

Configure Photon Client

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Trifacta Photon client is the in-browser engine for management of sampling and transformation in the Transformer page. Trifacta Photon is automatically downloaded and updated in each user's web browser when accessing the Transformer page. Within the browser, Photon is used to manage sampling and to process transformations on those samples on the local web client, which limits required interactions with the Trifacta® node.

Features:

- Larger sample sizes (up to 10MB by default).

NOTE: Since Trifacta Photon supports larger sample sizes, some interactions may be slightly impacted. Loading states have been introduced to enable faster responsiveness from the application.

Tip: For datasets that are smaller than the sample size limit, the Transformer Page displays the entire dataset in its transformed state. So, you can download the dataset from the Recipe Panel in Transformer Page without having to execute it on a remote server. This expanded capability allows for faster and more immediate local use of the product. See *Recipe Panel*.

This section contains the user-facing configuration for the Trifacta Photon client. Except as noted below, these configuration changes are applied to the Trifacta node, which then applies the configuration to each instance of the Trifacta Photon client and its interactions with the node.

NOTE: Some configuration is shared with the Trifacta Photon running environment. For more information, see *Configure Photon Running Environment*.

Limitations

- None

Recommended Photon Configuration by Core Count

On the Trifacta node, you can make adjustments to the resources claimed by the Photon running environment based on the number of cores on the machine. The following table identifies the recommended settings for a node with 8, 16, or 32 cores. The default settings assume 16 cores.

Parameter	8 cores	16 cores (default)	32 cores
<code>webapp.numProcesses</code>	2	2	5

<code>vfs-service.numProcesses</code>	2	2	3
<code>photon.numThreads</code>	2	4	4
<code>batchserver.workers.photon.max</code>	2	2	4

The number of simultaneous users is a competing factor.

- For a high number, more resources should be reserved for the webapp and the VFS services.
- For a low number, more resources for Photon should improve performance for sampling and job execution on the Trifacta Photon running environment.

The following table illustrates some adjustments for a 16-core system:

Parameter	16 cores (default)	Low number of simultaneous users	High number of simultaneous users
<code>webapp.numProcesses</code>	2	1	4
<code>vfs-service.numProcesses</code>	2	1	4
<code>photon.numThreads</code>	4	4	4
<code>batchserver.workers.photon.max</code>	2	2	2

Modify Limits

NOTE: Increasing these values can have a significant impact on load times and performance. Change these values only if you are experiencing difficulties. Make incremental changes.

Sample Size Limits

Increasing the sample size may degrade the user experience in the Transformer page in the following ways:

- Generation of column details and data grid histograms
- Preview card loading time
- Time required to complete brushing and linking in histograms

NOTE: If you increase the sample size above the default setting and encounter unacceptable performance in the above areas, you should reduce the sample size settings.

When samples are created using the Trifacta Photon running environment, their maximum size is determined by the following parameter. Default value is 10 MB.

NOTE: For datasets created from relational sources, if the dataset is larger than this value, a random sample is automatically generated. For smaller datasets, no sample is automatically generated, and the initial sample is used.

```
"webapp.client.loadLimit": 10485760,
```

Maximum Data in the Client

The following parameter sets the upper limit to which a sample can grow in the browser. After a sample has been gathered, adding some kinds of transformations, such as joins or adding new columns, can grow the volume of data in the browser. This parameter represents the upper volume of data that can be displayed for a sample + transformations.

```
"webapp.client.maxResultsBytes": 41943040,
```

Tip: The value for this parameter should be approximately four times the value for `webapp.client.loadLimit`.

NOTE: If the data volume of the same grows beyond this size, the number of rows available in the sample is reduced until the sample volume is below this threshold. This truncation happens automatically and without warning.

Tip: You can re-sample the dataset at any time, which creates a new sample that is below the value for `webapp.client.loadLimit`.

Use Photon Client

The Trifacta Photon client is an embedded component of the web client. Access to it is transparent to the user.

Configure VFS Service

Photon interacts with backend datastores through the VFS service.

NOTE: The VFS service is enabled by default and must be enabled when Trifacta Photon running environment is in use.

For more information, see *Configure VFS Service*.