



# Learn LANSAs

*Learn LANSAs is here!*

Learn LANSAs is the new e-learning platform for the world's most powerful and versatile low-code platform, Visual LANSAs. A comprehensive learning ecosystem is so important to foster developers' success as they adopt and learn a new software development platform. LANSAs is relentlessly committed to making sure that current and future customers have the best resources available to make learning Visual LANSAs easier than ever.



## Content and a Community

Learn LANSAs features tutorials and textbook-style learning content as well as the Learn LANSAs Community for collaboration and knowledge sharing. This community will provide a central location for developers to discuss course content plus various aspects of Visual LANSAs.

Developers will be able to post videos, code snippets and screen shots of issues they may encounter or solutions to other developers' issues. Communities are an essential aspect to modern online learning, and LANSAs wants to ensure we are providing all the tools necessary for success with Visual LANSAs.

## INSIDE THIS ISSUE

- Learn LANSAs ..... 1
- Portalize..... 4
- System Init fails when installing VL on a PC which has a Beta option enabled ..... 7
- Did you know?..... 9
  - X\_LANSAs.PRO ..... 9
  - Propagate Multilingual Text ..... 11
  - Identity Column in Table ..... 12
- EPC150010 for LANSAs V15 ..... 13
- Install LANSAs V15 on old Windows systems..... 15
- Scope \*APPLICATION ..... 16
- Visual LANSAs Connectors ..... 21



## Courses

Search

All Courses Trial Experience Visual LANSa 14 Visual LANSa 15



**Welcome to Learn LANSa**  
In the Welcome to Learn LANSa course, you will find a quick video explaining how to use Learn LANSa as well as a guide for course progression for Visual LANSa beginners.



**Visual LANSa 15 - Import Excel Worksheets**  
A quick course detailing how to import excel spreadsheets into Visual LANSa's repository.



**Getting Started with Visual LANSa Web Development**  
This course is designed for developers new to the Visual LANSa platform. You will be modifying a demonstration application that is shipped with

### New Trial Experience

The new Learn LANSa will also be the first step to a new and improved Visual LANSa trial experience. With the new trial experience (launched mid-May), future customers will get to try out Visual LANSa in a structured environment, carefully crafted to maximize the evaluation process.

Since the trial experience is hosted in Learn LANSa, trial users will have a seamless transition into course enrollees when they become part of the LANSa family.



### Visual LANSa's Free Trial Experience

Click the free trial button to enroll in the ultimate low-code free trial experience. You will get to experience how quickly you can create apps in Visual LANSa as well as experience how Learn LANSa can help accelerate your Visual LANSa app creation.

[ENROLL IN FREE TRIAL](#)



### Not One and Done

Learn LANSa will be a living, breathing and ever-evolving resource for all things Visual LANSa. Courses will be regularly added, and current courses will be evaluated and updated as necessary.

Along with full courses covering both V14 and V15, Learn LANSa will feature micro-learning courses. Micro-learning courses will be very short, one-topic courses dealing with very specific features and solutions. LANSa is dedicated to providing the best online learning experience in the industry.

## **Check It Out**

You can check out [learn.lansa.com](https://learn.lansa.com) right now to see all the courses available.

Learn LANSA's in-depth content includes:

- Comprehensive tutorials
- Extensive courses covering all aspects of Visual LANSA
- Micro-learning courses for learning quick tasks
- Learn LANSA e-learning community
- Discussions to foster customer engagement
- Visual LANSA's all-new trial experience

Current customers can request access through their sales contacts.



## Portalize

LANSA is excited to announce Portalize, a revolutionary product combining the world's most powerful low-code platform, Visual LANSA, with the growing demand for customized application portals.



Secure Portals, Fast.

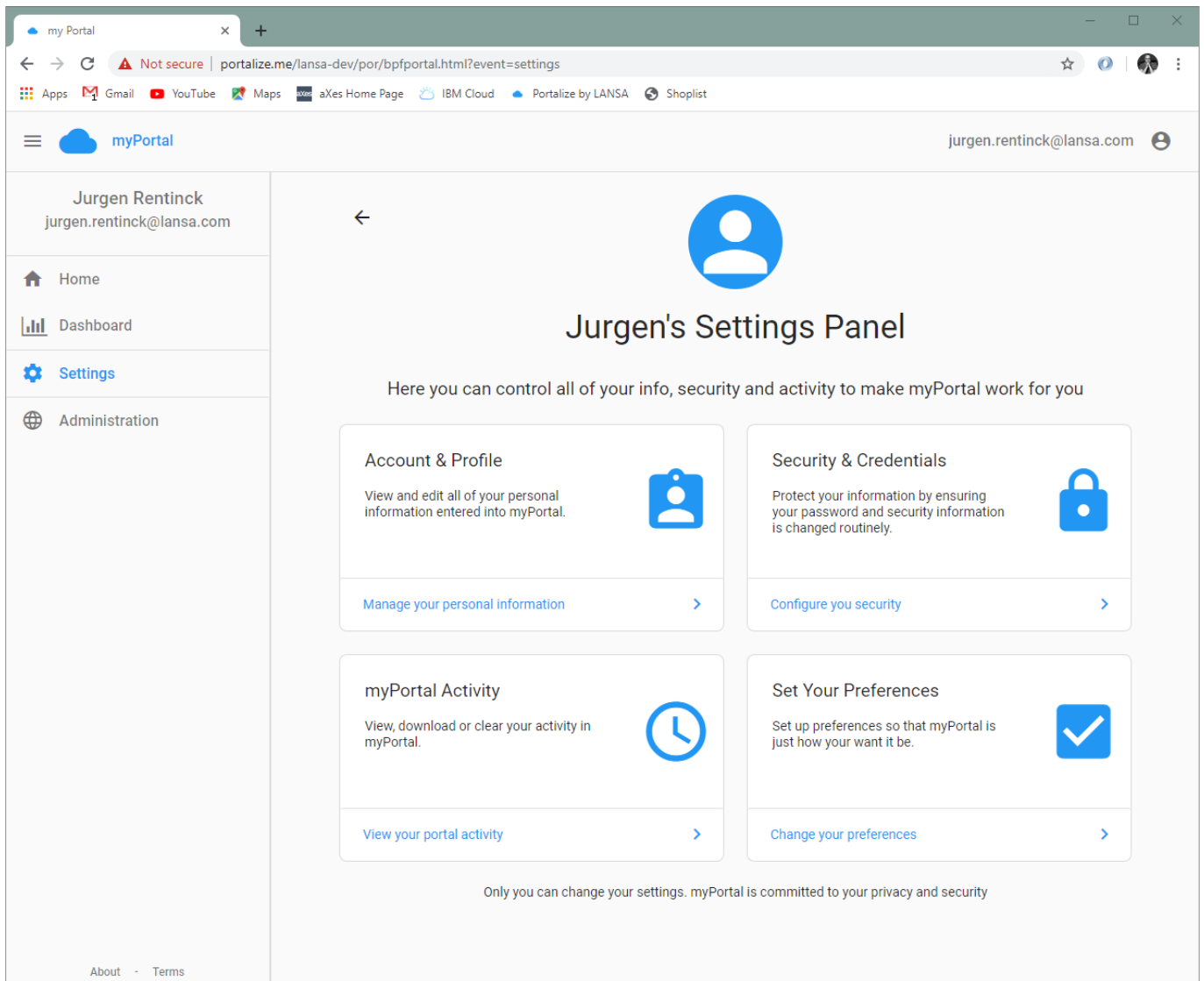
**PORTALIZE™: BUILD SECURE PORTALS FAST – THE FIRST LOW-CODE PORTAL SOLUTION BUILT FOR HUNDREDS OF USE CASES**

Portalize is a fully functional, full-feature portal that can be customized and tweaked to your exact business specifications. With Portalize, you will get essential features out of the box, far beyond what a normal application portal offers. Portalize comes complete with built-in navigation, responsive web design, recording of user session events, logging, security, administrative features, user features, analytics, and scalability to support even the largest portal needs.

The benefits of Portalize go beyond a prebuilt full-feature portal. With Portalize, you have access to the best practices in Visual LANSA as well as a reference for consistent application development.

Since Portalize is powered by Visual LANSA, you have full access to the source code and full control over customizations. This also allows for quicker customizations of your portal. Use the built-in features to get your portal going quickly and add new features at any time.

With Portalize, LANSA handles all your portal needs so you can focus on solutions and application development.



Use the out-of-box look for quick deployment or customize it as much as you need. Portalize is loaded with out-of-the-box functionality, saving you valuable time and business resources. You will get instant access to all these features plus many more.

### User Features

- Login
- Account creation/Forget password
- User management of details, preferences
- Users can update their account and profile information.
- Security validation questions

## **Administrative Features**

- Administration of users, security, and notifications
- Easily manage user accounts
- An email engine that can send notifications and action requirements (forgot password, account disabled, etc.)
- Turn Google Analytics on or off
- Control session logging

## **Security**

- Passed extensive penetration testing
- IP address monitoring for excessive requests
- Ban specific IP addresses
- Limit the number of login requests
- Portal checks to ensure all requests actually come from the portal

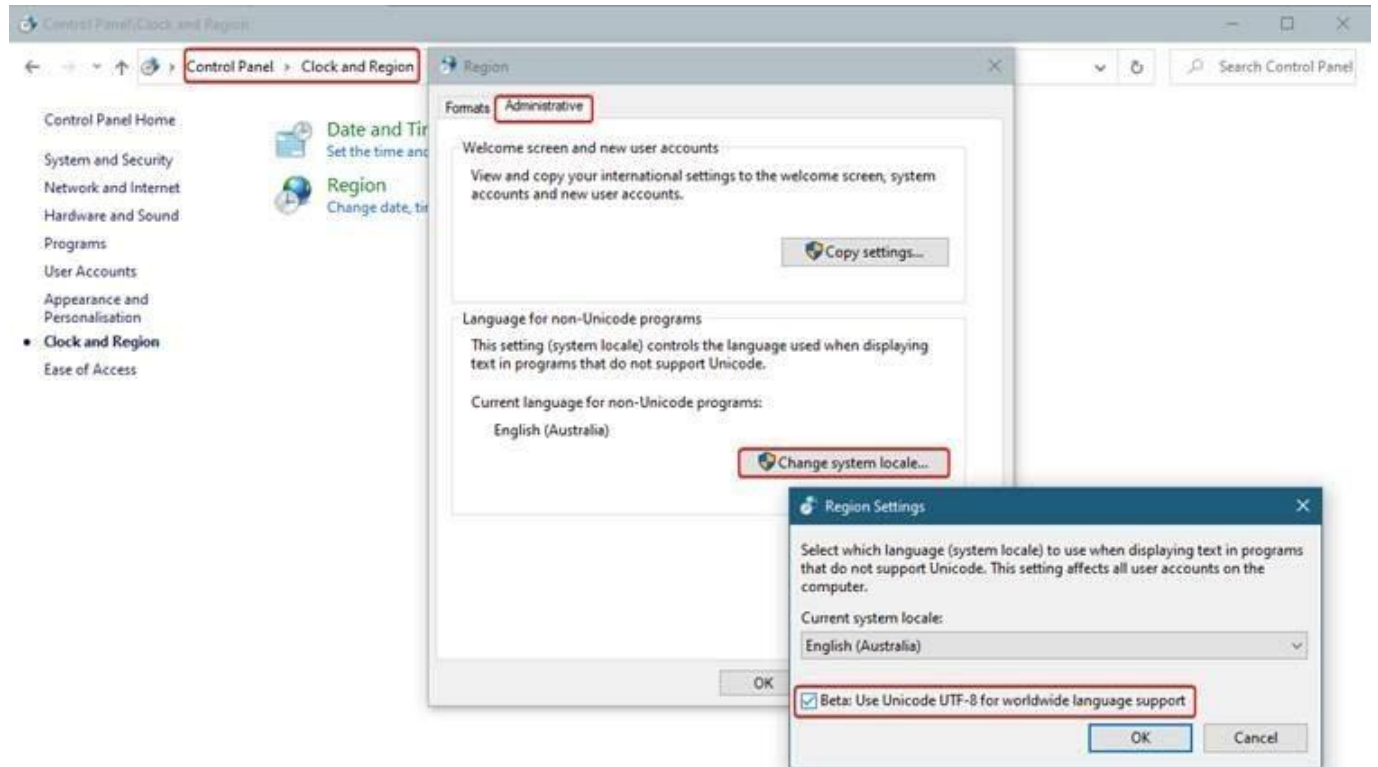
Portalize is loaded with other features such as advanced navigation and the ability to set system roles and set test and production emails. LANSAL took the time to ensure that most all of your portal needs will be available out of the box. We also made sure it could be easily customized with Visual LANSAL.

*Don't waste time coding your own portal from scratch. Contact [sales@lansa.com](mailto:sales@lansa.com) and experience the power of Portalize!*

# System Init fails when installing VL on a PC which has a Beta option enabled

When you install Visual LANSAL on a PC which has the option "Beta: Use Unicode UTF-8 for worldwide language support" enabled, the System Init (starts after the install) will fail.

This option is set by navigating to Control Panel, Clock & Region, selecting the Administrative tab, then click Change System Locale and enabling the option. Refer to the dialogs shown below...

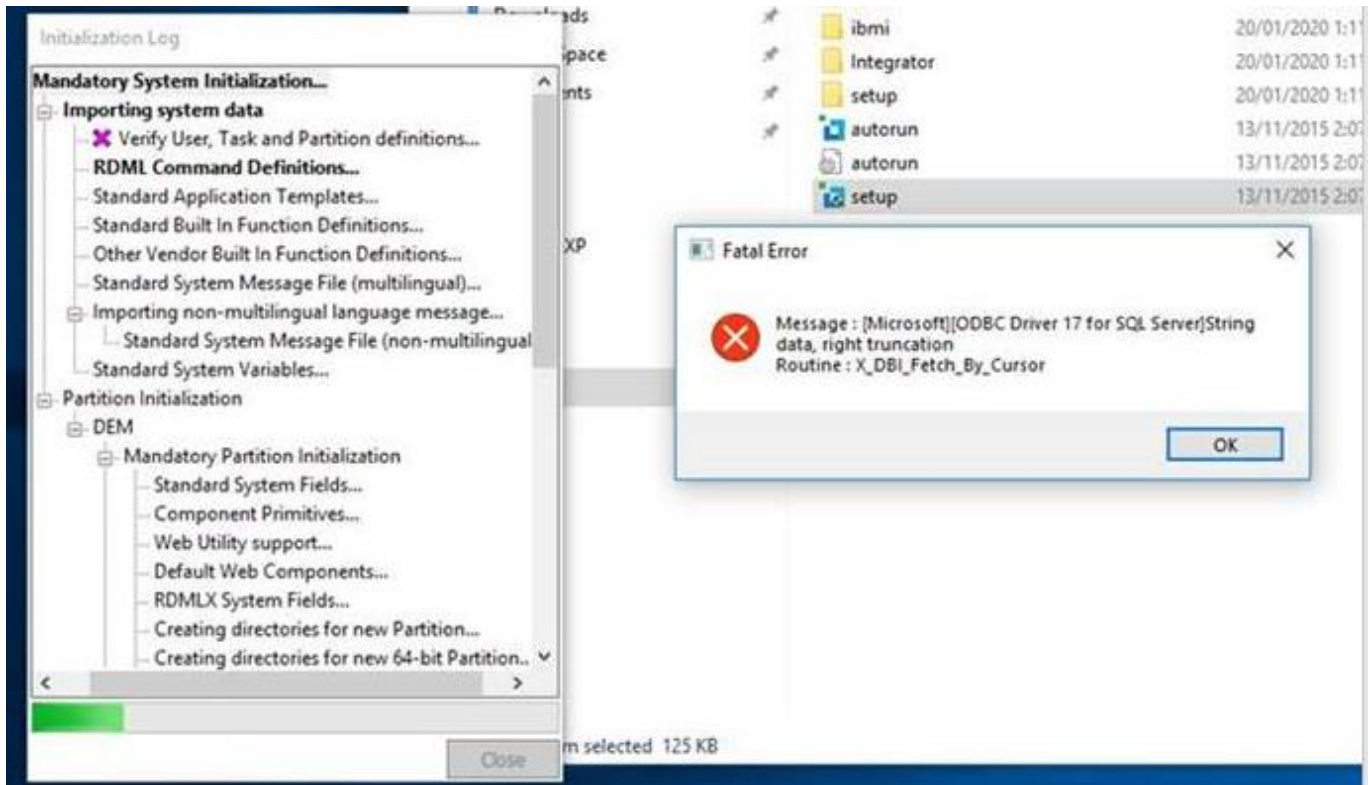


LANSAL is not compatible with this Beta/experimental feature. It causes all input data to be presumed to be in UTF-8 format. When the ANSI codepage data is converted to the database codepage, presuming the data is in UTF-8 format, the data is corrupted.

This option may be switched on at any time. Whenever it is switched on, SQL Server will always corrupt the data. Switching the option on and off only causes permanent damage to the data in SQL Server. Software installations themselves are unaffected. In particular, SQL Server is installed the same whatever this option is set to.

Data corruption may occur with other database servers like Oracle and MySQL. And if it does not already occur with other databases, it may occur in the future if software updates are released for these other database servers.

The symptom when installing Visual LANSa is that a fatal error String data, right truncation in Routine X\_DBI\_Fetch\_by\_Cursor is generated by the ODBC driver. See following image. Note that different symptoms will occur when running the IDE and running applications.



## Solution

The workaround is to switch the option off and redo whatever you were doing. In this case, with the Visual LANSa install, after switching the option off, uninstall Visual LANSa and delete the database from SQL Server. And do not switch the option back on.

For the IDE and runtime, data may have been corrupted which will need to be manually resolved.

For the next version of LANSa, a change will be introduced to detect that the option is enabled and not allow LANSa to run until the option is turned off.





# Did you know?

## X\_LANSA.PRO

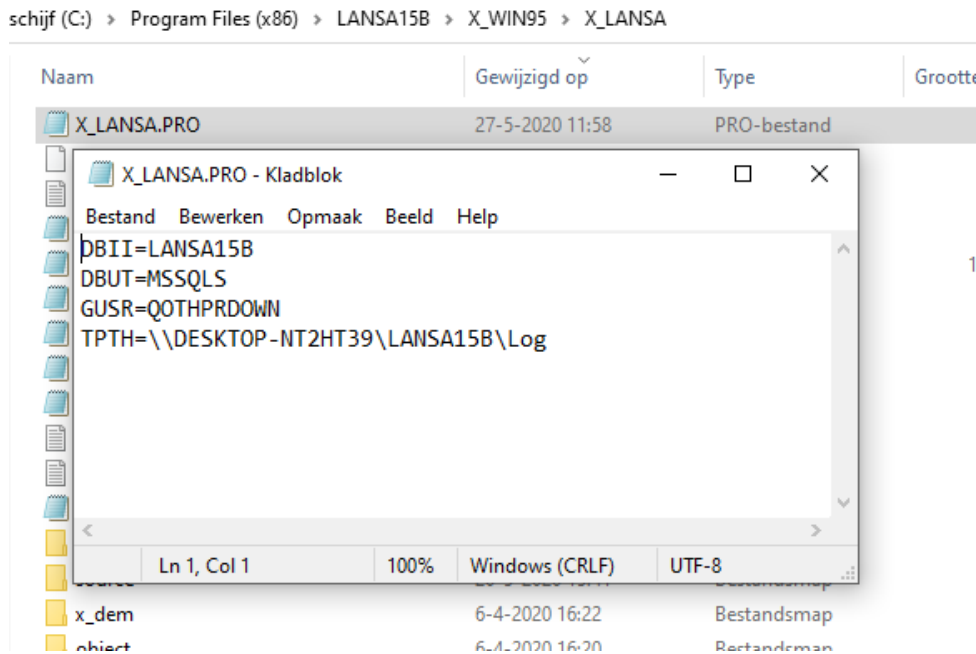
Most X\_RUN parameter values can be permanently specified in a special profile file named x\_lansa.pro.

A profile file can provide you with three benefits:

1. No need to type in most of the parameters every time you wish to use the X\_RUN command.
2. All parameter values are consistently specified. Changing and forgetting parameters between different executions of X\_RUN may produce differing results that confuse you.
3. Values for parameters that are not set up when you execute your application directly from within Visual LANSa can be specified.

So, the X\_LANSA.pro file contains X\_RUN parameters to be permanently specified and applied to the LANSa environment it is associated with.

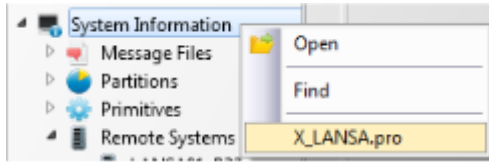
The x\_lansa.pro file is per LANSa installation in Windows located in the \X\_WIN95\X\_LANSA directory and is normally maintained in notepad as a text file:



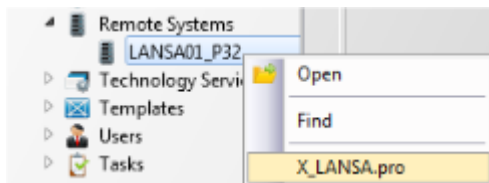
**But did you know.....**

..... that .....

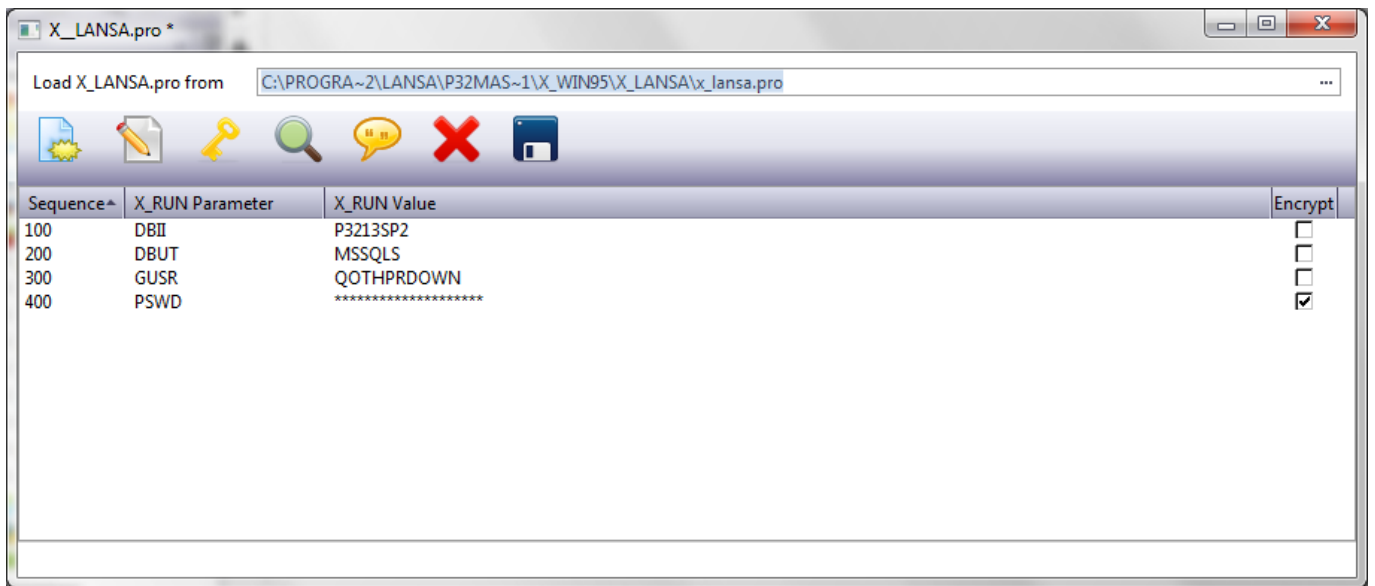
To review the X\_LANSAL.pro file in the VL IDE associated with the current Visual LANSAL environment, select the X\_LANSAL.pro command on the System Information context (right click) menu.



To review the X\_LANSAL.pro file in the VL IDE associated with a remote system select the X\_LANSAL.pro command on the Remote System's context menu.



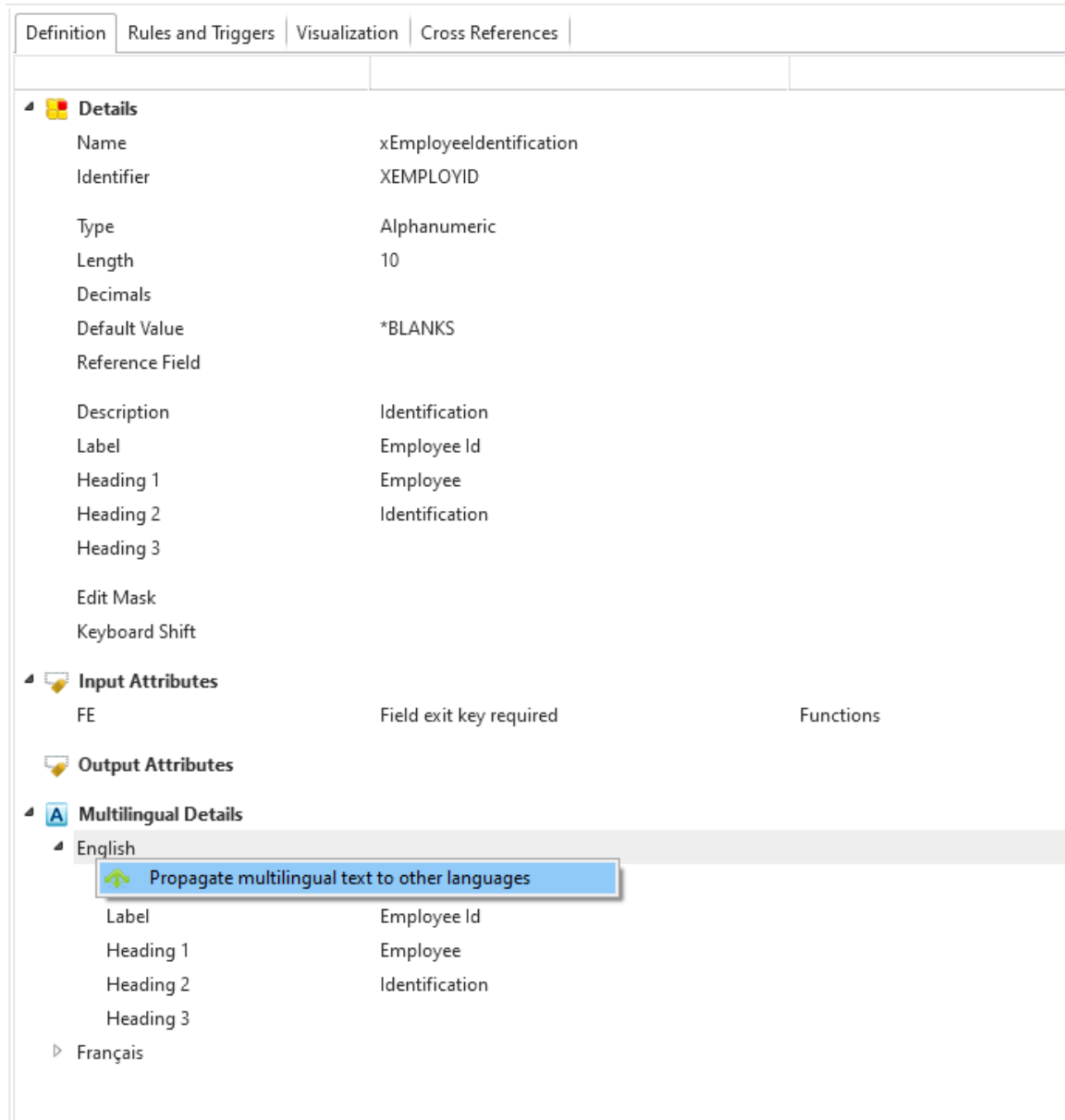
The X\_LANSAL.pro maintenance interface is primarily provided to allow confidential details to be encrypted in the file, but it also allows for general review and maintenance of unencrypted information.



# Propagate Multilingual Text

## Did you know ....

That when you use your right mouse button at a language in the Multilingual Details part of a component:



That you can 'Propagate multilingual text to other languages'?

## Identity Column in Table

An identity column provides a way to automatically generate a unique numeric value for each row in a table. A table can have only one column that is defined with the identity attribute.

An identity column is a column (also known as a field) in a database table that is made up of values generated by the database. This is much like an AutoNumber field.

An identity column differs from a primary key in that its values are managed by the server and usually cannot be modified. In many cases an identity column is used as a primary key; however, this is not always the case.

### **Did you know ....**

That you can mark a field in a LANSAL file as the Identity Column:

The screenshot shows the LANSAL Editor interface. The top ribbon includes 'File', 'Home', and 'Tools' tabs. The 'Tools' tab is active, showing icons for Home, Find, Tabs, Open, History, Compile, Execute, Debug, Add, and other actions. The main workspace is divided into several panes:

- Repository:** Shows the column name 'V15FieldInteger', Sequence '1', Key Position, Allocated Length, and Identity Column (checked).
- Field Definition:** Shows Description 'V15FieldInteger', Type 'Integer', Length '4', Decimals, Default Value '\*NULL', and Input Attributes 'FE - Field exit key required' and 'RB - Right adjust and blank fill'.
- Table Columns:** Shows a list of columns:
 

Column Name	Description
<b>Primary Keys (0)</b>	
<b>Columns (5)</b>	
V15FieldInteger	V15FieldInteger
V15FieldDate	V15FieldDate
V15FieldNVarChar	V15FieldNVarChar
V15FieldSigned	V15FieldSigned
V15FieldString	V15FieldString

## EPC150010 for LANSAs V15

EPC150010 ships many fixes and enhancements for V15 across the LANSAs product suite.

### Major highlights include:

- A new wizard for both forms of SELECT\_SQL in RDMLX has been included in this EPC. Refer to the online documentation for details.
- Several Web API template improvements have been implemented. Significant improvements include implementing security options in the Web API template, improvements to the handling of files with null fields and making Values for the Media Types parameter available in a dropdown.
- All EPCs also ship all the latest fixes and changes shipped via hotfix and patch since the last EPC.

### **SELECT\_SQL Statement Wizard**

Use the SELECT\_SQL Statement Wizard to easily create SELECT\_SQL statements in RDMLX-enabled components such as reusable parts. In fact, it can be used anywhere that you would use a SELECT\_SQL statement.

The statements can search over a table or a value in multiple columns (fields).

The Wizard allows you to select from all the database types supported by LANSAs.

It can be used on both Visual LANSAs independent systems as well as Visual LANSAs slave systems linked to an IBM i.

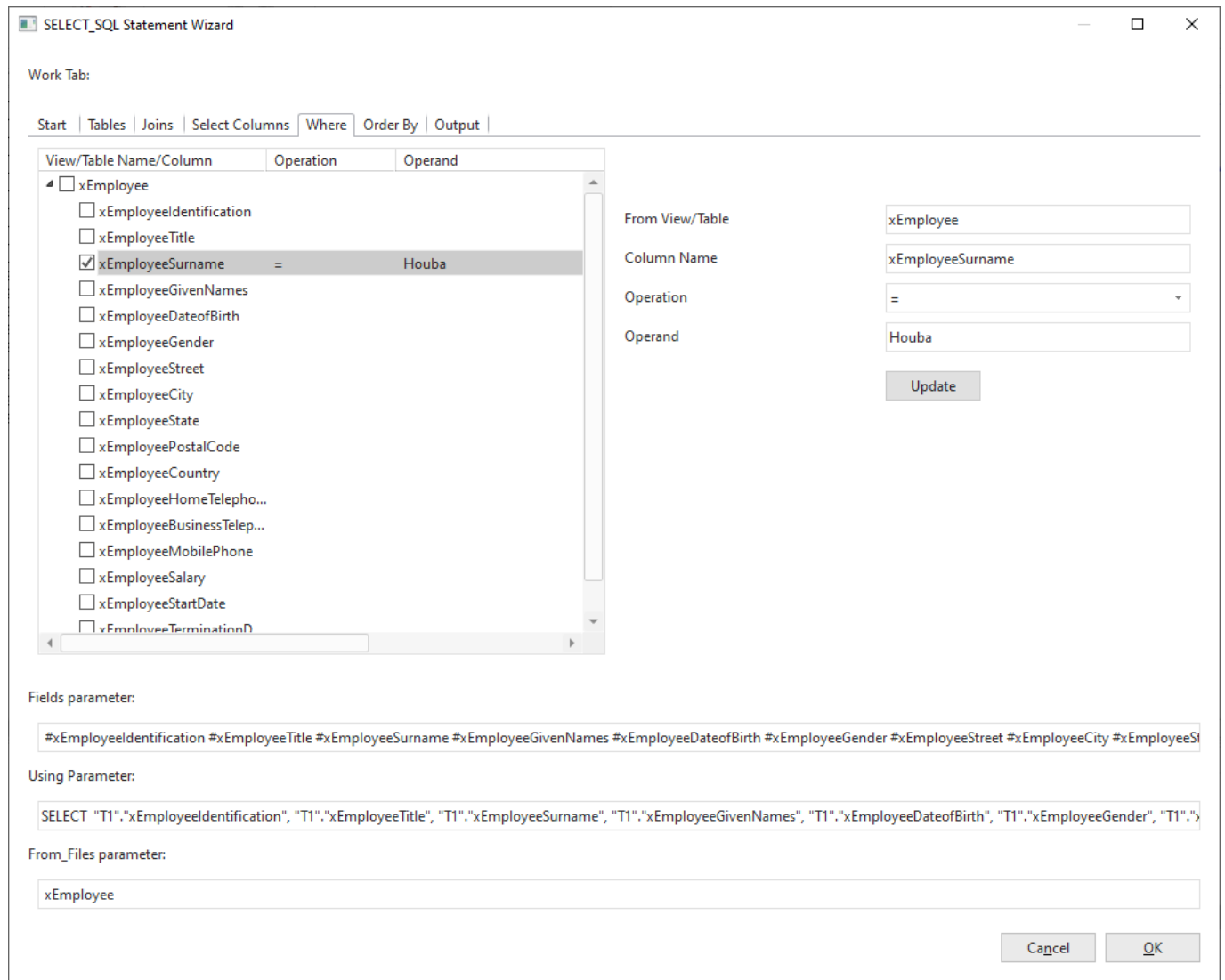
Related files are available for inclusion. They are not be automatically included.

You can choose files that are known to be related to a selected file by LANSAs. In addition, files can be nominated manually and the relationship specified.

## To use the Wizard

To start the wizard, open a component, display the Source tab and type SQL on a blank line, then press Enter.

The Wizard will open displaying the Start tab. Screen example below is showing the Where tab:



You will use this window to define your requirements. At the bottom of the dialog is the RDMLX code being developed by your choices in the top half of the dialog.

## Install LANSA V15 on old Windows systems

Installing Visual LANSA V15 on an operating system older than Windows 10 or Windows Server 2016 (or newer) can end with an error during the SQL Server 2019 install.

If you encounter the following error:

**The SQL Server install ended in Error. Check C:\Program Files\Microsoft SQL Server\150\Setup\_Bootstrap\Log\Summary.txt to identify the error.**

search the %TEMP% folder for SqlSetup.log. Open SqlSetup.log and look for the following entry: Unsupported Operating System. SQL Server 2019 is only installable on Windows Server 2016/Windows 10 or newer.

SQL Server 2019 cannot be installed on an operating system older than Windows 10 or Windows Server 2016. For example, SQL Server 2019 cannot be installed on Windows 8.1.

## Scope \*APPLICATION

The SCOPE parameter of the DEFINE\_COM command includes an option \*APPLICATION.

All \*APPLICATION variables are identified by variable name. Therefore, two different component classes can share a component instance simply by including a DEFINE\_COM for the variable name and specifying a scope of \*APPLICATION.

The first reference to an \*APPLICATION scoped variable that is not \*DYNAMIC will cause the component instance to be created. All other accesses retrieve that instance.

When a component instance at scope \*APPLICATION is retrieved, the only checking performed is to ensure that the class of the component instance can be dynamically cast to the class specified on the variable's DEFINE\_COM.

\*APPLICATION variables are released when the application terminates. Care must be taken to ensure that the component classes used by an instance of a component at \*APPLICATION scope are fully understood. All the component DLL's required to implement these component classes will remain in memory for the lifetime of the component instance and this could correspond to the lifetime of the application.

*The examples below show how Scope \*application works.*

### A.

Create a new form called APP3. Copy/paste source below into it and compile the form.

```
* *****
* COMPONENT: APP3
* *****
Function Options(*DIRECT)
Begin_Com Role(*EXTENDS #PRIM_FORM) Clientheight(104) Clientwidth(509) Height(143)
Left(481) Top(202) Width(525)

Define_Com Class(#STD_TEXT.Visual) Name(#STD_TEXT) Displayposition(1) Height(19) Left(8)
Parent(#COM_OWNER) Tabposition(1) Top(32) Usepicklist(False) Width(478)

Evtroutine Handling(#com_owner.Initialize)
Set Com(#com_owner) Caption(*component_desc)
Endroutine

End_Com
```



**B.**

Create a new form called **APP2**. Copy/paste source below into it and compile the form.

```
* *****
* COMPONENT: APP2
* *****
Function Options(*DIRECT)
Begin_Com Role(*EXTENDS #PRIM_FORM) Clientheight(125) Clientwidth(297) Height(164)
Left(453) Top(200) Width(313)

Define_Com Class(#PRIM_PHBN) Name(#Button1) Caption('Show APP3') Displayposition(1)
Left(104) Parent(#COM_OWNER) Tabposition(1) Top(40)

Define_Com Class(#app3) Scope(*APPLICATION)

Evroutine Handling(#com_owner.Initialize)
Set Com(#com_owner) Caption(*component_desc)
Endroutine

Evroutine Handling(#Button1.Click)
#app3.showform
Endroutine

End_Com
```

**C.**

Create a new form called **APP1**. Copy/paste source below into it and compile the form.

```
* *****
* COMPONENT: APP1
* *****
Function Options(*DIRECT)
Begin_Com Role(*EXTENDS #PRIM_FORM) Clientheight(125) Clientwidth(297) Height(164)
Left(453) Top(200) Width(313)

Define_Com Class(#PRIM_PHBN) Name(#Button1) Caption('Show APP2') Displayposition(1)
Left(104) Parent(#COM_OWNER) Tabposition(1) Top(32)
Define_Com Class(#PRIM_PHBN) Name(#Button2) Caption('Show APP3') Displayposition(2)
Left(104) Parent(#COM_OWNER) Tabposition(2) Top(69)

Define_Com Class(#app2) Name(#APP2)
Define_Com Class(#app3) Scope(*APPLICATION)

Evroutine Handling(#com_owner.Initialize)
Set Com(#com_owner) Caption(*component_desc)
Endroutine

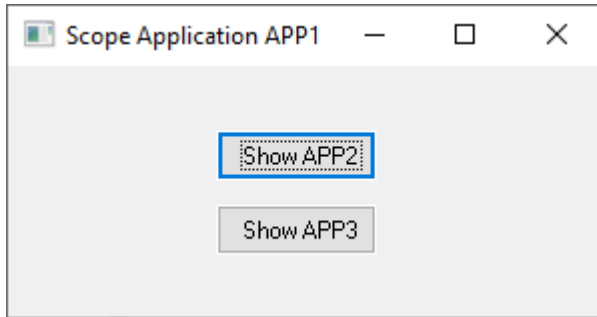
Evroutine Handling(#Button1.Click)
#app2.showform
Endroutine

Evroutine Handling(#Button2.Click)
#app3.showform
Endroutine

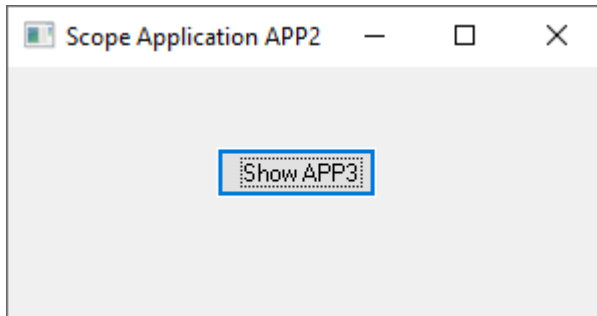
End_Com
```

To understand how Scope \*Application works, follow the next steps.

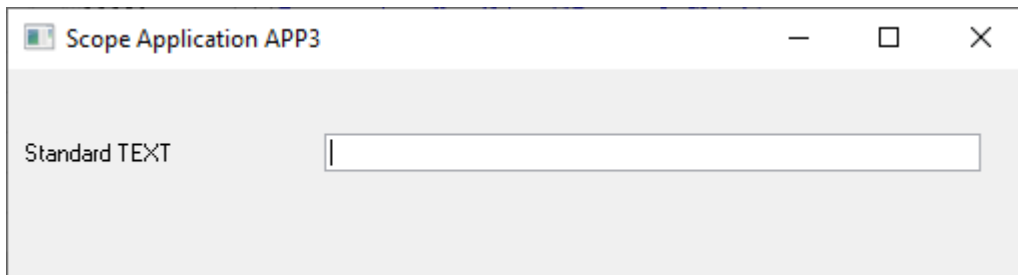
1. Start APP1. You will see the buttons 'Show APP2' and 'Show APP3'.



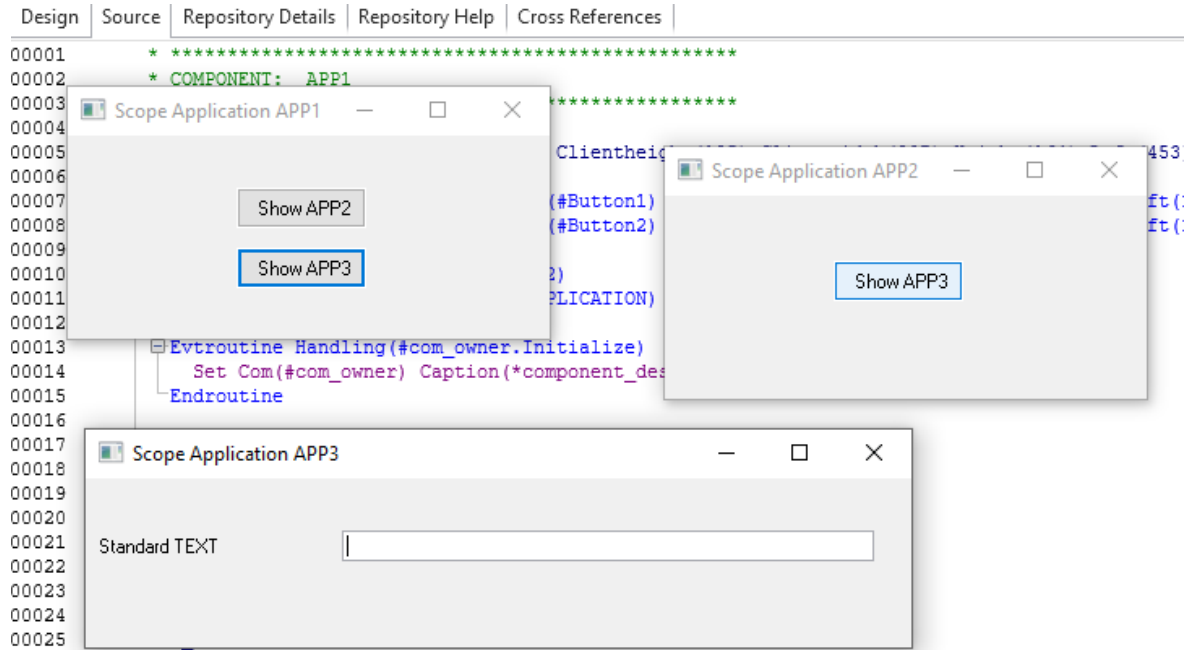
2. Use button 'Show APP2' to activate APP2. In both form APP1 as APP2, form APP3 is defined as scope(\*application).



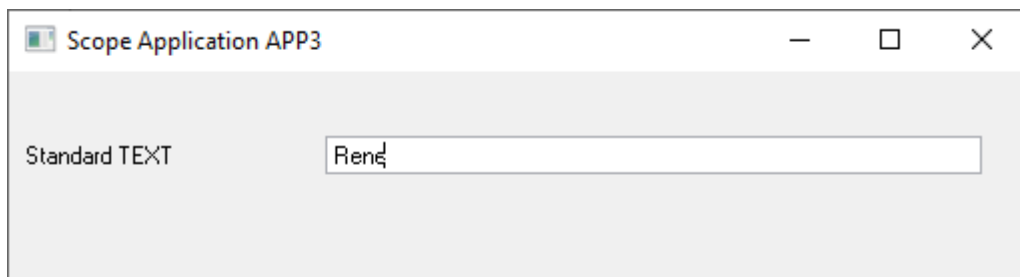
3. Now use in form APP1 button 'Show APP3'. Form APP3 will be activated.



- Now use in form APP2 button 'Show APP3'. **No new instance** of form APP3 will be created, because of the scope \*application setting.

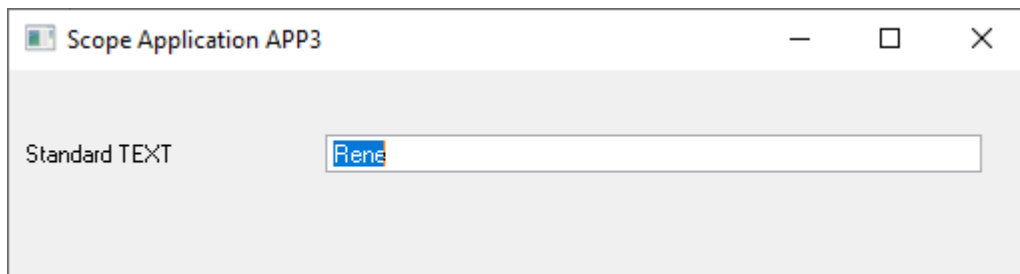


- Next step is to give field std\_text a value in APP3.



When the field is filled close this form APP3.

- Now restart APP3 again in form APP1 or APP2 and you will see that always the same instance of APP3 will be activated (and the field value is still there):



## User Defined Application Object

A User Defined Application Object is a global object of your own creation typically used to encapsulate all the logic you need access across the application. This may include Event definitions, Property definitions, common Routines for accessing messages or anything else which you need to remember or use repeatedly while running your Web Application.

Typically, User Defined Application Objects are defined as non-visual components of type PRIM\_OBJT.

For simplicity it is recommended is to have a single user defined application object.

`Define_Com Class(#MYAPPOBJ) Name(#Application) Scope(*APPLICATION)`

Of course you do not have to have a User Defined Application Object but it does make life a lot easier when you are navigating between different Web Pages and Reusable Parts and need to have access to common values and routines.

## Visual LANSA Connectors

We are excited to announce our partnership with **CData Software**. Through this partnership, developers will be able to easily integrate their enterprise applications with more than 200 popular SaaS, NoSQL, and Big Data sources.

190+ HIGH-PERFORMANCE DATA CONNECTORS

### Visual LANSA Connectors

- ✓ Real-time SaaS, NoSQL, & Big Data Connectivity
- ✓ Unlimited Use With Visual LANSA 15+
- ✓ Certified Visual LANSA Integration

[DOWNLOAD CONNECTORS](#)

Amazon Redshift	mongoDB	cassandra
salesforce	Google BigQuery	<b>CERTIFIED CONNECTORS</b>
HubSpot	IBM DB2	Cloudera
Excel	Marketo	eloqua
SAP	Microsoft Dynamics	NETSUITE
	sage	spark

**100+** 100+ Enterprise SaaS/Cloud & Application Connectors

**30+** NoSQL, RSBMS, & Data Warehousing Drivers

**#1** Certified connectivity & real-time performance

CData Software announced a partnership with LANSA.

Through the partnership, CData will provide enhanced data connectivity to Visual LANSA, enabling developers to easily integrate their enterprise applications with more than 200 popular SaaS, NoSQL, and Big Data sources.

More than 8,000 businesses worldwide use LANSA to change how they develop, maintain, and integrate their business applications. With a proven, 30-year track record of equipping and supporting IT teams, LANSA dramatically improves developer productivity using a combination of innovative technologies for low-code web & mobile development, system integration, and digital transformation initiatives.

LANSA users can integrate their disparate data, applications, processes, and databases to seamlessly exchange and process critical business information from within and outside the enterprise.

“This partnership adds even more flexibility to the Visual LANSA low-code platform,” said Mitch Holt, Director of Marketing at Idera, Inc. “As we continue to welcome more dev and IT teams to low-code, the breadth of data sources that our customers need to connect has increased dramatically. Our integration with CData’s connectors is yet another way we’re giving dev teams the most robust low-code toolkit on the market and the flexibility to build better applications faster.”

“Our driver technologies and low-code development platforms like Visual LANS A both empower less technical users to solve business problems without help from Enterprise IT,” said Eric Madariaga, Chief Marketing Officer, CData Software. “Pairing our drivers with a robust low-code development platform like Visual LANS A gives business users and citizen developers a powerful platform for building and deploying next-generation connected applications.”

CData will support LANS A data connectivity directly through CData’s standard ODBC driver technologies. This will allow Visual LANS A users to easily integrate with any of the supported data sources as if they were a common relational database, a paradigm familiar to LANS A developers.

For more information about any of the Visual LANS A Connectors, please go to:

<https://www.cdata.com/solutions/lowcode/lansa/>