1Spatial

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1Integrate

Release Notes
Version 4.0

13/03/2023

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Introduction

Scope

The purpose of the Release Note is to document the new functionality provided by the release and any known issues or limitations.

The release notes will also record any administrative instructions that are specific to this release and not recorded elsewhere.

Release Notes for previous 1Integrate versions are available [online](#).

For more information visit our [WebHelp](#) which includes Installation Guides, Quick Start Guides, worked examples and more.

Purpose of Release

A standard release of 1Integrate.

Migration Guidance

For users of previous versions, 1Spatial recommends the following before applying any changes to your live environment:

- Please read these Release Notes and the Installation Guide for your application server carefully before installing this release
- Ensure all running and paused Sessions are completed
- Back up your repository database
- Deploy the new version and test the release on your test platform

Please also pay attention to the [Notable Differences](#) section, which lists changes which may affect your existing processes or require changes to your configuration.

System Requirements

Operating Systems

This version of 1Integrate is supported on the following platforms.

OS	Notes/Caveats
Oracle Linux 7.9	
Windows Server 2019	Microsoft Visual C++ 2019 64 bit Redistributable packages Download from this link and pick vcredist_x64.ex https://support.microsoft.com/en-gb/help/2977003/the-latest-supported-visual-c-downloads

Application Servers

1Integrate requires an application server and the following are supported.

Application Server	Notes/Caveats
Oracle WebLogic Server 14.1.1	Any Edition, must be pre-installed
WildFly 26.1.3.Final	Delivered as part of the 1Integrate installation

Java JDK

The supported Java 11 (64-bit) JDK depends on which application server you are using.

Application Server	Java JDK
Oracle WebLogic Server 14.1.1	Oracle JDK (jdk-11.0.18)
WildFly 26.1.3.Final	Eclipse Temurin (jdk-11.0.18+10)

Database Platforms

A database is required to act as the 1Integrate repository to store configuration.

In addition, databases *can* be used as a source for spatial data. The following database platforms are supported with the following restrictions.

Database	Restrictions
Oracle Database 19c R1 (Any Edition)	None
Microsoft SQL Server 2019	When used as a Rules repository, only supported on WildFly application server.
PostgreSQL 12.4/12.6 (with PostGIS 3.1)	When used as Rules repository, only supported on WildFly application server.

Optional FME Desktop Integration

Certain data formats are available only with an FME Desktop installation and license.

Component	Edition	Reason
FME Desktop 2018.1 (64-bit)	Professional Edition	• Bentley MicroStation DGN • Autodesk DWG/DXF
FME Desktop 2018.1 (64-bit)	Esri Edition	Formats listed above plus read or write • Esri Enterprise Geodatabase (ArcSDE) Requires installation of one of: • ArcGIS for Desktop 64-bit Background Geoprocessing • ArcGIS Pro 64-bit • ArcGIS for Server

FME Server Integration

The FME Server Data Store supports transforming uploaded data from a format that 1Integrate does not usually support into one that it does.

Component	API Version	Software Version
FME Server	FME Server REST API V3	2021.2.5

Containerisation Support

The containerisation and orchestration technologies that are supported.

NOTE: FME Desktop-based Data Stores are not supported in this deployment mode.

OS	Notes/Caveats
Docker	Please contact 1Spatial support for access to a docker image
Kubernetes 1.25.5	To streamline the deployment of 1Integrate on Kubernetes, there is a published official 1Integrate Helm chart. For the Helm chart and other information, please see here: https://github.com/1SpatialGroupLtd/helm-charts

Web Browsers

1Integrate works with most of the recent versions of Edge, Chrome and Firefox. The specific versions that have been tested for this release are.

Tested Browsers
Microsoft Edge 110
Google Chrome 110
Mozilla Firefox 110

Other browsers can be used, but support requests can only be progressed if the issue can be replicated on a tested browser.

Release Details

Notable Differences

This is a major release so depending on your previous installation, some of the following changes may be breaking or require a change to your installation configuration.

- A brand-new User Interface
- New look online documentation
- New User Permissions (roles)
  - Users will need setting up with the new Permissions
    - For WildFly, the roles.properties file contains the new list of Permissions (roles) and a smaller list of default users - now INTFull, INTAdmin & INTUser only - if you are upgrading, this file will need changing to map the new roles to your users
    - The users.properties file contains the smaller number of default users
  - API Keys will need re-creating as they are based on the new Permissions
- On WildFly installations, 1Integrate will now use the user's temp directory by default
  - The temp directory is now not set by default in the settings.properties file which means it picks up the user's temp directory on Windows (existing values will still work)
  - On Linux, as before, this needs to be enabled & set before 1Integrate will start
- The Wildfly settings.properties contains a new parameter for adjusting the threshold for blocking heavily compressed archives which could represent a malicious zip bomb. Change this value if legitimate zip files cannot be uploaded.
- You can no longer write Rules or Actions against the 'anonymous' blank Class. Use a standard class such as 'All' or pick a Class from a Context instead.
  - Previously created Rules and Actions can be restored and used – if you edit them and they reference the 'anonymous' blank Class, you will need to use a standard Class such as 'All' or pick a Class from a Context instead.
- New Map Viewer including bookmarks
- Ability to add 'in-line' comments to Rules, Actions and Sessions
- Error Catcher in Rules and Actions (Try…Catch)
- Record and Replay Debugger for Rules and Actions
- New default repository (H2) allows for quick installation for local, development purposes
  - This changes the Wildfly settings.properties file
  - Not suitable for production environments
- Name changes in Rules and Actions
  - 'Static Value' is now 'Constant (static) Value'
  - 'Constant' is now 'Lookup'
  - 'Dynamic Value' is now 'Attribute Value'
- The following features are withdrawn from this version:
  - Partitions Status Map
  - Legacy and *1Integrate for ArcGIS* backups

- o Metadata Stores – They can still be restored in 4.0 but not edited in the UI. They will only work with Rules that already reference their Values and should be replaced with the new Fixed Schema 'Lookup Data Store'
- o gridStatistics endpoint
- o GDAL-based PostGIS Data Store (replaced with JDBC-based PostgreSQL/PostGIS Data Store)
- o FME-based Microsoft SQL Server Spatial Data Store (replaced with JDBC-based Microsoft SQL Server Data Store)
- o MySQL Data Store
- o Google BigQuery Data Store
  - ▪ It is available as an Extension. Contact 1Spatial if you need this Data Store.
- o Rule Discovery
- o Folder shortcuts

Future withdrawal notices

- From 1Integrate 4.1 the SOAP API will be withdrawn
- From 1Integrate 4.1 Metadata Stores will be withdrawn
  - o They can be restored in 4.0 but not edited in the UI. They will only work with Rules that already reference their Values and should be replaced with the new Fixed Schema 'Lookup Data Store'.

New Features

Note: For new features added in previous versions, please see our online Release Notes.

ID	Description
MSINT-889	Data Store schema refresh should retain added classes or ontology mappings
MSINT-1164	Report created, modified and deleted counts on Commit Task
MSINT-1291	Differentiate between Global, Local and Task scope temporary values
MSINT-1875	Remove 1Validate sessions folder
MSINT-2169	Improve handling of unique keys in the Data Store page
MSINT-2563	Support H2 for repo, simplifying local/non-production deployments
MSINT-2965	Error Catcher value to deal with exceptions/errors (Try...Catch)
MSINT-3133	Remove GDAL-based PostGIS and FME-based SQL Server Data Stores
MSINT-3265	Remove the deprecated Gridstatistics endpoint
MSINT-3298	Add a new parameter for adjusting the threshold for heavily compressed archives (zip bombs)
MSINT-3388	Ability to use Temporary Values in Rules
MSINT-3453	PostgreSQL/PostGIS Data Store - objects with a UUID are failing to commit
MSINT-3472	Validation Service: Combine point spatial hotpots into multipoint geometries in the validation report per non-conformance
MSINT-3622	Split the Session Results REST endpoint into a separate endpoint
MSINT-3641	Don't extract required 1Integrate libraries to the temp directory
MSINT-3743	Record Rule and Action Replays for debugging

MSINT-3750	Non Spatial Filter on CheckRules, ApplyActions, and ApplyActionMaps Tasks
MSINT-3833	Built-in Function to calculate convex hull of all data in the named Classes
MSINT-3859	Option to retain the attribute order (GDAL-based Data Stores)
MSINT-3879	Brand-new User Interface
MSINT-3914	New future-proof Map Viewer
MSINT-4060	Additional descriptions for REST API Swagger documentation
MSINT-4071	Withdraw the Legacy Backup endpoints
MSINT-4073	New User Permissions
MSINT-4114	Validate Schema Task - allow reference schema excess classes
MSINT-4146	Add "OGC" to "Web Feature Service (WFS)" Data Store name
MSINT-4183	Include the product version in REST API
MSINT-4211	Improve error message when Schema Only Data Store is committed to
MSINT-4212	JDBC-based Data Stores: Auto-index attributes on read
MSINT-4458	Remove GDAL PostGIS libraries as Data Store is now withdrawn
MSINT-4459	Update Swagger docs to include API keys as a means of authentication
MSINT-4467	Transform Schema Task : allow source schema excess classes
MSINT-4554	GDAL-based Data Stores: Copy To Tasks should retain attribute field length and precision
MSINT-4600	Revert MSINT-3951 (Classes set via REST with no attributes should be considered disabled)
MSINT-4629	With "Production Mode" enabled on a Session, skip the pre-session validation checks
MSINT-476	Allow Objects, Nested Values and Array elements to be used in Assignment Operations
MSINT-4793	Remove the Partitions Status Map
MSINT-4837	Rename Data Store parameter to "Fix ring direction"
MSINT-4880	Update Data Store WKT converter to be able to handle polygons of a single point
MSINT-5068	File Geodatabase Data Store should retain Field Aliases
MSINT-5297	Remove the MySQL Data Store
	Dark UI Theme
	Download data files directly from a Session
	New admin dashboard
	New look documentation (WebHelp)
	Ability to add and edit Session Parameters in the UI
	New Fixed Schema options on Data Stores
	Add Generic 'For Loop'
	Add Execute and return / Execute and check
	True and False predicates
	Multi-select Data Stores for Rule and Action Context
	Rule and Action Context should persist
	New API endpoints for managing folders
	New API endpoints for moving all resource types
	Session reports downloaded from the UI now JSON, no longer XML
	Map Viewer styles stored in the browser cache

	Per-page Search/Filter for items in the tree
	Ability to hide unselected Classes and Attributes on a Data Store
	Ability to bookmark entities
	Deprecate Metadata Data Store support
	Withdraw the home page
	Withdraw Rule Discovery

Bugs Fixed

Note: For bugs fixed in previous versions, please see our online Release Notes.

ID	Description
MSINT-1358	Trailing Spaces in Temporary Values cause issues
MSINT-2779	REST API returns EntityRef member in RulesTask
MSINT-3213	Session timings reset to zero after exceeding 24 hours
MSINT-3873	Backup creates a folder if a Rule has a backslash (\)
MSINT-3989	Open Schema Task should be sufficient to allow Copy-To to a Data Store
MSINT-4209	NPE Message for Missing FME Server Datastore Input Parameters
MSINT-4307	JDBC Data Stores: Can't use spatial filter when PostGIS and 1Integrate repo both in non-public PostgreSQL schemas
MSINT-4430	FGDB unpredictable behaviour on open data when null geometries are present
MSINT-4472	FME Server Data Store: Unable to read any integer attributes for classes written using the licenced Esri FGDB writer
MSINT-4526	Non Spatial Filter throws parsing errors when 'contains' function is followed by other open brackets
MSINT-3787	Esri File Geodatabase file format data dates changing on read

Known Issues and Unresolved Bugs

ID	Description
MSINT-3775	The Schema Transformation Task DerivedAttributeMapping doesn't handle NULL
MSINT-2628	Esri ArcGIS Server feature service returns GeoJSON in WGS84 regardless of data or 1Integrate SRS
MSINT-3904	GML Data Store reads all geometries as heighted, regardless of their true dimension
	Unzipping the main 1Integrate zip file can fail using the built-in Windows "Extract All" facility due to a "Path too long error". Use a third-party zip program such as 7-Zip or extract the release to the top level directory of a drive and move it afterwards to the desired location.
	The Google BigQuery Data Store is no longer part of core 1Integrate. It is available as an extension. Contact 1Spatial if you need it.

Installation

Follow the instructions in the [Installation Guide](#) for your application server.

For most upgrades, 1Integrate will automatically upgrade the repository from the existing release on initial startup. Ensure that all running and paused sessions are stopped before upgrading, and we recommend creating a backup of the repository database first (as a database schema and from the Repository Administration tab in the Dashboard), as that repository will not be usable by older versions of 1Integrate once it has been upgraded.

Follow the installation guide to install the new release alongside the existing version and use the same database connection details for the repository. For WildFly installations the easiest way to configure is usually to copy the files from the SETTINGS folder from the old installation folder to the new installation folder, however, check the release notes as some versions (e.g. 4.0, 3.1, and 2.8.1) contain changes to the structure of the settings file and so cannot be replaced by the older settings file.

When the new version is started it will automatically upgrade the repository if necessary.

When performing an upgrade of 1Integrate on WebLogic (an uninstallation of an old version followed by the installation of a newer version) it is important to uninstall the existing version of 1Integrate using the installer that was packaged with that release. Using a newer, incompatible version of the installer will result in errors.

For example, if you are replacing 1Integrate v3.4.1 with 1Integrate v4.0, your steps will be:

1. Uninstall 1Integrate v3.4.1 with the installer packaged in the v3.4.1 release
2. Install 1Integrate v4.0 with the installer packaged in the v4.0 release

NOTE: For WildFly installations of 1Integrate, before going live in a production environment or exposing your environment externally, you should change/remove the default passwords defined within the users.properties file.

Product Documentation and Support

Documentation

To review product documentation such as Installation Guides, WebHelp and other release notes, please visit our website: https://1spatial.com/documentation/1integrate/

Support

If assistance is required while deploying this release, contact either your distributor or 1Spatial Support.

To contact 1Spatial Support, please visit our website: https://1spatial.com/support-services/support/

Training

Maximise the value of this release with 1Spatial foundation and advanced training courses.

For training enquiries please contact your Account Manager or email: training@1spatial.com