3M™ Clean-Trace™ Hygiene Monitoring and Management System

This document is a supplement to the 3M™ Clean-Trace™ Hygiene Management Software User Manual and the 3M™ Clean-Trace™ Luminometer User Manual. This supplement contains instructions for installing or upgrading both the 3M Clean-Trace Hygiene Management Software application to version 1.5.0.22 and the 3M Clean-Trace LM1 Luminometer software (also known as LM1 APK) to version 1.3.0.10. The upgrades provide the following improvements:

- Improved Management of Multiple Locations
- Improved Time Zone Management
- Additional Improvements in the 3M Clean-Trace Desktop software
- Additional Improvements in the 3M Clean-Trace LM1 software (APK)

The 3M Clean-Trace NG3 Luminometer (NG3) is not defined as Compatible to fully operate with the 3M Clean-Trace Hygiene Management Software version 1.5.0.22.

If planning to use the 3M Clean-Trace Hygiene Management Software with both LM1 and NG3 Luminometers, please install the previous version of the 3M Clean-Trace Hygiene Management Software version 1.4.0.2.

Need help? Request assistance by clicking on the link below or, contacting your 3M representative.
Get installation help from 3M
New to the 3M Clean-Trace Hygiene Management Software? Let’s put some labels on the 3M Clean-Trace Hygiene Management Software Dashboard screen.

Throughout this document, we will refer to Plant or Level1. The 3M Clean-Trace Hygiene Management Software enables users to define an organizational structure with up to four hierarchy levels, where Test Points and Sample Plans will be assigned. We will refer to the first level of this hierarchy as Level1 by default, or Plant. Users will however be able to rename these as they see fit within their operation.

In the image below, the default Level1, Level2, Level3 and Level4 was renamed to: Plant, Department, Line and Equipment.
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A. Preparing for the 3M Clean-Trace System Installation

This section will provide general system requirements, system components and installation configuration options for the 3M Clean-Trace Hygiene Monitoring and Management System.

<table>
<thead>
<tr>
<th>1. Installation Requirements</th>
</tr>
</thead>
</table>
| Installing user. | • Ensure installing user has Administrative privileges on the Host or Client computer.  
• Ensure installing user has Full/Modify permission on the C: drive or installation folder.  
• Ensure Group Policies do not prohibit user or computer from performing this action. |
| Operating System | Microsoft® Windows® 7 SP1 (32- or 64-bit), Microsoft® Windows® 8 (32- or 64-bit), Microsoft® Windows® 8.1 (32- or 64-bit), or Microsoft® Windows® 10 (Ultimate, Professional and Enterprise editions)  
| Applications | • Microsoft® SQL Server 2012  
• Microsoft® SQL Server 2016  
• IIS or Web Publishing Service is enabled or can be enabled on the Host computer.  
• At least one of the following Web Browser:  
  ❖ Microsoft® Internet Explorer version 11 or higher  
  ❖ Google Chrome™ version 45 or higher  
  ❖ Mozilla® Firefox® 41.0.1 or higher |
| Development Tools | • Microsoft .Net Framework 4.0 or higher |
| Hardware | • Microsoft® SQL Server Management Studio, will help with:  
  - Backing up or restoring database (Frequent database backup is strongly recommended)  
  - Troubleshooting database issues  
  - Database management  
  - Requesting support from 3M  
• Microsoft® Access will help with migrating from NG3 software platform  
• Microsoft® Excel will help with importing or exporting data from or to .CSV or .XLS files  
• A PDF Viewer to view reports generated in PDF |
| Recommended applications. | • Microsoft® SQL Server Management Studio, will help with:  
  - Backing up or restoring database (Frequent database backup is strongly recommended)  
  - Troubleshooting database issues  
  - Database management  
  - Requesting support from 3M  
• Microsoft® Access will help with migrating from NG3 software platform  
• Microsoft® Excel will help with importing or exporting data from or to .CSV or .XLS files  
• A PDF Viewer to view reports generated in PDF |
| Ensure anti-virus or firewall does not prevent installation or execution of any feature of: | • 3M Clean-Trace Hygiene Software  
• Microsoft SQL  
• Microsoft IIS. |
| Engage your IT group to: | • Confirm TCP ports 9002-9005 are open inbound and outbound on the computer/network  
• Confirm UDP ports 1433-1434 are open inbound and outbound on the computer/network  
• 3M Clean-Trace Hygiene Software is not blacklisted in security applications (if necessary) |
| SMTP Server information if intend to enable email notifications. | • SMTP Server name _____________________________  
• Port number _____________________________  
• Domain name __________________________________  
• Secure Email server (Y/N) ________________________  
• Email and Password if secure email server ___________ |
| Ask your IT group for this information: | 1. SMTP Server name _____________________________  
2. Port number _____________________________  
3. Domain name __________________________________  
4. Secure Email server (Y/N) ________________________  
5. Email and Password if secure email server ___________ |
2. System Components

<table>
<thead>
<tr>
<th>Web Application</th>
<th>SQL Database</th>
<th>Sync Manager</th>
<th>Luminometer</th>
</tr>
</thead>
</table>

3. Installation Configuration Options

**Single Computer**

- All three software components of the system will reside on the workstation.
- Follow instructions for How to Install 3M Clean-Trace Software on a Server or Single Computer (Section C).

**Server Install with Remote Database Server**

- The 3M Clean-Trace Software is installed on a server or a centralized computer.
- The SQL database resides on a different computer/server.
- The computer hosting the 3M Clean-Trace Software or hosting the SQL database can be virtual server(s). This assumes they will not be used for USB or Bluetooth synchronization.
- Client Computer must be a physical workstation, with USB ports.

**Server Installation:** Follow instructions for How to Install 3M Clean-Trace Software on a Server or Single Computer (Section C), then select the SQL Server to host the database.

**Note:** Installing user must have administrative rights on the remote SQL server and SQL Instance.

**Client Installation:** Follow instructions for How to Download, Install and Upgrade Sync Manager on Client Computer. (Section D).

**Server/Network Installation**

- The 3M Clean-Trace Software and the SQL database are installed on a server or a centralized computer.
- This centralized computer can be a virtual server, assuming it will not be used for synchronization.
- A Client computer must be a physical workstation, with USB ports.

**Server Installation:** Follow instructions for How to Install 3M Clean-Trace Software on a Server or Single Computer (Section C).

**Client Installation:** Follow instructions for How to Download, Install and Upgrade Sync Manager on Client Computer. (Section D).

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*APP refers to the 3M Clean-Trace web application
**DB refers to SQL Server and 3M Clean-Trace SQL database
***SM refers to Sync Manager
****Client here refers to workstation with Sync Manager installed
B. How to Download the Latest Version of the Software

Upgrades to the 3M Clean-Trace Hygiene Monitoring and Management System Software are available through the www.3M.com/foodsafety/cleantracesupport website. You can also visit this site if you have any questions or require support.

1. To download the 3M Clean-Trace Hygiene Monitoring and Management Software, click “Download Software.”

2. The Download Registration screen will open, fill out the registration form, select the Instrument type and indicate whether you would like to receive electronic messages from 3M Food Safety. Then click “Submit” at the bottom of the page.
3. A confirmation screen will be displayed upon a successful registration. The system will also instantly send an email to the email address used for the registration. The email will come from 3M@Engage.3M.com. If you do not receive an email after few minutes, check your Spam or Junk email folders.

4. From the email you received, click “Download Now” to begin downloading.

5. Before installing or upgrading from a previous version of the 3M Clean-Trace Hygiene Monitoring and Management System Software, check the compatibility section in the User Manual Supplement.

The software download and support page will take you to the screen below.
C. How to Install 3M Clean-Trace Software on a Server or Single Computer

The 3M Clean-Trace Hygiene Management Install Wizard will:

- Enable IIS on the host computer, if it is not already running. Internet Information Services (IIS) is a web server from Microsoft® and available on Microsoft® Windows systems.
- Install the 3M Clean-Trace Hygiene Management Software, which includes the installation of Microsoft® SQL Server® 2012 Express. If a compatible Microsoft® SQL Server is already installed, an option to use an existing Microsoft® SQL Server will be provided during the 3M Clean-Trace Hygiene Management Software installation. Microsoft® SQL database is essential in enabling the storage, retrieval and management of data captured during hygiene and environmental monitoring processes.

1. Close all open applications before starting the installation or upgrade of 3M Clean-Trace Hygiene Management Software.
2. Locate the 3M Clean-Trace Hygiene Management Install Wizard .exe file.
   a. Right click.
   b. Select Run with Elevated Privileges or Run as Administrator.

3. Accept prompts for User Account Control, if displayed.

4. After the Extracting Files screen, a Welcome screen will be presented.
5. Read the End User License Agreement.
   a. Check the checkbox to accept the terms of the License Agreement.
   b. Click “Next” to continue with the installation process.
The installer will now check the local computer/server for compatibility with the 3M Clean-Trace Hygiene Management Software. The check confirms your system’s ability to run the 3M Clean-Trace Hygiene Management Software.

The 3M Clean-Trace Hygiene Management Software Readiness Tool can also be downloaded and executed separately (www.3M.com/foodsafety/cleantracesupport).

Each checked category will be marked with:
- A green check ✔️ if compatible with the software.
- A red X ✗ if any issue that may affect compatibility is found; suggestions to address the issue will be provided.
- When installing on a virtual machine/server, a warning related to “USB port not available on computer” will be displayed. Disregard this warning if this host will not be used for USB synchronization.
- Other warnings may also be displayed for Microsoft Excel, available memory, or others. Warnings will not present the installation to proceed but it will point out areas that may need your attention.

A full report on the system check is available by clicking on the link at the bottom of System Check screen.

6. Click “Next” to continue.

7. On the Database Options screen, the user is presented with two database installation options:
   a. Use Existing Server. Select this option if planning on using an existing compatible SQL server database.
   b. Install New. Select this option if a compatible SQL Server database is not present or, if a new SQL Server installation is desired for this application. This option will install Microsoft® SQL Server® 2012 Express. Click “Next” to continue (from Step 10).
8. If **UseExisting Server** option is selected, then select the database server from the Server Name drop-down or type the database server and instance name as shown below. Then click **“Connect to Server”** to verify connectivity to the selected database server.

![Database Options](image1.png)

9. The **Next** button is enabled if connection to SQL database server was successful. Click **“Next”** to continue with the installation and go to step 10.

If a message displays, showing that connection to the SQL database server was not successful, follow the steps below.

![Database Options](image2.png)

a. Ensure that the SQL Server Instance’s name is correct.
b. Ensure that the SQL Server Instance is running.
c. Select to connect to the server using an alternate database specific login.

10. The **Administrator Options** screen will allow users to be authenticated to the software. Two sign-in methods are supported:

a. **Same sign-in as my company**: This login is typically the same username and password that is being used to login on your company’s computers/network.
b. **User’s email address and new password**: Use an email address and a new password that is specific for the 3M Clean-Trace Hygiene Management Software.

11. Click “Save & Continue” to proceed.

12. On the **Administrator Options > Administrator Information** screen, enter information for the software administrator, then click “Save & Continue” to proceed.
13. On the **Administrator Options > Company Information** screen, enter your company’s name, then click “Next” to proceed.

14. On the **Review & Install** screen, review the information and click “Install” to continue.

15. The **Installation in Progress** screen will open, and installation will begin.

16. During the installation process, several pop-up windows may be displayed. Select “Allow” or “Install” in each instance to continue through the install process.

17. The **Installation Complete** screen is displayed when the software is successfully installed. Click on “Launch Application” to launch the web application. The web application will open using your default web browser.
18. Log-in using the administrator information provided in step 12. If in step 10 you opted to log-in with “User’s email address and new password,” you will be prompted to set your new personalized password. But if you opted for “Same sign-in as my company,” you will need to provide your windows password to log in.

a. Enter the Administrator email or username provided during installation and click “Continue.”

b. If the email or username is wrong or does not match any user’s credential present in the software, you will not be able to proceed.

c. If the email or username match the one provided during installation, the password field will display and ask you to choose a password for this account. Click “Save & Continue.”

The new password must meet minimum password requirements (Password Requirements can be modified from within the software – Step 22.)
19. Click “Begin Setup” on the welcome screen.

20. In the Personal Preferences screen, verify language preference and set a secret question for password reset. Then enter the answer to the secret question.

21. Your Luminometer Pin Code can be skipped at this step. Activation of the Pin Code for the entire application will be done in the Organization Configuration screen.

22. In the Organization Preferences screen, users have the option to customize settings to suit their organizational needs. Then Click “Next” and confirm by clicking “Yes” on the Confirmation screen. The following can be managed:
   a. Email notification can be enabled.
   b. Temperature, date and number format.
   c. Pin code can be enabled for extra security on LM1 Luminometers.
   d. Strong login password can be enabled or disabled.
   e. Retention policy for Test Results on the LM1 Luminometer.
23. Create additional Administrator users. e.g., QA Manager by clicking on “Add User.”

**Note:** After completing the initial setup of the 3M Clean-Trace Hygiene Management Software, each new user will be presented with the Sync Manager Setup screen with link to download the Sync Manager. Please ignore and close this screen by clicking on “X” at the top right corner of the screen if:

- You just installed the 3M Clean-Trace Hygiene Management Software on this computer
- You have the Sync Manager already installed on this computer
- You are not ready to install the Sync Manager on this computer
D. How to Download, Install and Upgrade Sync Manager on Client Computer

This section is applicable to Server/Network installation only. The Sync Manager is automatically installed/upgraded on the Host computer (Desktop/Workstation) as part of initial software installation/upgrade.

1. How to Download Sync Manager

Upon first time login, users will be presented with a Sync Manager Setup notification screen that provides the rationale for installing Sync Manager. The Sync Manager can also be downloaded from the 3M Clean-Trace Hygiene Management Software under the Help (?) menu as shown below.

   a. Select Download Sync Manager. A window will open with Sync Manager Setup instructions. At the same time a Save as window will open. Note that the file name contains your server name. Select “Save as” and specify the save location.

   b. On the Sync Manager Setup screen, click “Next” and “Done” in the following window.
c. When the Sync Manager installer download is complete, the window below will be displayed. Select Open folder to access the download location.

2. How to Install Sync Manager
Follow the steps below to Install the Sync Manager.

a. Navigate to the Sync Manager installer download location. Locate the Sync Manager installer.

b. Right click on the Sync Manager installer and select Run with Elevated Privileges or Run as Administrator.

c. If you see the “Confirm Elevation” window, click “Allow,” file extraction will start.
d. The **Review & Install** screen will display after completion of file extraction. On this screen, the user will have the option to select the language and installation location. Accept the License Agreement (1) and click “**Install**” (2) to continue the installation.

![Review & Install screen](image)

![Installation in Progress](image)

<table>
<thead>
<tr>
<th>3M Clean-Trace™ Luminometer Sync Manager - Installer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Installation Complete</strong></td>
</tr>
<tr>
<td>You have successfully installed 3M Clean-Trace™ Luminometer Sync Manager Software.</td>
</tr>
<tr>
<td><strong>Launch Application</strong></td>
</tr>
</tbody>
</table>

![Launch Application](image)

<table>
<thead>
<tr>
<th>3M Clean-Trace™ Luminometer Sync Manager - Installer</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M®Clean-Trace™LuminometerSyncManagerInstallerWizardInstallerVer.1.5.0.210419.2037.exe</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Date modified</th>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M®Clean-Trace™LuminometerSyncManager InstallerWizardWizardVer.1.5.0.210419.2037.exe</td>
<td>5/10/2010 12:43 PM</td>
<td>Application</td>
<td>87,902 KB</td>
</tr>
</tbody>
</table>

![This will be replaced with your server’s name.](image)

e. The **Installation Complete** screen will be displayed to indicate completion of the Sync Manager installation. Click “**Launch Application**” to finish and start the Sync Manager.

![Installation Complete](image)

3. **How to Upgrade Sync Manager**

Follow the steps below to upgrade the Sync Manager.

a. Navigate to the location the Sync Manager installer was saved and locate the Sync Manager installer.

![Sync Manager installer](image)

<table>
<thead>
<tr>
<th>Name</th>
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<th>Type</th>
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</tr>
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<td>5/10/2010 12:43 PM</td>
<td>Application</td>
<td>87,902 KB</td>
</tr>
</tbody>
</table>

This will be replaced with your server’s name.

b. Right click on the Sync Manager installer and select **Run with Elevated Privileges** or **Run as Administrator**.

![Run with Elevated Privileges](image)
c. If you see the Confirm Elevation window, click “Allow” and the file’s extraction will start.

d. On the Sync Manager Installer screen, there are two options: uninstall the current Sync Manager installation or continue with the upgrade. Click “Next” to continue with the upgrade.

e. The Upgrade Complete screen will be displayed to indicate completion of the Sync Manager upgrade. Click “Launch Application” to finish the upgrade and start the Sync Manager.

⚠️ After the Sync Manager upgrade completion, make sure you follow instructions in section “H” below for upgrading your LM1 Luminometer to the APK version 1.3.0.10.
E. How to Upgrade the 3M Clean-Trace Hygiene Management Software from a Previous Version

1. Backward Compatibility

Software Upgrade Backward Compatibility
Before upgrading the 3M Clean-Trace Hygiene Management Software, verify that your current 3M Clean-Trace Hygiene Management Software is one of the following versions:

- Version 1.4.0.2
- Version 1.3.1.2
- Version 1.3.1.0

If you are upgrading from a version different from those above, request assistance by clicking on the link below, or by contacting your 3M representative.

The 3M Clean-Trace NG3 Luminometer (NG3) is not defined as compatible with the 3M Clean-Trace Hygiene Management Software version 1.5.0.22
If using, or planning to use the 3M Clean-Trace Hygiene Management Software with both LM1 and NG3 Luminometers, do not upgrade your 3M Clean-Trace Hygiene Management Software to the current version.

Get installation help from 3M
For detailed instructions on how to check your 3M Clean-Trace Desktop Software version, and your 3M LM1 Luminometer Software (APK) version, refers to the section “G” below titled “Information for Users”.

Synchronization Backward Compatibility
3M LM1 Luminometers running any of the APK version listed below, will be able to successfully synchronize with the 3M Clean-Trace desktop software version 1.5.0.22.

- Version 1.3.0.10
- Version 1.2.0.5
- Version 1.1.1.1
- Version 1.1.1.0
- Version 1.1.0.0
- Version 1.0.9.10

During the USB synchronization, the user will be prompted to upgrade the Clean-Trace software running on the connected LM1 Luminometer. It is very important to Accept this upgrade and follow the steps to Install the new APK upgrade on the LM1 Luminometer.

2. The Upgrade process
The Upgrade Wizard will preserve user’s data when a successful software upgrade is performed.

Before upgrading from a previous version of the 3M Clean-Trace Hygiene Management Software, it is now:

1. Required to Synchronize all your 3M Luminometers
2. Strongly recommended to Perform a Clean-Trace SQL database backup
3. Required to upgrade the Clean-Trace Software on the LM1 Luminometers after successfully upgrading the desktop software and Sync Manager. (Follow instructions in section H below)

An LM1 Luminometer operating on APK version other than 1.3.0.10 will not be fully compatible with the Clean-Trace desktop software v1.5.0.22.

To back up your Clean-Trace database, use the instructions starting on Page 26 of the 3M Clean-Trace Hygiene Management Software User Manual in the section titled “Back up the Database.”
3. **For Desktop or Standalone deployment**

Follow the steps below to upgrade the 3M Clean-Trace Hygiene Management Software:

a. Run the software installation file from the PC desktop or server computer; (refer to section A for; How to Download the Latest Version of the Software).

   **Note:** Be sure to run with elevated privileges or run as administrator. Accept prompts for User Account Control, if displayed.

b. The Installer screen will open. The **Installation Upgrade** screen will be presented, after the **Extracting Files** screen. Click “Next” to continue with the Upgrade Process.

c. The **Welcome** screen will be presented; read the End User License Agreement, check the checkbox to accept the terms of the License Agreement and click **“Next”** to continue with the installation process.

d. The **Upgrade in Progress** screen will be displayed.
e. Several pop-up windows may be displayed throughout the upgrade process depending on your computer system. Select “Allow” or “Install” if necessary, to continue through the upgrade process.

f. The Upgrade Complete screen will be displayed when the software is successfully upgraded. Click “Launch Application” to launch the web application. The web application will open using your default web browser.

g. On first login following the software upgrade, user will be presented a screen with some of the major improvements in this release. Click “Next”, then “Got it” to continue.

Note:

- Be aware that this upgrade will not change the content of your existing configurations. All data and user login configurations will remain the same as before.
- Test Types were improved in the previous Clean-Trace software version 1.4.0.2. Numeric Pass/Fail is no longer accepted for qualitative values. If upgrading from earlier version (v 1.3.1.2, 1.3.1.0) You may need to review these settings after the upgrade, if this will impact your operation.

4. For Server or Network Installations
   a. First, the Clean-Trace Software must be upgraded on the Host computer. Follow the steps in the section “E” above, to upgrade the Clean-Trace installation on your Clean-Trace Application server or Host.
   b. Then, the Synchronization Manager must be upgraded on all Client computers. Follow the steps in section “D” above, to upgrade the Sync Manager on a Client computer.
F. Updates to this version of 3M Clean-Trace Hygiene Management Software (v1.5.0.22)

- Improved Management of Multiple Locations
  - Improved data filtration by Plant (Level1)
  - Data/Performance by Plant (Level1)
  - Sample Plan by Plant (Level1)
  - User by Plant (Level1)

- Improved Time Zone Management
  - Time zone requirement for Level1
  - Data Import: (Time Zone is required for data being imported)
  - Test Results displayed with time zone stamp (e.g., 8:00 CST)
  - Data filtration in dashboard and reports are based on user’s date selection.

- Additional Improvements in the 3M Clean-Trace Desktop Software
  - Luminometer registration from the Web Application
  - Test Point Description and image deletion
  - Ability to bulk delete of Test Points and Users
  - Time format for the Organization (12hr/24hr)
  - Enhanced User management between Desktop Software and LM1 Luminometer

- Additional Improvements in the 3M Clean-Trace LM1 software (APK)
  - 3M Clean-Trace LM1 Luminometer Initialization Wizard
  - Allowing LM1 Luminometer to initiate Synchronization after a Diagnostics Check error
  - Current Date and Time displayed in LM1 Luminometer Home page
  - Users Listed Alphabetically in LM1 Login screen, with search functionality
  - Improved Usability of the 3M Clean-Trace LM1 Luminometer Software

1. Improved Management of Multiple Locations
   - Improved data filtration by Plant or Level1
     
     In this release, data filtration was enhanced. It is now possible to view data from only specific Plant(s) or Level1(s) throughout the software. This includes all data: Locations, Test Points, Test Types, Sample Plans, Users, Comments.

     To take advantage of this global filtering feature, a user must be assigned to more than one Plant or Level1.

     - Login to the 3M Clean-Trace Hygiene Management web application.
     - In the top part of the 3M Clean-Trace Hygiene Management web application screen, locate the Plant or Level1 drop-down.
     - Click on the drop-down arrow and the list of available Plant(s) or Level1 will be presented. Uncheck the “All” if necessary, then check the one(s) you would like to view.
b. **Data/Performance by Plant or Level1**
   In this release, data separation has been implemented per Plant or Level1. This will enable large operations to setup and allow individual plant managers to be able to customize their details, as it fits their needs, and rely less on global configurations.

   Some of the impact of data separation by Plant will include the following:
   - Clean-Trace users will be assigned to Plant or Level1. Therefore, each user will be able to see and possibly modify only the data pertaining to the Plant(s) they are assigned to.
   - Test Points will be assigned to location(s) within one Plant or Level1 at a time.
   - Test Types and Cleaning Variables will also be assigned to Plant or Level1. This will enable some Plant(s) to use a Test Type that may not be applicable to other Plant(s) within the same organization.
   - Comments will also be assigned to Plant or Level1. This will also enable some Plant(s) to be able to set and use a Comment that may not be applicable to other Plant(s) within the same organization.
   - Within a Sample Plans, it will not be possible to have Test Point(s) from different Plants or Level1. All Test Points within a Sample Plan will have to be from the same Plant or Level1.
   - Data Import; for a clean and smooth data import process, we are NOT recommending importing a dataset with data including two Plants or Level1s. If importing data for more than one Plant, we recommend separating the dataset by Plant or Level1, then import it one Plant or Level1 at a time.

   c. **Sample Plan by Plant or Level1**
      When creating or editing a Sample Plan, ensure all Test Points assigned to this Sample Plan, belong to the same Plant or Level1.
      The 3M Clean-Trace LM1 Luminometer will only display Test Points that are part of the Plant or the Level 1 the Luminometer is assigned to. Additionally, LM1 logged in Users will only be presented the Sample Plans assigned to them.

   d. **Users to Plant or Level1**
      Assigning user to Plant or Level1 is now possible. This will allow specific user(s) to only view and edit the data from the Plant(s) or Level1(s) that they are assigned to.
      Assigning a user to Plant or Level1 can be done when adding the new user to the Clean-Trace Software, or by editing existing user account. In both cases, the adding user must be in the admin role on the Plant(s) to be assigned to the new user.

      To assign a Plant or Level1 to a user, follow the steps below.
      - Login to the 3M Clean-Trace Hygiene Management web application.
      - Navigate to the Users’ tab (Settings > Users).
      - Click on “**Add New User**”, or click on existing user
      - Fill or edit User’s details in the **User Information** screen
      - In the **Assigned Plant** section of the screen, click on the drop-down arrow and the list of available Plant(s) or Level1(s) will be presented. Check the Plant(s) you would like to assign to this user. Multi-selection is allowed.
      - Click “**Next**” at the bottom of the page to confirm selection.
2. Improved Time Zone Management

Many of the improvements in the new 3M Clean-Trace Hygiene Management Software version 1.5.0.22 are related to time zone management and user’s experience for multi-time zone operations.

a. Time zone requirement for Plant or Level1

To record, track and display Test Results, we require users to provide a time zone for their Plant or Level1. Each Plant or Level1 added to your Clean-Trace installation will need to have a country and time zone defined.

To provide time zone for existing Plant or Level1, follow the steps below.

- In the Facilities view, click “Edit” to activate the edit mode
- Hover the cursor over the Plant or Level 1 you would like to update, and click the little pen image that will display, then select “Edit”. You may also just double-click.

- In the Plant edit mode, provide the Country and a Time zone for the Plant or Level1.
b. **Data Import**

The time zone requirement for Plant or Level1 will also impact the Data import feature within the 3M Clean-Trace Hygiene Management Software. Imported Plant(s) or Level1’ data will need to have time zone associated to it. The import process was updated to include time zone selection for the data being imported. Because user will only be able to select time zone once during an import process, we recommend importing data from one Plant or Level1 at a time, especially if they are in a different time zone.

When importing data to your existing installation, follow the steps below.

- In the **Data Import** tab, click on the Plant’s drop down and select **New Plant**. We do not recommend adding data to an existing Plant through data import.

- Then Select your import option and attach the necessary file(s) then click “**Map and import files**”

- In the next screen, Specify the **Country** and **time zone** for this Plant or Level1 Then Click Next

- In the next screen, adjust column mapping if needed the click Import.
The import request will be processed, and feedback presented on the screen click “Import More Data” if you have additional Plants to import, otherwise you are done with your import.

c. Test Results are displayed with time zone stamp

Part of improving multi-location and time zone management is improving the way Test Results are presented back to users. In this release, Test Result will now be presented to users with indication of the time zone where the Test Result was collected from.

d. Data filtration in dashboard and reports is based on user’s date selection

When filtering data, the selection will be displayed based on user’s date selection, independently of time zone or time zone conversion.
3. Additional Improvements in the 3M Clean-Trace Desktop Software:
   a. Luminometer registration from the Web Application

   In this version of the 3M Clean-Trace Hygiene Management Software, it is now possible to register a new 3M Clean-Trace LM1 Luminometer to the application by entering the new device’s information directly in the Web application.

   Registering a 3M Clean-Trace LM1 Luminometer manually by entering its information directly into the Clean-Trace web application will enable first time synchronization over Wi-Fi for that luminometer.

   To register a new 3M Clean-Trace LM1 Luminometer directly to the Web Application, follow the steps below.

   - Login to the Clean-Trace Web Application. You need to be an Administrator, or authorized Supervisor.
   - On the Upper right corner of the Clean-Trace software page, click on the arrow then select “Luminometers”
   - The Luminometer screen will open, click “Add Luminometer”

   - In the Add Luminometer screen, personalize this luminometer by giving it a name. then enter its serial number exactly as displayed at the bottom of the device. An “invalid serial number” message will be displayed if the serial number entered does not meet the format.
   - In the bottom section of the Add Luminometer screen will be listed all the Plant(s) or Level1(s) the logged in user is assigned to. Select the Plant or Level1 to assign this Luminometer to.
   - After selecting the Plant or Level1 to assign this Luminometer to, click “Add” at the bottom of the page to complete this operation.

   Although multi-selection is possible, we do not recommend assigning more than one Plant or Level1 to a single Luminometer, if these Plants or Level1 are in different time zone.
b. **Ability to bulk delete Test Points and Users**

The process of group deleting Test Points and Users are very similar. The logged in user must be in the Administrator or Supervisor role in order to delete a Test Point or a User account.

1. In the case of deleting Users, the following will apply:
   - Deleting the last software Administrator will not be allowed,
   - Deleting own account will not be allowed.
   - A User with no associated record (like Test Result), will be permanently deleted from the database.
   - A User with Associated record will be soft deleted. This mean, users will be removed from the front-end of the application but may still come up in reports.

2. In the case of deleting Test Points, the following applies:

Deleting a Test Point that is assigned to a Sample Plan will not be allowed if:

- A Test Point with no associated record (like Test Result), will be permanently deleted from the database.
- A Test Point with Associated record will be soft deleted. This mean, it will be removed from the front-end of the application but may still come up in reports.

Steps for group deleting Test Point will be as follows:

- In the Test Point screen where you have the list of your Test Points, click “Delete test points” All Test Point that can be deleted will be marked with a red “x”
  - Click the “x” in front of the Test Points you would like to delete.
  - The red “x” will change to “Undo”.
  - Click “Undo” if you want to revert any of the deletion or, click “Done” to confirm the deletion. A green confirmation bar will briefly display to confirm the deletion.
c. **Test Point Description and image deletion**
   - The Test Point Description has been reinstituted in the Test Point screen.
   - The image deletion or edition can now be done right from the Test Point Image side

   ![Image of Test Point Description and image deletion](image)

   ![Click here to delete image](image)
   ![Click here to change image](image)


d. **Time format for the organization. (12hr/24hr)**
   For more convenience and software usability, in addition to the date format, the number format, and the temperature format, the Time Format was introduced in the **Organizational Preferences** screen. This setting will define how time will be displayed to users throughout the 3M Clean-Trace Hygiene Management Software.
   - If 12-hour is selected, the time will be displayed as 01:00PM CST
   - If 24-hour is selected, the time will be displayed as 13:00 CST

   ![Image of Time Format settings](image)


e. **Enhanced User management between Desktop Software and LM1 Luminometer**
   It is now possible to have a user who may only be allowed to login on the 3M Clean-Trace Hygiene Management desktop software, but not at all visible in the 3M Clean-Trace LM1 Luminometer. There is also an option to allow a user to only be able to use the 3M Clean-Trace LM1 Luminometer, but not be allowed to login on the 3M Clean-Trace Hygiene Management desktop software.
Users’ access to the 3M Clean-Trace Hygiene Management desktop software or to the 3M Clean-Trace LM1 Luminometer can be configured in the Users’ tab as highlighted below. Check the box to allow access, uncheck the box to remove access.

### 4. Additional Improvements in the 3M Clean-Trace LM1 Software (APK):

#### a. 3M Clean-Trace LM1 Luminometer Initialization Wizard

The 3M Clean-Trace Hygiene Management Software version 1.5.0.22 will be bundled with the 3M Clean-Trace LM1 Luminometer APK version 1.3.0.10.

An Initialization Wizard has been introduced to this 3M Clean-Trace LM1 Luminometer APK version.

- **New LM1 units:** All new LM1 Luminometers running this version will prompt the user to complete the LM1 Initialization process upon first use.

- **LM1 APK Update:** After upgrading your LM1 to the Clean-Trace APK version 1.3.0.10, the Luminometer will prompt the user to complete the LM1 Initialization process upon first use.

The LM1 Initialization Wizard will walk the user through:

- The welcome screen, tab “Get Started” to continue. If you select to do it later, the screen will be presented again the next time the user turns the unit on.

- The next screen presents information about downloading and installing the 3M Clean-Trace Hygiene Management Software on a computer or server. Tap “Next” to continue.
Selecting the preferred connection.

i. For Wi-Fi connectivity or synchronization, the wizard will walk the user through:
   - Connecting to a Wi-Fi network.
   - Entering the host (server) information for the 3M Clean-Trace Desktop Software.
   - Registering the 3M Clean-Trace LM1 Luminometer from the 3M Clean-Trace web application.
   - Then, synchronizing the 3M Clean-Trace LM1 Luminometer for the first time.

ii. For USB connectivity, the wizard will walk the user through the steps below:
   - Selecting a country, and a time zone for the 3M Clean-Trace LM1 Luminometer.
     Note that the 3M Clean-Trace LM1 Luminometer will no longer update the time zone automatically with host/server, during synchronization.
   - Syncing the 3M Clean-Trace LM1 device for the first time. Tap “Connect” to initiate the first synchronization. The device will run through a Diagnostic Check, tap “Got It” when complete.
b. **Allowing LM1 Luminometer to Sync Test Results after a Diagnostic Check Error.**
If your 3M Clean-Trace LM1 Luminometer is running this APK version 1.3.0.10, you will be able to attempt synchronization even if you receive an error code during the Diagnostic Check. This will allow the user to send any Test Result present in the device, to the 3M Clean-Trace Desktop Software, before the LM1 device can be repaired.

c. **Current Date and Time displayed in LM1 Luminometer**
Enhancements in this APK version will also include displaying the current set date and time to the user before Sign-in or Synchronization. The current Date and Time will also be visible in the Home Screen after login, enabling the User to always be aware of the time stamp that will be recorded on Test Results.

d. **Users listed alphabetically with search functionality**
When signing in on the 3M Clean-Trace LM1 Luminometer, authorized users will be listed alphabetically in the Sign-in page for easy access. This page also has a search functionality built-in. Users may start typing their first name or just the first letter to filter down the list and get directly to their name. When located, tap on your name to login.

Note: If the Pin Code is enabled in the 3M Clean-Trace Hygiene Management Software, your Pin Code will be required for the 3M Clean-Trace LM1 Luminometer login.
e. **Improved Usability of the 3M Clean-Trace LM1 Luminometer Software (APK)**

In the 3M Clean-Trace LM1 Luminometer Software v 1.3.0.10, some improvements have been made for better usability.

- “Synchronize” was renamed to “**Sync**” in Settings tab.
- “**Synchronization Time**” was renamed to “**Wi-Fi auto-sync time.**”
- Time zone: It is now possible to adjust the 3M Clean-Trace LM1 Luminometer’s time zone effortlessly from the APK Settings tab.
- Wi-Fi: Connecting to a Wi-Fi network has been simplified for users with this shortcut added to the Settings tab.
- “**Web Service Setup**” replaced with “**Wi-Fi sync configuration.**” This functionality was improved to make configuring the LM1 for Wi-Fi Synchronization easier to complete. The functionality now includes a little flow to allow user not just to enter the Clean-Trace host information (IP Address or Hostname), but also to “**Test connection**” to confirm the Clean-Trace host information provided is correct.
G. Information for Users

1. Using your 3M Clean-Trace LM1 Luminometer

Users are advised to check the date, time and time zone on the 3M LM1 Luminometer:

- Prior to the first use
- Every time the unit returns from the Service Center
- After an extended period of storage (when the unit has been unused)

a. How to check and adjust the date/time on the 3M Clean-Trace LM1 Luminometer

I. Swipe down from the top of the luminometer display. This will extend the black screen as shown below.

II. Tap on the Time to open the “Date & time settings” screen, where the full date and time will be displayed.

![Image of the luminometer display with instructions]

b. How to adjust the date on the 3M Clean-Trace LM1 Luminometer

I. Follow the previous steps to view the date and time.

II. In the “Date & time settings” screen, make sure the “Automatic date & time” is unchecked.

III. Tap “Set date” to adjust and set the date, then tap “Done” at the bottom. Tap “Set time” to adjust and set the time, then tap “Done” at the bottom.

IV. Tap “Date & time settings” to go back to the Clean-Trace application screen.
2. Launching the 3M Clean-Trace Hygiene Management Desktop Software

The 3M Clean-Trace Hygiene Management Desktop Software can be launched by:

▪ Clicking on the 3M Clean-Trace icon on the desktop or from the desktop Start menu.
▪ Using the link received in an email. When the email notification is enabled, every new user added to the system will receive an email with a username and link to the desktop application. This link can be used to create a shortcut to the desktop if necessary.
▪ Typing the URL of the desktop application on a web browser. The URL of the application is the name of the computer or server where the application is installed on, followed with the port number. e.g., http://Computer_Name:9005

3. Launching the Sync Manager

The Sync Manager can be launched by:

▪ Clicking on the Sync Manager icon on the desktop or from the Start menu.
▪ If the Sync Manager is already opened, it may hide in the system tray.

4. Account Lockout

▪ A user will be locked out of the 3M Clean-Trace Hygiene Management Software if the password is entered incorrectly five consecutive times.
▪ It is highly recommended to use the “Forget password” feature to reset the password after three unsuccessful login attempts as this would help prevent locking the account. This feature is only available for Clean-Trace installations with “Email Login” authentication and is not available for “Company Login” authentication.
▪ Contact your Clean-Trace Software administrator if your account is locked or reach out to your 3M representative using the support line at the following this link: Get help from 3M.

5. Troubleshooting Synchronization Issues

If you receive an error message when synchronizing a 3M Clean-Trace LM1 Luminometer, as shown, Follow the steps below to register the 3M Clean-Trace LM1 Luminometer and continue the synchronization process.

1. Double-click on the 3M icon to open the desktop system tray on the Host computer. If the 3M icon is not visible, click the “^” arrow then click on the 3M icon.
2. Log In (if already logged in, Logout and log back in)
3. Initiate the Synchronization again
6. How to check 3M Clean-Trace Hygiene Management Desktop Software version

To check the version of your installed Clean-Trace Desktop software, follow the steps below:

- Login to the 3M Clean-Trace Hygiene Management Web Application.
- In the top right corner of the 3M Clean-Trace Hygiene Management Web Application screen, click the arrow to reveal the drop-down menu, then Select “About 3M™ Clean-Trace™”.
- The version number of your installed 3M Clean-Trace Hygiene Management Software will be displayed in the about screen.

7. How to check 3M Clean-Trace Luminometer Software (AKP) version

To check the version of the APK Software running on the LM1 Luminometer, follow the steps below:

- Login on the 3M Clean-Trace LM1 Luminometer, then tap to open the Settings Tab (the gear icon).
- in the Settings Tab, scroll down and select the “About” and verify the “Software Version” number.
H. How to Upgrade 3M Clean-Trace LM1 Luminometer

**Warning:** For network installations, before proceeding with the 3M Clean-Trace LM1 Luminometer upgrade, the server and all additional computers connected to the server must be upgraded.

1. Follow the steps starting in Section A of this manual to download and install/upgrade the 3M Clean-Trace Hygiene Management Software version 1.5.0.22. The Luminometer Upgrade file is made available on the computer as part of the software installation/upgrade.

2. Launch the Sync Manager, Connect the 3M Clean-Trace LM1 Luminometer using the USB cord and initiate the Synchronization of the 3M Clean-Trace LM1 Luminometer.

3. All the necessary files will transfer to the Luminometer.
   a. When the synchronization is complete, a prompt will be displayed on the screen. The screen will indicate an update is available. Click “Update” to install the update to the 3M Clean-Trace LM1 Luminometer application.
   b. A new screen appears asking if you want to install the update.
   c. Select the “Install” button to install the application.
   **Warning:** Do not tab on “NEW” or “ALL” as shown below.
   d. Wait for the installation to complete.
   e. A new screen will appear that says the application is installed.
   f. Tap “Open” to close the upgrade screen and open the 3M Clean-Trace Software.
   g. Follow any instructions on the screen to complete the 3M Clean-Trace LM1 Luminometer application upgrade.
   h. After the upgrade is completed successfully, users will be presented with Upgrade Complete screen on the Luminometer. Select “Restart” to proceed, this will reboot the 3M Clean-Trace LM1 Luminometer.