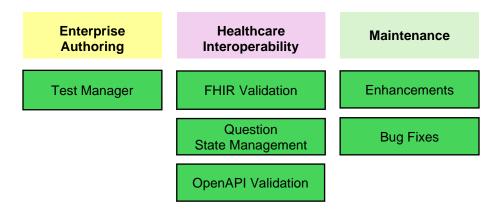


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## 1.0 Introduction

LogicNets is pleased to announce Release 8.2, which introduces functionality and features to streamline enterprise-level application authoring, testing, validation, and deployment as well as digital healthcare content integration and interoperability. This release also includes minor bug fixes for preexisting functionality, and the image below identifies the major areas of change for v8.2, which include the Enterprise Authoring Bundle. This bundle aggregates the LogicNets authoring functionality for supporting large-scale and complex authoring requirements.

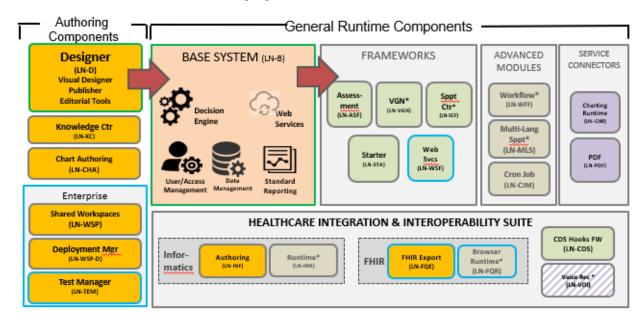


For information about LogicNets changes related to the previous release of our system, see the release notes for that, which are available here: <u>v8.1 Release Notes</u>.



# 2.0 LogicNets Software Components Overview

The diagram below shows the LogicNets platform components, and LogicNets implemented significant new features in v8.2 for the modules highlighted in blue.



# 3.0 New Functionality

This section highlights the new features and functionality included in v8.2. 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 the associated components in each section, and you can read more about LogicNets' product licensing <u>here</u>.

**Warning:** You can import projects you modeled with Release 8+ into older releases. However, LogicNets does not guarantee backward compatibility when these projects use new functionality.

#### 3.1 Test Manager

Support Articles	Test Manager
------------------	--------------

Release 8.2 includes the new LogicNets Test Manager (LN-TEM), which allows you to manage and automate repetitive or large-scale testing activities. The Test Manager is a standalone application that runs on a LogicNets server outside the LogicNets Designer environment. It allows you to create, run, and manage test suites as well as validate against common formats, such as FHIR and OpenAPI.

The Test Manager is integrated with the LogicNets Designer and the FHIR test harnesses of the LogicNets FHIR Questionnaire Export (FQE) and Runtime (FQR) components. You can simulate a variety of requests and responses and add them as new test cases.

Components: LN-TEM, LN-EAB



## 3.2 FHIR and OpenAPI Validation

Support Articles	Webservice Request/Response Validation
	FHIR Validation

V8.2 includes new features for validating the syntax of FHIR and OpenAPI messaging, which allows you to ensure that systems frequently integrated with LogicNets receive valid LogicNets-generated requests.

#### 3.2.1 FHIR Validation

The FHIR Validation feature is accessible as part of the LogicNets Test Manager or using an API. It validates the full range of concepts within the FHIR message, including standard FHIR, LogicNets-introduced FHIR elements, and any custom extensions and profiles.

Components: LN-TEM, LN-FQR

#### 3.2.2 OpenAPI Validation

With Release 8.2, the LogicNets Web Service framework can validate the request and response bodies of inbound web service calls based on the OpenAPI specification, which provide a formal standard for describing HTTP APIs (https://www.openapis.org/). LogicNets integrated this feature into the Test Manager. It is also available through an API, and you can invoke it as a standalone function.

Components: LN-TEM, LN-FQR, LN-WSF

#### 3.3 Question State Management

Support Articles	Question State
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LogicNets added this Designer and runtime feature to support clinical and other applications. It allows you to create questions that can be answered once and then displayed as read-only or skipped completely in future runs of the application. This is useful for applications where you ask a question once and it would not need to be answered again later, either in the same session or in future sessions; for example, FHIR applications that use data from an electronic medical record (EMR) system.

Components: LN-D, LN-B, LN-FQE, LN-FQR

## 4.0 Enhancements and Bug Fixes

#### 4.1 Assessment Framework (LN-ASF)

Functional Area	Summary	Update/Bug Addressed	Issue #
AssessmentFW	Text-to-Speech Support	ASF default question templates get overwritten when calling APIs.	LN-20583
AssessmentFW	Text-to-Speech Support	When triggering an API call, validation does not trigger the update of tabs, top bar, and report.	LN-20637
AssessmentFW	8.2 General Improvements	Update CSS to support Firefox.	LN-19882
AssessmentFW	LogicNets Version 8.2	Update Text-to-Speech Support.	LN-20276

### 4.2 LogicNets Base System (LN-B)

Functional Area	Summary	Update/Bug Addressed	Issue #
Runtime	Implement external	Whitelisted redirect/outbound URL no longer	LN-19753
	data retrieval	case sensitive.	



Functional Area	Summary	Update/Bug Addressed	Issue #
Runtime	Starter application	Introduce refresh_vars (=vars of the last	LN-20181
	for shared state	non-token request, e.g. page refresh).	
Part	8.2 General	Evaluate and switch are using	LN-10873
	Improvements	<i>basic_add_log</i> , but they should use	
		basic_update_log.	
Part	8.2 General	Change Item in a collection does not work	LN-19112
	Improvements	with group name in group field.	
System	8.2 General	Setting	LN-19892
Configuration	Improvements	_session.authentication.account_request_co	
-		<i>nfirmation_to_email</i> is not configurable via	
		system configuration.	
Runtime	8.2 General	Avoid generating duplicate set-cookie	LN-20163
	Improvements	headers.	
Security	8.2 General	Invalid HTTP status (401 vs 403) when	LN-20174
	Improvements	invalid bearer token is provided.	
Runtime	8.2 General	False positive trace statement: "Validation	LN-20262
	Improvements	error triggered in node".	
Runtime	8.2 General	Get Statistics Part - add key count for	LN-20481
	Improvements	complex collections.	
Part	8.2 General	Numbered (type=number) checklist fails	LN-20789
	Improvements	when multiple items are selected.	
Runtime	8.2 General	Smartgrid Titles show inline HTML.	LN-20883
	Improvements		
Security	Shared Workspace	Authorization fails using Microsoft EntraID	LN-20302
	1.1	access token since group information is	
		missing.	
Runtime	Milestone Version 1	High-performance logging API.	LN-19725

# 4.3 LogicNets Designer (LN-D)

Functional Area	Summary	Update/Bug Addressed	Issue #
Designer	8.2 General	Designer grids: Make header row float as	LN-17520
	Improvements	user scrolls down to rows not shown on	
		screen.	
Designer	8.2 General	Designer Radio List Parts Editor - Options	LN-20486
-	Improvements	Table Add Icon Falls off Page.	
Designer	8.2 General	Changelog: Add download functionality.	LN-20924
	Improvements		
Designer	8.2 General	Drag/Drop rows in part editor causes	LN-19600
-	Improvements	highlighted text/confusion.	
Designer	8.2 General	Validation Rule: <i>table_count</i> validation rule	LN-19699
-	Improvements	falsely triggers project validation error.	
Designer	8.2 General	Adding LogicNets resource link does not	LN-19903
-	Improvements	work.	
Designer	8.2 General	Debugger crashing when showing recursive	LN-20026
	Improvements	datasets.	
Designer	8.2 General	Project Validation False Positive: when	LN-20327
-	Improvements	called logicnet exists in framework.	
Designer	8.2 General	Project Disabled: Conditions/Rule not	LN-20411
	Improvements	showing.	
Designer	8.2 General	Format Variable: Add default value text	LN-20483
-	Improvements	(e.g. "not answered") when data source is	
		null.	



Functional Area	Summary	Update/Bug Addressed	Issue #
Designer	8.2 General	Searching for a special character freezes	LN-20592
-	Improvements	the Designer.	
Designer	8.2 General	dbgrid header overflow when scrolling.	LN-20642
-	Improvements	Requires CSS improvements.	
Designer	8.2 General	Designer - Project Details view does not	LN-20651
	Improvements	load when clicking on blue folder.	
Designer	8.2 General	Designer log file is polluted with "cannot	LN-20669
-	Improvements	find part [part=Search,]".	
Designer	8.2 General	Changelog: Show detailed logs when	LN-20829
-	Improvements	logicnet properties (name, title) are	
1	-	updated.	

# 4.4 FHIR Questionnaire Export Module (LN-FQE)

Functional Area	Summary	Update/Bug Addressed	Issue #
Healthcare	PRJ_2331 Project	FHIRQ Step-By-Step Translation ID missing	LN-20640
Integration and	Delivery Services	for mcaptions icw set_calculator.	
Interoperability	and support		
Healthcare	Basic Object run-	Full FHIRQ Export: Export project structure	LN-19746
Integration and	time (FHIR) and	and settings.	
Interoperability	interfaces		
Healthcare	Basic Object run-	Full FHIRQ Export: Use 'document' as type	LN-19813
Integration and	time (FHIR) and	for URL references.	
Interoperability	interfaces		
Healthcare	Basic Object run-	Full FHIRQ Export: Generate extension with	LN-19822
Integration and	time (FHIR) and	option tooltips.	
Interoperability	interfaces		
Healthcare	Basic Object run-	FHIRQuestionnaire: Pass the error and	LN-20722
Integration and	time (FHIR) and	validation count.	
Interoperability	interfaces		
Healthcare	Full Object run-	FHIRQuestionnaireTestHarness: Add	LN-19923
Integration and	time (FHIR) and	browser title configuration option.	
Interoperability	interfaces		
Healthcare	Full Object run-	Full FHIRQ Export: Clear answers and	LN-20641
Integration and	time (FHIR) and	disable nodes in inactive pathways.	
Interoperability	interfaces		
Healthcare	Full Object run-	FHIRQ Full export: Fix missing links when	LN-20770
Integration and	time (FHIR) and	call node is handled before all incoming	
Interoperability	interfaces	links for that call node are handled.	
Healthcare	Integration phase	WSF: Support using WSF as library instead	LN-19810
Integration and	4	of framework.	
Interoperability			
Healthcare	Integration phase	Full FHIRQ Export: Published package	LN-20029
Integration and	4	version does not take over project settings.	
Interoperability			
Healthcare	Integration phase	Full FHIRQ Export: Validation rule custom	LN-20123
Integration and	4	(always) not processed correctly.	
Interoperability			
Healthcare	Milestone Version	Guideline Updates	LN-19726
Integration and	1		
Interoperability			
Healthcare	LogicNets Version	FHIR and OpenAPI Validation	LN-20315
Integration and	8.2		
Interoperability			



4.5	FHIR Questionnaire Runtime Module (LN-FQR)	
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Functional Area	Summary	Update/Bug Addressed	Issue #
Healthcare		FhirQuestionnaire does not work on Ubuntu	LN-20799
Integration and			
Interoperability			
Healthcare	Search	Full FHIRQ Export: Client-side Search	LN-19741
Integration and		functionality.	
Interoperability			
Healthcare	Basic Object run-	FhirQuestionnaireTestHarness/FhirQuestion	LN-19770
Integration and	time (FHIR) and	naireStepByStepTestHarness: Fix showing	
Interoperability	interfaces	browser title correctly.	
Healthcare	Full Object run-	Full FHIRQ Export: Fix losing answer Option	LN-19769
Integration and	time (FHIR) and	extensions.	
Interoperability	interfaces		
Healthcare	Board	Full FHIRQ Export: Use the display value for	LN-20139
Integration and	demonstrator	a QuestionnaireItemSubofExtension to find	
Interoperability	hardening	the correct question options to which to map	
		the sub-items.	
Healthcare	FHIR	FHIRQ: Datetime inputs leads to infinite	LN-19893
Integration and	Questionnaire	loops.	
Interoperability	Support 1.1		
Healthcare	FHIR	FHIR Questionnaire: Calendar input button /	LN-20033
Integration and	Questionnaire	Max Year not working or "hide calendar" not	
Interoperability	Support 1.1	working.	
Healthcare	FHIR	Refactor FhirQSbSTestHarness to use the	LN-20142
Integration and	Questionnaire	FHIRQuestionnaire package iso having a	
Interoperability	Support 1.1	duplicate implementation.	
Healthcare	FHIR	Max Digits Extension is not enforced in the	LN-20263
Integration and	Questionnaire	FHIRQuestionnaire test client.	
Interoperability	Support 1.1		
Healthcare	FHIR	Dateinput FHIR does not turn red when a	LN-20485
Integration and	Questionnaire	validation error is triggered.	
Interoperability	Support 1.1		
Healthcare	LogicNets Version	FHIRQ: Support sections and multiple	LN-19492
Integration and	8.2	UCUM and grouping.	
Interoperability			
Healthcare	LogicNets Version	FHIR Question State Management.	LN-19574
Integration and	8.2		
Interoperability			

# 4.6 LogicNets Multi-Language Support (LN-MLS)

Functional Area	Summary	Update/Bug Addressed	Issue #
Multi-Language	PRJ_2331 Project	Translation keys not deleting.	LN-20670
Support	Delivery Services		
	and Support		
Multi-Language	8.2 General	Multilanguage autocomplete breaks with '('	LN-17255
Support	Improvements	in the text.	
Multi-Language	8.2 General	Downloading translation report escapes	LN-19881
Support	Improvements	HTML.	
Multi-Language	8.2 General	Translation key not appearing.	LN-20032
Support	Improvements		
Multi-Language	8.2 General	MLS Pane: Export does not take over filled	LN-20185
Support	Improvements	in file name.	



Functional Area	Summary	Update/Bug Addressed	Issue #
Multi-Language	8.2 General	MLS: Changelog does not register changes	LN-20330
Support	Improvements	made using ML plugin.	
Multi-Language	8.2 General	Translations download does not handle CR	LN-20584
Support	Improvements	LF in html/comment nodes.	
Multi-Language	8.2 General	MLS: Deleting translation keys deletes	LN-20586
Support	Improvements	captions too, and not keys in output	
		code/logicnet header.	

# 4.7 LogicNets Test Manager (LN-TEM)

Functional Area	Summary	Update/Bug Addressed	Issue #
Test Manager	Test Manager	Test Manager: Move case to DELETE	LN-20768
		caused all projects to move to other folder.	
Test Manager	Test Manager	Test Suite Run Details: Filter not working.	LN-20896
Test Manager	Test Manager	Test Manager: UI issues with large number	LN-20882
		of test cases.	
Test Manager	LogicNets Version 8.2	Test Manager	LN-18705

# 4.8 LogicNets Web Services Framework (LN-WSF)

Functional Area	Summary	Update/Bug Addressed	Issue #
Web Service	PRJ_2331 Project Delivery Services and Support	WSF: Added system logging with application details when API call is handled.	LN-20725
Web Service	8.2 General Improvements	WSF Performance Improvement: Cache endpoints.	LN-20019
Web Service	8.2 General Improvements	WSF: Clear data between multiple requests of a single WSF session.	LN-20177

# 4.9 LogicNets Shared Workspaces (LN-WSP)

Functional Area	Summary	Update/Bug Addressed	Issue #
Shared	Shared Workspace	Revision Control: Race condition/wrong	LN-20417
Workspaces	1.1	Designer state can lead to writable projects	
-		that are not checked out locally.	
Shared	Shared Workspace	Reverted version controlled project is	LN-20424
Workspaces	1.1	published as wrong version.	
Shared	Shared Workspace	Shared workspace functionality in the	LN-20482
Workspaces	1.1	designer does not work when the guest	
		user is enabled but not authorized.	

# 4.10 LogicNets Deployment Manager (LN-WSP-D)

Functional Area	Summary	Update/Bug Addressed	Issue #
Shared	Shared Workspace	Incorrect configuration revision.	LN-19314
Workspaces	1.1		
Shared	Shared Workspace	Deployment Configuration: Package names	LN-19327
Workspaces	1.1	should be unique.	
Shared	Shared Workspace	Unable to download deployment image.	LN-19328
Workspaces	1.1		
Shared	Shared Workspace	Deployment Manager: UI alignment.	LN-19330
Workspaces	1.1		
Shared	Shared Workspace	Deployment Manager Configuration: When	LN-19333
Workspaces	1.1	the "Clone" or "Modify" button is clicked,	



Functional Area	Summary	Update/Bug Addressed	Issue #
		the previously displayed popup flickers for	
		a second.	
Shared	Shared Workspace	Deployment Manager Configuration:	LN-19549
Workspaces	1.1	Dropdown menus missing in first row in modify configuration popup.	
Shared	Shared Workspace	Deployment Manager Configuration: Delete	LN-19550
Workspaces	1.1	button in the first row causing an issue.	
Shared	Shared Workspace	Deployment Manager: Cannot add projects	LN-20122
Workspaces	1.1	in folders to a deployment configuration.	
Shared	Shared Workspace	Avoid many role assignments before the	LN-20419
Workspaces	1.1	Deployment Manager can be used.	
Shared	Shared Workspace	Deployment Manager: Cannot connect to	LN-20423
Workspaces	1.1	server.	
Shared	Shared Workspace	Deployment Manager: Support editing	LN-20441
Workspaces	1.1	packages in configuration.	
Shared	Shared Workspace	Deployment Manager: Issues with	LN-20591
Workspaces	1.1	renaming projects.	
Shared	Shared Workspace	Deployment Manager: Download image is	LN-20656
Workspaces	1.1	not working.	
Shared	Shared Workspace	Deployment Manager Improvements	LN-20658
Workspaces	1.1		