Microarray Applications and Automated Axiom™ Analysis Software Checklist

IMPORTANT! To ensure a trouble-free software installation at your site, enter all required information on this form. After completing the form, save and email it to your Thermo Fisher Scientific Field Service contact.

Overview

The installation of the Axiom System software is dependent on completing the requirements and installation protocols listed on this document. Protocols include, installation of the GCC File Uploader Service, Microarray Applications, Automated Axiom Analysis software, and the Axiom library file package.

The checklist items must be verified with a check mark to indicate they are ready and/or understood. This questioner/checklist must be completed and submitted prior to scheduling an Automated Axiom software installation.

Lab Manager/Supervisor Responsibilities

- ■ The GCC software currently at v6.1 [or higher]

- ■ The Server meets specification defined on this form.

- ■ The required personnel (Lab Manager, IT) will be available during the installation.

Expectations

- ■ Your site and server is prepared for the installations of Automated Axiom and GCC File Uploader.

- ■ This form is fully completed, saved, then emailed to the Site's assigned Thermo Fisher Field Service Representative.

- ■ The required information listed below is documented, as it may be needed during the installations.

- ■ If Network Share is to be used, it must be configured and ready to use prior to scheduling the Automated Axiom software installation.

- ■ The system account to be used to install the software must have both read and write access to the mounted network share. This account must be the same account that runs the software.

- ■ The EULA can be found in **apps\automated-axiom\legal** of the installation package. Make sure to review the EULA before installing Automated Axiom.

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Definitions

- **Server** - The customer-owned & supplied Linux system that the Microarray Applications and Automated Axiom will be installed on and all data will be hosted on after scanning. **Note:** Server must be added to the customer's domain.

- **GeneTitan Workstation**

  - The Thermo Fisher Workstation that is connected to and runs the GeneTitan.

  - Arrays are scanned to local hard drive, and then transferred to the customer's final target location automatically.

  - The GeneTitan Workstation should be added to the customer's domain.

  - Is NOT an analysis workstation.

- **Axiom System** - Consists of Microarray Applications and Automated Axiom Analysis Software

- **AutoAx** - Acronym in this document for the Automated Axiom Analysis.

- **Microarray Applications** - Application that is installed on server and which AutoAx resides.

- **FSE** - Field Service Engineer

- **GCC File Uploader** - Application that resides on GCC workstation and uploads CEL and ARR to the Microarray Applications.

- **SSH Terminal** - Secure Shell application that is used to log into the server from a customer's PC for executing commands, such as installations and maintenance.

System setup information

Note: The Automated Axiom installation requires an Internet connection in order to install docker and other needed utilities. After a successful installation, an Internet connection is no longer required.

After scanning and CEL file generating completes, the data generated from the workstation for the assays is sent through the **GCC File Uploader** service, through the customer's network, then to the customer-owned-and-controlled data storage location. This is either the Server (local storage) or the Network Share (if mounted).

1) The customer is responsible for backing up/archiving of data. For more information, see the *Archiving* appendix in the *Automated Axiom User Guide* (P/N MAN0030173).

2) The customer is responsible for Data and Capacity management on the server and/or network share location.

3) The GeneTitan PC must be set up and managed for archiving.

Initial/check to acknowledge the points above.

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Lab manager or supervisor must verify the following information prior to scheduling installation

- The currently installed GeneTitan GCC version is v.

Note: v6.1 (or higher) is required. If version v5.0 (or lower) is currently installed on your workstation, contact your Support representative about upgrading to v6.1.

- Enter your Linux Server information

Note: Unbuntu **v22.04.2 LTS** is required. The installer will install Docker **v24.0.7-1** which works with this specific this OS version.

  - GHz (Recommended 3+)

  - Number of Cores Available (Recommended: 6+)

  - Memory (Recommended: 64GB+)

  - Local Disk Space (5-10TB is recommended)

OR

  - Network Share Space (Recommended: 5-10TB or higher.
    Note: Server minimum must be 500GB)

Note: If using a Network Share, we recommend a minimum of 5-10TB, as storage capacity depends on the array type and plate through-put.

Permissions

Folders and files must have the same ownership and permissions to allow the system user running the software to have access.

Note: If a Network Share is used, the system's user must have the same ownership and permissions as the system account that runs the software.

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AutoAx System Installation Checklist

This questionnaire and checklist and must be completed by an informatics or IT support group within your organization. Installations, upgrades, and training cannot be performed until this form is completed. **Note:** If an entry/question is not applicable, enter **N/A**.

1. System account login credentials to be used for Core and Automated Axiom on the server:

- Account Name:

- Account Password:

If account name and password cannot be shared, provide name of the person(s) who will also be accessing the system account.

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2. Designated Server's DNS name or IP address:

- Name / IP Address:

3. Make sure the SSH Server is installed for your Distro.

4. In order to perform maintenance on the server, a client computer with an SSH client utility must be installed and has access to the Linux server.

5. Create a **/srv/core/** directory. This will be where the software will be installed and where your data will be stored.

> **Note:** This **/srv/core/** directory and all its subdirectories must have same permissions and ownership as the system user that will be used to run the software.

6. Create the roots sub-folder under core. Example: **/srv/core/roots**

7. Is your data going to reside on a Local server or on a shared network?

If Local, skip to **Step 9**. If Shared Network, continue to **Step 8**.

8. Network share mounting point.

- Network Mounting Point: **/srv/core/roots** where **roots** is a mounting point to network share and not the software installation location.

9. Make sure the appropriate switches for your Distro are set to automatically mount upon boot.

10. Verify system account can read and write to your designated **roots** folder.

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Site Information

Site Name:

City/ State:
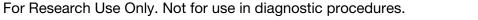
Country:

Your Thermo Fisher Field Support contact:

Customer Contacts (those involved with the AutoAx installation)

It is important that the personnel you list below will be available and on-site during the Core, AutoAx, and the Library files installation.

- Name of IT person:

  - Cell number:

  - Office number:

  - Email address:

- Name of Bioinformatics Specialist:

  - Cell number:

  - Office number:

  - Email address:

- Name of Scientist or Primary End User:

  - Cell number:

  - Office number:

  - Email address:

AutoAx Workstation Information

List the initial library files and workflows to be loaded onto the Automated Axiom system and the initial array types you plan to use.

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Staff Required during installation

IT personnel will be available to configure network and install software.

Scientists are aware of installation.

Bioinformatics are available for contact or for locating any necessary staff members.

Sign off

IMPORTANT! If Thermo Fisher is required to do additional work while on-site because this Checklist was not completed prior to arrival, a Purchase Order number will be required for charges incurred during the extended on-site time.

I verify that the above information is correct and will be configured prior to Thermo Fisher's arrival for their installation of the Axiom System.

The necessary IT and Bioinformatics personnel will be available to work with Thermo Fisher staff during the installation.

IMPORTANT! **Save** and **email** this completed form to your Thermo Fisher Scientific Field Service contact.

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