

# Supported File Formats

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This section contains information on the file formats and compression schemes that are supported for input to and output of Trifacta®.

**NOTE:** To work with formats that are proprietary to a desktop application, such as Microsoft Excel, you do not need the supporting application installed on your desktop.

## Native Input File Formats

Trifacta® can read and import directly these file formats:

- Excel (XLS/XLSX)

**Tip:** You may import multiple worksheets from a single workbook at one time. See *Import Excel Data* in the User Guide.

- PDF

**NOTE:** PDF support may need to be enabled in your environment. See *Import PDF Data*.

- PDF is supported for import only.
- See *Import PDF Data* in the User Guide.

- CSV
- JSON, including nested

**NOTE:** Trifacta requires that JSON files be submitted with one valid JSON object per line. Consistently malformed JSON objects or objects that overlap linebreaks might cause import to fail. See *Initial Parsing Steps* in the User Guide

- Plain Text
- LOG
- TSV
- Parquet

**NOTE:** When working with datasets sourced from Parquet files, lineage information and the `$source_rownumber` reference are not supported.

- XML

**Tip:** XML files can be ingested as unstructured text.

- Avro

For more information on data is handled initially, see *Initial Parsing Steps* in the User Guide.

## Native Output File Formats

Trifacta can write to these file formats:

- CSV
- JSON

- Tableau (TDE)

**NOTE:** Publication of results in TDE format may require additional configuration. See below.

- Avro

**NOTE:** The Trifacta Photon and Spark running environments apply Snappy compression to this format.

- Parquet

**NOTE:** The Trifacta Photon and Spark running environments apply Snappy compression to this format.

## Compression Algorithms

**NOTE:** Import of a compressed file whose underlying format is binary, such as Excel or PDF, is not supported.

**NOTE:** Importing a compressed file with a high compression ratio can overload the available memory for the application. In such cases, you can decompress the file before uploading. If decompression fails, you should contact your administrator about increasing the Java Heap Size memory.

**NOTE:** Publication of results in Snappy format may require additional configuration. See below.

**NOTE:** GZIP files on Hadoop are not split across multiple nodes. As a result, jobs can crash when processing it through a single Hadoop task. This is a known issue with GZIP on Hadoop.

Where possible, limit the size of your GZIP files to 100 MB or less, or use BZIP2 as an alternative compression method. As a workaround, you can try to run the job on the unzipped file. You may also disable profiling for the job. See *Run Job Page* in the User Guide.

## Read Native File Formats

	GZIP	BZIP	Snappy
CSV	Supported	Supported	Supported
JSON	Supported	Supported	Supported
Avro			Supported
Hive			Supported

## Write Native File Formats

	GZIP	BZIP	Snappy
CSV	Supported	Supported	Supported
JSON	Supported	Supported	Supported
Avro			Supported; always on
Hive			Supported; always on

## Additional Configuration for File Format Support

### Publication of some formats requires execute permissions

When job results are generated and published in the following formats, the Trifacta platform includes a JAR, from which is extracted a binary executable into a temporary directory. From this directory, the binary is then executed to generate the results in the proper format. By default, this directory is set to `/tmp` on the Trifacta node.

In many environments, execute permissions are disabled on `/tmp` for security reasons. Use the steps below to specify the temporary directory where this binary can be moved and executed.

#### Steps:

1. Login to the application as an administrator.
2. From the menu, select **Settings menu > Settings > Admin Settings**.
3. For each of the following file formats, locate the listed parameter, where the related binary code can be executed:

File Format	Parameter	Setting to Add
Snappy	"data-service.jvmOptions"	-Dorg.xerial.snappy.tmpdir=<some executable directory>
TDE	"batch-job-runner.jvmOptions"	-Djna.tmpdir=<some executable directory>

4. Save your changes and restart the platform.
5. Run a job configured for direct publication of the modified file format.