



## Release Notes

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## 1Integrate

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Version 3.4.1

07 November 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 26.1.2	Delivered as part of the 1Integrate installation

## Java JDK

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

**NOTE: From v3.4.0 onwards, Java 8 is no longer supported**

Application Server	Java JDK
Oracle WebLogic Server 14.1.1	Oracle JDK (jdk-11.0.17)
WildFly 26.1.2	Eclipse Temurin (jdk-11.0.17+8)

## 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 Desktop-based Data Stores are not supported in this deployment mode**

Technology	Notes
Docker	Please contact 1Spatial support for access to a docker image
Kubernetes 1.24.3	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>

## FME Server integration

The FME Server Data Store supports transforming uploaded data from a format that 1Integrate does not usually support into one it does. For more information check the 1Integrate online help:

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

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

## Web Browsers

This product 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 107
Microsoft Internet Explorer 11  <i>NOTE: 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.</i>  <i>Microsoft Edge is recommended as the Microsoft browser to use.</i>
Google Chrome 107
Mozilla Firefox 106  <i>NOTE: Not currently run through automated tests so correct behaviour cannot be guaranteed until a future release.</i>

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 3.4.1

- FME Server Data Store enhancements and fixes.
- Non-Conformance Data Store enhancements and fixes.
- Improved unzipping performance.
- Bug fixes and other enhancements.

#### Notable differences in 1Integrate 3.4.0

- Support for Java 8 has been dropped, now Java 11 only.
- New FME Server Data Store – you can now trigger FME Server workspaces and read the resulting data into 1Integrate.
- New GeoJSON Data Store – read and write GeoJSON files.
- New GML Data Store (read-only)
- New Non-conformance Report Data Store – A Rule Conformance Report is generated by Sessions automatically. By opening a Non-Conformance Report Data Store during a Session, you can transform this report into features. The spatial non-conformances features can subsequently be examined in the Map Viewer or, along with the non-spatial features, exported to other formats.
- Access Groups – You may want to restrict access to specific folders or resources. Admin users can now achieve this by creating Access Groups within 1Integrate.
- Non-Spatial Filtering syntax change - in order to differentiate between running a filter on a Class called “number” and invoking the “number” function, Class Filters can be run with {} instead of (), e.g.  
`NUMBER{ID==500}`  
The old syntax is still supported for backwards compatibility, but we recommend you use {} so it is not ambiguous.
- Wildfly packaging changes:
  - o the top-level directory is now “1Integrate”
  - o the “standalone” directory is now “server-interface”
  - o the “standalone-engine” directory is now “server-engine”
  - o the config file “standalone.xml” for the interface is now “interface.xml”
  - o the config file “standalone.xml” for the engine is now “engine.xml”
- Bug fixes and other enhancements.

NOTE: If you are reading ESRI File Geodatabases (fgdb) on a Linux environment, you *may* need to add a new parameter to the settings.properties file. Adding `grid.threadpool.restriction=true` will change the Ignite public thread pool size and allow you to read fgdb more reliably, mitigating intermittent crashes. This parameter is set to false by default but will not appear in the settings.properties file. We recommend only using this if needed as it will have an adverse effect on grid recovery in the event of a disaster. This issue will be rectified in a future release.

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

### New functionality in 3.4.1

3.4.1	
MSINT-4023	Check Rules task non-conformance reports do not include any hotspots for non-spatial checks (that contain more than one attribute)
MSINT-4057	Update Java Support - latest point release
MSINT-4075	FME Server Data Store - Allow files that aren't zips to be uploaded
MSINT-4072	Ability to configure the Wildfly transaction timeout
MSINT-4090	Improve performance extracting DEFLATE_64 compressed zip files
MSINT-4111	FGDB Failed to load GDAL dataset - when zip contains more than .gdb
MSINT-4138	Non-spatial filter: Update per-class filter with no classes to match all classes
MSINT-4140	Update the 1Integrate REST API to update the display name for uploaded files when a new file is uploaded
MSINT-4165	Update the WildFly bundle to WildFly 26.1.2.Final
MSINT-4259	Do not include the format "f" parameter when making WFS calls
MSINT-4265	Files On Disk: Update the cleanup of temporary data store files created to support REST API data store file downloads to happen after download rather than after server shut down
MSINT-4274	Allow the page/batch size of the non-conformance report data store to be configurable and increase the default page/batch size

### Bugs fixed in 3.4.1

3.4.1	
MSINT-3943	Ensure consistent handling of the CRS across all Data Stores
MSINT-4015	FME Server Data Store: FGDB OBJECTID column read in as null
MSINT-4044	FME Server Data Store - Parameters with quote disappear from GUI
MSINT-4054	Non-Conformance Report Data Store - java.lang.NullPointerException when task appears in session before future check rules tasks
MSINT-4055	1Int 3.4 Online help link points to 1Int 3.3 page
MSINT-4059	1Integrate 3.4 not installing as a Windows Service - configuration does not exist: standalone.xml
MSINT-4068	FME Server Data Store: 1Integrate\TEMP directory not cleared for deleted/stopped sessions
MSINT-4082	FME Server Data Store - 1DGW uploaded file gets renamed to the name as defined in the 1INT Master Session not the cloned session.
MSINT-4093	GeoJSON Data Store default to WGS84 when CRS not specified
MSINT-4121	Engine log file has the wrong name
MSINT-4217	FME Server Data Store - REST API should not automatically unzip uploaded data
MSINT-4275	Non-conformance Data Store not freeing memory used by parsed object reports



## New functionality in 3.4.0

3.4.0	
MSINT-2860	New FME Server Data Store
MSINT-3032	Allow a Session's Open Data Task Extent Override to be 'Extent of Previous' even when a session is restricted by a polygon
MSINT-1488	Introduce Access Groups for folder level permissions
MSINT-1599	Esri File Geodatabase Data Store domain resolution
MSINT-3663	Esri ArcGIS Server Data Store - fix ring direction parameter
MSINT-1390	New GeoJSON Data Store
MSINT-2858	New Non-Conformance Report Data Store
MSINT-2812	Compile 1Integrate with Java 11
MSINT-2857	Add missing file options to GDAL-based Data Stores
MSINT-3038	Use session parameter to filter predefined region
MSINT-3256	New GML Data Store (read-only)
MSINT-3523	Exclude folders from being synched
MSINT-3659	Find Kickbacks Built-in does not handle null geometry
MSINT-3686	Tag log messages with the user ID
MSINT-3688	Update GDAL to 3.5
MSINT-3734	Avoid relying on the PostGIS column definition to determine geometry dimensionality
MSINT-3757	REST API: Add endpoints to download Data Store source file
MSINT-3760	Non-Spatial Filter casting issue - handling numbers vs. strings
MSINT-3778	Remove sync button from the Synchronisation Tool
MSINT-3845	Update Ignite to 2.13
MSINT-3853	Non-spatial filter with a Class name that is also a function name doesn't parse correctly
MSINT-3861	Zip full restore doesn't update metadata only changes
MSINT-3178	Wildfly Packaging
MSINT-3623	Remove 'Powered By' header from the WildFly bundle
MSINT-3773	Add an endpoint to 1Integrate to get the license time remaining for monitoring license expiry
MSINT-3912	Cannot write classes with special characters out to DSV
MSINT-3951	Classes set via REST with no attributes should be considered disabled
MSINT-3953	DSV Data Store: Make the nominated geometry column(s) optional
MSINT-3965	MapInfo TAB Data Store: Correctly read MapInfo Booleans (T and F)

## Bugs fixed in 3.4.0

3.4.0	
MSINT-2970	DSV Data Store loads WKT Heighted features as 2D
MSINT-3640	Open Data and Schema Task Class Selection Validation: unexpected exception cause by references to excluded Classes
MSINT-3668	Shapefile datastore reads 0 timestamp as 0002-11-29 23:29:40.000
MSINT-3779	Failed Backup: java.io.IOException - two trailing spaces
MSINT-3832	Geopackage Boolean Data Type being populated as Integer
MSINT-3966	MapInfo TAB Data Store: null strings read in as empty strings

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

## 2.3 Known Issues and Unresolved Bugs

ID	Description
MSINT-3775	The Schema Transformation Task DerivedAttributeMapping doesn't handle NULL
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-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.
MSINT-3867	If you are reading ESRI File Geodatabases (fgdb) on a Linux environment, you <i>may</i> need to add a new parameter to the settings.properties file. Adding grid.threadpool.restriction=true will change the Ignite public thread pool size and allow you to read fgdb more reliably, mitigating intermittent crashes. This parameter is set to false by default but will not appear in the settings.properties file. We recommend only using this if needed as it will have an adverse effect on grid recovery in the event of a disaster.
MSINT-3904	GML Data Store reads all geometries as heighted, regardless of their true dimension

## 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

**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.**

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

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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/>

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### 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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