



FlowJo Enterprise

- FlowJo Enterprise is a server-based version of FlowJo
 X, designed to assist with data management, analysis,
 and report generation for high dimension, high
 throughput flow or mass cytometry data.
- Data, templates, workspaces and reports are all linked together in one place, the FlowJo server. Data and workspaces never get lost!
- Data is always retained on the server; it will never leave campus.
- Data, templates, workspaces and reports can only be accessed with administrator-based permissions. Data is secured to an individual, lab or department.

FlowJo Enterprise: Components

- 4thWall (optional) A program that uploads data to the server directly from a specified cytometer (Can be set to automatically or manually upload)
- FlowJo Server FlowJo's high performance calculation engines reside on a user-specified server for power processing multiple or individual tasks
- FlowJo vX Users can access and store data, templates, workspaces and reports using the familiar vX interface or via a server webpage.



FlowJo Enterprise is available as one of three tiered packages, depending on what the end users anticipate they will be using the server for.

- Level 1 Performance. This level harnesses the power of the FlowJo Server, its RAM and processing power to assist in analysis of large numbers of files or difficult workspaces.
 - Users will access the server's power by simply connecting to it through FlowJo.
 - Analysis and report generation gestures are the same as if using FlowJo vX on a standard workstation.

- Level 1 Continued.
 - Users can run sophisticated and memory intensive automated gating tools incorporated in R including:
 - SPADE
 - FlowMeans
 - Other statistical packages formulated as plugins to a FlowJo template.



- Level 2 Automation. Includes all of the Level 1
 capabilities plus the end users can string together
 templates to produce automated analysis pipelines.
 - Users will employ a series of templates to produce specific reports.
 - Analysis can be automated immediately when the data arrive on the server via 4thWall, greatly reducing the amount of time spent analyzing repetitive experiments.
 - Automated analysis and reports can be executed and reviewed remotely, without needing to use FlowJo vX.

- Level 3 Integration. Includes all of the Level 1 and 2 capabilities plus the end users can integrate their data tables with a queryable database to link results with data, templates, workspaces and data.
 - Individual workspaces that generate tablular reports can be intergrated with a LIMS or database of choice.
 - Automated analysis pipelines that produce tabular reports can be automatically set to update a given database in real time.



FlowJo Enterprise: Requirements

- FlowJo Enterprise requires an institutional site license.
- FlowJo Enterprise must be deployed on a server(s)
 owned by the institute, or leased as an Amazon Web
 Service (FlowJo does not provide hardware).
- The server hardware recommendations are:
 - 32 GB RAM
 - 8 or 16 quad core processors



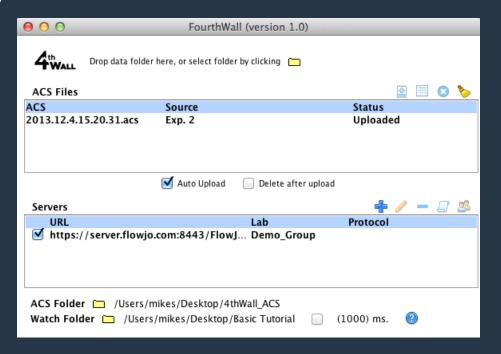
FlowJo Enterprise: Requirements

- FlowJo Enterprise will run on the following server
 Operating systems:
 - Linux, Debian, or Red Hat Enterprise
 - Mac OSX 10.6+
 - Windows 7
- FlowJo Enterprise requires the Apache Tomcat Web Server version 7 and above.
- The file system for FlowJo Enterprise can be:
 HSF+/HSFX with aliases (i.e. symbolic links), NTFS
 and network mapped drives, Samba



4thWall

- Installed on acquisition computer
- Drag-and-drop, select, or set watch folder
 - Specify Server(s)
 - CalculateChecksums
 - Generate Manifest
 - Select pipeline
 - Package ACS

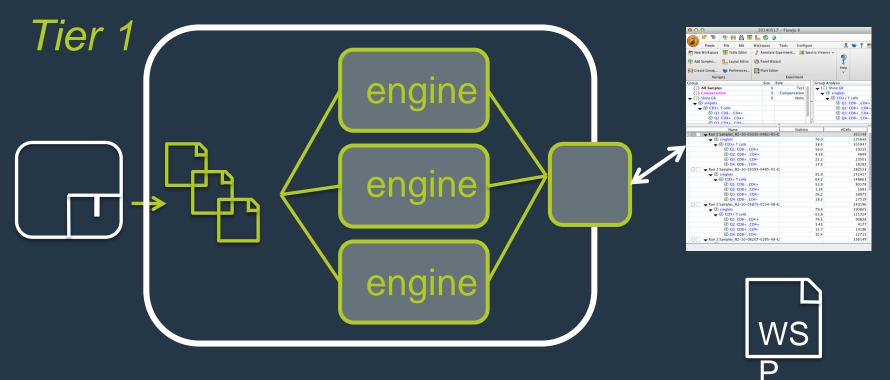




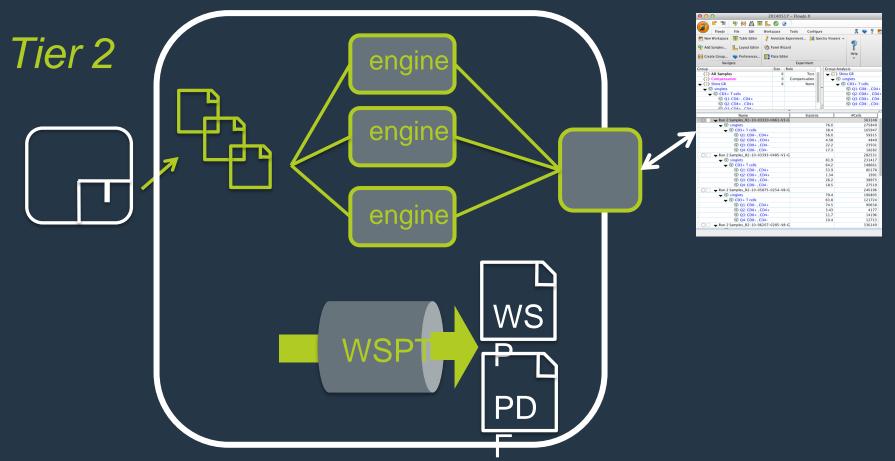
Extending the capabilities of FlowJo

- High performance engines on server, proximal to data
- Can explore and use clustering tools
- Integrates with LIMS / DB
- Familiar, intuitive interface
- Seamless loading & saving
- Linked to existing license





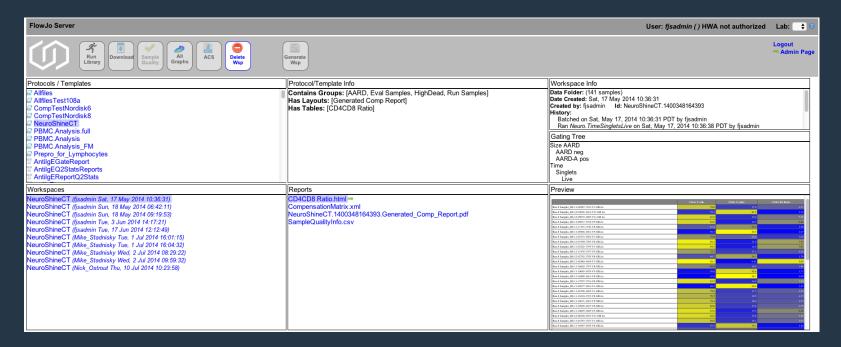
- FlowJo Server calculation engines for analysis of FCS data files.
- Users load & manipulate server-based data files in a FlowJo workspace, the same as if the data were stored on the local computer.
- User authorized by FlowJo's existing site license system (FLS)



 Creation, saving, and execution of FlowJo protocols and templates on the server, as well as browsing and opening previously saved workspaces and generated reports.



Tier 2



- Web browser view of library of templates, protocols & data.
- Organizes the files on the server, keeps records of commands and tasks invoked by users, and provides administrative functions to search and archive the history of activity.



Tier 3

 Database Integration: Module that updates specified table in SQL DB

 LIMS Integration: invoke custom software modules e.g. to query the LIM system for data files to analyze.