-ONE just as they can in VLF-WIN.

Refer to the shipped VLF-ONE examples Administration application:



Customized Header and Trailer Panels in Default Logon Screen

The shipped demonstration system shows this new feature by using reusable parts UF_OHEADP and UF_OTRALP to customize the header and trailer parts of the standard logon:



The screenshot shows a logon dialog box with a blue header panel labeled 'Welcome Back' and a blue trailer panel labeled '© 2016 <Your Corporation>. All rights reserved.' The header panel is labeled 'UF_OHEADP' and the trailer panel is labeled 'UF_OTRALP'. The dialog box contains a 'User Profile' field, a 'Password' field, 'Log On' and 'Cancel' buttons, an 'Open' dropdown menu with options 'Protex', 'LoanDynamix', 'MJD Test Home', and 'MJD RAMD Tact', and a 'Selected VLF-ONE Home' label with a 'Clear' button.

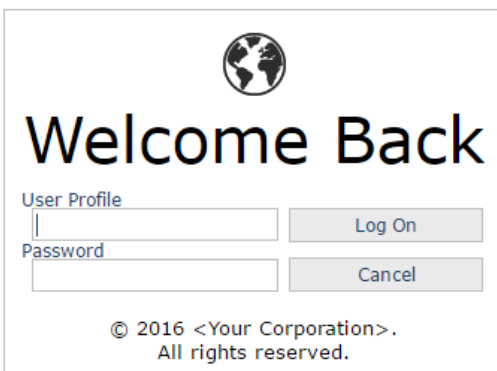
Refer to the shipped source code for details of how to make your own customized logon header and trailer reusable parts.

To completely replace the logon dialog, refer to the source code of shipped entry point UF_OEXEC.

No list of Frameworks in logon screen

If the Framework to be opened is specified on the start-up URL, the selection list is no longer displayed and the initial selection message is not issued.

For example, compare this screen shot to the one in Customized Header and Trailer Panels in Default Logon Screen:



The screenshot shows a logon dialog box with a white header panel labeled 'Welcome Back' and a white trailer panel labeled '© 2016 <Your Corporation>. All rights reserved.' The dialog box contains a 'User Profile' field, a 'Password' field, 'Log On' and 'Cancel' buttons, and a 'Selected VLF-ONE Home' label with a 'Clear' button. The 'Open' dropdown menu is not visible.

Logon timeout can be specified

The logon timeout can now be defined. Previously it was locked at 30 seconds. See shipped example UF_OEXEC for details:

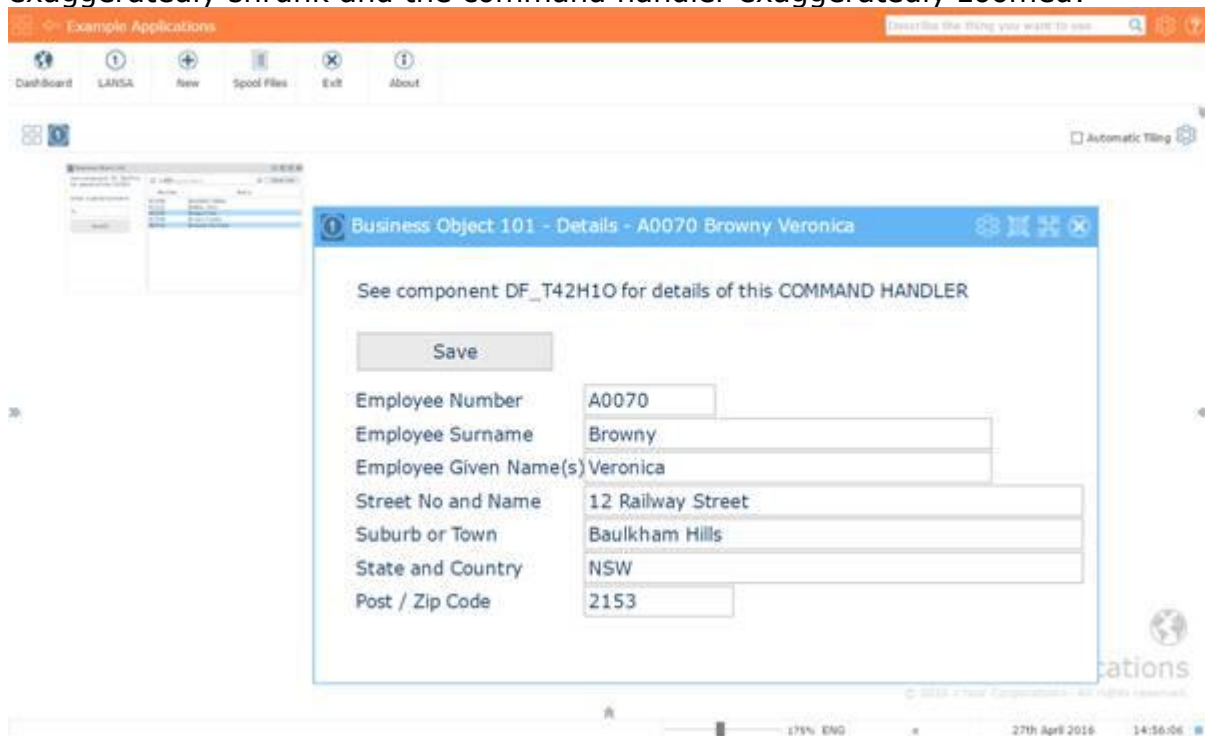
```
* You can specify the maximum time that a user can use to complete any logon process you have.
* If the user exceeds that time the logon is cancelled because leaving (potentially) partially
* completed logon credentials displayed may comprise a security risk. Use the optional LogonExpiry()
* parameter. Times are in seconds. If you do not specify LogonExpiry it defaults to 30. Use
* LogonExpiry(0) for an unlimited time.
```

Filters and command handlers can be zoomed

Filters and command handlers can now be zoomed and shrunk using a new status bar feature. Users can move the slider, or click on the bar to select a predefined size:



As an example, here is the shipped Business Object 101 example with the filter exaggeratedly shrunk and the command handler exaggeratedly zoomed:



Currently a filter or command handler cannot be manually resized further by dragging its edges when it has been zoomed or shrunk (i.e.: not at 100%). This limitation is expected to be removed in the next VLF version.

Slider pane can be opened programmatically

The slider pane ancestor VF_AC0280 now supports methods uFloatifClosed and uCloseifFloating that allow a slider to open (float) or close itself programmatically.

aXes-TS2 as RAMP-Tools engine

Previously you could choose to use aXes-TS or aXes-TS2 as your run time execution engine, but you could not use aXes-TS2 as your RAMP Tools engine.

You can now choose aXes-TS or aXes-TS2 as your RAMP Tools engine.

That choice is made in the Server Definition tab:

The screenshot shows the 'Server Definition' dialog box with the 'Server Details' tab selected. The 'Server Type' is 'LANSA for System i + RAMP-TS'. The 'Server Name' is 'VFTPGMLIB', 'Partition' is 'DEM', 'Client-Server Translation Table' is '*JOB', and 'Server-Client Translation Table' is '*JOB'. The 'Selection Block Size' is 500, 'Selection Limit' is 10000, and 'Execution Priority' is 20. The 'Server Overrides' field is empty. The 'Server IIP func to validate sign on (Id)' is 'UFU0005'. The 'Save as deployment server' checkbox is unchecked. On the right, there are several checkboxes: 'DBCS Capable' (unchecked), 'Commitment Control' (unchecked), 'Divert Locks' (checked), 'Partition is enabled for RDMLX' (checked), 'Use Windows Credentials' (unchecked), 'Upper and Lower Case Password' (checked), and 'Show on Connect Dialog' (checked). Below these, there is a section for 'IBM i Host Server Mapper' with 'Name / IP address' as '10.2.0.181' and 'Port' as '449'. Another section for 'RAMP-TS (Terminal Server)' has 'IP Address' as '10.2.0.181' and 'Port Number' as '8080'. The 'Execution Engine' and 'RAMP Tools Engine' dropdowns are highlighted with a red box, both set to 'aXes-TS2'. Below these, there are fields for 'Execution Mode Load Path' (set to '/ts/skins/'), 'RAMP Tools Mode Load Path' (set to '/ts/dev/'), and 'Private Definition/aXes Project Folder' (empty). There are also checkboxes for 'Use HTTPS' (unchecked) and 'Contains SHARED Object' (unchecked). At the bottom, there is a button labeled 'Test RAMP-TS Tools Installation and Configuration'.

It is recommending that aXes-TS RAMP users consider moving to the standards compliant aXes-TS2 engine, away from the Internet Explorer dependent aXes-TS engine.

Note that you need to test your RAMP application after making this move.

Specify the location of buttons in RAMP VLF-ONE screens

You can now define the location, size and separation of the push buttons created for VLF-ONE RAMP screens panels. The selection is made in RAMP tools:

Encryption enhancements

Encryption has been enhanced when editing user authority options.

User and authority editing now uses better encryption, even when HTTP connections are used, noting that the use of HTTPS is recommended.

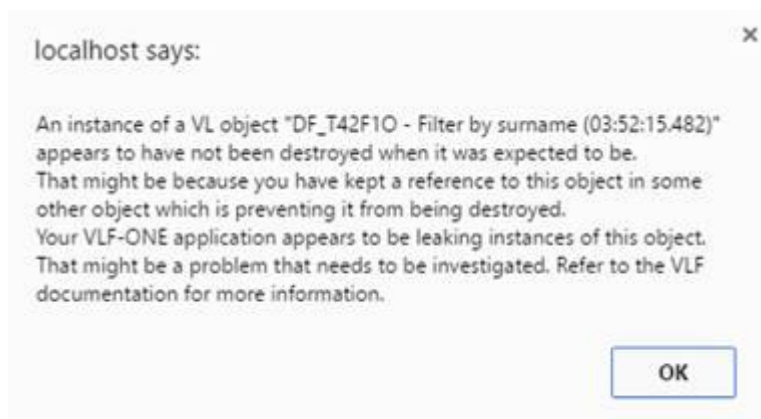
Major Object Leakages Checked in Developer Mode

When you execute a VLF-ONE application with Developer=Y on the URL, the creation and destruction of some major objects is tracked.

When a major object's uTerminate method is invoked, a delayed check is started to verify that the object's DestroyInstance event subsequently fires.

In other words, executing an object's uTerminate method implies that it should be subsequently destroyed.

If the DestroyInstance event is not fired, you may see a message like this:



Tab Styles Enforced for Selection of BO Form View

Selecting a view now displays tabs correctly as tabs:

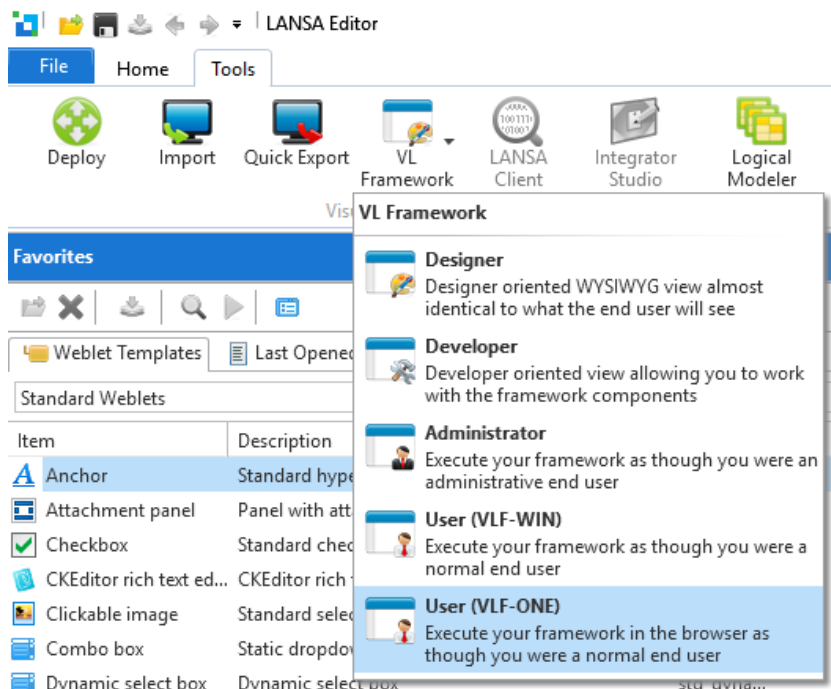


Create desktop icon

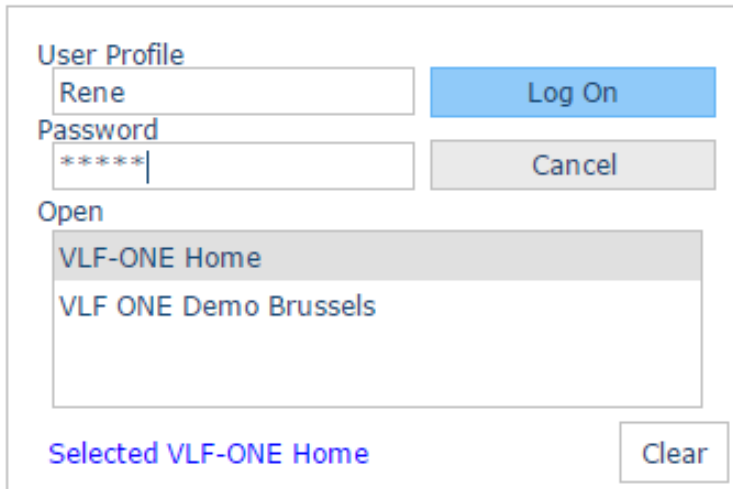
You can create a desktop icon for your VLF-ONE application using Create Desktop Icon in the Execute Framework as VLF-ONE Application dialog.

Getting started

- Install EPC140010 to your LANSa V14 system.
- Start VL-IDE
- Use the option:



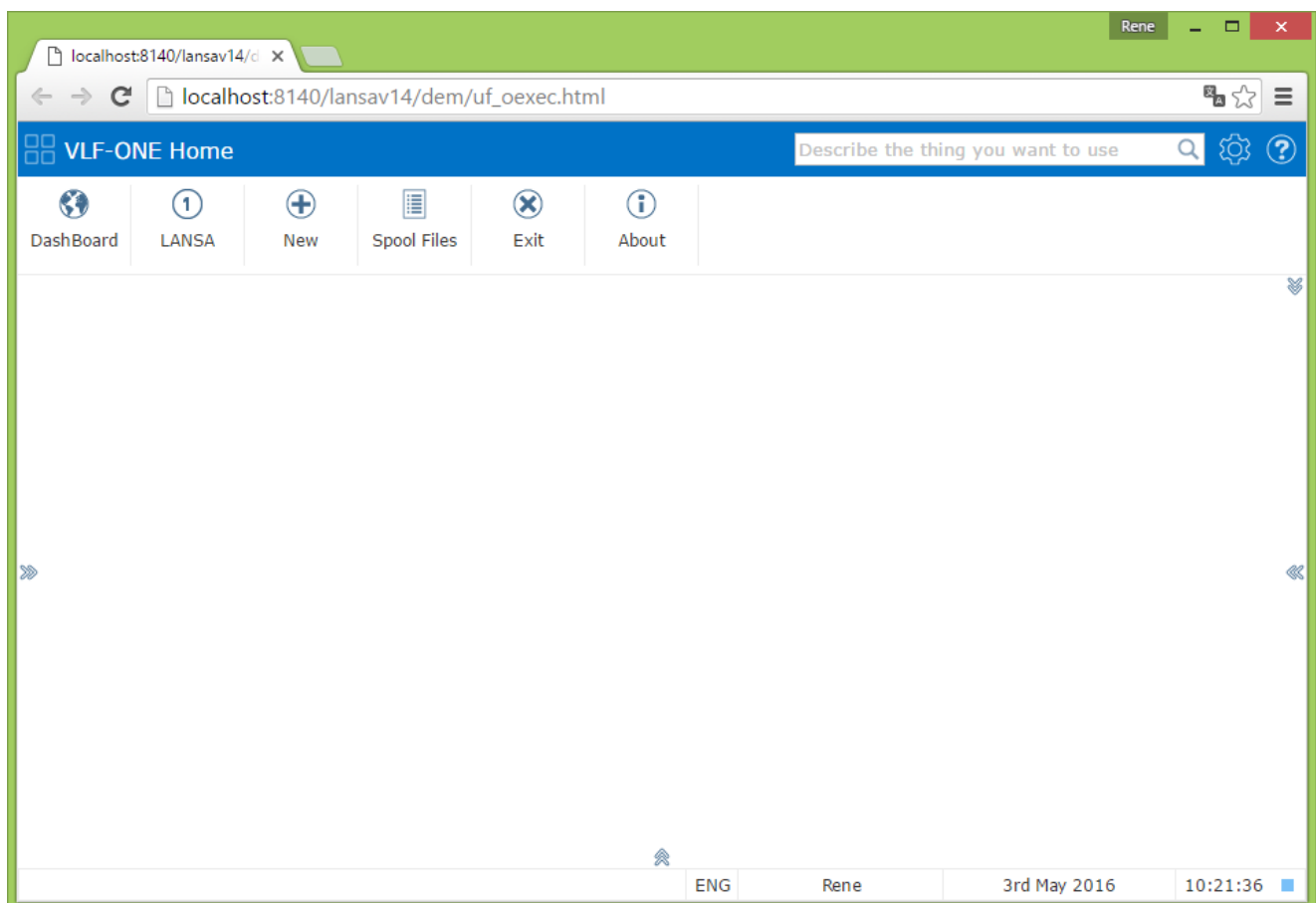
- Select the VLF-ONE Home Framework:



The dialog box contains the following elements:

- User Profile:** A text input field containing "Rene" and a blue "Log On" button.
- Password:** A text input field containing "*****" and a grey "Cancel" button.
- Open:** A list box with two items: "VLF-ONE Home" (highlighted in grey) and "VLF ONE Demo Brussels".
- Selected VLF-ONE Home:** A label at the bottom left.
- Clear:** A button at the bottom right.

- Enter user profile and password (can be any user and password) and click Log On.
- Wait a few seconds and follow the instructions that appear.



- As a programmer, the Example Applications is an important bit to remember about the demo:

The screenshot displays the LANSa demo interface. At the top, a navigation bar includes 'Resource Applications', 'Business Applications', 'Example Applications' (highlighted with a red circle), and 'VLF-ONE Home'. Below this, a grid of application tiles is shown, including 'Business Object 101', 'Business Object 102', 'Business Object 103', 'Hidden Filter', 'Instance List', 'Messages', 'Remembering values', 'Showing a web page', 'Tracing', and 'Applications'. A red arrow points from the 'Example Applications' tile to the 'Business Object 103' tile.

The 'Business Object 103' application is open, showing a 'Details' view for component DF_T53F10. It includes a search bar and a table of data. The table has columns: Code, Description, Address 1, Address 2, Post, Salary, and Test 1. The data is as follows:

Code	Description	Address 1	Address 2	Post	Salary	Test 1
A1404	Gillian Black	22 Moton Stre	Marrickville	2090	124,000.00	9999!
A1031	John Blake	3 Woodbury R	Winston Hills	2100	85,000.00	9999!
A0090	Fred Bloggs	70 King Street	Newtown	2220	85,000.00	9999!
A3564	Freddy Brown	121 Smith Str	Newtown	2153	86,000.00	9999!
A0070	Veronica Brown	12 Railway Str	Baulkham Hills	2153	65,000.00	9999!
A1019	Charles Dicken	17 Grantham	Seven Hills	2147	120,000.00	9999!
A1020	Adam Dougl	6 Reading Ave	Kings Langley	2147	130,000.00	9999!
A1234	Diane Jackson	6 Melissa Place	West Pennant	2125	98,000.00	9999!
A1001	Shirle Jones	144 Frog Lane	Pymble	2001	137,000.00	9999!
A1026	Tony Lewis	9 Anzac Paradi	Bondi	2006	100,000.00	9999!
A1032	Paul Lincoln	45 Rebecca Pl	Ingleburn	2100	95,000.00	9999!
A1028	Andrew Maxwe	16 Wattle Roa	Janall	2053	103,000.00	9999!
A1021	Lisa McCully	15 Baker Place	Penshurst	2153	140,000.00	9999!
A1014	John Moore	2 Burton Road	Lane Cove	2100	88,000.00	9999!

The interface also shows a 'Tracing' section with options to start and stop tracing using specific commands.

Latest CUME PTF for IBM i 7.2 introduces significant LANSA performance issues

After applying the latest CUME PTF level to IBM i 7.2, users have reported the following issues:

- SuperServer connections are taking one to three minutes to connect.
- Web jobs are taking one to three minutes to connect.
- Exiting out of LANSA after opening a new green screen session can take over a minute.

Resolution:

IBM have produced a PTF to resolve this issue. The PTF is SI56247. Ensure that you are at a CUME PTF level that includes this PTF.

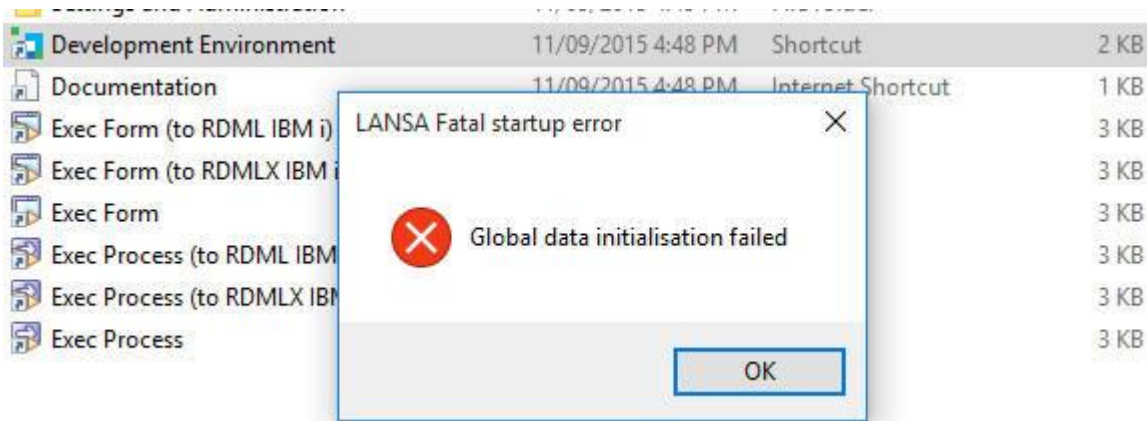
More information from IBM on the PTF is here:

<http://www-01.ibm.com/support/docview.wss?uid=nas27bb08ca208bf7c9f86257e000041ebef>

VL and Upgrade to Windows 10

Upgrading to Windows 10 or applying updates to Windows 10 64-bit have the potential to remove the LANSAs registry symlink, which can cause problems with launching Visual LANSAs.

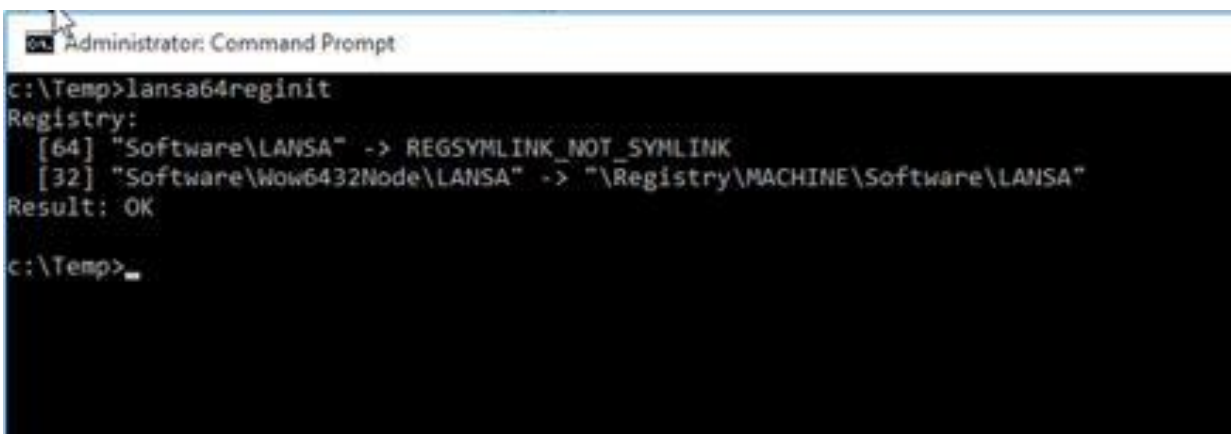
The registry symlink is used to keep the 64-bit and 32-bit LANSAs registries in sync. Without these registries being in sync, the Visual LANSAs development environment will fail to launch with a global initialization failure.



Solution

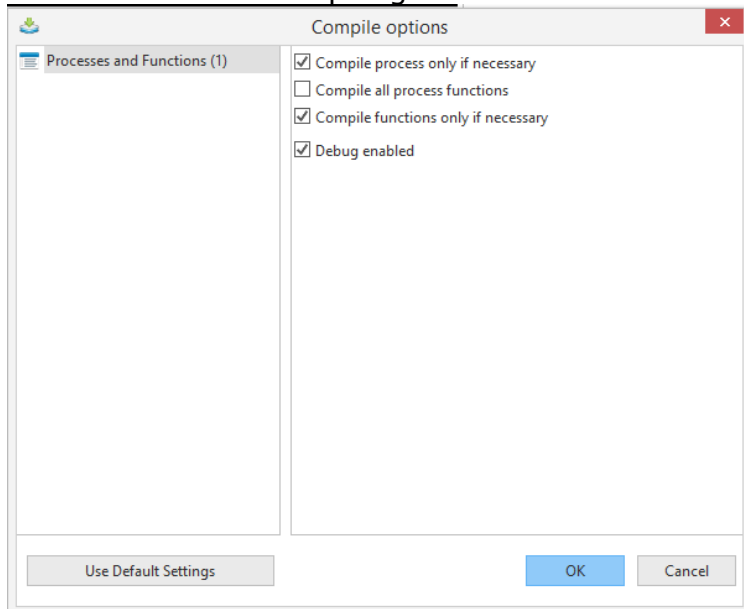
There is a registry tool available that can be used to restore the symlink. Please contact your local LANSAs support team and ask for the lansa64reginit utility.

Once you have received the utility, save it onto your local PC and run it from the command line as administrator. Once it completes successfully, you will be able to launch the Visual LANSAs development environment.

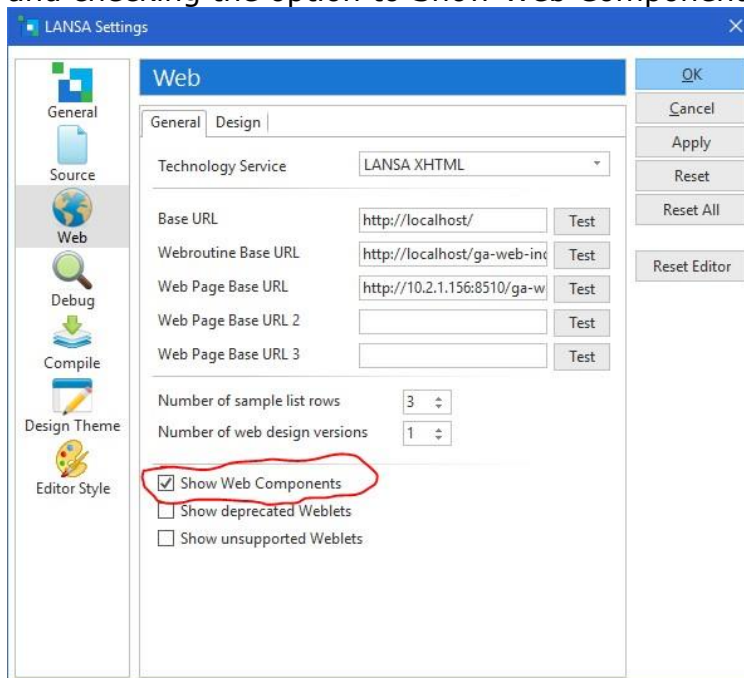


Compile option to Generate HTML missing after upgrade to V14

After upgrading Visual LANSA to V14 and performing a partition initialization of your web enabled partition, you may encounter that the 'Generate HTML' option is not available when recompiling web enabled functions.

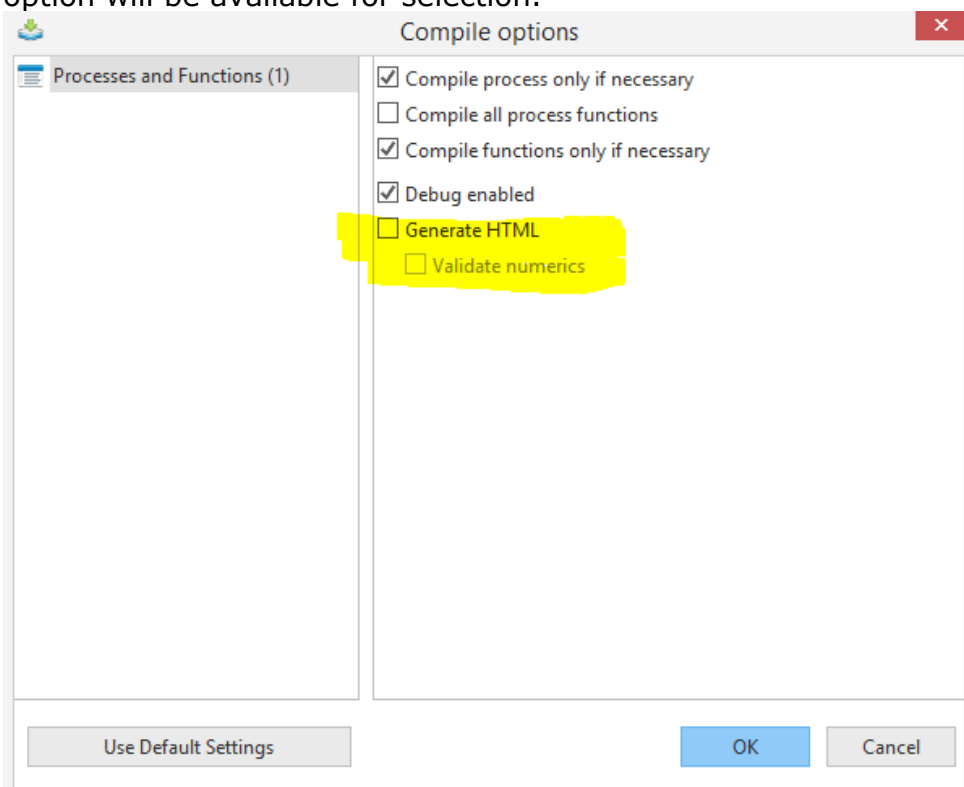


This can be corrected by navigating to LANSA Settings from the File --> Options menu and checking the option to Show Web Components.



Select Apply and close the setting dialog.

The next time you attempt to recompile a web enabled function, the Generate HTML option will be available for selection.

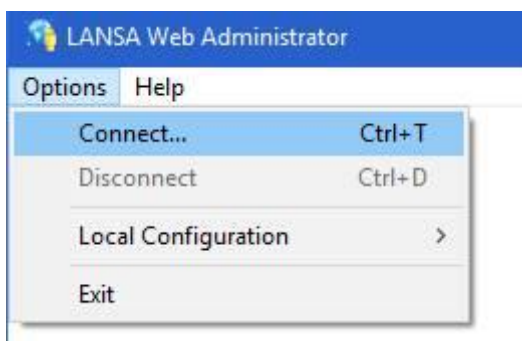


Enabling Debugging for Server Modules in V14

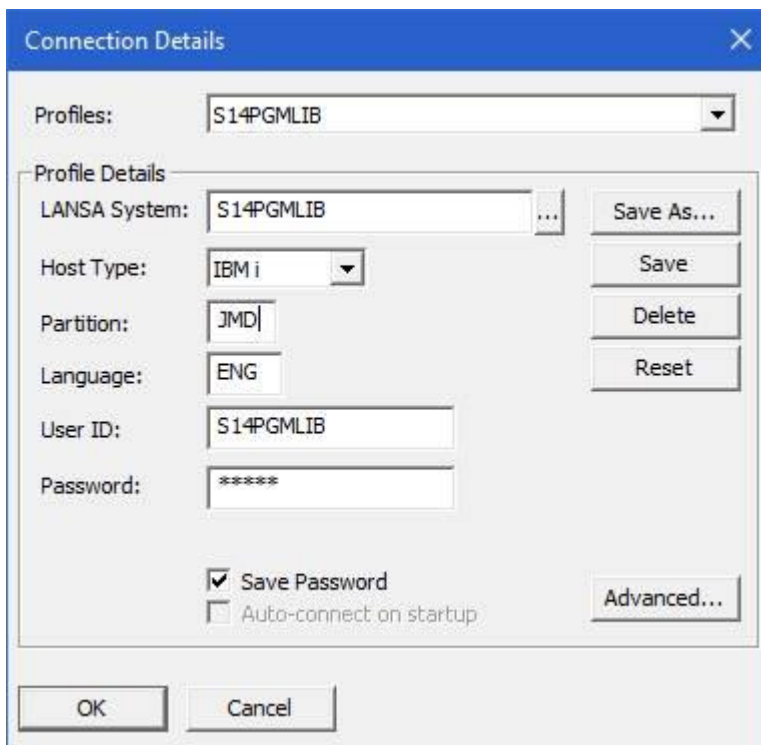
By default, Server Modules are not enabled for debugging. If you try to debug your VL Web application which includes Server Modules, you will go from the call to the Server Module directly to the return from the Server Module.

There are easy steps to enable debugging of a Server Module via the Web Administrator, as follows:

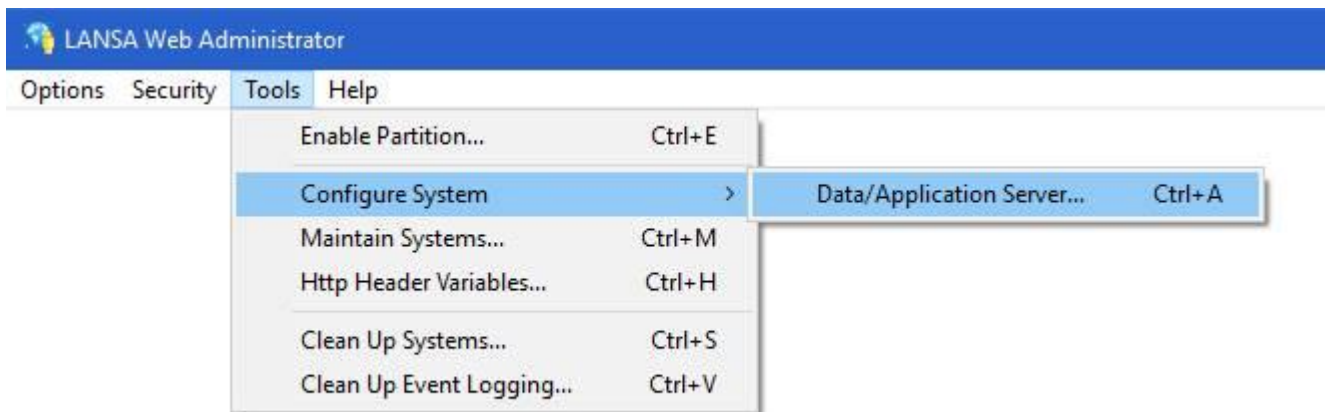
1. Open the Web Administrator and select Options > Connect



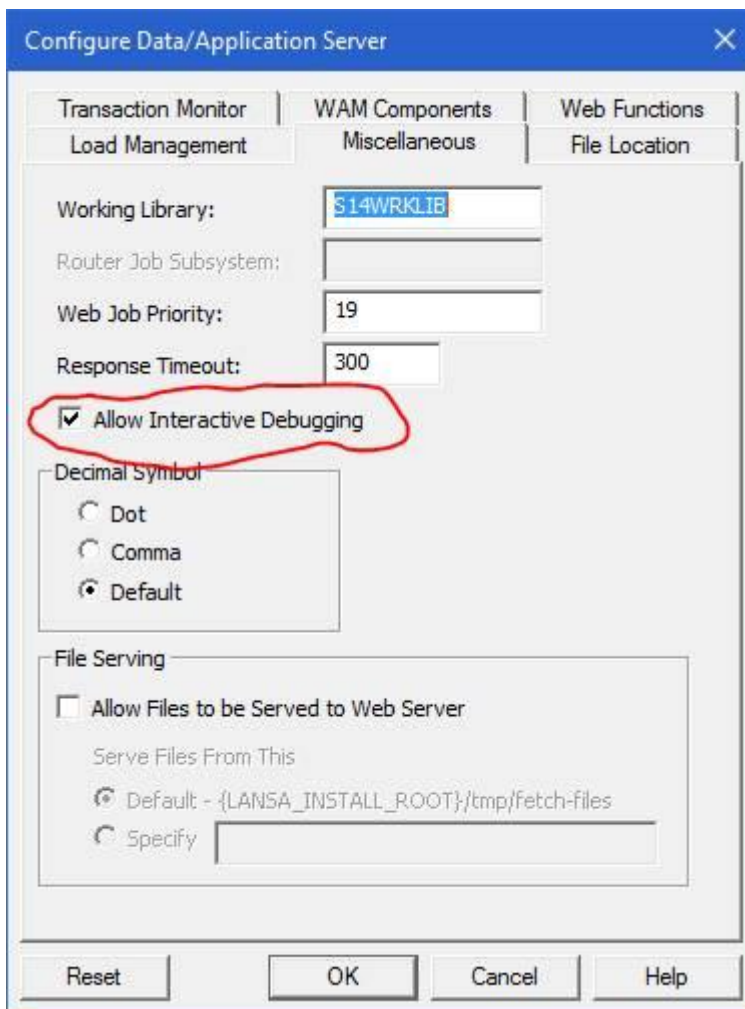
2. Connect to your LANSA System



3. Once connected select Tools > Configure System > Data/Application Server



4. Now navigate to the Miscellaneous tab and select Allow interactive Debugging.



Support for TLS V1.0, V1.1 and V1.2 protocols in LANSA Integrator

While performing secure Transport Layer Security (TLS) connections to remote servers (in particular financial institutions) you might find that the other party has limited the TLS protocols available to connecting clients.

Note

While both IBM i JDK 7.0 and JDK 8.0 support TLS V1.0, V1.1 and V1.2 protocols, IBM i JDK 8.0 supports these protocols by default.

The best solution is to install JDK 8.0 32/64bit on your IBM i which would ensure that these protocols are supported as a default.

For JDK 7.0, TLS V1.1 and V1.2 are not enabled by default.

The screenshot below shows the secure connection portion of the service tracing of JSM service running on IBMi JDK 7.0 with `com.ibm.jsse2.overrideDefaultProtocol=SSL_TLSv2` set.

```
Using default SSL socket factory
Connect to host time : 163 ms
SSL handshake started
SSL handshake completed
Trace SSL session
Protocol      : TLSv1.2
Cipher suite  : SSL_ECDHE_RSA_WITH_AES_256_CBC_SHA384
No certificates sent to server
Certificates received from server
  Subject DN (0) CN=ssllabs.com,O=Qualys\, Inc.,L=Redwood City,ST=California,C=US
  Issuer DN (0) CN=Entrust Certification Authority - L1K,OU=(c) 2012 Entrust\, Inc. - for authorized use only,OU=See www.entrust.net/legal-terms,O=Entrust\, Inc.,C=US
  Subject DN (1) CN=Entrust Certification Authority - L1K,OU=(c) 2012 Entrust\, Inc. - for authorized use only,OU=See www.entrust.net/legal-terms,O=Entrust\, Inc.,C=US
  Issuer DN (1) CN=Entrust Root Certification Authority - G2,OU=(c) 2009 Entrust\, Inc. - for authorized use only,OU=See www.entrust.net/legal-terms,O=Entrust\, Inc.,C=US
  Subject DN (2) CN=Entrust Root Certification Authority - G2,OU=(c) 2009 Entrust\, Inc. - for authorized use only,OU=See www.entrust.net/legal-terms,O=Entrust\, Inc.,C=US
  Issuer DN (2) CN=Entrust Root Certification Authority,OU=(c) 2006 Entrust\, Inc.,OU=www.entrust.net/CPS is incorporated by reference,O=Entrust\, Inc.,C=US
Certified domain names
  ssllabs.com
  *.ssllabs.com
Send and receive buffer sizes : 65535, 65535
Send request time : 1 ms
Receive response status time : 181 ms
```

To enable JDK 7.0 TLS V1.0, V1.1 and V1.2 support for the default JSSE provider

Add the following property to `system/SystemDefault.properties`
`com.ibm.jsse2.overrideDefaultProtocol=<SSL or TLS Value>`

Possible Values:

SSLv3 : sets SSL V3.0

SSL_TLS : sets SSL V3.0 and TLS 1.0

SSL_TLSv2 : sets SSL V3.0, TLS 1.0, TLS 1.1, and TLS 1.2

TLS : sets TLS 1.0

TLSv1 : sets TLS 1.0

TLSv11 : sets TLS 1.1

TLSv12 : sets TLS 1.2

For testing purpose, listed below you can find various test server location.

SSL test servers

<https://www.ssllabs.com:10301/> TLS v1.0

<https://www.ssllabs.com:10302/> TLS v1.1

<https://www.ssllabs.com:10303/> TLS v1.2

How to check whether a LANSAsystem is in use, prior to performing a LANSAs Upgrade

To check for active users in your LANSAs system, use the following procedure:

1. Sign on to the IBM i using the Partition Security Officer profile QSECOFR or as some other user that is part of the QSECOFR group.
2. If the Command Entry screen is not already displayed, then invoke it by using this command:
CALL QCMD
3. Make sure that no jobs/users are accessing LANSAs using the following commands:
WRKOBJLCK <pgmlib>/DC@A01 *DTAARA
WRKOBJLCK <datalib>/DC@F02 *FILE *FIRST
4. If locks exist, ask the users to sign off or wait until the batch jobs have ended before continuing with the upgrade.
5. If you use LANSAs workstation products connected to your LANSAs system, you may find that the listener job has a lock on the system. If a listener job is active, stop it by ending the subsystem it is running in.
6. Repeat both of these commands until there are no locks on the specified objects.

V14 Listener job ends on startup with CPIC error: 0000000020 in bind

V14 has introduced a change to the LANSAs Listener startup logic that checks if the listener port is already in use before allowing the listener to start. This is an enhancement designed to secure the integrity of the LANSAs Listener. For example, to ensure that malicious programs do not open the port used by LANSAs and intercept all data traffic. If the port is in use, then the listener will end immediately on startup.

This change has introduced an unexpected impact on the IBM i where it has been reported that in some cases the Listener port is not immediately released on the ending of the Listener job resulting in the Listener not being able to be restarted for up to 20 minutes. The following are typical messages in the joblog:

```

LC00107  Information      00  02/29/16 11:51:19.070626 DCXS86XX  G14COMLIB  *STMT  *EXT  *N
      From module . . . . . : DCXP8602
      From procedure . . . . . : DCXP8602AB
      Statement . . . . . : 3
      Message . . . . . : Listening for connection requests on port 04580.
      Listener job initialized. Listener is now ready to receive connection requests
      on port 04580.

LC00301  Information      40  02/29/16 11:51:19.098309 LCOMGR40  G14COMLIB  *STMT  LCOMGR40  G14COMLIB  *STMT
      From module . . . . . : LCOCMISC
      From procedure . . . . . : MISC_LogEvent__FUsUiPPCcT2
      Statement . . . . . : 9
      To module . . . . . : LCOCMISC
      To procedure . . . . . : MISC_Error
      Statement . . . . . : 27
      Message . . . . . : Error in program LCOMGR40 LCOCLAPI :2912
      :CreateListenSocket at statement .

LC00302  Information      40  02/29/16 11:51:19.098357 LCOMGR40  G14COMLIB  *STMT  LCOMGR40  G14COMLIB  *STMT
      From module . . . . . : LCOCMISC
      From procedure . . . . . : MISC_LogEvent__FUsUiPPCcT2
      Statement . . . . . : 9
      To module . . . . . : LCOCMISC

5770SS1 V7R1M0 100423      Job Log      DEMO      02/29/16 11:51:19      Page 2
      Job name . . . . . : LISTENER      User . . . . . : G14PGMLIB      Number . . . . . : 119429
      Job description . . . . . : G14LISTJD      Library . . . . . : G14PGMLIB
MSGID      TYPE      SEV  DATE      TIME      FROM PGM      LIBRARY      INST      TO PGM      LIBRARY      INST
      To procedure . . . . . : MISC_Error
      Statement . . . . . : 27
      Message . . . . . : Native error: 0000003420 CPIC error: 0000000020 in bind.

LC00109  Information      30  02/29/16 11:51:19.098481 DCXS86XX  G14COMLIB  *STMT  *EXT  *N
      From module . . . . . : DCXP8602
      From procedure . . . . . : DCXP8602AB
      Statement . . . . . : 3
      Message . . . . . : Failed to accept connection request.
      Error found while attempting to accept a connection request. Review previous
      messages in joblog.

LC00119  Information      00  02/29/16 11:51:19.098702 DCXS86XX  G14COMLIB  *STMT  *EXT  *N
      From module . . . . . : DCXP8602
      From procedure . . . . . : DCXP8602AB
      Statement . . . . . : 3
      Message . . . . . : Listener shutdown started.
      End job request received by the Listener program. Listener program will
      attempt to perform cleanup.

CPC2191  Completion      00  02/29/16 11:51:19.103565 QLIDLOBJ  QSYS      061B  LCOLIST  G14PGMLIB  *STMT
      To module . . . . . : LCOLIST
      To procedure . . . . . : endJobCleanUp__FP18_CNL_Hndlr_Parms_T
      Statement . . . . . : 32
      Message . . . . . : Object G14COMLIB in QUSRSYS type *USRQ deleted.

```

One scenario that may cause this is if Host Monitor is started, but fails due to a licensing error. This may leave the socket connection active with a status of FIN-WAIT, even when the Listener is stopped.

The length of time that the port is locked appears to be dependent on the OS load and configuration and can be delayed for many minutes.

Solution

The port will eventually be released, so currently a solution is to wait for it to be available again. Port usage can be monitored using the NETSTAT command and taking option 3.

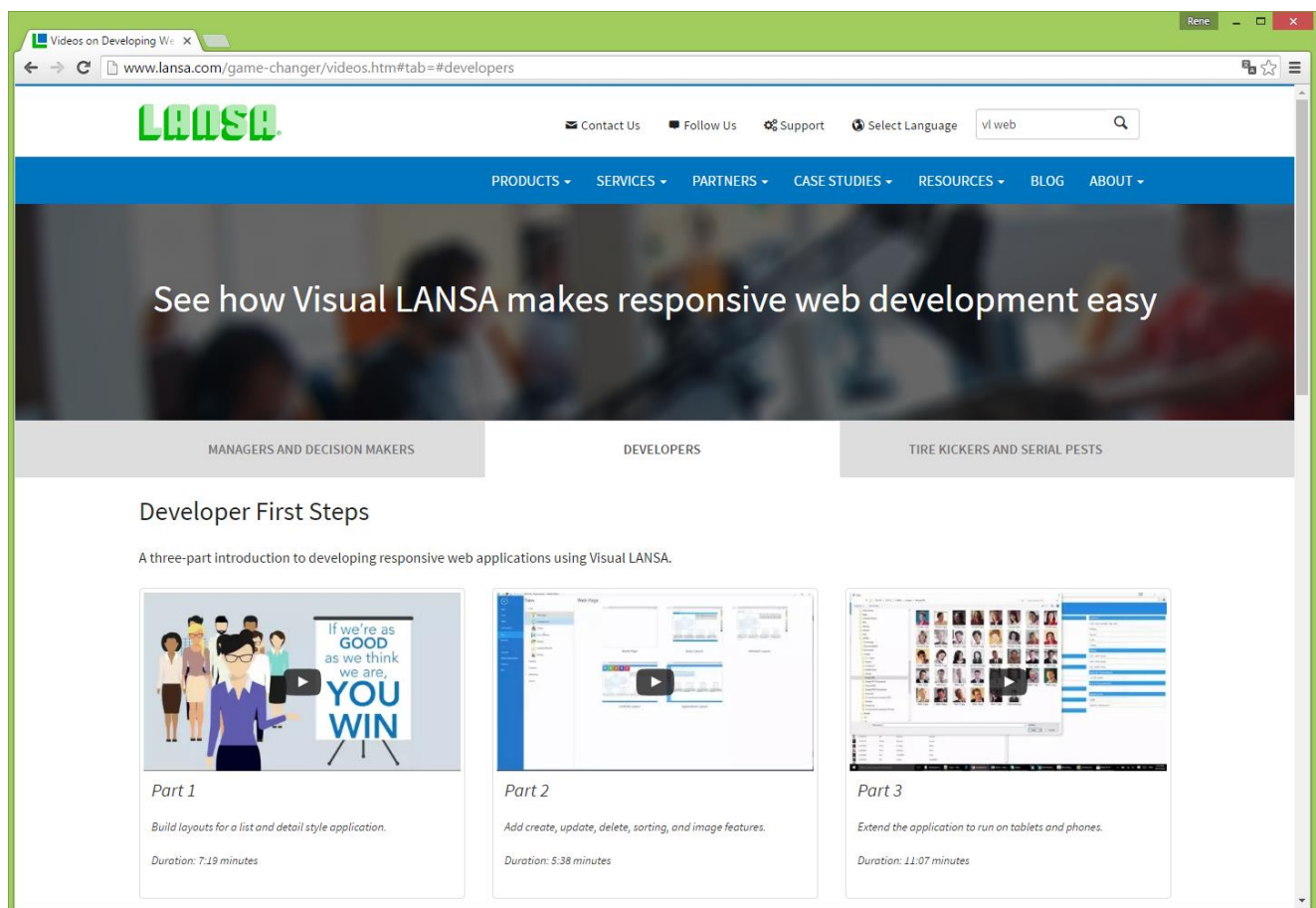
A solution is shipped via EPC140020 but requires manual intervention.

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The LANSA website now contains three introductory videos demonstrating how easy it is to build Web applications using LANSA VL-WEB.

See:

<http://www.lansa.com/game-changer/videos.htm#tab=#developers>



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