

Centura Team Developer (CTD) 1.5.1 Release Notes

Thank you for choosing Centura Team Developer 1.5.1 for your application development and deployment needs.

Table of Contents

- **New features in Centura Team Developer 1.5.1**
- **Certification Information**
- **New features in Centura Team Developer 1.5**
- **Features removed in Centura Team Developer 1.5**
- **Application Notes for Centura Team Developer 1.5**
- **Deploying Centura Applications and Components to End Users**
- **Known Problems and Limitations**

New features in Centura Team Developer 1.5.1

Features

Stability

Completion of the CTD Package

Reporting and Querying Enhancements

Team Object Manager Enhancements

Connectivity Enhancements

Third Party Components Updates

Active X Support Enhancements

Documentation Changes

Stability

Included in CTD 1.5.1 are the fixes found in PTFs 1, 2 and 3 for CTD 1.5, as well as any additional fixes created after PTF3. CTD 1.5.1 improves core functionality, like database connectivity, and fixes problems in the new ActiveX support and elsewhere.

Completion of the CTD Package

Object Nationalizer: The Object Nationalizer is a localization tool for CTD applications. It has been available as a separately downloadable add-on since it was released for CTD 1.1. The Object Nationalizer is included in the CTD package for the first time in CTD 1.5.1. CTD 1.5.1 also includes an Object Nationalizer enhancement which allows the programmer to hide top level or pop-up menus.

Object Compiler: The Object Compiler, which compiles SAL code to C++, was omitted from the CTD 1.5 package, due to the time constraints on the 1.5 release. It is re-included in CTD 1.5.1, having been fully tested.

Lotus Notes QuickObject: The Lotus Notes Quick Object was omitted from CTD 1.5, but is included in CTD 1.5.1.

Connectivity Enhancements

See also Certification Information.

Extended fetch for ODBC: Centura's ODBC router lacked the feature to fetch multiple rows from the database server at a time. CTD 1.5.1 addresses this deficiency by introducing a new keyword, FETCHROW. SQLExtendedFetch is the ODBC function call that allows fetching multiple rows at a time, but Centura's ODBC router binds only one row of data at a time and sets the rowset size to 1. The enhancement is allowing the router to bind multiple rows at a time based on the setting of FETCHROW, and then fetch that many rows at a time from the database server.

Sybase 11.9.2: In the previous versions (prior to 11.9.2) of Sybase SQL Server and Adaptive Server, transaction isolation level 2 (repeatable reads) was supported by requiring users to specify transaction isolation level 3 (serializable reads). In version 11.9.2, transaction isolation level 2 is explicitly provided for data only-locked tables. This is supported by the Sybase router in CTD 1.5.1.

A SQL.ini keyword is introduced to allow the control of the default behavior of SELECT statements. This has been a migration issue for users of the 16 bit Sybase router, where the default behavior was different. Use DEFAULTSELECTFORUPDATE=ON to allow updates on SELECT statements. (This was the 16 bit default behavior.)

Ingres 2.0: Support of LONG VARCHAR.

Oracle 8.0.5: CTD 1.5.1 is certified to support Oracle 8.0.5.

SQL Server 7.0 enhancements: Microsoft SQL Server 7.0 introduces new features that CTD 1.5.1 will support. The main issues are the new sizes of data types and support for integrated security.

The maximum length of the CHAR, VARCHAR, BINARY, and VARBINARY data types in SQL Server 7.0 has been upgraded to 8000 bytes, an increase from the limit of 255 bytes in SQL Server 6.x. By upgrading our ODBC router to support ODBC 3.5 (albeit at the 2.5 feature level), Centura supports the new length of these data types in CTD 1.5.1.

Customers who want to use the new sizes from CTD may encounter binding problems especially with long binding unless and until they do the following:

To use Microsoft ODBC version 2.65.0201 drivers or above, you should turn off the SET ANSI_DEFAULTS OFF, SET ANSI_PADDING OFF and SET ANSI_WARNINGS OFF. Use the check box Use "ANSI Null, Padding, and Warnings" to do this on the ODBC Data Source Dialog box. By default this check box is turned on and must be altered to use the ODBC drivers. Please refer to Microsoft Knowledge Base Article ID: Q149921 for additional information.

When defining a SQL Server 7.0 data source in the ODBC administrator, there is an option to use either integrated security (NT authentication), or the username and password. All the programmer needs to do is to enable the integrated security option when connecting to SQL Server.

Reporting and Querying Enhancements

Report Builder is enhanced considerably for the 1.5.1 release. As a result, it functions more effectively as an end-user ad-hoc query and reporting tool, and a migration path for Quest Reporter. Addressed in the 1.5.1 release are problems with importing query files from Quest and defining new queries.

Team Object Manager Enhancements

TOM Repository Changes: Previous versions of the TOM Repository presented a challenge to Repository administrators when attempting to UNLOAD/LOAD or REORGANIZE the SQLBase based Repository (Defect 59636). This release of TOM introduces modifications to the Repository schema for SQLBase-based Repositories only; specifically the view SYSSQL.SYSUSERAUTH is dropped and replaced with the view TMADM.SYSUSERAUTH. This change in the Repository schema has necessitated a Repository version change (from Compatibility Level 5, Modification Level 5) to Compatibility Level 6, Modification Level 1.

When you first connect to an existing SQLBase-based Repository using TOM 1.5.1, it will automatically prompt

you for the SYSADM password and then proceed with the necessary modifications. If you are using a non-SQLBase-based Repository (Oracle, Sybase, or Microsoft SQL Server), your Repository Compatibility and Modification Levels will be upgraded for synchronization even though no schema changes will take place.

In order to successfully upgrade a SQLBase-based Repository to Compatibility Level 6, Modification Level 1, the existing Repository must be at Compatibility Level 5, Modification Level 5. If you have an earlier Repository version (for example, from TOM 1.0), you must first upgrade it to Compatibility Level 5, Modification Level 5 with TOM 1.1.x or TOM 1.5.0.

ActiveX Support Enhancement

ActiveX containment fixes: A number of defects have been resolved in the CTD support of Active X controls. Specifically, support for stream-based controls and controls written using Microsoft Active X Template Library (ATL).

Support for International ActiveX objects: CTD 1.5.1 uses a language independent means to access Active X methods and properties when provided by the control or server. A method or property ID is used when the names the control or server declare are not language neutral.

Correct Generation of Constants: When ActiveX proxy classes were generated in CTD 1.5, not all the enumeration definitions were included in the .APL file produced. CTD 1.5.1 correctly generates these enumerators as constants.

New Samples: New ActiveX samples are added to CTD 1.5.1 to better demonstrate Centura's support for ActiveX. Examples of Microsoft Office automation are also included.

OLE2 QuickObject: Centura will not support the OLE2 QuickObject in the next major CTD release.

Third Party Components Updates

ImageMan Update: The version of ImageMan integrated with CTD 1.5.1 is updated to 6.0.1 this adds support for interlaced GIF images.

Updated Graphics Server: CTD 1.5.1 now ships with version 5.5 of the BPS Graphics Server.

Documentation

Report Builder: New tutorials for the Business Reporting online book will help users learn the features of Report Builder 1.5.1.

QuickToolTips: New documentation covers the use of QuickToolTips, special pushbutton class objects that allow a programmer to assign tooltip and status bar captions.

Certification Information

Following are supported databases for which **enhancements were made in the CTD 1.5.1 release:**

- **Microsoft SQLServer 7.0:** For support of 8000 byte char, varchar, binary and varbinary datatypes. Increased from 255 bytes. Also to support Windows NT authentication integrated security.
- **Sybase System 11.9.2:** Support for transaction isolation level 2 is explicitly provided for data only-locked tables. (as stated below in this thread)
- **Ingres 1.2:** Enables support for users to use long varchar datatypes.

Other certified databases without changes in 1.5.1:

- Oracle 8.0.5
- Informix 7.3
- Ingres 2.0 server/Ingres 1.2 client

SQLRouter/Ingres

The following section contains information about SQLRouter/Ingres. This release of SQLRouter/Ingres supports

CA-OpenIngres v1.2 for Windows NT. Please read *Connecting Centura Objects to Databases* for information regarding connectivity to Ingres.

SQLRouter/Ingres Compatibility

This version of SQLRouter/Ingres is certified with:

Centura Software

- Centura Team Developer 1.5.1
- SQL/API 701p4

Ingres Software

- CA-OpenIngres for Windows NT version 2.0 (w/1.2 Client)
- CA-OpenIngres NET (int.wnt/03)
- Patch 4015

Operating Systems

- Microsoft Windows 95
- Microsoft Windows 98
- Windows NT 4.0

Network Software

- TCP/IP

SQLRouter/Microsoft SQL Server 7

SQLRouter/ Microsoft SQL Server supports Microsoft SQL Server 7, using its native call-level interface-ODBC. The following section contains information about SQLRouter/Microsoft SQL Server 7.

SQLRouter/Microsoft SQL Server Compatibility

This release of the SQLRouter/Microsoft SQL Server has been tested and certified with the following products:

Operating Systems

- Microsoft Windows 95
- Microsoft Windows 98
- Windows NT 4.0

Centura software

- Centura Team Developer 1.5.1
- SQL/API 701p4

Microsoft software

- Microsoft ODBC 3.0.2822 Driver Manager

Microsoft SQL Server software

- Microsoft SQL Server 6.5.0201 (Service Pack 2) on Windows NT
- Microsoft SQL Server 7.0. on Windows NT

Microsoft SQL Server client software

- Microsoft SQL Server ODBC driver version 3.70.06.23, ODBC version 3.01

SQLRouter/ODBC Compatibility

This release has been tested and certified with the following products:

Operating systems

- Microsoft Windows 95
- Microsoft Windows 98
- Windows NT 4.0

Centura software

- Centura Team Developer 1.5.1
- SQL/API 701p4

Microsoft software

- Microsoft ODBC 3.0.2822 Driver Manager

ODBC drivers certified

- Microsoft SQL Server 7.0 driver from Microsoft v7.00.623
- Microsoft Access driver from Microsoft v3.40.2204.
- Microsoft SQL Server 6.0 driver from Microsoft v6.00.126.
- Oracle 8 driver from Visigenic v8.00.05.00.

SQLRouter/Oracle

The following section contains information about SQLRouter/Oracle.

SQLRouter/Oracle Compatibility

This version of SQLRouter/Oracle is certified with:

Operating Systems

- Microsoft Windows 95
- Microsoft Windows 98
- Windows NT 4.0

Centura Software

- Centura Team Developer v1.5.1
- SQL/API 701p4

Oracle Software

- Oracle 7.2 on Windows 95, 98 and Windows NT
- Oracle 7.3 on Windows 95, 98 and Windows NT
- Oracle 8.0.5 on Windows 95, 98 and Windows NT
- SQL*Net 2.x

Network Software

- TCP/IP, SPX/IPX

SQLRouter/Sybase

SQLRouter/Sybase provides native connectivity from Centura Team Developer to Sybase System 10 and Sybase System 11 using Sybase CT-Lib.

SQLRouter/Sybase compatibility

This version of SQLRouter/Sybase is certified with:

Operating Systems

- Microsoft Windows 95
- Microsoft Windows 98
- Windows NT 4.0

Centura software

- Centura Builder 1.5.1

Sybase System 11 software

- Sybase SQL Server Release 11.0 for Sun-svr4/OS 5.4 (Solaris)
- Sybase Open Client Client-Library Release 11.5 for Windows 95/ Windows NT
- Sybase Open Client Net-Library Release 11.5 for Windows 95/ Windows NT
- Sybase Open Client Client-Library Release 11.9.2 for Windows 95/ Windows NT
- Sybase Open Client Net-Library Release 11.9.2 for Windows 95/ Windows NT

SQLRouter/Informix

SQLRouter/Informix Compatibility

This version of SQLRouter/Informix is certified with:

Operating Systems

- Windows NT 4.0

Centura software

- Centura Team Developer 1.5.1
- SQL/API 701p4

Informix software

- Informix-OL 7.3 on Windows NT 4.0
- Informix SE 7.3 on Solaris 2.4

Informix Client software

- Informix-Net TCP/IP 7.3 TD 1 for Windows NT and Windows 95

Network Software

- TCP/IP

New Features in Centura Team Developer 1.5

This release of Centura Team Developer has as its goal ActiveX support, modernized user interface and increased ease-of-use. The features are:

ActiveX Container

Centura SQLWindows/32 user interface

Report Builder user interface

Report Builder ActiveX automation

Enhanced Team Object Manager

For details about these features, read "New features in this release" in the online help.

New SAL system constant: TYPE_AccFrame: The constant TYPE_AccFrame is introduced with CTD 1.5. This constant is a possible return value from SalGetType. If you are migrating a pre-CTD 1.5 application to CTD 1.5 that defines this constant, you'll need to remove or comment out that constant definition.

· New value for TYPE_AccFrame: Prior to the CTD 1.5 release, TYPE_AccFrame (defined in centura.h) was defined as the hexadecimal value 0x04000000. With the CTD 1.5 release, this value has changed to 0x10000000. This is also the value for the new TYPE_AccFrame SAL system constant as described above.

· Migration recommendations: If your application defines the constant

Number: TYPE_AccFrame = 0x04000000

we recommend you comment out or remove this definition (the constant definition is no longer needed). If your application defines a different named constant for comparing the return value from SalGetType to test for accessory frames, define your constant as equal to TYPE_AccFrame. If your application uses the numeric literal 0x04000000 (or it's base ten equivalent) for comparing with the return value from SalGetType to test for accessory frames, replace the numeric literal with the constant TYPE_AccFrame.

Centura Developer Extensions Kit (CDK):The CDK is included with Centura Team Developer 1.5. The CDK, formerly available only as an add-on to Team Developer, is now a part of the product. There are some useful tools included with the CDK that demonstrate how you can extend SQLWindows/32 as a development environment. After installing these Tools, you can find them in a subdirectory of your Centura directory, in CDK\Tools\AddOns. Each tool has its own subdirectory containing source code and a readme.wri file with instructions on how to build the tool and how to add it to your SQLWindows/32 toolbar.

There are some SAL libraries (APL files) which are installed with the SAL CDK. For these libraries to be available to your applications, make sure the CDK/SAL subdirectory is added to your Global Path. To do this, select Tools/Preferences from the menu, click on the Directories tab, and add the full path to the CDK/SAL subdirectory.

Runtime Files: Files that you will need to deploy along with your SAL CDK applications are:

- CDKI15.DLL
- CRI15.DLL

These CDK runtime files may be freely distributed to end users, subject to the terms and conditions of your Electronic Software License Agreement.

Application Notes: The C++ CDK supports Microsoft Multithreaded DLL "C runtime" or EXE applications only. If you don't change the default you will get link warning LNK4098. Change this in Build Settings / C/C++ / Code Generation.

If you include cdk.h in any app file in your project, it will cause your project to link with CBDLL.LIB and CDK.LIB (or CDKD.LIB for debug builds).

Features Removed

This version of Centura Team Developer will not support Windows 3.1 (or Win 3.11) deployment. Windows NT 3.51 is not supported. Centura no longer supports:

- Informix 5.x, 6.x, and 7.1
- Sybase 10.x
- Oracle 7.1.x

Application Notes for Centura Team Developer 1.5

Visual Toolchest classes: Some of the external functions called by the Visual Toolchest classes are no longer documented. While these are still available for backward compatibility, Centura Software encourages you to replace calls to these external functions with calls to functions in the classes. To determine if an external function is one of those no longer documented, select its name in the outline and press F1. If a help topic displays with the name "Implementation functions," then the function is no longer documented.

Report Builder Automation Interface: If you are in Preview mode and you have called ExecuteQuery, you should call ResetPreview to update your report.

External Functions: Numeric values are sometimes truncated on overflow, when the value exceeds the allowable range.

Migrating from OLE 1.0/Picture Controls: The function SalPicGetImage has been enhanced to support migration from OLE 1.0 and the Picture control to the ActiveX Container Control. You can now use SalPicGetImage to retrieve the data from an embedded object in a Picture control in a format which is compatible with the ActiveX Container. For example, assume a Picture control named picObject which contains an embedded object. The following code fragment retrieves the data of the embedded object into a String variable called sData.

```
Set nLength = SalPicGetImage( picObject, sData, nType )
```

Calling this function will copy the data from the embedded object in the picture control to sData, and set nType to the constant PIC_ImageTypeOBJECT.

To migrate to an ActiveX container control, you can then write the string to a file and set the ActiveX Container Control contents using SalActiveXCreateFromFile. Assuming an ActiveX container control named ax1, the following code fragment provides a simple example.

```
If SalFileOpen( hFile, sFileName, OF_Write | OF_Create | OF_Binary )
    Call SalFileWrite( hFile, sData, nLength )
    Call SalFileClose( hFile )
    Call SalActiveXCreateFromFile( ax1, sFileName )
```

Deploying Centura Applications and Components to End Users

Centura Team Developer includes some modules which may be freely distributed to end users, and others which require a deployment license. Please refer to your Electronic Software License Agreement for details about your distribution rights and requirements.

Free Distribution Modules:The Centura Runtime Files may be freely distributed to end users. When you select this option in the CTD installer, it will place in your Deploy directory a file installer which you may freely distribute to end users.

Separately Licensed Deployment Modules: You must acquire an appropriate license from Centura in order to distribute the following modules to end users or deploy them in a production environment:

- Report Builder**
- Report Builder Automation Library**
- Web App Manager**
- Object Nationalizer**

Known Problems and Limitations

Note that the change in Centura Team Developer version number from 1.1 to 1.5 results in changes to the names of some files. For example, CDLLi11.dll is now CDLLi15.dll.

Linking is not supported for a container control. Cut, Copy, and Paste are not supported for a container control.

Text files (.APT) saved in SQLWindows/32 can not be opened in versions of CTD released before CTD 1.5 or SQLWindows releases. For more, read "Migrating applications" in the online help.

66489: A SELECT CASE statement treats -2147352565 and 2147614731 as the same number.

65906: Centura Team Developer version 1.1.x applications which are stored as Compiled Applications require full recompilation in SQLWindows/32 1.5. However, when loaded, some 1.1.x applications appear to be compiled. To force the required recompilation, you should save the application as "Normal" and re-open the file.

66905: Object Nationalizer changes to an APR file which is applied to an EXE are not successful the first time, though a Resources applied successfully dialog is displayed. The APR must be applied twice for the changes to occur.

66080: Object Nationalizer changed to tab titles in DBCS characters can result in corrupted text on some of the tab titles.

66908: Object Nationalizer: Opening an EXE built with a previous version of the CTD is not supported by Object Nationalizer which may crash when this is attempted.

67880: Duplicate constant declarations may be generated in some specific circumstances: if you generate an APL for a Type Library which contains references to Enumerations in separate libraries, the Constants which correspond to those enumerations may be generated into both APLs. This may happen if the generation option "All" is selected on the second screen of the ActiveX Wizard. These duplicate constant definitions will cause compilation errors.

To work around this issue, manually go into the ActiveX Library files and delete the constant declarations which are duplicated. The constants are usually named in such a way that you will know which library the constant definitions should appear in.

67792: Report Builder: When a new column is added in a query, the previously generated report loses all its properties.

Report Builder: You may use AND or OR between conditions in queries, but Report Builder does not currently support grouping conditions in parentheses. The database follows the order of operations when executing a query. AND takes precedence over OR in the order of operations. So, for example, if you have Condition A AND Condition B OR Condition C, your query will return all the results that match (Condition A AND Condition B), as well as all the results that match Condition C.

Report Builder: If you are creating a new query and report, Report Builder's Formula Editor may not display all the names of your query columns until you have executed the query and allowed Report Builder to create a default report. Then you may go back into the Define Query dialog box and add formulas to your query.

Report Builder: Quest Report Templates (QRP files) and Quest Query Templates (QQT files) can now be reported into Report Builder. However, Report Builder does not currently support importing Quest SQL Activity Files (QSD files).

67802 Report Builder: A join between two tables with identical column names results in being unable to view all the columns on the Result tab of the Define Query dialog box.**67870:** Report Builder: If you change the order of columns on the Result tab of the Define Query dialog box, the generated report template remains the same.

Report Builder: When using Report Builder with a Sybase database, if you want to use the Results tab in the Define Query dialog box, ensure that multiple connections are enabled.

To alter this setting:

1. Launch the Connectivity Administrator.
2. Select **Sybase** on the Connectivity tab.
3. Click **Properties**.
4. On the Optional Keywords tab, check the **Enable Multiple Connections** box.

Report Builder: If you have a query condition that uses the operator "IN" followed by a set, and you later change the operator to "=" followed by a value, you may see this error message: "The data type of the left column/formula

is different than that of the specified value. Please correct or complete the condition before continuing." To work around this problem, delete the condition, re-execute the query by clicking the Result tab, and then re-add the condition.