Infor Enterprise Server 10.5.1.1 Release Notes

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About this guide

This document provides an overview of the differences between various Infor Enterprise Server versions.

Note: Various LN and Enterprise Server components must be licensed through Infor Solution License Manager (SLM). For details on how to find the relevant SLM product IDs, see "SLM product IDs" on page 57.

Contacting Infor

If you have questions about Infor products, go to the Infor Xtreme Support portal.

If we update this document after the product release, we will post the new version on this website. We recommend that you check this website periodically for updated documentation.

If you have comments about Infor documentation, contact documentation@infor.com.

Enterprise Server 10.5.1.1

1

This chapter describes the differences between Enterprise Server 10.5.1.1 and Enterprise Server 10.5.1, and the new functionality in Enterprise Server 10.5.1.1.

This table shows the Infor Xtreme KBs for Enterprise Server 10.5.1.1:

Package	KB
TT	1891737
TL	1893473
DA	1891739
TM	1844213

Business Interface Implementations - BOD/BDE

BOD extension

For BOD extension scripts, a new hook, `process.inbound.user.area()`, is available to process the UserArea of an inbound BOD. Within this hook, calculated fields and unmapped fields can be updated.

Within the UserArea, more data types are supported by LN Tools. The supported data types, both inbound and outbound, include these types:

- `AmountType`
- `CodeType`
- `DateType`
- `DateTimeType`
- `HierarchyReferenceType`
- `IndicatorType`
- `IntegerNumericType`
- `MasterDataReferenceType`

- `NumericType`
- `QuantityType`
- `StringType`
- `TimeType`

The Extension Modeler generates these additional macros:

- Macros to easily get and set the properties for the new data types
- Macros to navigate through a received UserArea structure for inbound BODs

Parallel BOD processing outbox - adoption of nowait option

The performance for BOD Processing has improved. If a BOD is locked, no retry is performed, but the next BOD is processed.

To enable this nowait option, set the `PARALLEL_OUTBOX` environment variable: specify `PARALLEL_OUTBOX=<any-value>`. You can only use this functionality if the receiving party supports out of sequence BODs.

Note: Porting set 9.1b.01 or later is required.

Excel integration

Export to Excel performance improvements

You may call the `publish.webpart.message()`, `prcm.notify()`, and `refresh.graph()` functions in the before or after section of the `mark.occur` command. If you do so, these functions are skipped, and no incontext messages are sent, during an export to Excel. In this way, the performance of the export to Excel is improved.

Extensibility

Extending forms with URL fields for widgets

In the Extension Modeler a calculated field can now have a “URL Area” control type. The **URL Area** field shows the result of the call to the URL as set in the “calculate” hook of the field. The width and height of the URL Area are defined in the Extension Modeler. The **URL Area** Field is displayed within a group box. The label of the group box is the label or description that is specified for the field in the Extension Modeler.

Field hooks for session extensions

You can use these field hooks for CDF fields:

- `field.get.zoom.session()`
- `field.get.zoom.return.field()`
- `field.selection.filter()`
- `field.before.zoom()`
- `field.after.zoom()`

You can use these field hooks for print or process sessions:

- `field.when.field.changes()`
- `field.check.input()`

Adding custom indices for table extensions

You can add additional indices to the table extension. In the Extension Modeler, you can define these indices and select table fields or customer defined fields for these custom indices. The sequence number of these custom indices starts with 99 and is numbered down for the next custom indices.

Note: Porting set 9.1b.01 or later is required.

Support for array fields

You can define Customer Defined Fields as Array Fields with multiple elements. All array elements of Customer Defined Array Fields are automatically added when you run an overview or details session. Each element of a Customer Defined Array Field is added with the description or label of the Customer Defined Field.

Note: Porting set 9.1b.01 or later is required.

Support for text fields

You can create Customer Defined Fields of type Text. All Customer Defined text fields are automatically added when you run a session.

In overview sessions, these fields are displayed in the menu.

In details sessions, these fields are displayed in the menu. They are also displayed as a multi-line edit box.

Gantt charts

Slack and markers

You can use the `plcm.set.slack.for.activity()` and `plcm.add.activity.marker()` functions for these purposes:

- To set the slack for an activity.
- To set one or more markers for an activity, such as pin, star, bookmark, or clock.

See the *Infor ES Programmer's Guide*. These functions are only supported in LN UI Xi.

Note: LN UI Xi 12.0.3 or later is required.

Table Sharing Modeler

Automatically applying default table sharing during Feature Pack upgrades

If you upgrade companies to another package combination in which new tables have been introduced, the table sharing is upgraded as follows:

- The setup in the Table Sharing Modeler is made consistent with the actual table sharing.
- New tables with a mandatory reference to shared tables are shared in the same way as the existing tables.
- The table sharing runtime is recreated.

This applies to both cloud and on-premises environments.

User Interface

Time / duration field

A new field type for “Time/Duration” is introduced. If the Appearance “Duration” is selected in the form definition of LN Studio, the field is displayed as duration field with days/hours/minutes/sec.

Seconds are optional. To enable seconds, set the display format of the duration field. In the database, the field value is stored in seconds.

Note: LN UI Xi 12.0.3 or later is required.

Alert icon filtering

You can define conditional formatting conditions with row icons on an overview session.

If you do so, a filter possibility on the row icons is displayed in the header of the grid of the overview session.

If you select an icon in the alert filter control, only those records are displayed which satisfy the conditions of the selected row (alert) icon.

The row alert filter control shows all icons for which conditions have been defined for the session, regardless of the records available.

The alert icon is displayed for each row that meets the conditions of a row (alert) icon.

An alert icon is added to the filter possibility if all conditions can be translated into a valid SQL query.

If a current filter is based on a row (alert) icon filter, you cannot save the filter.

Note: LN UI Xi 12.0.3 or later is required.

User management

Remote user data protocol selection

The Remote User Data (ttaad2501m000) session now contains fields to specify the login protocol and port number.

Protocol options:

- **Default**
  Protocol is determined by the porting set.
- **BaanLogin**
- **Rexec**
  Not recommended, less secure; fixed port number 512

Functions and features

Bdbreconfig analysis report

Index changes are now reported more accurately.

Note: Porting set 9.1b.01 or later is required.

Bdbreconfig performance enhancement

Bdbreconfig on SQL Server now extends VARCHAR columns without dropping indices that contain the column.

Note: Porting set 9.1b.01 or later is required.

Function tt.user.data() to support IFS User Information

The tt.user.data() function returns information for the UD_SECURITY_USER property. The information that is returned depends on the IFS information that is stored, for a particular user, in the User Data (ttaad200) table:

- If available, **IFS USER ID** (`ttaad200.ifsi`) is returned.
- If `ttaad200.ifsi` is not filled, **Identity (UUID)** (`ttaad200.zd_idnt`) is returned.
- If `ttaad200.zd_idnt` is not filled, **SSO User** (`ttaad200.zb_ssou`) is returned.
- If `ttaad200.zb_ssou` is not filled, **User** (`ttaad200.user`) is returned.

Support for custom indices in General Table Maintenance (ttaad4100/ttaad4500)

Custom indices from extensions are supported now.

Support for unzip in file manager

The file manager has a new option to decompress zip files. File extensions, of extracted files, that are not allowed in a cloud configuration are replaced with other extensions.

Enterprise Server 10.5.1

2

This chapter describes the differences between Enterprise Server 10.5.1 and Enterprise Server 10.5, and the new functionality in Enterprise Server 10.5.1.

This table shows the Infor Xtreme KBs for Enterprise Server 10.5.1:

Package	KB
TT	1864452
TL	1860730

This table shows the Infor Xtreme KBs of the related components for Enterprise Server 10.5.1:

Component	Generic KB
Porting set	22923520
LN UI (UX)	1460896
LN UI (Xi)	1834377
LN Studio	1561993
Infor ES Connector for Web Services	22881149
Infor Cloud Printing	1629931

Business Flow Test Framework (bflow)

Add fields to test set

Three fields are added to test set data:

- **Company Set**
- **Test Set Type**
- **Test Set Owner**

Test set scheduling

A test set can now be part of a group. Within a group a test set gets a sequence number. When the group is executed the test sets are executed according to this sequence number. In the Bflow parameters an extra field is added to limit the number of concurrent test sets.

Business Interface Implementations - BOD/BDE

Support multi-language BODs – MLE fields

You can mark an attribute as a translatable field by adding the 'languageID' qualifier in the Business Interface Definition. If an attribute is marked as a translatable field, the field is processed as a multi-language field on multi-language environments. This works for both outbound and inbound BODs, reading and updating all translations for the field. In the UserArea, MLE fields are not yet supported.

Note: LN Studio 10.5.1 or later is required.

BDE for LN web services

A new BDE 'WebService' has been created with the 'Show' method that shows all parameters for the Show method for a BDE.

Default printer handling LN UI

In contrary to the Java-based Web UI, print sessions in LN UI do not show the locally installed printers on the **Device** tab. Therefore, users can also not select their default client printers. HTML5 security prevents direct access to client-side printers. With default printer handling LN UI administrators can now perform these actions:

- Register client printers within Tools through the new Client Printers (ttaad3109m000) session.
- Link a default client printer to each user by the User Settings (ttaad2105m000) session.

A new device of type Windows Server Printer must be created that serves as a placeholder for all the registered client printers within LN. This placeholder device is identified by the `$default_printer_queue` device queue.

At runtime within the select device dialog box an end user selects the Windows Server Printer placeholder device. This device, if present, is filled with the default client printer as linked to the user. If no default is defined or a change is required, end users can set the new default. End users can also select a different client printer from the registered list or even specify a printer that is not already registered.

To offer an ever more direct access to a user's default client printer, the standard **Device** tab is extended with the **Default Printer** option. If selected and a default client printer is linked to the user, the output is directly sent to this printer.

Enhanced Authorization Management System (AMS)

With Enhanced AMS a new set of sessions is introduced, which improves these processes:

- Defining roles
- Modeling of session and database authorizations
- Assigning roles to users

You must activate Enhanced AMS in the AMS Parameters (ttams0100m000) session. Activating Enhanced AMS migrates all existing AMS Role Data with all authorizations to the new Enhanced AMS tables. When activated, the Authorization Management System menu shows the new Enhanced AMS sessions.

With Enhanced AMS also exporting DEM Roles to AMS is supported. If this option is enabled in the AMS Parameters (ttams0100m000) session, you can generate AMS Roles based on modeled DEM Authorizations. To generate the AMS roles, use the new tgbrg9298m100 DEM session. You can then use AMS to further fine-tune authorizations and role assignments. At runtime DEM and AMS work together.

For further details about the usage and configuration, see the Administration Guide.

Excel integration

Import full table in type 3 sessions

Import from Excel has a new option: **Import only in this View**. If this option is cleared, you can import records into other views.

Option to create separate columns for date and time

For export to Excel an option to use “Separate Date and Time Fields” is added. If this option is selected, each UTC Date/Time field is split into separate Date and Time columns in the Excel sheet.

Extensibility

Customer defined field domain enhancements

For customer defined fields the domain setup has been extended. For each field you can now either use an existing domain, or specify the number of digits and the display format.

Commands in session extension

The session extension functionality supports extensions on commands. Standard commands have new hooks that are called before or after the command, to turn the command off or to conditionally disable the command. For existing form commands, the same hooks are available and the description can be changed. New form commands can be added to a session. These commands have the same set of hooks, and most properties, that are normally available for form commands; for example, Command Type, Command Availability, and the Shortcut Key.

Menu extension

The menu extension functionality supports extensions on menus. Menu extensions are used to hide standard menu items, change descriptions, and add menu items.

Extension hooks for standard fields

The table extension now supports hooks for standard fields. You can define these hooks in the table extension:

- Is Derived
- Is Mandatory
- Is Read-only
- Make Valid
- Is Valid
- Update

The result of these hooks is combined with the result of the standard hooks. You can only make validation stricter.

Note: Porting set 9.1b or later is required.

Introduce 3GL wrappers for untrusted bshell functions

The functions with an optional number of parameters are now also supported.

Deliver extensions

Extensions can be delivered to other environments with Product Maintenance and Control (PMC).

Debug Workbench

A new session, Debug Workbench (ttidedebugger), is available to debug 4GL scripts without using LN Studio. This debug workbench is started from the Debug and Profile 4GL (ttadv1123m000) session.

Note: LN UI 12.0.2 or later is required.

Graph Configurations

Supporting multiple versions

To support multiple versions for in-session graphs, graph configurations are stored and retrieved by package combination. In other words: each package combination has a separate set of graph configurations.

Note: LN application 10.5.1 or later is required.

Upgrading to a new FP

To support upgrading to a new Feature Pack (FP), graph configurations can be exported. To perform this export, run the **Export to Additional File** form command in the Personalize Graphs on Sessions (ttadv9130m100) session. This command exports all graph configurations of the current package combination to the `tcgenstandardgraphs.DEA` additional file.

To import the graph configurations that are stored in the `tcgenstandardgraphs.DEA` additional file, use the standard import tool for configuration data: Import Configuration Data (ttaad7202m000).

Note: LN application 10.5.1 or later is required.

Object Configuration Management/Workflow improvements

Support Filtering/Conditional Formatting on Workflow Status Field

A user can define an easy filter, advanced filter, and a conditional formatting rule on the Workflow Status Field. In a filter or a rule you can use only one of these values:

- A standard value, that is, Draft, Draft (Revision), Pending, Recall Requested, Rejected, Approval Received, Approved, Not Started, Not Applicable
- An entry that is defined on the **Workflow Information Fields** tab in the Object Types (ttocm0102m000) session

Changing table sharing when objects are checked out

In previous versions, the table sharing setup is blocked if it involves a company that contains checked-out objects.

Now, the table sharing setup is only blocked if there are conflicting checked-out objects. That is, the setup involves tables that are shared differently between runtime and development time table sharing. The development time table sharing is based on the content of the ttaad420 table.

For new tables and new companies there are no conflicts for checked-out objects.

Exporting and importing models

To support easy transfer of Object Configuration Management (OCM) models from one environment to another, the Models (ttocm0101m000) session is extended with two new features:

- Export Model to XML
- Import Model from XML

Through these features you can export an OCM model to an XML file, and import such an XML file at another environment.

Comparing models

To find the differences between two models, such as a customized model and the standard model, the Models (ttocm0101m000) session is extended. The session now contains the Compare Models feature, that you can use to compare two OCM models. You can specify object types and root tables of the models to compare.

Finally, you can choose to only print the differences instead of the complete outcome.

Linking multiple package combinations to an OCM deployment

You can now have multiple ‘OCM-enabled’ package combinations that use the same company or set of companies. To support this, you can link package combinations to an OCM deployment. If you link a package combination to an OCM deployment, the linked package combination adopts the OCM configuration of the deployment’s package combination.

You can only link a package combination to a deployment if, and only if, these conditions are met:

- The package combination's runtime data dictionary is the same as the runtime data dictionary of the deployment’s package combination.
- The package combination's set of packages is the same as the set of packages of the deployment’s package combination.
- The package combination has no companies attached to it.
- The package combination is not the deployment’s package combination.

Allowed actions in case of checked-out objects

These actions are allowed now in case of checked-out objects:

- Change table sharing
- Add companies
- Add Customer Defined Fields (CDF)

Table Sharing Modeler

Taking multi company table references into account

In the table references, no hard table reference is created for a table field if it has a reference company field defined.

User Interface

Zoom option after drop-down listbox

If this has been defined in the Dynamic Form Editor, the zoom option is displayed for fields with these Appearance settings:

- **Drop-down List box**
- **Drop-down Combo-box**

In previous versions the zoom option was ignored for these types of fields.

Note: LN application 10.5 or later is required.

Company coloring

In the Companies (ttaad1100m000) session, you can specify the colors to use for different companies. These colors are also displayed in the Change Company (ttdsk2007m000) session.

Note: LN UI 12.0.2 or later is required.

Saving column width for Gantt charts

In LN/Xi UI the width of the columns is saved as a personalization upon closing of the Gantt session. Next time the session starts, the Gantt session shows the columns using the personalized width.

The **Reset Columns** option in the **Views** menu resets the width of the columns to the default width.

Note: LN UI 12.0.2 or later is required.

Setting and clearing the check mark for a command in a Gantt/Schedule menu

A new argument of type boolean, named `checked.command`, is added to the `plcm.add.command()` function. Use this argument to set or clear the check mark in front of a command.

No Selection Column Grid

In the `before.program` section, you can use the new `hide.selection.column()` function to hide the selection column on the session in LN/Xi UI. Use this feature for sessions in which the selection column is of no use, or could be confusing.

The Change Company (ttdsk2007m000) and Select Workflow Deployment URLs (ttaad7141m000) sessions already have this feature implemented.

Note: LN UI 11.3.1 or later is required.

UTC40 mode

Allow the UTC time datatype to store UTC times beyond 2038. The functionality is available, but customers must enable it themselves.

This functionality is released with Enterprise Server 10.5.1, but support is delivered from 10.5 onwards.

Note: Porting set 9.1b or later is required.

On December 9th, Infor Xtreme KB 1824355 will be published and made available for customers. See this KB for last minute release information and information on how to implement the UTC40 mode functionality.

Functions and features

Function disable/enable.extension()

Two new functions have been created: `disable.table.extension()` and `enable.table.extension()`.

These functions are used by developers to block or allow the execution of extension hooks. These functions are exactly the same as the `disable.ue.dll()` and `enable.ue.dll()` functions.

Function copy.image.to.company()

You can use the new `copy.image.to.company` function to include images in archived data.

Function is.view.field()

The `is.view.field` function now also supports sessions with a personalized view.

Function change.satellite.label()

You can use the new `change.satellite.label` function to change the text that is displayed on the tab of a satellite session. You can use this function, for example, when the same session is used in a different context.

Function set.dynamic.synchronized.dialog()

You can use the new `set.dynamic.synchronized.dialog` function to enable the use of multiple synchronized dialog sessions dependent on the selected record. You can also use the function to synchronize with a session on a child table.

Function db.record.changed()

The `db.record.changed` function has been extended with an optional argument size. With this option, you can check the record buffer without comparing the technical data in the record buffer, such as company and locking.

Function tt.cdf()

The new `tt.cdf` function returns information about a Customer Defined Field. The returned information shows, for example, whether the field is active or the field is only for internal use.

Feature - Logging & Tracing

The naming of path and file are placed in one function.

To configure that the "`.log`" or "`.xml`" extension is added to all logging of the "tt" and "tl" packages, add the `use_log_extension:1` resource to `bse/lib/defaults/all`.

Feature - Show information SQL parse error

Detailed information about the syntax error of the standard query of a session is displayed.

Note: LN application 10.4 or later is required.

Miscellaneous

Selecting devices when process started from ION

When an LN process is started from ION, this process is running in background. When a device must be selected, it uses the default device instead of starting the Select Device session to ask the user for the device.

Propagating client settings

To improve the integration with Infor Ming.le™, the **Use Client Language** field has been added to the User Data (ttaad2500m000) session. The **Use Client Timezone** field has been added to the User Data Template (ttams1110m000) session. If these options are enabled, LN uses the language and timezone as defined for the user in Infor Ming.le, as opposed to those defined in LN.

Note: Porting set 9.1b or later and LN UI 11.3.1 or later are required.

Performance Easy Filtering

The performance of easy filtering has improved.

Performance bdbreconfig

Optimization for dictionary changes that enlarge strings domains. If possible, the action is executed in the database itself without export and import.

Tracing to files on Windows

To improve the tracing to files on Windows, buffering is applied. Therefore, a complete message, all that belongs to the same message, is written to the file at the same time.

Other enhancements

Improved log messages for error 506/512 (ENOTABLE/EDDCORRUPT). More information is stored in the log message. Therefore it is easier to find the problem or problem record. To enable this extra information, you must set the `log_error_506` resource.

When a UI-Less bshell tries to prompt something to the UI, this generates a fatal error and a 3GL stack trace. Therefore, it is easier to find the problem for this issue.

Enterprise Server 10.5

3

This chapter describes the differences between Enterprise Server 10.5 and Enterprise Server 10.4.2, and the new functionality in Enterprise Server 10.5.

Note: For details about functions and hooks mentioned in this chapter, see the *Infor ES Programmer's Guide*.

Business process validation (BFlow)

Business Flow (BFlow) is a business process validation tool for LN. BFlow is intended to verify that end-to-end business logic functions as expected.

LN consists of sessions that implement the business logic. An LN user uses these sessions to perform different steps of a business process.

To replicate these steps in BFlow, the user input must be translated into specific actions that are collected in scripts. These scripts can be executed independently or may be combined to create more complex test scenarios, that is, a hierarchy. This way the steps of the user can be reproduced.

BFlow is intended to implement higher level, more functional, test scenarios from a user's perspective. BFlow impersonates the UI, that is, it replaces the regular UI.

For details, see the LN Studio documentation on BFlow.

Extensibility

This feature can add functionality to a standard product, without conflicts with the standard functionality during normal operations and during upgrades of the standard product.

The Customer Defined Field (CDF) concept has been improved. This reduces the requirement for customizations. Extra fields and field hooks can be added to existing tables, forms, reports, and BODs without conflicts with the standard software. Customer requirements can be solved as extensions to the product, instead of customization of the product.

Extensions - User exits and fields hooks

These hooks are added for user exit scripts:

- `ue.before.save.object`
- `ue.after.save.object`

- `ue.before.destroy.object`
- `ue.after.destroy.object`

Extensions - CDFs from secondary table

Customer Defined Fields defined on a table that is used as secondary table are now treated in the same way as CDFs on the main table. That is, they are input fields that are automatically displayed on overview and detail sessions.

Extensions - Trusted concept in Programmer's Guide

The 4GL functions in the *Infor ES Programmer's Guide* have been classified as either "trusted" or "untrusted". For the untrusted functions, it is documented within the "context" section of the function documentation.

For details about trusted and not trusted objects, see the "Managed Execution" section in the *Infor ES Programmer's Guide*.

Workflow (OCM) - Release blocked objects

In the Checked-out Objects (ttocm9599m000) session, pending objects may become completely blocked, if ION does not return a workflow ID. For this situation the **Approve Recall** form command is introduced. This form command moves pending Workflow objects to the **Recall Requested** status.

Personalization workbench and new forms

A new session, Personalization Workbench (ttstppers), is available to personalize form tabs, field groups, fields, and grid columns in detail sessions and overview sessions. This workbench replaces the existing Personalize Form session.

Note: LN application 10.5 or later is required.

Personalize graphs on session

Graphs can be defined for a session without extensive code changes in the Personalize Graphs on Sessions (ttadv9130m100) session. This session also allows customers to add their own graphs, change existing graphs, and define the default graph to be displayed in the session.

Application developers can use these two functions to optimize the adoption of Graphs on Sessions:

- `is.graph.present()`

  This function checks whether a graph is available for a session. Use this function to determine whether the additional calculations for a graph must be performed.

- `refresh.graph()`

  This function forces a refresh of the graph fields on a session.

The Export Configuration Data (ttaad7201m000) and Import Configuration Data (ttaad7202m000) sessions support the export and import of graph configurations.

Note: LN application 10.5 or later is required.

Translatability of personalizations

The personalized descriptions of toolbar buttons, views, and graphs can be specified in multiple languages. The labels for these descriptions are created in the "Extensions" package (tx).

Conditional formatting improvements

The conditional formatting now supports multiple formats for a single field in one setup. The style options are extended with more alert icons and a round style for background coloring or badges. A preview is offered for the selected style.

Improved column filtering

The behavior of the standard query has been changed to support additional column filtering for:

- Duplicate references of the main table.
- Filtering on Customer Defined Fields using the expression and CDF field info.

Application developers can enable column filtering for application fields using a field query extension. These functions are available: `query.extend.fld.select()`, `query.extend.fld.from()`, and `query.extend.fld.where()`.

Note: LN application 10.4 or later is required.

Download WSDL file

In the Business Objects (ttadv7500m000) session, the option to download a WSDL for a BDE has been added.

Add action buttons to messages

Application developers can use the `add.message.button()` function to add buttons to messages and questions. The buttons can start a session or execute a function to perform corrective actions related to the error message.

The `add.message.button()` function is extended with an authorization group and a related session for proper authorization of the message button.

New function set.initial.enum.array.for.field()

This function is similar to `set.initial.enum.values.for.field()` but accepts an array of values.

New function spool.restore.variables()

This function sets the predefined spool variables to the value they had when the given report or spooler was opened.

New function disable.personalize.view()

Application developers can use the `disable.personalize.view()` function to disable the personalize view option for a session. Use this function for sessions where the view should not be changed or where the personalization of views does not work properly.

Tree View - option to open or collapse a level in the tree

Application developers can add an option to set the opening of a tree to a certain level in a GBF Tree View. For example, if the level has been set to **2** and Open Level is applied, the tree is opened two levels deep. Deeper opened nodes are collapsed.

These functions are available to facilitate this:

- long `gbf.set.view.depth()`
  Sets the current open depth.
- long `gbf.get.view.depth()`
  Gets the current open depth.

Inter-company table references

In the Table Definitions (ttadv4520m000) session, hard references can be defined as inter-company references from a Company Field to other tables.

The fields of the referenced table on the form are read in the company of the Company Field value. Runtime input checks and auto-completion are also performed in that company.

Easy Unicode migration

The Unicode character set is the international standard for multi-language support by providing a unique code for each character, regardless of the language. Single-byte and multibyte character sets, also called locales, support only a small set of languages. Unicode, on the other hand, takes away this limitation and you can have for example English, Russian, and Chinese within one LN environment.

The Unicode character set has been supported for several years now within LN, but for the 10.5 release the implemented migration process has been optimized by making it faster and easier.

For details, see the *Infor Enterprise Server Unicode Migration Guide*.

Conversion UTC maximum date values

The UTC40 Conversion (ttcor0210m000) session is available to convert the old maximum value of date fields to the new maximum date value on UTC40-enabled environments. The conversion is performed for date fields in the User Defaults (ttadv990) and Job Input Variables (ttaad503) tables.

Table row versioning

The runtime DD can now have an attribute `:ROW_VERSIONING:1`, so that row versioning can be enabled per table. To enable row versioning, use the Table Row Versioning Definitions (ttadv4139m000) session.

Use a row version column, named rcd_vers, for a table to optimize delayed locking. This is only supported from LN 10.5 and later.

For details, see these guides:

- *Infor Enterprise Server - Technical Reference Guide for Microsoft SQL Server Database Driver*
- *Infor Enterprise Server - Technical Reference Guide for Oracle Database Driver*
- *Infor Enterprise Server - Technical Reference Guide for DB2 Database Driver*
- *Infor Enterprise Server - Technical Reference Guide for EnterpriseDB Driver*

Enterprise Server 10.4.2

4

This chapter describes the differences between Enterprise Server 10.4.2 and Enterprise Server 10.4.1.1, and the new functionality in Enterprise Server 10.4.2.

This table shows the Infor Xtreme KBs for Enterprise Server 10.4.2:

Package	KB
TT	1670720 1672819
TL	1670725
DA	1672395
NT	1672390
TA	1672370

Cloud Printing Service

The Infor Cloud Printing Service is a Windows service that periodically makes contact to Cloud-based Infor software and retrieves print requests that are waiting to be printed on a local printer. You can now register one or more shared folders in the configuration of the Cloud Printing Service. New LN functions are available to store files as queued items that are published to one of the file shares when the service is running.

For details about the usage and configuration of the Cloud Printing Service, see the *Infor Cloud Printing Service Administration Guide*.

Connector for Web Services

You can now use the thread queuing mechanism of JCA. Use the Add/Modify ERP Server administration page to configure the **Max threads** property for an LN server. This property indicates the maximum number of requests that can be queued, waiting for a physical connection to become available. The default value, 0, means that no queuing is used. A negative value, -1, indicates that there is no limit to the number of requests that can be queued.

This property is typically used in combination with **Max references** set to 0. This prevents multiple requests from being processed concurrently in the same bshell.

Document Output Management

In Document Output Management (DOM) you can now send addendum reports as attachments together with the main report in one distribution. For example, you can print the Project Contract Acknowledgment report together with the Installments as possible addendum. For more information, see the *Infor LN Document Output Management User Guide*.

Supporting more than 20 customer defined fields per table

Customers can now create more than 20 customer defined fields per table.

If there are more than 12 customer defined fields to be displayed on the **Configurable Fields** tab of a details session, these fields are spread over three columns.

Advanced filtering – support OR in condition

In the Filters (ttadv9593m000) session you can now use the OR operator in conditions. The brackets are set automatically by the session. The “Or” search operator has priority in a filter, so you can specify which fields from an enumeration apply.

The OR operator is only allowed if this has been configured in the Tools Parameters (ttaad0100m000) session. Enabling the OR operator may adversely affect the performance. If a filter with an OR operator is applied, it may take more time before the data is displayed on the screen.

Default string filter operator

For Easy Filtering, the default operator for string fields is **Starts With**. This default is configurable now and can be changed to **Contains**.

You can change the default operator in these ways:

- System-wide, in the Tools Parameters (ttaad0100m000) session
- Through session personalization

Inbound out-of-sync Sync BOD messages must be skipped

The order in which ION-mediated BOD messages are received by an application is not necessarily the same as the order in which the sending application published the BODs.

Therefore, for the same BOD document, the latest Variation ID is stored. If a BOD with a lower or equal Variation ID arrives, that BOD is not processed.

Also, a cleanup mechanism has been built, to prevent a large number of rows in the Processed Variation IDs table.

Support copy to clipboard from LN UI

From LN UI version 11.2.4 the copy to clipboard functionality is enabled for grids, like it was in Web UI. Because of browser limitations, you can copy 1000 rows at most. To copy more rows, you can use the Export to Excel functionality instead.

Support for fields of type Color Picker

The color picker is now supported by Tools, and implemented for enum domain formatting and conditional formatting.

For development, a new version of the Dynamic Form Editor (DFE) is required. The minimal required version is 10.4.0.16.

Required changes for Enterprise DB

A new function, rdi.is.application.column, is added in the standard library. Also, changes were made in handling of record buffers to support row versioning required by Enterprise DB.

Multiple views for same index

Multiple views for the same index allow the user to create a customized view on an existing index. The standard indices delivered with the session have a fixed number of view fields.

This option makes it possible to create a new view on an existing index with another number of view fields.

CDF list constants

The constant name defined for a customer defined field related list, as registered in the List Constants (ttadv4593m000) session, is now visible and editable.

Other format for HTML5 workbench deployments

The Workbench Parameters (ttaad7131m000) session now contains a check box to select which separator is used for the workbench deployment. By default, the underscore ("_") is selected. If you clear the check box, a hyphen ("-") is used. If you change the separator, you must redeploy all workbenches to actualize the changes.

Support for Windows 10

These client programs can now run on Windows 10:

- Dynamic Form Editor (DFE)
- Office Integration
- DEM modeler for LN 10.3 and earlier versions

Active Users

The Active Users (ttaad2560m000) session is now available. You can use this session to monitor logged in users on one or more nodes or hosts. The session shows the contents of the Active Users (ttaad260) table and refreshes every five seconds. This table is updated regularly based on information stored, by the porting set, in the `$BSE/proc` directory. For each active user, the session shows this information:

- Login time
- User id

- Bhell PID
- User Name
- SSO User
- User Type (Super user or Normal user)
- Status

Printing bar codes in PDF documents

In LN UI most of the printing, including preview, is done using a PDF format. You can now also print bar codes in a PDF document. To work with bar codes, these components are required:

- Porting set 9.0c.01 or later
- LN UI 11.2.4 or later

Note: The field for creating the bar code in customizations must be at least 32 bytes longer than the data that is printed. This length is required to store the extra data that is required for the coding of the bar code.

Enterprise Server 10.4.1.1

5

This chapter describes the differences between Enterprise Server 10.4.1.1 and Enterprise Server 10.4.1, and the new functionality in Enterprise Server 10.4.1.1.

This table shows the Infor Xtreme KBs for Enterprise Server 10.4.1.1:

Package	KB
TT	1649636
TL	1649654
DA	1649673
NT	1649741

Document Output Management can add extra attachment before sending the e-mail

Before sending an e-mail through Document Output Management, users can add extra attachments to the e-mail. Users can select different types of files, such as pictures or documents, from their local system and add them to the e-mail.

Logging into Infor Document Management using certificate instead of username and password

In the previous version of Enterprise Server users could connect to Infor Document Management (IDM) using a username and a password. From this version, users can also connect using a client certificate that is generated by Infor ION Grid.

Support of Access Control Lists (ACL) of Infor Document Management (IDM) added to Document Output Management (DOM)

In Document Hub, Access Control Lists (ACL) are imported from IDM. If applicable, an additional attribute called `AccessControlList` is added to the attribute list of the document type. You can use this attribute to set the ACL during document upload.

Include reference counters (bdbpre/bdbpost)

Bdbpre and bdbpost now have a -F option to preserve the values of the reference count columns. If you export a complete data set with the -F option, you can import that set with the -F option. In that

case all reference counters are preserved. You do not have to run a separate time-consuming 'repair reference counters' process.

This new functionality is also available through the new **Include reference counters** option in these sessions:

- Create sequential dump from table (ttaad4226m000)
- Create table from sequential dump (ttaad4227m000)
- Convert/recover tables (ttaad4228m000)

Porting set 9.0 b or later is required.

Alignment of graphs on form

If a field of type **Graph** has been defined in the form definition, groups that are positioned next to each other can be nested two levels deep. In these groups, you can define sub groups. You can position these sub groups next to each other or below each other. By using these alignment features, you can ensure that both, the graph and other parts of the form, are displayed in a neat way.

DFE 10.4.0.15 or later is required.

Menu entries as text

In the Personalize Toolbar (ttadv9220m100) session, you can add form commands as text to the toolbar. In previous versions, you first had to attach an icon to the form command to make the command visible on the toolbar. This is not required anymore. If no icon is attached to the form command, the command is displayed as text in the toolbar.

Indicator check box type

In a session's **Print** menu, the default print session is now indicated by a round indicator. In previous versions, the default print session was indicated by a check mark.

Show company description for logistic or financial company number

In some sessions, the logistic or financial company number is displayed at the bottom of the session window. If you hover the mouse pointer over the financial or logistic company number, the corresponding company description is displayed. In previous versions, only the company number was displayed for logistic and financial companies.

Conditional coloring

With conditional formatting you can define coloring for all fields in a session. Previously, coloring was only possible for table fields. Now, you can define coloring for form fields that are not linked to a table, customer defined fields, and referenced fields.

Dynamic table pointer to prevent compilation errors

In LN Studio, the generated code for BOD and BDE now uses dynamic table pointers instead of static pointers. This prevents compilation errors for versions in which the table does not exist.

Change the visibility and position of satellite tabs

Satellite sessions in MMT sessions can be defined as initially hidden. If a satellite session is initially hidden, it is not displayed as a satellite tab when a user starts the MMT session. In the new Personalize Satellite Tabs session, users can now hide or unhide satellite tabs and change the position of satellite tabs. Users can start this session from the **Personalize** menu in MMT sessions.

Filter menu

Previously, you could access the **Filter** menu of a session only through the Filter icon. Now you can also open the **Filter** menu through the **Views** menu.

Enterprise Server 10.4.1

6

This chapter describes the differences between Enterprise Server 10.4.1 and Enterprise Server 10.4.0.1, and the new functionality in Enterprise Server 10.4.1.

This table shows the Infor Xtreme KBs for Enterprise Server 10.4.1:

Package	KB
TT	1625771
TL	1625816
DA	1625821
TA	1625840
TM	1625846

File Manager workbench

You can use the File Manager (ttfmafileman) workbench to browse and manage files and folders on the file system in the BSE where LN is installed. Among other things, you can upload and download files from and to the client environment.

Basic access to the File Manager can be arranged using regular authorization management through the Tools AMS module.

If you are a super user, you can access all files and folders in the BSE. In the future, the access will be more restricted for certain cloud editions of LN. If you are a normal user, and you are authorized for the File Manager (ttfmafileman) workbench, you can only access a limited number of directories; for details on the directories that are excluded, see the session help.

Coloring of enum domains

In the Enum Domain Formatting (ttgfd4525m000) session, you can configure colors for an enumeration domain. For each constant of the enumeration, you can define a color. In every session where the specific enumeration is shown, the constant for which a color has been defined is displayed in the defined color.

You can use the Export Configuration Data (ttaad7201m000) session to export colors that are configured for enumeration domains. You can use the Import Configuration Data (ttaad7202m000) session to import these colors.

In the Maintain Parameters (ttaad1101m000) session, you can switch the enumeration formatting on or off. If the setting is off, the enumeration formatting (Color and Icon) is not applied.

You can no longer switch off the enumeration formatting of a field through personalization. In previous versions, you could personalize the icon enumeration formatting, so that the constant would be displayed by the description again.

An icon that is configured for a constant of an enumeration domain is now also displayed in a details session. In previous versions, the configured icons were only used if the enumeration field was used in the grid.

Graphs on forms

For development a new version of the DFE is required. The minimal required version is 10.4.0.12. In the DFE, you can set a field of the String data type to be displayed as a URL-Area. In the session, the URL-Area renders the URL that is set in the field.

ODM paperclip removed

The paperclip option has been removed from the toolbar. The paperclip option is replaced by the Attached Files web part.

Initial hidden form commands

An **Initial Hidden** option has been added to the Form Command properties dialog box in LN Studio. If the **Initial Hidden** option is selected, the form command is initially not displayed in the session. At runtime, you can make the form command visible through the **Personalize Session Menus** or **Personalize Toolbar** option. The initially hidden commands are displayed as a menu option in the **Hidden** panel of the Personalize Session Menus dialog box, just like the other hidden menu options.

Keyboard shortcut help page under session help

In LN UI, the **Help** menu in a session contains a command to view the Keyboard Shortcut Help page.

Like in previous versions, you can also view this help page by pressing **?**.

Role-specific start menu

Roles have been expanded with a specific start menu. When you switch between roles, another start menu is loaded.

Customer defined fields can be used in Infor Reporting

Customer defined fields can be sent to Infor Reporting and be selectable as input fields on the report, without requiring a custom 4GL report.

Company specific logo

Company logos used in Infor Reporting were stored as additional file in the ta package. Now a company logo (picture) can be stored per company in the Companies (ttaad1100m000) session.

If the company logo is not stored in the user's company, the company logo from company 0 will be used.

If the company logo is not stored in company 0, the company logo from the ta package will be used.

Document Output Management can show total number of pages on PDF documents

In Document Output Management (DOM), there is a new predefined `show.total.number.of.pages` variable. You can use this variable to show the total number of pages on PDF documents.

Document Output Management supports PDF/A for all destination types

In the previous version you could convert documents to PDF/A before uploading them to an archive, for example Infor Document Management. In this version, this has been extended, and in the Report Rules (ttrpi2520m000) session you can define PDF/A conversion to all destination types.

Document Output Management – font scaling

The FPS variable from the Document Output Management device is not used anymore. You can now use the `font.scaling` variable. See the *Infor LN Document Output Management User Guide*.

Compress/Uncompress option added in Reorganize Tables (ttaad4225m000)

You can now use the Reorganize Tables (ttaad4225m000) session to compress or uncompress data or indices in the underlying databases. You can switch the **Compress** option on or off in the Storage Parameter Optimization (ttdba0132m000) session. After the option is switched on, and a Convert to Runtime is performed in the ttdba0132m000 session, only new tables are created with the chosen compress option. You can use the **Compress/Uncompress Data and Indices** option to alter existing tables. Take care: this takes a substantial amount of time, during which the system must be offline. Therefore you must plan this action carefully. As the first option **Data and Indices** creates the tables and indices anew, the compress status of the tables and indices is also changed. However the processing takes longer.

Enterprise Server 10.4.0.1

7

This chapter describes the differences between Enterprise Server 10.4.0.1 and Enterprise Server 10.4, and the new functionality in Enterprise Server 10.4.0.1.

This table shows the Infor Xtreme KBs for Enterprise Server 10.4.0.1:

Package	KB
TT	1604255
TL	1604264
TA	1604269
DA	1604274
NT	1604277
TM	1604279

Document Output Management (DOM) uses Document Hub

Document Hub is a new component that handles the communication between applications and Document Management Systems (DMS). When distributing a document to an archive, Document Output Management (DOM) uploads documents to a DMS defined in the Document Hub.

The first time DOM is started after installation, DOM tries to migrate all Infor Document Management (IDM) settings to Document Hub. In case of any problems you can restart this migration process by running the Migrate Archive Specifications to Document (ttrpi2216m000) session.

In the DMS implementation within the Document Hub the *dom.document.company* variable is not known. Therefore the distribution process switches to the company of the document first before the actual distribution is started.

For details about Document Hub, see the *Infor LN Document Output Management User Guide*.

Toolbar personalization - link icon to non-standard command

If you unhide a non-standard command, ensure the command has an icon attached. If the command has no icon, you must link one.

See the online help of the Personalize Toolbar session.

Text editor icon in session toolbar

In previous releases, you could start the Text Editor through a menu option. Now you can start the Text Editor through an icon in the session toolbar.

For details, see the *Infor LN UI Infor Ming.le-LN Plug-in User Guide*.

Current page number/total number of pages in PDF reports

In reports in PDF format, the total number of pages can be displayed along with the current page number in the header of each page. The page numbers are displayed in this format: [Current page number]/[Total number of pages]. For example, 1/10, 2/10, 3/10.

For details, see the online help of the Device Data (ttaad3100s000) session.

Workflow - Support multi select for ION Workflow commands

Previously, ION Workflow commands are supported if only one record is selected. Now, you can start all workflow commands if multiple records are selected. If you try to run a workflow command that is not allowed for one of the selected records, an error message is displayed. The command is only executed for the records for which the command is allowed.

Support enum conversion on UserArea of standard BOD

You can customize standard BODs through a customization library. The "addTableField" and "addCdfField" functions are enhanced. If an enum is used in public or protected attributes, these functions now convert the enum "constant name" to the required long value.

This functionality is supported for BODs that are generated with LN Studio or Business Studio, build 0246 or later.

Enable "Edit" on browse overview sessions

From a zoom session you could only view the details. Now you can, if you are authorized, also edit the details.

Menu filter

New fields are added in the Menu Fields (ttadv3561m000) session. Per menu field, you can now specify a library and a function within this library.

If both, the library and the function, exist and the function returns false when called without parameters, the menu field is not displayed in LN UI. In this way you can filter sessions that depend on parameter settings.

For details, see the online help of the Menu Fields (ttadv3561m000) session.

Note: This functionality is also available in the Menu Editor in LN Studio.

Initially hidden sessions and sub menus

In the Menu Fields (ttadv3561m000) session a check box is added to initially hide the menu field. If this check box is selected, the menu field is not displayed in LN UI.

For details, see the online help of the Menu Fields (ttadv3561m000) session.

In LN UI users can make the menu item visible through the **Personalize Menu** command. Administrators can centrally maintain these personalizations through the Overview Menu Personalizations (ttadv9505m000) session. In this session, you can also hide menu fields and change the order of menu fields.

Note: This functionality is also available in the Menu Editor in LN Studio.

Role-based personalizations

Previously you could define and apply personalizations at three levels: user, DEM roles, and company level. Now you can create personalizations at a new level: the Role level. These roles, not to be confused with DEM roles, are designed to function in a non-DEM context.

You can create roles and assign them to users. Role-based personalization is enabled for a user if a default role is specified for this user. A role-enabled user has one current role and can have multiple roles assigned. A user can change his current role to any other role that is assigned to the user.

To support this functionality, these new sessions are available:

- Roles (ttaad1150m000)
- User Roles (ttaad2104m100)
- Change Current Role (ttdsk2009m000)

Import/export personalization

New sessions are available to export and import configuration data. The export and import can be based on a file or an additional file. In this release, the configuration data includes session personalizations, menu personalizations, and conditional formatting.

For details, see the online help of the Export Configurations (ttaad7201m000) and Import Configurations (ttaad7202m000) sessions.

Enterprise Server 10.4 and previous versions

8

This chapter contains release notes for Enterprise Server 10.4 and previous versions.

Enterprise Server release notes

Deployment

Platform support

For details on platform support, see the *Infor Enterprise Server Platform Support Matrix* which is available through Infor Xtreme KB 1183466.

Data compression

Infor LN supports table and index compression on SQL Server, Oracle, and DB2 databases.

Note: A database edition that supports compression is required. Depending on the database vendor, this may be a licensed feature.

This table shows the table compression support per database:

Database	Table compression support
SQL Server	LN supports page compression on tables and indexes in SQL Server. An edition that supports compression is required.
Oracle	LN supports advanced OLTP table compression and basic index compression on Oracle databases. **Caution:** Newly inserted data is compressed in the table, but is not compressed in the index. Therefore, you must manually recompress indexes

Database	Table compression support
	on a regular basis. As of Oracle version 12.1.0.2 and porting set 9.0a.01, advanced index compression is supported.
DB2	LN supports table and index compression on DB2 databases. An edition which contains the Storage Optimization feature pack is required. Ensure you enabled the licenses for the Storage Optimization Package before you start the LN installation. For more information, see "Table compression" on page 48.

For more information about data compression, see *Infor LN Data Compression*.

Parallel table reconfiguration

By parallel execution of tasks, you can improve the performance of the reconfiguration of tables during an update. Every configuration operation on a single table is seen as a task. Parallel execution is intended to speed up the reconfiguration of many tables. The minimum number of parallel processes is 1 (sequential behavior), the default is 4, the maximum is 128. You can control the number of parallel processes through the bdbreconfig_parallel resource. For more information, see *Infor Enterprise Server - Technical Manual*.

MLE shadow table index organization (Oracle only)

To improve performance, the MLE shadow tables are now organized on index1. For more information, see *Infor LN - Performance, Tracing and Tuning Guide for Oracle Server*.

Default database driver properties

To reflect current database behavior, the default database driver properties have been updated.

For the new settings, see the Technical Reference Guide of the appropriate driver.

Multi-domain support

You can now specify the Single Sign On User in LN in the User Principal Format (UPN). For example, `user1@domain1.com`. The SSO user will now be unique over domains.

Integrations

InContext Modeler

You can use a programmable hook in the modeler to determine the relevant drillback session.

Infor LN UI

For details about the HTML5 based LN UI in comparison to Infor ES Web UI, see *Infor LN UI Difference Study*.

Tools

The LN Tools now support Source Code Management (SCM) for 'Additional Files'.

Product Maintenance and Control (PMC)

PMC supports the ability to download solutions via http.

Document Output Management

This feature provides electronic distribution of documents and reports to recipients. Recipients can be any known party in the LN environment such as business partners, employees, or system users.

You can specify preferences by document type, by distribution channel, and by recipient. For example, to distribute invoices you can distribute one copy through e-mail to one business partner and a paper copy to another business partner.

For details about the setup and usage, see the *Infor LN Document Output Management User Guide*.

Infor Staging wizard

The staging wizard may show this message:

```
The wizard requires that you restart your computer.
```

If you click **Next**, your computer is immediately restarted. If you do not want to restart your computer, click **Cancel**.

Installation Wizard

An LN database can be configured to store data and indices in the same tablespace.

The Infor Support Assistant (ISA) tool is bundled.

Connector for Web Services

The connector supports the ability to block anonymous requests.

LN Studio

LN Studio contains these enhancements / changes:

- Source Code Management (SCM) for Additional Files.
- Remote debugging.
- Generate an IEX patch for an activity.

Known issues

Table compression

If you enable table compression during an installation, you must use a database version that enables compression. For DB2, you also must have licensed the compression functionality. If these prerequisites are not met, and the installation is started, the following happens:

- For MSQL and DB2 the LN installation fails, because of incorrect syntax in CREATE_TABLE / CREATE_INDEX commands.
- For Oracle the installer continues with the LN installation but the database tables are not compressed. No message is displayed, although a log message is generated.
- For Oracle the database is out of sync with the database settings in the Storage Parameters Optimization (ttdba0132m000) session. The session has value COMPRESS=1 while the database is not compressed.

Startup menu after installation

After the installation on Unix, the installation user might have the **Tools** menu as startup menu, instead of the Infor LN startup menu (**tccom00000000**). To change this, use the User Data (ttaad2500m000) session.

Messages during ISA installation

These are Infor Support Assistant (ISA) informational installation messages:

```
27: INF: The system is not currently installed (the environment
variables are not set).
63: INFO: Preparing the script file "./temp/package/scripts/notify-
server.sh"...
180: INF: Replacing the file "/opt/ISA/HOME/ServiceFailureCheck-net40.
exe" with the file "./package/scripts/ServiceFailureCheck-net40.exe"...
309: INF: Setting the file "/opt/ISA/HOME/notify-server.sh" to be
executable...
378: /opt/ISA/DATA/config/AgentRegistrationConfiguration.xml (No such
 file or directory)
589: java.lang.Exception: HttpInvocation failed with error Code:401,
and Error Description:<error>authorization required</error>
597: SEVERE: java.lang.Exception: HttpInvocation failed with error
Code:401, and Error Description:<error>authorization required</error>
```

These messages are just informational and do not indicate any failure in the ISA installation process.

SLM Messages

FQHN message
When installing SLM on a virtual machine in demo mode, you can get this message in the event viewer.

```
VM restrictions set on incoming connection from system '::ffff:10.21.47.
76'. IP could not be resolved to a FQHN or the resolved domain is not valid
for this SLM Cluster.
```

The SLM Server is installed on a virtual machine with a server name that does not meet the naming convention of a Fully Qualified Hostname.

Note: The LN environment will not work anymore after the thirty days demo license.

SLM Warning Source(s) not installed

These SLM warnings posted in the `log.oiex1288` file are informational messages only:

```
SLM Warning Source(s) not installed, no license for SLM id 7055
SLM Warning Source(s) not installed, no license for SLM id 7026
SLM Warning Source(s) not installed, no license for SLM id 7135
```

Could not read secu file

You can ignore this message in `log.oiex1288`:

```
SLM Error while reading SLM bic secu file for da 104_0_ta
```

Bdbvalidate error report

In some cases, the bdbvalidate error report can show incorrect column information containing one or more high ASCII character errors. This will be fixed in the next release.

Infor Enterprise Server Technical Notes

Operating system and database

For operating system and database-specific notes, see *Infor Enterprise Server - Technical Notes for generic Porting Set*, solution 22923520 available through http://www.infor.com/inforxtreme.

Infor LN licensing

Use these IDs:

- Infor365 Maintenance Contract: 10365

Register as a Concurrent User with a quantity of 1.The end-date you specify is the end-date of your maintenance contract for Infor LN.

Infor LN:

- Infor LN: 10056.
- Infor LN (2): 7114.
- Infor LN (3): 7115.
- Infor LN (4): 7116.

Infor LN Service:

- Infor LN Service: 10896.
- Infor LN Service (2): 7117.
- Infor Business Data Entity Modeler: 7033.
- Infor Business Data Entity Implementation Generator: 7034.
- Infor Business Data Entity Repository: 7035.

Infor Enterprise Server licensing

Runtime licensing

Infor Enterprise Server 8.4 introduced maintenance licensing. To run Enterprise Server 10.4, add the following product ID to your SLM license manager:

- Infor365 Maintenance Contract: 10365

  Register as a Concurrent User with a quantity of 1.

  The end-date you must fill in is the end-date of your maintenance contract for Infor LN.

The following lists contain the Infor Enterprise Server parts with their own product IDs that require licenses to run:

- Enterprise Server: 10996.

  Additional license:

  - Connector for JDBC: 7046.

    This license is required for the use of homepages.
  - Infor LN Connector for Web Services: 7056, server license
  - Invoking BDEs: 7056, server license

Studio licensing (development)

Check solution 22876519 to get a clear description of the required licensing for the Infor LN Studio parts.

You can find the solution through http://www.infor.com/inforxtreme.

Infor LN 10.4 New Installation Technical Notes

Installing Infor LN 10.4

This section describes points of attention about a new installation of Infor LN 10.4.

For the complete installation procedure, see *Infor LN - Installation Guide*.

Enterprise Server solutions

The Enterprise Server ISO image contains several solutions on top of the Enterprise Server feature pack. These solutions are mandatory and installed automatically, and should not be removed.

For SLM

There are two ways to install Infor Solution License Manager:

- Select this installable unit and the installation wizard will install SLM together with the other selected installable units in one run. The SLM installable unit will install all SLM components on the Infor LN server system. The default values for SLM will be configured. This means a master SLM Server will be started at port number 6005.
- You must use the standalone SLM installer in other situations. Possible situations that require the standalone SLM installer are:
  - Set your own values,
  - Install an SLM server on another system,
  - Only install an SLM client on the Infor LN system as there already is an SLM server present.
  - Install an SLM cluster.

Note that before you can proceed with the Infor LN installation, you must have installed SLM or selected the installable unit of SLM. The installation wizard will run a check on SLM components and will stop the installation if SLM information is not found.

SLM uninstall leaves some files on the system

A full uninstall of the Infor Solution License Manager will leave some files on the system, which must be removed manually. These files will not harm the system, but could cause problems on any following attempt to install the Infor Solution License Manager. All files and directories that remain in the installation directory, which was chosen during install (default `C:\Program Files\SLM\`), can be removed.

Upgrade Notes

Updating to Infor LN 10.4

This section describes points of attention about an upgrade to Infor LN 10.4.

For the complete update procedure, see *Infor LN - Specific Installation Guide - Updates*.

The Enterprise Server ISO image contains several solutions on top of the Enterprise Server feature pack. These solutions are mandatory and installed automatically, and should not be removed.

Post-install step: Customized form fields must have a unique identification assigned

Note: This step is required if your previous version is FP5 or earlier.

To personalize forms, each field on a form must have a unique identification assigned. FP6 comes with all the converted standard forms. Based on the converted standard forms, customized forms must be converted also. For more information, see "UUID Conversion Personalization" on page 54.

Multilanguage data enabling – upgrade from ES 8.4

Replacement of ISO 639-2 standard with 8.4.1 release

The data languages with ES 8.4 were based on the ISO 639-2 standard, which does not support all languages. For example, there is no differentiation between these languages:

- Simplified and Tradition Chinese
- Brazilian European and Brazilian Portuguese
- English Great Britain and English US

Therefore, with the release of Enterprise Server 8.4.1, Infor used another standard as a base for data language definition. Customers who have implemented multilanguage data enabling (mle) based on Enterprise Server 8.4 will take into account a table reconfiguration of multilanguage enabled tables.

NT package part of Enterprise Server AddOn

The nt package was originally part of the Infor LN packages; because its content is more technology oriented, the delivery with Enterprise Server 8.4 is moved to the Enterprise Server AddOn Installable Unit. The version is now nt_7.6_xx.

The package nt_b61_a has become obsolete.

Connector for JDBC and ODBC

Supported platforms

For details on platform support, see the *Infor Enterprise Server Platform Support Matrix* which is available through Infor Xtreme KB 1183466.

UUID Conversion Personalization

This section describes the migration of the session personalization conversion to be executed directly after the installation of LN 10.4. This action is required only if your previous version is FP5 or earlier.

The procedure is applicable for LN UI. This section is for system administrators.

Introduction

In FP5 and lower versions, field personalizations could not be fully exchanged between Worktop and Web UI. This issue is caused by a different storage format of the personalizations between Worktop and Web UI. From FP6 the field personalizations are stored equally.

In FP5 and lower versions, the identification of a personalized field during the personalization process is based on the field name and the sequence number linked to this field. When the definition of the form is changed, the sequence of a field might be changed. When processing the personalization, the field can no longer be found and the personalization is lost. To solve these issues and make a field personalization identifiable, FP6 links a Universally Unique Identifier (UUID) to each form field.

From FP6, in combination with at least the 10.4.0.1 version of the Dynamic Form Editor (DFE), field personalizations will be stored with a UUID.

A conversion is required for the following:

- Dynamic form fields (ttadv308.zb_uuid)
- Field personalizations (ttadv900.zb_uuid)

The FP6 release has been delivered with all the converted forms. Based on the converted standard forms, customized forms must be converted too. In the Compare Package VRC's (ttadv6450m000) session, an **Ignore UUID of form field** option has been added to exclude form changes caused by the UUID conversion.

The next section describes the procedure for the customized forms to be executed. The procedure is applicable only for VRCs with customized components (sessions/forms).

Procedure

Note the following:

- You only have to perform this procedure if you convert from LN FP5 or a lower version to LN 10.4.
- Checked-out sessions are not processed, so ensure that no checked-out sessions are present on the environment to convert.
- After the conversion process, users must update the DFE to at least version 10.4.0.1. The latest version of DFE can be retrieved via solution 22881485 on http://www.infor.com/inforxtreme.

Step 1: Generate UUID for dynamic form fields

1 Start the Generate Form Field UUID (ttcon9201m000) session. This session generates the UUID (ttadv308.zb_uuid) for each dynamic form field of an integrated session which is not expired.

2 Select the package and package VRC for which the UUID form field generation must be executed. An additional (from – to) selection on module and session code is possible.

3 Click **Convert** to start the process.

The following actions are performed during this process:

- If SCM is active, the session is checked out.
- For each processed form field, a UUID (ttadv308.zb_uuid) is added in the following way:
  - **a** Session is not based on standard session (full customization): A new UUID is generated.
  - **b** Session is based on standard session (partly customization): Standard fields: Form field UUID is copied from the highest standard VRC; Custom fields: A new UUID is generated.

Important: In case of multiple custom package VRCs, which are derived from the selected package VRC, all custom VRCs are processed.

- If SCM is active, the session will be checked in. The text “UUID for form fields generated” will be added as revision text.
- Converted form will be dumped/compiled.

Additional options:

- Simulation mode.
- During the process, an error log file will be created. Log file (path) can be selected (default: `$BSE/log.con9201`).

Step 2: Convert Personalizations

1 Start the Convert Personalizations (ttcon9200m000) session. This new session updates the UUID (ttadv900.zb_uuid) for each dynamic form field present as field personalization. This session can be executed multiple times; personalizations that are already updated will be skipped.

2 Select the package combination for which the UUID form field generation must be executed. An additional (from – to) selection on package, module, and session code is possible.

3 Click **Convert** to start the process.

The UUID (ttadv900.zb_uuid) is filled for all personalized form fields.

Important: The conversion program cannot update all the field personalizations. For example, fields which are present multiple times on a form, or personalized fields which are removed from the form, will not be converted. Non-converted personalizations will still be valid. The personalize process for these fields will be the same as before.

Additional options:

- Simulation mode.
- During the process, an error log file will be created. Log file (path) can be selected (default: `$BSE/log.conadv900`).

SLM product IDs

A

For the SLM product IDs for LN and Enterprise Server components, see the user documentation of those components.

Alternatively, to view the actual list of SLM product IDs:

1. Log on to Infor Xtreme.
2. Select **Resources > Request a Software Key > License Key Forms > Infor BAAN /SLM**.
   The Software validation page is displayed.
3. At the bottom of the page, select **Infor License Manager (SLM)** and click **Information**.
   The Infor License Manager (SLM) page is displayed.
4. At the bottom of the page, select **Infor ERP LN** and click **Information**.
   The SLM product IDs for LN and Enterprise Server components are displayed.