

Performance Optimization

Data Connections - 23%

- Understand how to connect to Tableau Server
- Understand Performance Optimization
 - Parallel query
 - Data engine vectorization
 - Parallel aggregation
 - External query caching
 - Query fusion
- Understand how to use Automatic & Custom Split
- Understand how to join tables from single and multiple databases
- Understand how to use Data Preparation
 - Blending
 - Metadata Grid
 - Pivot
 - Union
 - Data Interpreter
- Understand connection options
- Understand how to connect to different file types
- Understand data extract capabilities
- Understand Shadow extracts

- Parallel query
- Query Fusion
- External query caching

Information on these three topics is available here:

<https://www.tableau.com/about/blog/2015/1/90-preview-query-performance-improvements-36406>

Data engine vectorization

- Very limited info on this, but <https://community.tableau.com/thread/197491> explains, As of Tableau 9, the Data Engine will take advantage of vector instructions on current processors. This enables speeding up some calculations. The logs show which level of vectorization is supported by your processor under "Vectorization Support"

Parallel aggregation

- Very limited info on this, but <https://community.tableau.com/thread/211728> explains, "Firstly, the Tableau 9 data engine will run queries faster by using multiple cores where possible. The data engine can now run aggregations in parallel, splitting the work across multiple cores. By default, the maximum degree of parallelism is (number of available logical processors) / 2. This means that query operations on data extracts can run up to N times faster in Tableau 9 (where N is the number of cores in the machine)."