

Release Notes: LogicNets Release 8.0

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1.0 Introduction

LogicNets is pleased to announce Release 8.0, which introduces new features for digital healthcare content integration and interoperability as well as standardizing use of predictive AI for guided support applications. It also includes a major internal infrastructure upgrade for the LogicNets platform, significantly enhancing performance and security. We have made changes across many areas, as highlighted in the image below.

General Platform	Installation & Configuration	Content Modeling	FHIR	Other
Lua upgrade	Event log offloading	New rule operators	FHIR Questionnaire support	Enhancements
3 rd party library updates	AccessManagement: Show unavailable packages	Parts menu restructuring	FHIR Report Export (BETA)	Bugfixes
Security improvements (OpenSSL 3.0)		(Healthcare) Informatics support		
Soc II compliant		Enhanced list editors		
Ubuntu support		Enhanced Change Tracking		
Updated session pinning		New Parts		
Standard Reporting				

For information about LogicNets changes related to v7.4 of our system, please look at the release notes for that version, which are available here: [v7.4 Release Notes](#).

2.0 New Functionality

This section highlights the new features included in Release 8.0, which include performance and security improvements thanks to upgrades of the underlying software infrastructure. Note that some of the new or updated features may require you to acquire additional licenses or to make changes to existing applications. We have identified these possible required actions in orange boxes in this document.

Warning

Projects modeled with Release 8 can be imported into older releases. However, backwards compatibility is not guaranteed when these projects use new functionality.

2.1 General Platform

2.1.1 Lua Upgrade

Support Articles	Server-side Script Project-level Validation and Error Messages Custom Parts, Workers, Scripts, and Libraries
-------------------------	--

The LogicNets runtime is implemented in large part using the Lua scripting language (<https://www.lua.org/>), which is a lightweight and high-performance programming language with a very small footprint. In this release, LogicNets has upgraded our runtime engine from Lua 4.0 to Lua 5.4. This upgrade to Lua 5.x is in preparation for planned future enhancements, such as performance improvements and integrating new third-party libraries. This updated version of Lua also allows for better support and improved examples, which enables faster development and learning.

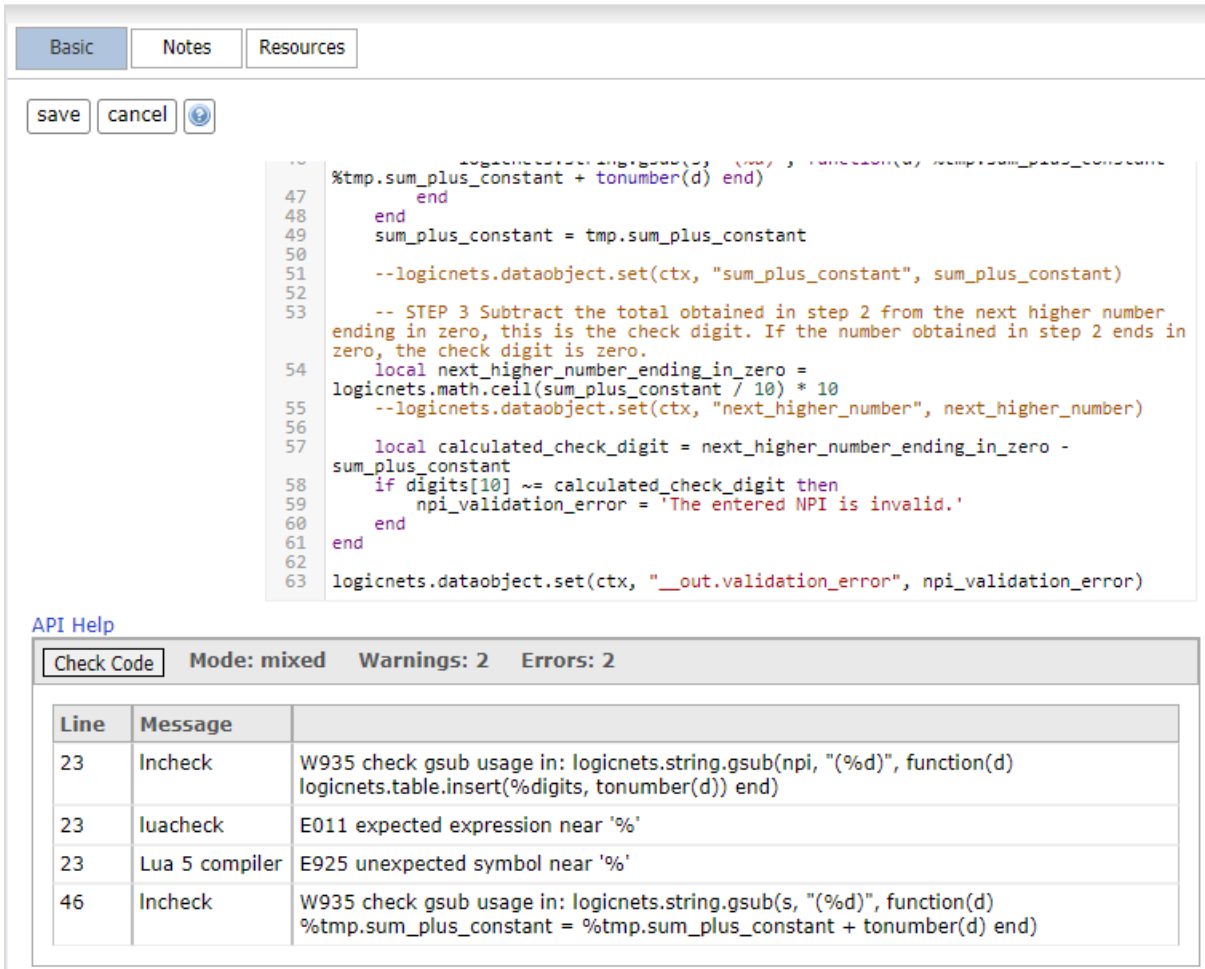
There are differences between Lua 4.x and Lua 5.x that make it impossible to exchange all Lua code between Lua 4 and Lua 5, so we have rewritten part of the LogicNets runtime. In addition to our runtime, customers also use Lua in custom scripts, custom parts, and custom libraries. This means that you need to check custom code and potentially upgrade it for Lua 5.x compatibility. In v7.4.6, LogicNets made available code-check tools that make it possible for you to check compatibility before upgrading to Release 8.0.

LogicNets has a process node part that allows you to create server-side scripts in Lua ([Server-side Script](#)) and, as part of this release, LogicNets has added a code-check function to the script part. This allows you to check for errors in your Lua code.

There are four different types of checks:

- Lua Check: This performs standard Lua syntax checks.
- LogicNets Check: This performs LogicNets-enhanced Lua checks.
- Lua 5 Compiler: This checks for Lua 5 compatibility errors.
- Lua 4 Compiler: This checks for Lua 4 compatibility errors.

The code checker helps you to spot errors in your scripts, but it can also help you prepare for future migration to the version of Lua 5 that comes with the next release of the LogicNets platform.



The screenshot shows a code editor window with a Lua script and a 'Check Code' panel below it. The script contains several lines of Lua code, including comments and function calls. The 'Check Code' panel shows the following errors:

Line	Message
23	Incheck W935 check gsub usage in: logicnets.string.gsub(npi, "(%d)", function(d) logicnets.table.insert(%digits, tonumber(d)) end)
23	luacheck E011 expected expression near '%'
23	Lua 5 compiler E925 unexpected symbol near '%'
46	Incheck W935 check gsub usage in: logicnets.string.gsub(s, "(%d)", function(d) %tmp.sum_plus_constant = %tmp.sum_plus_constant + tonumber(d) end)

Image 1: Check Code

For Loop Differences

Lua 5 has a subtle difference in how it uses loops, and you are no longer allowed to write “for x in y”. You must either use “for x in ipairs(y)” or “for x in pairs(y)”. You would generally use **ipairs** on arrays and **pairs** on everything that is a collection. You can also still use “getn” without changes, however.

Validation Tool

With Release 8, LogicNets has added a new error code to the validation tool: Code 500001. The system triggers this validation error when a server-side script part or a custom part built with Lua has an error or warning. By selecting this validation error, you can go to the respective part and execute the check code functionality.

IMPORTANT: ACTION REQUIRED

Run the project validation tool (see [Project-level Validation and Error Messages](#)) for all your projects. This tool will detect server-side scripts that are not Lua 5.x compatible.

IMPORTANT: ACTION REQUIRED

Run the code check in the Custom File Manager (see [Custom Parts, Workers, Scripts, and Libraries](#)) if you use custom parts and scripts.

2.1.2 Ubuntu Support

Support Articles	LogicNets Installation: System Requirements & Prerequisites
-------------------------	---

With Release 8, LogicNets will stop supporting CentOS, as the CentOS Community stopped support and further development of CentOS. As a replacement, LogicNets enhanced Release 8 to support the Ubuntu version of Linux. Customers who would like to use the Ubuntu installation package will need to acquire a license for Linux support.

Note that the LogicNets Linux runtime supports fewer features than the current LogicNets Windows runtime. The following features are not available on Linux:

- Designer
- PDF Generation
- MLS
- LDAP

2.1.3 Security Improvements: OpenSSL 3.0

The LogicNets runtime used OpenSSL for securing all outgoing web-API calls, hashing, cryptographic randomization, and (de-)encryption of data. In this release we upgraded the OpenSSL to version 3.0.x, which is the current long-time-maintenance release of OpenSSL (see also <https://www.openssl.org/policies/releasestrat.html>).

2.1.4 Security Improvements: Password Hashing Updated to SHA-256

Support Articles	LogicNets Access Security
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To meet the latest security standards, the system will use the PBKDF2 HMAC SHA256 algorithm to hash all passwords for local user accounts. The system will rehash existing passwords. This means that once you upgrade to v8.0, you will not be able to downgrade to an older release.

IMPORTANT: ACTION REQUIRED

For on-premise hosted customers: Make a backup of your user database to ensure a downgrade to Release 7.x is possible.

2.1.5 SOC-II Type 2

Support Articles	LogicNets has completed its 2023 SOC 2 TYPE 2 Audit
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LogicNets developed Release 8 with a SOC-II Type 2-compliant process to ensure the most secure platform. LogicNets customers can request copies of the 2023 SOC 2 Type 2 positive attestation report. Please contact LogicNets' Sales Department at sales@logicnets.com for more information.

2.1.6 Updated Session Pinning

Support Articles	LogicNets Access Security System Configuration Security Settings LogicNets Security Architecture
-------------------------	--

Since the session id is included as part of the URL when you run an application, you can open a LogicNets session in other browsers on the same client or even on other connected machines. This makes it simple to switch browsers or support "look-over-the-shoulder" assistance. However, this is also a security risk, since the URL is always visible to parties that are 'listening' on the internet connection, even when you use https.

To ensure security, LogicNets uses an HTTPS-secured session cookie. This cookie contains the session's unique key, which is different from the session id. Only the client that started the application and the LogicNets server know what this cookie is. There are instances where you would need the system to make an exception to this; for example, when a Safari browser does not store third-party cookies from requests made from within an iFrame when there are no cookies yet from that same domain outside the iFrame.

Release 8 allows you to configure session pinning in your project settings. In the Security section of your projects setting options, there is an entry for "Use session pinning". The options are "Default", which tells the system to leave the session pinning as it is; "Yes", which means session pinning is required; and "No", which means session pinning is not required. This setting function is stackable, which means that when you use multiple frameworks, the system determines the setting by the order of the layering, with the last explicit configuration applying.

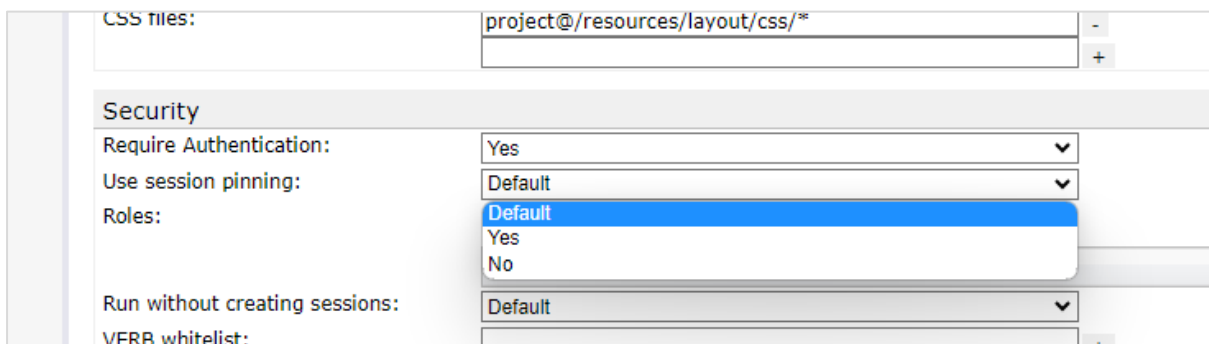


Image 2: Session Pinning Selection

2.1.7 jQuery

Support Article	Custom Layout Template Updates v7.4.
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LogicNets has migrated the system to the latest version of jQuery (jQuery v3.7.0 and jQuery UI v1.13.2), which provides the latest jQuery functionality, security fixes, and performance improvements. This is a small update if you are already using v7.4.6. However, if you migrate from a version before 7.4.6, you will need to perform certain actions noted in the boxes below.

IMPORTANT: ACTION REQUIRED

If you have created custom layout templates for your application, you will need to update the jQuery includes for the latest versions.

When you use standard layout templates in the platform/frameworks your application will automatically switch to the latest version of jQuery.

Also note that older jQuery versions are not shipped with the platform anymore. If there is a specific reason you need to use an older version of jQuery, you will need to manually download that version and add it to your project.

IMPORTANT: ACTION REQUIRED

If you have custom JavaScript code in your application you will need to verify the compatibility of your code with jQuery version 3.6.0.

2.1.8 Standard Reporting

Support Articles	Reporting Framework Overview
-------------------------	--

From this release onwards, customers have access to the standard reporting functionality, which supports both tabular data and charts. Customers must acquire the LN-CHR license for standard charts and the LN-CHA license for custom graph reports. Please contact your sales representative for more information.



Image 3: Reporting

2.1.9 Part Lifecycle Management and Upgrades

Support Article	Part Lifecycle Management
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With Release 8.0, LogicNets has introduced new parts, updated existing parts, removed unnecessary part parameters, and deprecated old parts. With deprecated and internal parts, there may be some actions you need to take.

Deprecated Parts

Deprecating a part means that we are no longer using or supporting it and that it over time it may no longer work in your application. The most important reason for deprecating a part is for security. With security insights constantly evolving, we want to make sure that your applications are as up to date as possible, even if this means you having to change some of the parts you use.

To make updating or replacing parts in your application as smooth a process as possible, we have updated the project validation tool. When you run the project validation tool, the system displays warnings you need to address, and it provides suggestions with how to resolve these warnings. It also has links to support articles that provide additional information.

Internal Parts

Many of the LogicNets tools are also built with logicnets that use the standard public parts as you do in your applications. However, we have developed some very specific parts for our use in the creating the system. Think of these as our own custom parts for our use only. We call them internal parts and, from this release on, the system blocks the execution of these parts outside of the logicnets toolset.

IMPORTANT: ACTION REQUIRED

If your application uses deprecated or internal parts, the system will block their execution. You will need to run the project validation tool and change to the identified alternatives.

For several of the deprecated parts the project validation tool offers you an automatic conversion to the updated part. If no automatic resolution is possible, please see the documentation on our community portal at support.logicnets.com or contact support@logicnets.com for support.

It is possible that you have used internal parts in modeling your applications without being aware of it. By running the project validation tool, you can see if your application is using deprecated or internal parts, and the tool will give you recommendations for converting to alternative parts.

2.2 FHIR

2.2.1 FHIR Questionnaire Export (BETA)

Support Articles	FHIR Support
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Traditionally, you execute modeled content through the LogicNets runtime engine in combination with a use-case framework—for example, the AssessmentFramework—or as part of a web service. With Release 8, you can export modeled content in an [FHIR Questionnaire](#) format, which you can execute outside the LogicNets runtime.

In conjunction with this new runtime option, LogicNets Release 8 also offers an FHIR Questionnaire runtime that runs client-side inside the browser and an FHIR Questionnaire test harness that integrates with the LogicNets Designer. These new features allow you to develop applications that can run entirely independently of the LogicNets environment, either using the embedded LogicNets runtime or using external FHIR Questionnaire renderers, which you can build or acquire. This new functionality also offers a new ExportAPI feature that allows clients to query for and retrieve available questionnaires.

This feature is still under development and only available for limited use, and you must acquire the LN-FQR license to use this feature. Please contact LogicNets Sales at sales@logicnets.com for more information.

2.2.2 FHIR Report Export

Support Articles	FHIR Report Export for the Assessment Framework (BETA)
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In Release 8, LogicNets added to the AssessmentFramework the ability to export the report as a FHIR document. With this FHIR Export Module, LogicNets application results can automatically be generated as FHIR documents that can be exported from the system and executed by the wide range of runtime programs that support the FHIR format. Each answered question is output as a FHIR resource. The resources contain codes when the content modeler enriches the questions and options with healthcare codes and/or UCUM units (see Healthcare Informatics support).

```

{
  "code": {
    "coding": [{
      "code": "130461000146108",
      "display": "Characteristic of complaint",
      "system": "SNOMED"
    }
  ],
  "text": "Klachten"
},
"meta": {
  "profile": ["http://nictiz.nl/fhir/StructureDefinition/nl-core-LaboratoryTestResult"]
},
"resourceType": "Observation",
"status": "preliminary",
"valueCodeableConcept": {
  "coding": [{
    "code": "422910009",
    "display": "Abnormal urogenital discharge",
    "system": "SNOMED CT"
  }
]
},
"valueQuantity": {
  "value": 3
}
}

```

Image 4: FHIR Report Export

2.3 Support Center Framework 2

Support Articles	Support Center Framework
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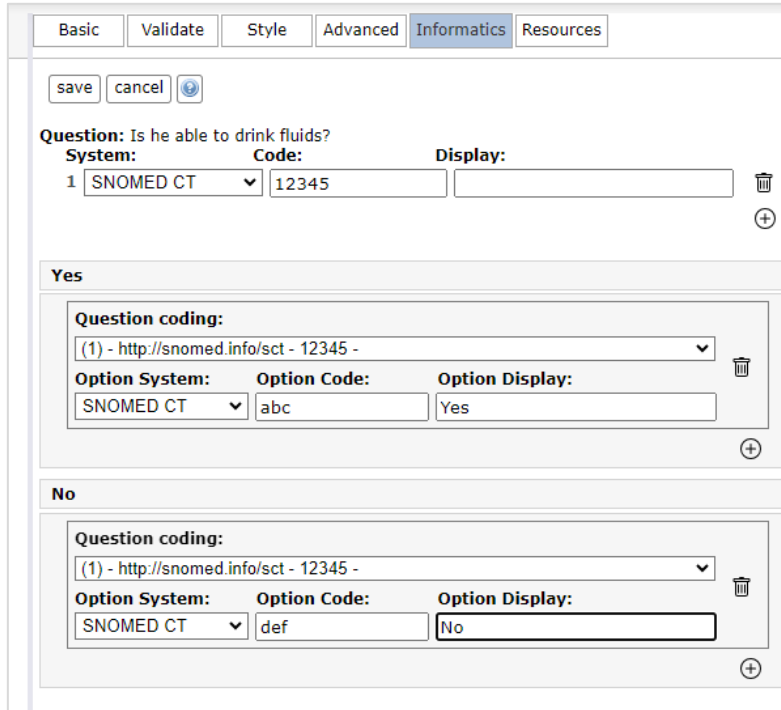
With this release, LogicNets deprecated version 1 of the Support Center Framework and released version 2, which integrates predictive analytics functionality that is operational without special configuration.

2.4 Content Modeling

2.4.1 Healthcare Informatics Support (BETA)

Support Articles	Informatics in Radio, Checklist, Dropdown Form Parts
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In this release, LogicNets has added Healthcare Informatics support to the Designer environment. This allows content modelers to assign Healthcare zero or more codes (e.g. SNOMED and ICD-10) to questions and options. Informatics can be used as key metadata components in matching modeled data and logic concepts to health information, both for data entering the system and the application-generated results, whether displayed on screen, incorporated into documents or included in structured output such as FHIR, XML, CPA, and HL7.



The screenshot shows the 'Informatics' tab in the LogicNets Designer. At the top, there are tabs for 'Basic', 'Validate', 'Style', 'Advanced', 'Informatics', and 'Resources'. Below these are 'save', 'cancel', and a refresh icon. The main area is titled 'Question: Is he able to drink fluids?'. It has three columns: 'System', 'Code', and 'Display'. The first row shows '1' in the 'System' column, 'SNOMED CT' in a dropdown, '12345' in the 'Code' field, and an empty 'Display' field. Below this are two sections for options: 'Yes' and 'No'. Each section has a 'Question coding' dropdown with '(1) - http://snomed.info/sct - 12345 -', an 'Option System' dropdown with 'SNOMED CT', an 'Option Code' field, and an 'Option Display' field. For the 'Yes' option, the code is 'abc' and the display is 'Yes'. For the 'No' option, the code is 'def' and the display is 'No'. Each section has a trash icon and a plus icon.

Image 5: Healthcare Informatics Selection

The system stores the codes assigned to questions and options, and it puts in the data log the unit assigned to number inputs. You can export this data with the chosen option and/or entered value. This functionality is very useful in combination with the “FHIR Report Export” feature.

Customers must purchase an LN-INF license to use this option. Please contact LogicNets Sales at sales@logicnets.com for more information.

2.4.2 New Rule Operators

Support Articles	Rule Node
-------------------------	---------------------------

With Release 8, the rule node now supports two new operators: **IS NULL** and **IS NOT NULL**. These allow the system to check whether a data object is empty (IS NULL) or not (IS NOT NULL). Previously, modelers used the **not equals** (not equals) operator for a similar purpose. However, when rules need to be converted to other expression languages, such as [FHIRPath](#), these new operators are required to allow the system to check for nil or null (empty) values.

2.4.3 Parts Menu Restructuring

Support Articles	Process Node Parts
-------------------------	------------------------------------

Release 8 restructures and adds to the part selection menus available in process nodes, including adding an *App Dev* menu and a *Users* menu. These new menus contain parts that are more useful for

people modeling applications rather than modeling content. You may notice that there are fewer items in the *Misc* menu, because we moved some of those options into the new menus.

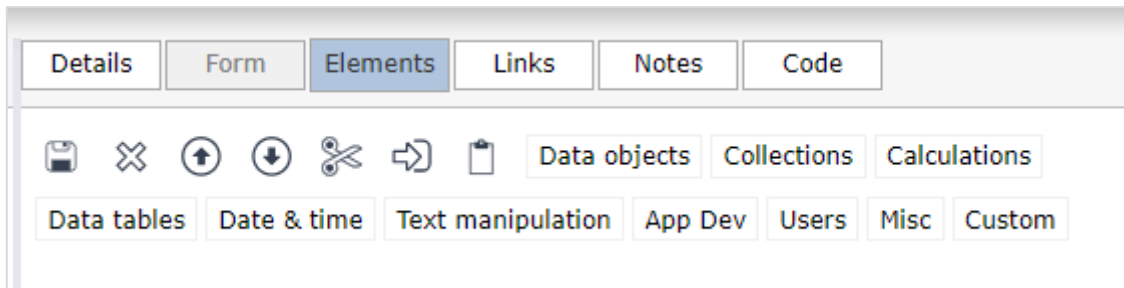


Image 6: Restructured Parts Menu

2.4.4 Configuring Units of Measure (UCUM Support)

Support Articles

[Unified Code for Units of Measure \(UCUM\)](#)

In this release, LogicNets has added support for configuring units of measure. The Unified Code for Units of Measure (UCUM) is a code system intended to include all units of measures being used in international science, engineering, and business. LogicNets now supports identified units of measure (e.g. mm, km, liters) in a number-input and set-value part.

The system can display the configured measuring unit next to the number input in the UI and it stores the unit in the data log. You can configure the list and export both the unit and the value. Note: The system will display the units but will not calculate them in this release.

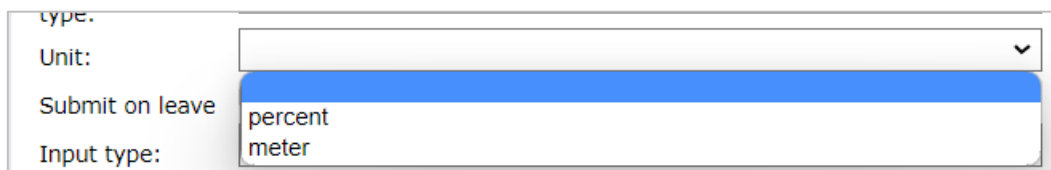


Image 7: Measuring Unit Editing

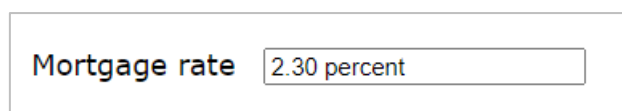


Image 8: Measuring Unit Displaying

2.4.5 Enhanced List Editors

In the Designer, you use list editors to edit the options available in radio, checklist, dropdown parts or to edit columns for database parts. In this release, LogicNets has improved the usability of these editors:

- Use your mouse to drag and drop list items to reorder them.
- Edit options without selecting "rename" or "edit", reducing the number of clicks needed to create or edit a list.
- Save your lists by clicking the Save option at the top of the part instead of at the line and part level, reducing the number of places you need to save.

Value	Caption	Refe...	Spee...
Yes	<input type="checkbox"/> Yes	...	
No	<input type="checkbox"/> No	...	
Unsure	<input type="checkbox"/> Unsure	...	

Image 9: List Editing

2.4.6 Enhanced Change Tracking

Support Articles

[Changelog Information in the Designer](#)

Prior to Release 8, the Designer only displayed changes made in logicnets, and you could view the changes in the **changelog** tab for a particular logicnet or at the project level. In this release, you can view additional changes, including adding, editing, removing, and moving of all kinds of project items. These include stylesheets, JavaScript, tables, documents, and content articles. You can view the changes in the changelog panel at the bottom of the Designer:

Search	Validation	Changelog	Feedback	Import	SQL Workbench	Tasks	Test
projects/FHIR/FhirQuestionnaireTestHarness/resources/layout/css/fhirquestionnairetestharness.css	Layout resource changed	css/fhirquestionnairetestharness.css					06/20/2023 09:18:51
projects/FHIR/FhirQuestionnaireTestHarness/resources/layout/css/fhirquestionnairetestharness.css	Layout resource changed	css/fhirquestionnairetestharness.css					06/20/2023 09:12:29
projects/FHIR/FhirQuestionnaireTestHarness/resources/layout/css/fhirquestionnairetestharness.css	Layout resource changed	css/fhirquestionnairetestharness.css					06/19/2023 10:20:43
projects/FHIR/FhirQuestionnaireTestHarness/resources/layout/css/fhirquestionnairetestharness.css	Layout resource changed	css/fhirquestionnairetestharness.css					06/16/2023 09:33:11
projects/FHIR/FhirQuestionnaireTestHarness/logicnets/main Node#450.1 - export.node_type	Parameter changed	Node#450.1 parameter changed: export.node_type: (none) → \$_settings.export_node_type	81				05/30/2023 11:16:51
projects/FHIR/FhirQuestionnaireTestHarness/logicnets/main Node#60.1 - export.node_type	Parameter changed	Node#60.1 parameter changed: export.node_type: (none) → \$_settings.export_node_type	80				05/30/2023 11:16:37
projects/FHIR/FhirQuestionnaireTestHarness	Project properties changed	project/FhirQuestionnaireTestHarness					05/30/2023 11:16:11
projects/FHIR/FhirQuestionnaireTestHarness/logicnets/main Node#60.1 - export.extensions_in_response	Parameter changed	Node#60.1 parameter changed: export.extensions_in_response: (none) → _settings.response_extensions	79				05/30/2023 09:35:11

Image 10: Changelog Panel

2.5 Installation and Configuration

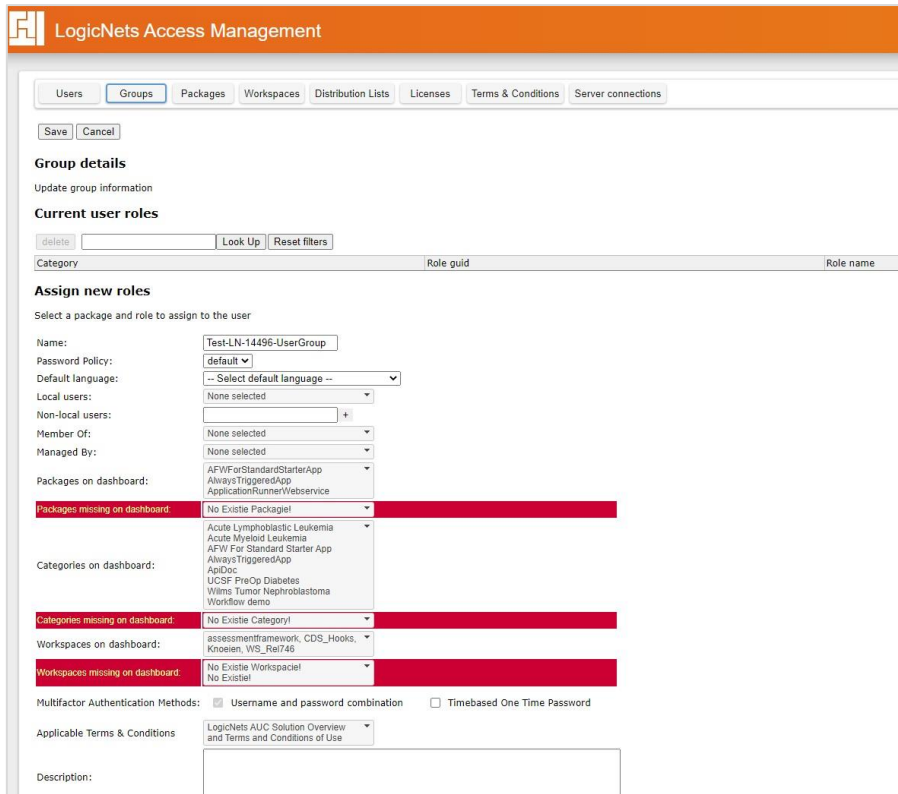
2.5.1 AccessManagement: Show Unavailable Packages

Support Articles

[User Management](#)

With the AccessManagement module it is possible for you to assign packages, categories of packages, and workspaces to user groups. If you have a multi-server/instance setup with a single user database, it is possible that not all servers/instances have the same set of packages and workspaces available.

By default, the AccessManagement module only shows the packages and workspaces available on that instance and removes all assigned packages and workspaces from user groups that are not available when you edit and save user-group properties. With Release 8, the module will show if there are inconsistencies in packages, categories, and/or workspaces configured for a group. You then can decide to either remove or repair these inconsistencies.



LogicNets Access Management

Users | **Groups** | Packages | Workspaces | Distribution Lists | Licenses | Terms & Conditions | Server connections

Save | Cancel

Group details
Update group information

Current user roles
delete | Look Up | Reset filters

Category	Role guid	Role name

Assign new roles
Select a package and role to assign to the user

Name: Test-LN-14456-UserGroup

Password Policy: default

Default language: -- Select default language --

Local users: None selected

Non-local users: +

Member Of: None selected

Managed By: None selected

Packages on dashboard: APFWForStandardStarterApp, AlwaysTriggeredApp, ApplicationRunnerWebservice

Packages missing on dashboard: No Existie Package!

Categories on dashboard: Acute Lymphoblastic Leukemia, Acute Myeloid Leukemia, APW For Standard Starter App, AlwaysTriggeredApp, AplDoc, UCSF PreOp Diabetes, Wilms Tumor Nephroblastoma, Workflow demo

Categories missing on dashboard: No Existie Category!

Workspaces on dashboard: assessmentframework, CDS_Hooks, Knoeien_WS_Rei746

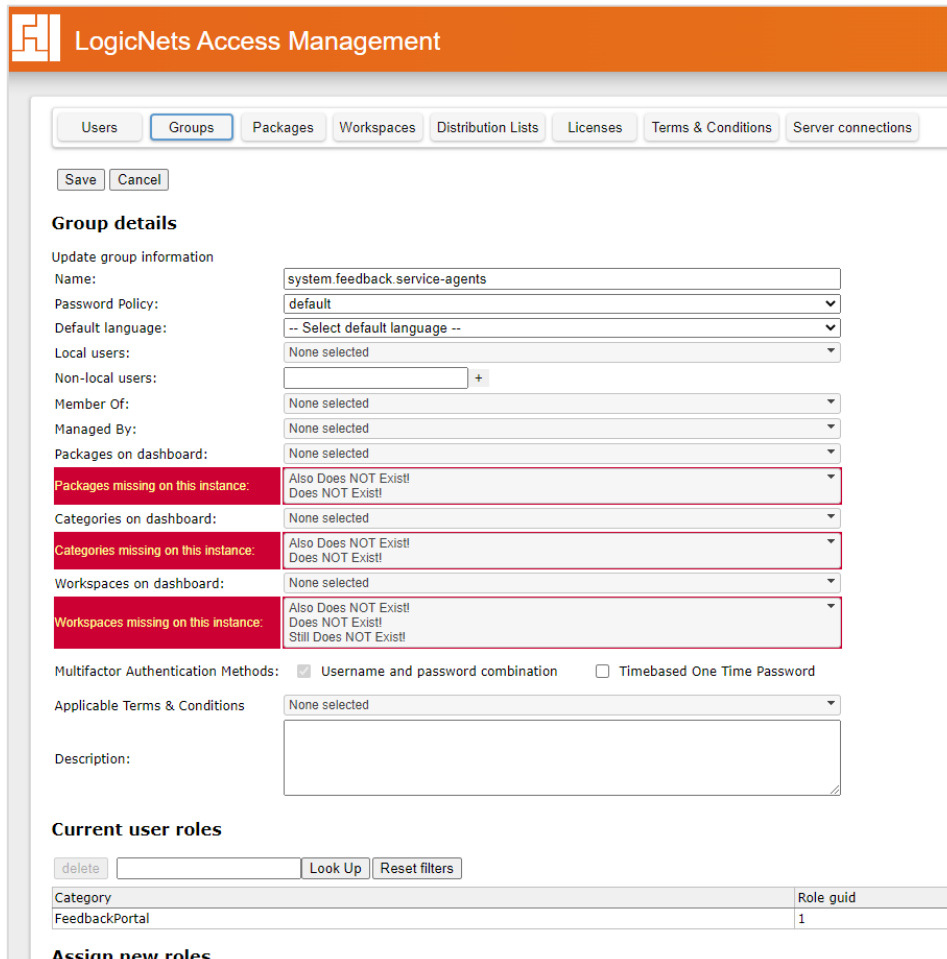
Workspaces missing on dashboard: No Existie Workspace!, No Existie!

Multifactor Authentication Methods: Username and password combination Timebased One Time Password

Applicable Terms & Conditions: LogicNets AUC Solution Overview and Terms and Conditions of Use

Description:

Image 11: User Group Details



LogicNets Access Management

Users | **Groups** | Packages | Workspaces | Distribution Lists | Licenses | Terms & Conditions | Server connections

Save | Cancel

Group details
Update group information

Name: system.feedback.service-agents

Password Policy: default

Default language: -- Select default language --

Local users: None selected

Non-local users: +

Member Of: None selected

Managed By: None selected

Packages on dashboard: None selected

Packages missing on this instance: Also Does NOT Exist!, Does NOT Exist!

Categories on dashboard: None selected

Categories missing on this instance: Also Does NOT Exist!, Does NOT Exist!

Workspaces on dashboard: None selected

Workspaces missing on this instance: Also Does NOT Exist!, Does NOT Exist!, Still Does NOT Exist!

Multifactor Authentication Methods: Username and password combination Timebased One Time Password

Applicable Terms & Conditions: None selected

Description:

Current user roles
delete | Look Up | Reset filters

Category	Role guid
FeedbackPortal	1

Assign new roles

Image 12: Unavailable Packages and Instances

2.5.2 Event Log Offloading

Support Articles	Move changelog Data to Enterprise Database with a Cron Job
-------------------------	--

LogicNets uses the changelog table to store system data that includes user information, session details, package information, actions taken by users, and the dates on which actions happened. For most applications, LogicNets stores the changelog as part of the SQLite data tables that are part of each application.

To provide reporting that combines data from different servers, LogicNets created a cron job that can move the data stored in the changelog from the server SQLite database format to central a MySQL enterprise database. To use this feature, you must purchase an LN-CJM license is required for this option. Please contact LogicNets Sales at sales@logicnets.com for more information.

3.0 All Changes

In addition to the functionality mentioned in other sections, Release 8.0 includes the enhancements and bug fixes detailed below.

3.1.1 General Platform

Functional Area	Update	Issue #
Run-time	Upgrade to Lua 5.4.6	LN-10979
Third-Party Library	Upgrade to OpenSSL 3.0 LTS (3.0.8)	LN-11396
Security	Password hashing updated to SHA-256	LN-13204
Third-Party Library	Upgrade <ul style="list-style-type: none"> • LibXML2 to 2.11.4 • SQLite to 3.42 • UnixODBC to 2.3.11 • XMLSEC1 to 1.3.0 • zlib to 1.2.13 • jQuery to 3.7.0 • jQueryMigrate to 3.4.0 • jQueryUI to 1.13.2 • jQuery.inputmask to 5.0.8 • PrinceXML to 15.1 	LN-14288
Run-time	Allow disable session pinning per project/package	LN-12274
OS	Ubuntu support	LN-14743
Delivery	Move standard reporting into LN-B	LN-15231
Authentication	Fixed: Keep-me-logged-in is not always working in a multi-server setup	LN-15480
Standalone	Standalone.exe is now based on VCRedist iso Borland C	LN-11048
Highcharts	Introduce Highcharts runtime license: LN-CHR	LN-15231
FHIR	LN-FQR: FHIR Questionnaire export and runtime (BETA)	LN-15534
SupportCenterFW	LN-SCF: SupportCenterFramework (V1) is deprecated and SupportCenterFrameworkV2 is available now	LN-15230

3.1.2 Content Modeling

Functional Area	Update	Issue #
Informatics	Healthcare Informatics support	LN-14655
Node editor	Parts menu restructuring	LN-14744
Rule	New rule operators: IS NULL and IS NOT NULL	LN-14007
Change log	Enhanced Change Tracking	LN-2472
Database grid	Forms editor: Insert db_grid3 instead of db_grid	LN-15749
Radio/Checklist	Radio/Checklist: Use value as caption when caption is nil	LN-15725
Dropdown	Dropdown: Support configuring minimum width	LN-14742

Functional Area	Update	Issue #
Part editors	Enhanced list editors: Support drag-drop for re-ordering options and remove additional save action when options are edited	LN-14616

3.1.3 Assessment Framework

Functional Area	Update	Issue #
AssessmentFW	FIX: Endless loop when using a smartgrid in read-only mode	LN-14880
FHIR	FHIR Report Export (BETA)	LN-14655

3.1.4 Part Lifecycle Management and Upgrades

Functional Area	Update	Issue #
Part	Added beta part: get_resources_from_pad	LN-15093
Part	Added beta part: authentication.create_asession_as_query_param	LN-8725
Part	Added beta part: suppress_presenting	LN-12874
Part	Added beta part: purge_ctx_from_log	LN-12875
Part	Added beta part: write_dataview	LN-12876
Part	Added beta part: hidden_input	LN-12883
Part	Added beta parts: user_attributes, usergroup_attributes, and freetextsearch	LN-14053
Part	Added beta parts: authentication.change_user_account, authentication.get_user_details, and authentication_create_new_user	LN-13087
Part	Added beta part: knowledgecenter.topic	LN-13085
Part	Added beta part: get_from_parent_ctx	LN-15458
Part	Added beta part: load_resource	LN-14162
Part	Added beta part: show_tokens_index_questions-1-3	LN-14603
Part	Add public part: get_stats_from_collection	LN-14053
Part	Remove internal part: table_test	LN-14053
Part	Remove internal/deprecated parts: get_folders_in_order-1-0, install_package, permission_roles_matrix-1-2, get_data_details, stopwatch	LN-13301
Part	Remove internal parts: fetch_folder_menu-1-3, hello_techtip, get_error_resources, get_object_data_by_item_kind	LN-14162
Part	Remove internal parts: add_vtype, file_upload-1-1, file_upload2, add_object, add_vfile, get_project_details, save_project_details, get_projects_id	LN-2472

3.1.5 Installation and Configuration

Functional Area	Update	Issue #
Event Log	Event log offloading to MySQL database	LN-12191
AccessManagement	AccessManagement: Show unavailable packages	LN-14496
AccessManagement	Allow modifying server account usernames and public keys	LN-15578