User Management with Audit Trail

Brent DiGiorgio, Kevin LeVan, ChangSheng Jonathan Liu, Softgenetics LLC

Introduction

Mutation Surveyor software v5.0 has added a User Management and Audit trail system to control access rights and track mutation edits in Sanger Sequencing projects. Lab directors or administrators now have the ability to establish unique user login names and passwords in order to gain access to Mutation Surveyor software. Access and project rights for each user are determined by the administrator, providing assurance that unauthorized individuals do not accidently alter a project or change the analysis parameters established by the laboratory. This system works in conjunction with the audit trail report to capture and time stamp each change recorded in a mutation project, including edits, additions, or deletions.

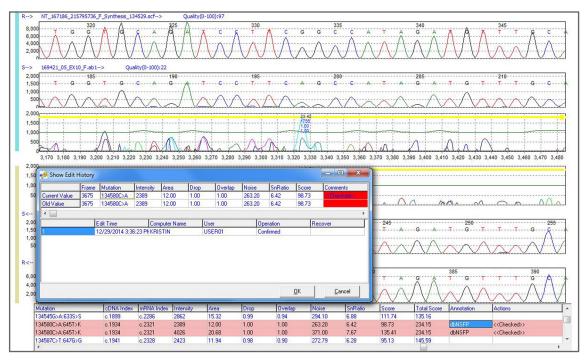


Figure 1: The Audit Trail feature of Mutation Surveyor records various parameters related to a mutation edit such as date and time of edit, computer name, Mutation Surveyor user name, and the type of edit.

Procedure

Install SoftGenetics Server

- 1. Open Mutation Surveyor by right clicking and selecting "Run as Administrator".
- 2. When Mutation Surveyor opens, go to Help > User Management > Install Local Service.
- 3. Follow the steps in the wizard to install the service and establish an Administrator account and password.

Add New Users and Establish User Permissions

- 1. Navigate to Help > User Management > Manage Settings to open User Management settings.
- 2. Click the "Group" tab, and select "Add Group" to create a new group and select permissions.
- 3. Click the "User" tab, and select "Add User" to create a new user name and assign it to a group of permissions.





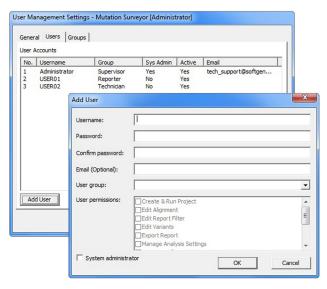


Figure 2: The User Management system allows administrators to create new user accounts and assign user permissions.

Results

An Edit History Report (Figure 1) is created for each mutation call and can be accessed from the mutation report by right clicking the variant and selecting "View Edit History". The Edit History Report records multiple edits made to a variant. To remove an edit and recover a previous value, right click the entry and select "Recover Old Value".

The User Management system also creates a User History Report (Figure 3) which tracks user log in/ log off time and edits to user profiles. To access this report, open user management and select "View Log". System administrators have the option to view and save the contents within this report.

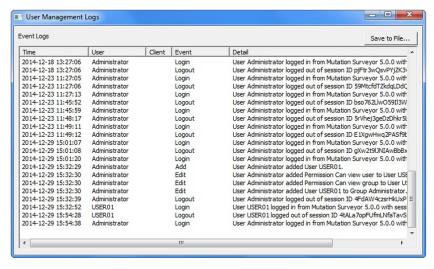


Figure 3: The Login History Report records user management activity such as Login and Logout time and edits to user accounts.

Discussion

Mutation Surveyor software provides fast, accurate, and sensitive DNA variant detection from capillary sequencing. Along with patented Anti-Correlation technology, Mutation Surveyor software also features a User Management and Audit Trail system that provides control of user access rights and automatically generates an audit trail of all edits to Sanger Sequencing projects. User permissions are established by the laboratory administrator, and each change to the project is captured by user and time stamped for rapid and easy review.



