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Life Science Analytic Framework Overview

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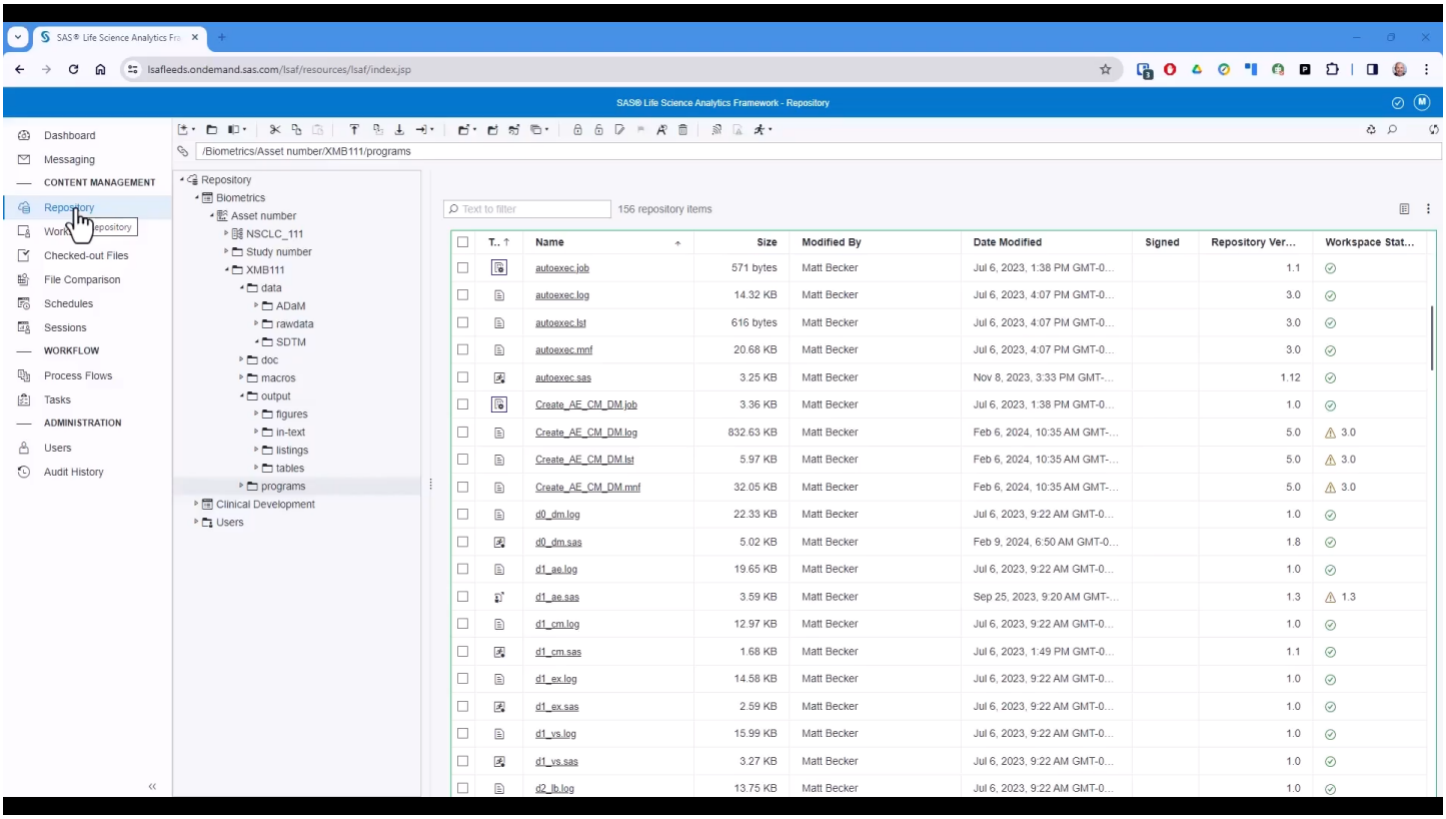
Executive summary

The SAS Life Science Analytics Framework (LSAF) is a comprehensive platform for data governance and analysis in the life science industry. It provides end-to-end data management, from standards and study metadata management to reproducibility and traceability. LSAF is an open and flexible framework that can connect to other platforms using APIs, support open-source analytics like R and Python, and ingest various data sources. LSAF provides a comprehensive programming and version control environment with a customizable central repository, allowing customers to set up their own folder structure. It also offers collaboration, workload management, high availability, and a high-performance environment. The workspace status feature allows users to compare the status of files in their workspace with those in the repository. Audit trails are a crucial component of program management, providing a record of all modifications and actions taken within a program, allowing users to track changes and identify potential issues. Workflows are an essential part of LSAF, especially when it comes to managing the development, testing, and production of programs. These workflows involve multiple stages, including program development, quality control, and final sign-off or promotion.

Features of LSAF

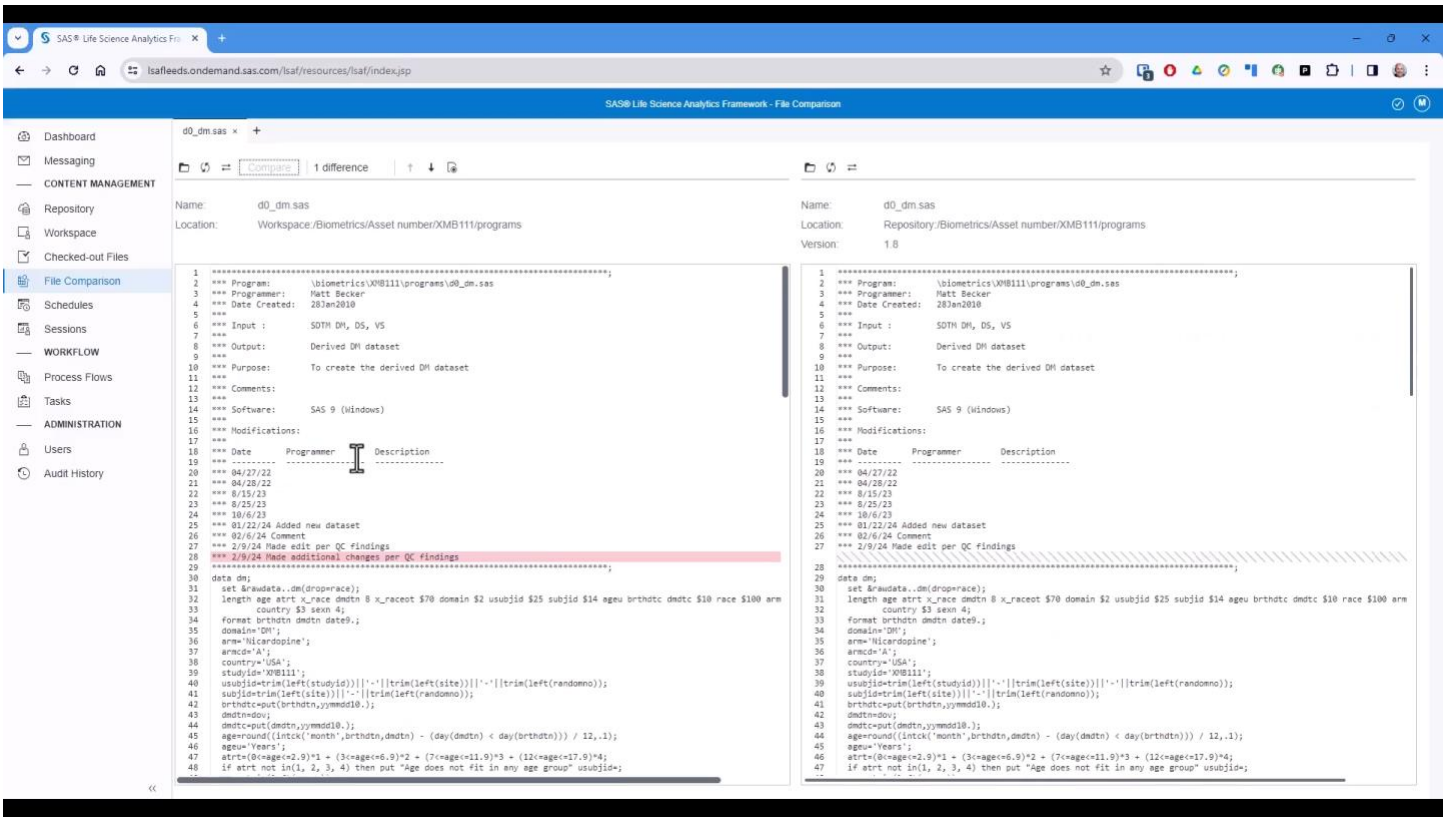
SAS Life Science Analytics Framework (LSAF) is a single platform that provides end-to-end data governance and analytics solutions for the life science industry. With LSAF, users can easily govern, analyze, and submit data to regulatory authorities. The platform offers a validated environment that enables regulatory compliance, internal and external collaboration, and standards and study metadata management. LSAF also provides reproducibility and traceability, a central repository, and support for open-source analytics like R and Python. With LSAF, users can connect to various platforms using APIs, making it an open and flexible framework for data management and analytics.

LSAF workspace and version control



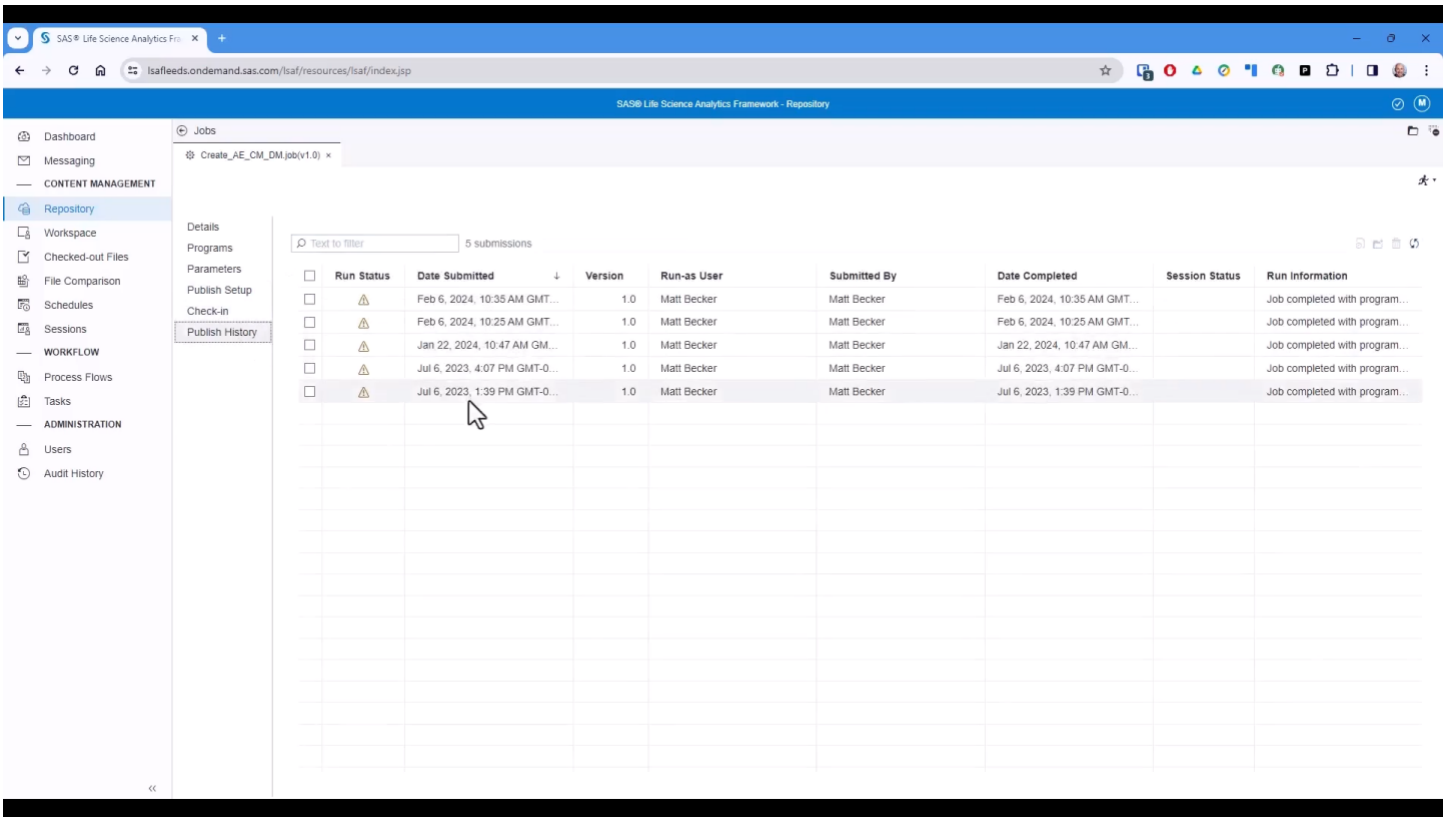
The LSAF environment can be accessed via a browser and the repository view is where the final data, programs, and submission-type projects reside. The tree structure is customizable, and customers can set it up according to their preferences. Access control is also possible, allowing specific departments to see specific information. For instance, medical writers can be granted read-only access to the output folder for a particular study.

Programming in LSAF



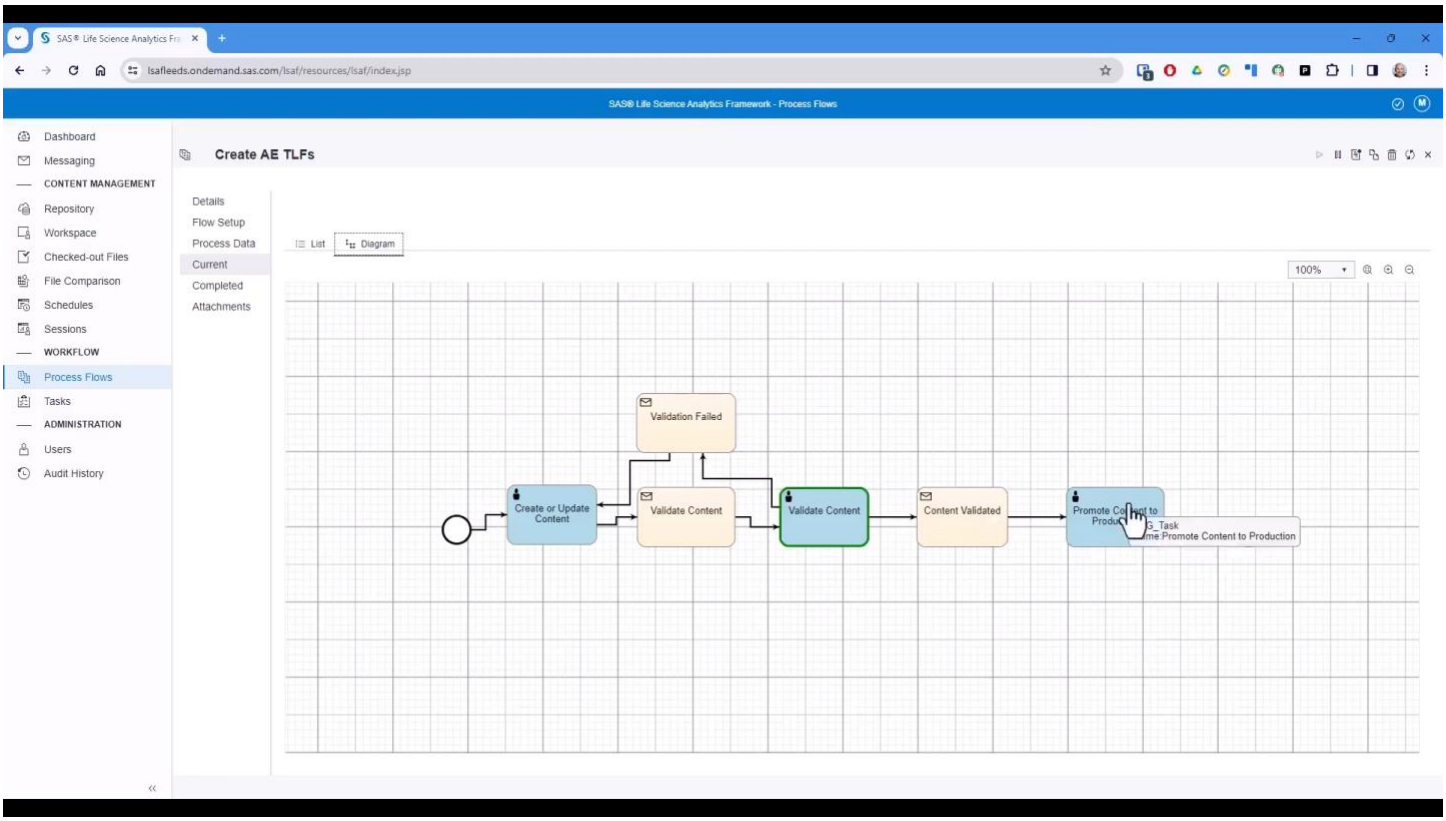
LSAF provides a comprehensive environment for programming and version control. The workspace status feature allows users to check the status of files in their workspace, make changes, and compare their version to the repository version. The editor in the submission engine has additional tabs for submission inputs and outputs, which show the files, data, and macros used in the program and the output created. LSAF supports both SAS and R programming languages, and users can run programs in the same environment. Finally, users can check in their changes to the repository for the final version.

Jobs in LSAF



In LSAF, jobs are used to create drive data sets, tables, listings, and figures. A job is a set of programs that run in a specific order, which can be SAS or R programs. One of the new features of LSAF is the impact analysis, which shows if any component of the job has changed since it was last run. The manifest file is a key component of the job, which shows the details of the job, the programs used, the inputs, and the outputs. LSAF also has search functionality and an audit trail, which stores all the information about modifications and comments made to the job.

Workflows in LSAF



Workflows are an essential part of LSAF, and they are commonly used for dev-test prod. The process involves developing a program, QC-ing it, and then promoting it. In LSAF, workflows are assigned to individuals, and tasks are completed as they progress through the workflow. The progress of the workflow can be tracked, and tasks can be assigned to individuals. Once a task is completed, it can be approved or rejected. In this way, workflows ensure that the program is thoroughly tested and validated before it is promoted. Overall, workflows are an essential part of LSAF, and they help to ensure that the program is of the highest quality.

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That's why ongoing collaboration between SAS and Intel is so important for our customers. Together with SAS solution providers, we know how to connect all the dots on analytics strategies to deliver practical solutions that deliver real, measurable results – at any scale.