



## Release Notes

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## 1Integrate

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Version 3.3.0

19 May 2022

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# 1 Introduction

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## 1.1 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 1Integrate [Online Help](#) which includes docs, guides, worked examples and more.

## 1.2 Purpose of Release

A standard release of 1Integrate.

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

## 1.3 System Requirements

### Operating Systems

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

Operating System	Prerequisites
Oracle Linux 7.9	
Windows Server 2019	Microsoft Visual C++ 2019 64 bit Redistributable packages Download from this link and pick vcredist_x64.ex <a href="https://support.microsoft.com/en-gb/help/2977003/the-latest-supported-visual-c-downloads">https://support.microsoft.com/en-gb/help/2977003/the-latest-supported-visual-c-downloads</a>

## Application Servers

1Integrate requires an application server and the following are supported (Note that WildFly is provided as part of the installation package and Oracle WebLogic is a pre-requisite that must be installed beforehand):

Application Server	Notes
Oracle WebLogic Server 14.1.1	Any Edition, must be pre-installed
WildFly 24.0.1	Delivered as part of the 1Integrate installation

## Java JDK

The supported Java 8 (64-bit) JDK depends on which application server you are using.

Application Server	Java JDK
Oracle WebLogic Server 14.1.1	Oracle JDK (8 update 321-b07 and 11 update 14+8-LTS-263)
WildFly 24.0.1	Eclipse Temurin (8 update 322-b06 and 11 update 14.1+1)

## 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 12c R2 (Any Edition) 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.

## Containerisation Support

The containerisation and orchestration technologies that are supported:

**NOTE: FME Data Stores are not supported in this deployment mode**

Technology	Notes
Docker	Please contact 1Spatial support for access to a docker image
Kubernetes 1.19.11	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: <a href="https://github.com/1SpatialGroupLtd/helm-charts">https://github.com/1SpatialGroupLtd/helm-charts</a>

## Optional FME desktop integration

Certain data formats are available only with an FME Desktop installation and license. For full data format support please check the 1Integrate online help under “Basic Steps-> Data Stores -> Supported Data Stores”:

<https://1spatial.com/documentation/1integrate/>

Component	Edition	Reason
FME Desktop 2018.1 (64-bit)	Professional Edition	<ul style="list-style-type: none"> <li>• Bentley MicroStation DGN,</li> <li>• Autodesk DWG/DXF</li> </ul>
FME Desktop 2018.1 (64-bit)	Esri Edition	Formats listed above plus read or write <ul style="list-style-type: none"> <li>• Esri Enterprise Geodatabase (ArcSDE). Requires installation of one of:                             <ul style="list-style-type: none"> <li>• ArcGIS for Desktop 64-bit Background Geoprocessing</li> <li>• ArcGIS Pro 64-bit</li> <li>• ArcGIS for Server</li> </ul> </li> </ul>

## Web Browsers

This product works with most of the recent versions of Chrome, Firefox and Edge. Internet Explorer does not work with the session data viewer. The specific versions that have been tested for this release are:

Tested Browsers
Microsoft Edge 101+
Microsoft Internet Explorer 11 does not work with the Session Data Viewer and support for the rest of the 1Integrate user interface will be removed in a later release.  Microsoft Edge is recommended as the Microsoft browser to use.
Google Chrome 101+
Mozilla Firefox 100 not currently run through automated tests so correct behaviour cannot be guaranteed until a future release.

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

## Monitor Resolution

We recommend a minimum resolution of 1080p (1920×1080) for the best experience using the 1Integrate interface.

## 2 Release details

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### 2.1 Summary of Changes

#### Notable differences in 1Integrate 3.3

- The new Schema Only Data Store can be used to create a Data Store where the schema is defined using custom classes only. This allows you to add classes and attributes in the input mapping without having to upload unnecessary data or connection details.
- New tasks for Schema Validation and Schema Transformation:
  - o The Validate Schema task allows you to compare the schema of two data stores (a source and a target), without loading the data associated with them. Any differences are recorded in a report, downloadable as an XML file.
  - o The Schema Transformation task is designed for more advanced changes of schema, other than simple renaming.
- It is now possible to Commit To FGDB and GeoPackage files
- New non-spatial filtering capabilities - in addition to restricting data load based on geometric filtering, you can now restrict it based on non-spatial expressions too. A Non-Spatial filter is configured within an open data task. It works much like a SQL WHERE clause, though is syntactically different. The filter syntax is described thoroughly in the docs.
- Descriptions for all REST API calls added to the Swagger-generated docs at [http://\[server\]:\[port\]/1Integrate/rest/](http://[server]:[port]/1Integrate/rest/)
- New Built-in functions:
  - o Compare Attributes Built-in
  - o Object Source Data Store Built-in
  - o A suite of REST Web Services Built-in functions for calling HTTP/HTTPS services
- Bug fixes and other enhancements

### 2.2 Full list of functionality and bugs fixed in this release

#### New functionality

3.3.0	
MSINT-3561	Support Azure Active Directory credentials for SQL Server Repository
MSINT-3488	Improve support for OAuth 2.0 in WFS Data Store
MSINT-3166	Add a Schema Transformation Task
MSINT-3062	Add Schema Enquiry built-in functions
MSINT-2922	Add a Validate Schema Task
MSINT-1565	Non-Spatial Filter (like a WHERE clause) when opening data, using session parameters in the filter
MSINT-3629	Add a Schema Only datastore
MSINT-3607	Open Data and Open Schema tasks should ignore attribute metadata differences such as field length and precision
MSINT-3515	Latest Java support

MSINT-3506	Helm: Custom extensions available by allowing a custom image to be used in place of our official images
MSINT-3486	Add a Built-in function to get an object's Data Store
MSINT-3469	List the Null attributes on the Session Data Viewer attribute panel
MSINT-3459	REST API: Ability to update just the extent of a session without providing whole session payload
MSINT-3428	Add a Built-in function to make HTTP calls during a session
MSINT-3426	Add descriptions for all REST calls to the REST API docs
MSINT-3312	Add coordinate reference system information to validation report
MSINT-3071	Enable Commit on file datastores for FGDB and GeoPackage
MSINT-3055	Update Split_geometry Built-in to support 2D inputs
MSINT-1447	Add a Built-in to compare attributes
MSINT-3609	WildFly: Compress log files on rotation

### Bugs fixed

3.3.0	
MSINT-3728	Accurately detect SQL Server dimensionality to better support mixed dimensionality data
MSINT-3651	PostgreSQL Data Store: Disable Auto-commit when reading data to reduce memory footprint
MSINT-3737	PostGIS write errors not updating pre-class error count
MSINT-3627	Make schema handling case sensitive to ensure reading from the expected schema for all formats
MSINT-3718	XYM data written out to SQL Server becomes XYZ data
MSINT-3710	JDBC based MariaDB/MySQL, PostgreSQL and MSSQL: SRS ignored during write
MSINT-3709	JDBC based MariaDB/MySQL, PostgreSQL and MSSQL: Manually specified SRS value always ignored
MSINT-3666	JDBC based MariaDB/MySQL, PostgreSQL and MSSQL: Fix the quoting in the geometry column description query for SQL Server
MSINT-3665	Options cog hidden if Engine host name is long
MSINT-3652	Engines interrupted when waiting on a lock to process a session will infinite loop and fill up the logs
MSINT-3634	Sync Tool cannot handle backups with long pathnames on Windows
MSINT-3628	Session Data Viewer legend does not include target classes from load schema tasks
MSINT-3626	Attempting to rewind a Session without a running engine results in a stuck Session
MSINT-3625	Fix style upload button within the Session Data Viewer
MSINT-3600	New Backup mechanism doesn't include shortcuts in use which leads to unrestoreable backups
MSINT-3589	Open Schema task should not try to connect to the Data Store
MSINT-3575	Fix SQL Server timestamp handling (milliseconds)
MSINT-3564	Unable to use AzureAD authentication via the JDBC based SQL Server data store while 1Integrate is installed as a Windows service
MSINT-3559	Cloning items as shortcuts gets a 'Copy of' prefix instead of 'Shortcut to'
MSINT-3558	Iterating over all:geometric includes non-geometric Classes such as singleton
MSINT-3548	JDBC datastore large memory overhead during write due to only flushing after each Class was written out



MSINT-3522	GDAL FGDB reading in Bezier curves as multipart geometries
MSINT-3502	Legacy hotspot information missing from reports
MSINT-3484	Sync Tool error on empty repo: IOException: Archive contains entries that point outside of the archive directory
MSINT-3444	Open Data Task doesn't take excluded classes into account when building the Schema for rule validation
MSINT-3431	File Upload does not recognise upper case file extensions
MSINT-3180	Session Data Viewer does not display dates
MSINT-3738	SQL Server format unable to write out null values for date, float and string types
MSINT-3740	Session error if disabled open schema task precedes a Commit Task
MSINT-3708	Many Data Stores do not set unit_length which is used in setting the tolerance

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

## 2.3 Known Issues and Unresolved Bugs

ID	Description
MSINT-3732	The json_read built-in fails if a key is not present
MSINT-2628	Esri ArcGIS Server feature service returns GEOJSON in WGS84 regardless of data or 1Integrate SRS
MSINT-2927	Microsoft SQL Server Spatial (deprecated) Data Store with a where clause does not read all returned data, workaround is to set the 'command timeout' parameter to 0 (unlimited) or a large number of seconds
MSINT-2970	DSV Data store loads WKT Heighted features as 2D
MSINT-2912	Open data task showing classes not selected in input mappings
MSINT-2911	Open data task link missing when workspace defined
MSINT-2884	SQL Server Data store when applying Z value to an existing data store need to delete all mappings to apply the change
MSINT-2820	Data store input mapping re-applies selected text after switching data stores
MSINT-2779	REST API returns EntityRef member in RulesTask
	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.

## 3 Installation

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

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 that repository may not be usable by older versions of 1Integrate once it has been upgraded.

Follow the installation guide to install the new release in 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. 3.1, 2.8.0 or 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.

**Note that for some upgrades this can be a one-way upgrade, once you have started the new version then the repository is upgraded and can no longer be used by the older version, or easily downgraded. For this reason, it is recommended that the repository is backed up first as a database schema and also from the admin page.**

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 v2.6.2 with 1Integrate v2.7.1, your steps will be:

1. Uninstall 1Integrate v2.6.2 with the installer packaged in the v2.6.2 release
2. Install 1Integrate v2.7.1 with the installer packaged in the v2.7.1 release

## 4 1Spatial Product Assistance

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

To contact 1Spatial Support, please visit our website: <http://www.1spatial.com/services/support>

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](mailto:training@1spatial.com)

## 5 Third Party Software Libraries

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1Integrate uses (and often contributes fixes and enhancements to) open-source or redistributable libraries, listed below. 1Spatial respects the licensing and copyright terms of these open-source libraries and hence does not claim copyright over these libraries and ensures that the source code of the libraries is available to users.

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CGAL, Computational Geometry Algorithms Library, <https://www.cgal.org>

#### D3

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<https://gmplib.org/>

## MPFR

<https://www.mpfr.org/>

## MPIR

B. Gladman, W. Hart, J. Moxham, et al. MPIR: Multiple Precision Integers and Rationals, 2015. version 2.7.0, A fork of the GNU MP package (T. Granlund et al.)

<http://mpir.org/>

## SFCGAL

<http://www.sfcgal.org/>

## 5.2 Redistributable Libraries

### Oracle JDBC Driver

This 1Spatial product when deployed on WildFly includes Oracle JDBC drivers which can fall within these license terms:

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