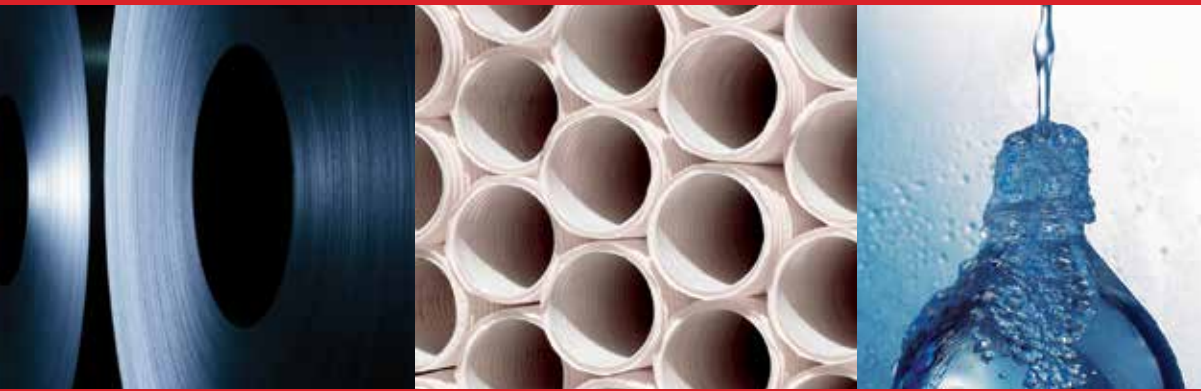# L3 Series Software
for Material Testing

Security and System Settings

Starrett®

The Better Solution

FMS1000

Table of Contents

7.0 SYSTEM SECURITY & SETTINGS

System security, including the setting up of users and their system privileges are performed using the Security Settings function.
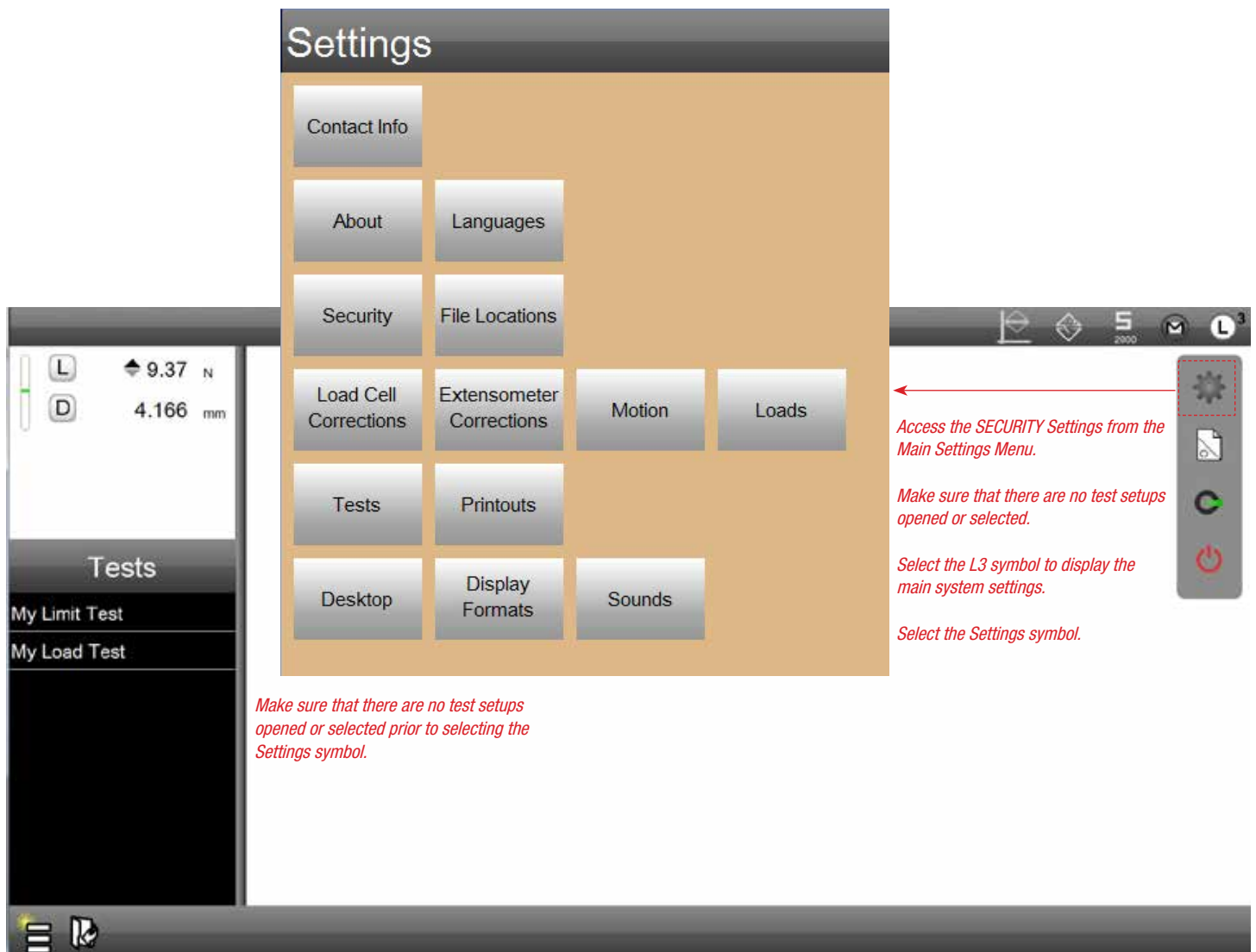
To access the Security Settings, go to the Main System menu, select Settings and then select Security.

Your L3 system has three levels of user security. These are:

• Super Administrator

• Supervisor

• User

User Type	Maximum Allowed per System
Super Administrator	1 allowed per system
Supervisor	1 allowed per system
User	5 allowed per system

System User Restrictions

Access the SECURITY Settings from the Main Settings Menu.

Make sure that there are no test setups opened or selected.

Select the L3 symbol to display the main system settings.

Select the Settings symbol.

Make sure that there are no test setups opened or selected prior to selecting the Settings symbol.

Main Settings View

Super Administrator

The Super Administrator is the highest level of authorization. This level has total access to all system functions. An L3 system must have a Super Administrator.

NOTE
You may have only one Super Administrator account.

Supervisor

The Supervisor is a level below the Super Administrator. Only the Super Administrator can assign the "access rights" to the Supervisor. You may have multiple Supervisors for an L3 system.

NOTE
You may have only one Supervisor account.

User

The User level is below the Supervisor level. A User is generally used for the operator with restrictive access to only the functions the operator needs to perform in their normal duties.

NOTE
You may have up to five (5) User accounts.

7.1   Security Settings

All assigned users to a system have these configurable attributes:

• Display Name

• Password

• Password expiration

• Account enabled

• Automatic user login

7.1.1   User Accounts

There are three levels of users organized in a hierarchical order with the Super Administrator having the ability to have total control over all other users and their privileges.

Your L3 system must have a Super Administrator if user accounts are going to be used, e.g. the system will have multiple users with user names and passwords.

WARNING
Starrett recommends setting up your system with user accounts.

If you are not going to have user accounts, then all users will have Super Administrator privileges, including the ability to assign access rights to all users and to prevent users from having any rights.

User Type Selection
Use this drop down to setup individual users and their system privileges.

Once a Super Administrator is given a Display Name, the label "Super Admin" is replaced by the new display name.

Security Settings View
Assign Display Name to Super Admin

7.1.2 Display Names

Each user of the L3 system may have a unique user name, called the Display Name.

The Display Name is case-sensitive and may be up to 16 characters in length. The Display Name may use alphabetic or numeric characters. Symbols may not be used.

NOTE
The Display Name may be up to 16 characters in length. A space is a character.

NOTE
The Display Name may be composed of case-sensitive letters and numbers.

7.1.3 User Password

A password may be assigned to a User Name. But a password is optional, e.g. you may have a User Name with no password.

A password may be up to 16 characters in length. The password my use any combination of letters and numbers. Spaces should not be used. Passwords are case-sensitive.

NOTE
A password is optional for a User Name.

NOTE
A password my be up to 16 characters in length.

NOTE
Passwords are case-sensitive.
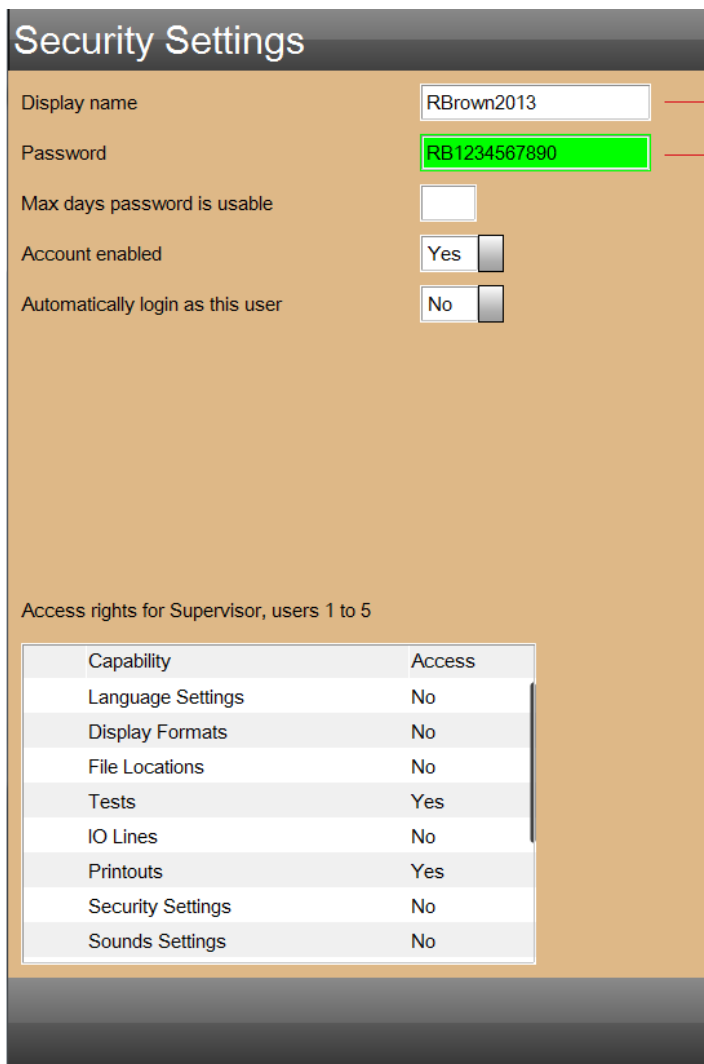
Supervisor Setup
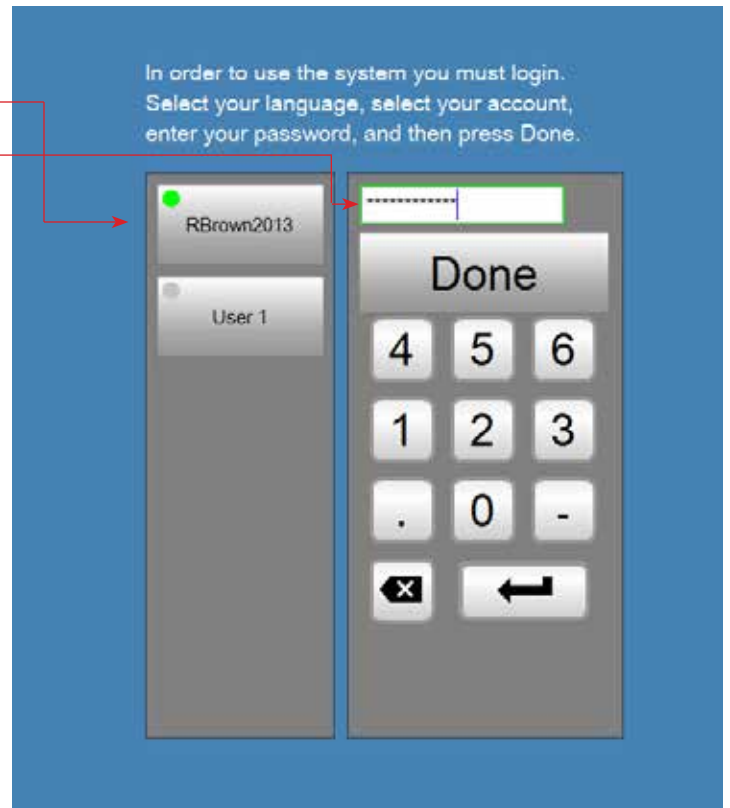
Login View
Supervisor login

- IMPORTANT -
Password backup should be written down and stored in a secure location.
Should you lose your password, contact Starrett for assistance in resetting a password.

7.1.4 Password Expiration

You may specify a password expiration. Enter the number of days that the current password is allowed to be active. At the end of this period, the password will become disabled. The user will be required to change their password, or to re-activate the password through their Super Administrator.

NOTE
If you do not wish to have passwords expire, leave the "Max days password is usable" blank.

NOTE
A password may be re-used. It is not necessary to enter a new password when the expiration has occurred.

7.1.5 Account Enabled

An account may be enabled or disabled using the Account Enable function. If the Account Enable = Yes, the user may login to the system. If the Account Enable = No, the user will not appear in the login menu and may not login to the system.

NOTE
The Super Administrator is always enabled.

Security Settings

Display name	RBrown2013
Password	RB1234567890
Max days password is usable	
Account enabled	Yes
Automatically login as this user	No

Once a password is setup, you have the option of entering the number of days the password will remain active.
Enter the number of days.
Once this duration is exceeded, the password is no longer active/valid and must be reset by the Super Administrator or Supervisor.

Leave the entry blank if you don't wish to have passwords expire.

Access rights for Supervisor, users 1 to 5

Capability	Access
Language Settings	No
Display Formats	No
File Locations	No
Tests	Yes
IO Lines	No
Printouts	Yes
Security Settings	No
Sounds Settings	No

Supervisor Setup

Security Settings

Display name	RBrown2013
Password	RB1234567890
Max days password is usable	
Account enabled	No
Automatically login as this user	No

Since the account RBrown2013 is not enabled, it does not appear on the Login list. The user cannot login to the system with a disabled account.

In order to use the system you must login. Select your language, select your account, enter your password, and then press Done.

User 1

Done
4 5 6
1 2 3
. 0 -

System Login
Account is disabled, does not appear active on user list

7.1.6 Automatic User Login

The Automatic User Login option, when set to Yes, automatically logs on a user without having to enter a password. It effectively by-passes the password login function.

Normally, automatic user login is reserved for the Super Administrator.

7.2 Access Rights

All assigned users have these configurable access rights:

• Language Settings

• Display Formats

• File Locations

• Tests

• IO Lines

• Printouts

• Security Settings

• Desktop Setting

• Load Cell Correction

• Loads

• Motion

• Test Authoring

Access rights are either YES or NO and listed in the Access column. To change the access rights, select the Yes or No status.

Scroll down to view and change the access rights for the current displayed user.

Security Settings

Display name	RBrown2013
Password	RB1234567890
Max days password is usable	
Account enabled	Yes
Automatically login as this user	No

Access rights for RBrown2013, users 1 to 5

Capability	Access
Language Settings	No
Display Formats	No
File Locations	No
Tests	Yes
IO Lines	No
Printouts	Yes
Security Settings	No
Sounds Settings	No

User Privileges
Assign individual Access Rights to the active user

In this example, the user name RBrown2013 cannot access or edit the following system Settings functions:
- *Language Setting*
- *Display Formats*
- *File Locations*
- *IO Lines*
- *Security Settings*
- *Sound Settings*

7.2.1 Language Setting

When this privilege = YES, the user may change the system display language using the Language Setting function.

When this privilege = NO, the user may not change the display language. The user cannot see the Language Setting using the Main Setting menu.

To select the display language, press or select the appropriate language target. The current language is denoted by the green dot.

Language files are saved in the Metlogix/Text sub-directory as an xml file.

Your L3 system includes a language translator utility. Use this utility to translate all words and terms used in your L3 system from English to your desired language. To access the language translator utility, press Ctrl+ F4.

User Privileges
Assign individual Access Rights to the active user

7.2.2 Display Formats

The Display Formats setting is used to specify the format type, units of measure and resolution.

You may specify either SI or Imperial type. The available units of measure are then available to choose from using the List of Value menu.

Specify the display resolution in the text entry field.

You may also utilize engineering notation and specify the minimum and maximum notation values, e.g. when notation is used or not.

In Display Formats setting, first select the units TYPE from the drop down menu beneath the L3 symbol on the upper right side of the view.

Display Formats

Current height mode flag	D
Current distance flag	mm
Current load flag	N
Current stress flag	N/cm²
Current strain flag	%
Current work flag	Joules
Current rate time flag	Minutes
Display resolution for distance	0.001
Display resolution for load	0.01
Display resolution for stress	0.01
Display resolution for strain	0.001
Display resolution for work	0.01
Display resolution for time	0.001
Display resolution for scalars	0.001
Display resolution for percent	0.1
Use comma for radix	No
Date format	MM/DD/YY
Notation	None

Display Format Settings
Specify type, units of measure and resolution

Use the drop down menu to specify the unit label to be used to designate the associated measurement type.
Available units are associated with the units Type specified first, e.g. SI or Imperial.

Set the desired display resolution by adjusting the decimal location.

Specify the radix format. If NO, radix is a decimal. If YES, radix is a comma.

Dates may be displayed as MMDDYY or DDMMYY.

You have the option to display numerical results using Engineering Notation.

Engineering Notation thresholds let you specify when notation is used.
The Minimum threshold is the smallest decimal number that defines when to use Engineering Notation. Default is 0.001.
The Maximum threshold is the largest decimal number that defines when to use Engineering Notation. Default is 1000.
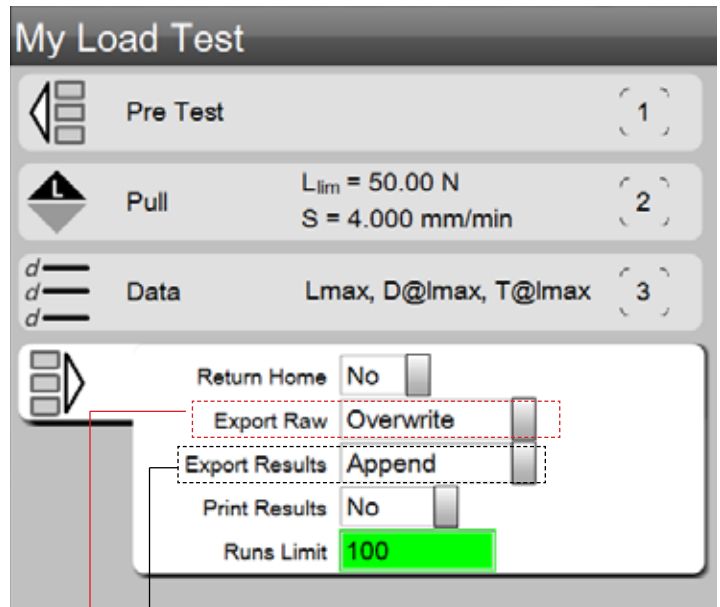
7.2.3 File Locations

The File Locations setting is used to specify where exported data is saved to. Using the Pre Test settings, you have the ability to export data and results. The File Location setting is used to map where the data files are sent and saved.

Data and result files can be exported automatically at the completion of a test run using the Pre Test output options. Or, you can export data and results on-demand using the Share function.

My Load Test

	Pre Test	1
	Pull	L_{lim} = 50.00 N S = 4.000 mm/min 2
	Data	Lmax, D@lmax, T@lmax 3

Return Home	No
Export Raw	Overwrite
Export Results	Append
Print Results	No
Runs Limit	100

Export files are sent to the default sub-directory called EXPORTS in the Metlogix directory.

File Locations

Category	Location
Backups	Backups
Diagnostics	Diagnostics
Exports	Exports
Runs	Runs
Templates	Templates
Tests	Tests

Shows that exports are mapped to the default EXPORTS sub-directory in the Metlogix directory.
Exports may optionally be mapped to any location on your network that is communicating with the L3 workstation.

Libraries ▸ Documents ▸ MetLogix ▸ Exports

Organize ▾   Share with ▾   Burn   New folder

Favorites
  Desktop
  Downloads
  Dropbox
  Recent Places

Libraries
  Documents
  Music
  Pictures
  Videos

Documents library
Exports

Name
  My Tensile Test_Results
  My Tensile Test_RawData
  My Load Test_Results
  My Load Test_RawData

7.2.4 Tests

The Tests setting is used to specify how certain Test functions perform. These settings include the ability of the user to edit a locked test; the use of prefixes in the test name; test numbering, and how tests appear on the main Home Menu.

Tests Settings

Locked tests can be edited/copied/deleted	No
Test name prefix	T
Next test auto-number	1
Noise filter (Percent of cell capacity)	0.010
Sort recent test list by	Name

Tests Settings

Test setups may be locked by the creator. If the user has Test Authoring rights, and this setting = YES, the user can edit, copy or delete a test setup. If the setting = NO the user cannot edit, copy or delete a test setup.

When a new test is created, it is automatically named with this prefix. A prefix might be used for a lab, department, user, etc.

Enter a name for the new test:

T1

Cancel   Done

When a new test is created, it is given a number. The number identifies the test setup, which can be renamed.

Test setups listed on the main Home menu can be listed based on their name (alphabetically), or based on "last used".

Here, test names are listed by Name.

The default is 0.01% of the connected load cell sensor. In most applications this value should NOT be changed. However, in certain extreme conditions, there may be too much noise on the load signal that you need to dampen the signal in order to obtain a more precise load point on your graph. To do this, you can experiment by increasing this noise setting from 0.01% to 0.02%. This effectively increases the measurement band around a point, making it more precise in identifying a specific load scope point.

L ◆ 0.26 N
D   0.000 mm

Tests

My Break Test

My Cycle Test

My Load Test

My Tensile Test

7.2.5 I/O Lines

The IO Lines setting is used only when your L3 system has the optional L3 Automation Builder application. This optional application allows use of the test frames digital I/O panel so the system can utilize I/O to control tests, e.g. contact closure test.

There are eight (8) configurable channels on the L3 test frame. These channels may be setup to operate as inputs or outputs. And they may be setup to operate as either a High or Low input/output. Consult the L3 Automation Builder User Guide for more information.

IO Lines Settings

IO line #3 name	Line 3
IO line #3 type	Unused
Output line #3 wakeup level	Low
IO line #4 name	Line 4
IO line #4 type	Unused
Output line #4 wakeup level	Low
IO line #5 name	Line 5
IO line #5 type	Unused
Output line #5 wakeup level	Low
IO line #6 name	Line 6
IO line #6 type	Unused
Output line #6 wakeup level	Low
IO line #7 name	Line 7
IO line #7 type	Unused
Output line #7 wakeup level	Low
IO line #8 name	Line 8
IO line #8 type	Unused

Line Number corresponds to the channel number on the terminal panel. You may rename the channel, e.g. switch On.

Channel default is "Unused". You may select from the drop down list either INPUT or OUTPUT.

You may specify whether the channel is a High (5V, 24V) or a low (0V) signal.

IO Lines Settings
*Available with optional Automation Builder application installed*

7.2.6 Printouts

Your L3 system includes standard reports that may be printed on-demand or automatically at the end of a test run.

Reports printed on-demand are output from the display you are viewing in combination with the L3 symbol. Report types are:

- Run Report
- Graph Report
- Tolerance Report
- Statistics Report

Reports are discussed in more detail in Section 6 - Data Management.
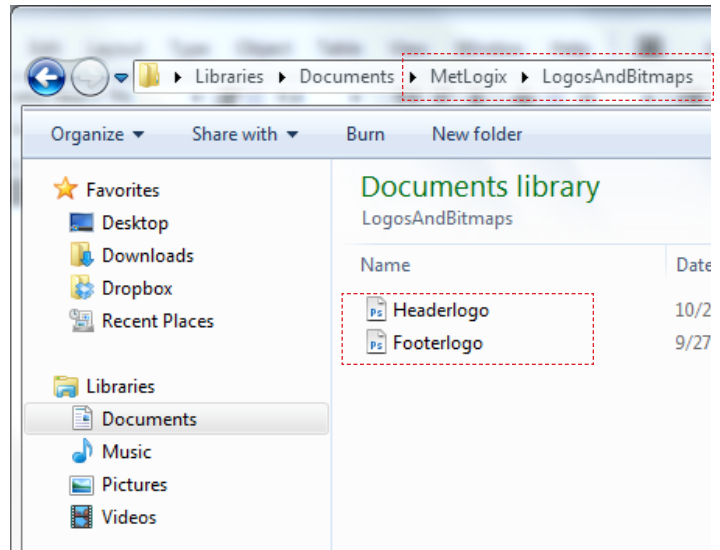
Metlogix Directory
Save .bmp files for Header and Footer in "LogosAndBitmaps" sub-directory

Specify whether to print the grid lines that display on all graph views.

Specify whether to print the column header labels on reports with tabular results.

Save a .bmp file for a header logo. Must be named "Headerlogo".
Save a .bmp file for a footer logo. Must be named "Footerlogo".
For best results, .bmp file should have a height of between 25 and 100px.
The maximum pixel height is 300px.

Specify whether to print a report header (Yes) or not to print a report header (No).

Print User Name in Header. Print Left, Right or Center.
Print Date/Time in Header. Print Left, Right or Center.
Print Page Number in Footer. Print Left, Right or Center.

Print custom text in headers boxes or in footer.

Printouts Settings

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7.2.7 Sound Setting

The Sound Setting is used to specify audible annunciation for various L3 actions. These actions are for the following:

- Button activation
- Test run completion
- Test failure

Note
Sound files cannot be changed.

Enabled	Sound
Yes	Make a sound when a button is activated
No	Play sound when a Test completes
No	Play sound when a Test fails

When YES, an audible sound is made via the workstation whenever a target or button is pressed or selected.

When YES, an audible sound is made via the workstation when a test run is completed. The default is NO.

When YES, an audible sound is made via the workstation when a test run fails due to an out-of-tolerance condition. The default is NO.

Sounds Settings

7.2.8 Security Settings

When Security Settings is a privilege, the user may enter new users and edit user information.

A Supervisor may only create and edit User level information. A Supervisor may not edit the Super Administrator profile.

Security Settings	
Display name	JJones2013
Password	JJ1234567890
Max days password is usable	
Account enabled	Yes
Automatically login as this user	No

Access rights for JJones2013

Capability	Access
Printouts	No
Security Settings	No
Sounds Settings	No
Desktop Settings	No
Load Cell Corrections	No
Loads	No
Motion	No
Test Authoring	Yes

Settings

About

This user has no privileges other than Test Authoring. The user has no access to Settings functions other than the ABOUT section. The ABOUT section is used to identify product serial numbers, software revision and dates as "read only".

*Security Setting
Privileges for a User with restricted access to only Test Authoring*

7.2.9 Desktop Setting

The Desktop Setting is used to specify and include specialized targets on your L3 workstation that aide in changing units and testing mode. There is also an option that causes the L3 workstation to shutdown when exiting the L3 software application.

Units Button
The Units button provides a target that allows the user to toggle between Metric (SI) and English (Imperial) units of measure.

Keyboard Button
The Keyboard button, when pressed or selected, launches a virtual keyboard on your display.

When the Keyboard button is set to Extra, it appears in the "Extra" drop down menu.

When the Keyboard button is set to Desktop, an icon of a keyboard appears on the header tool bar. Press the icon to launch the virtual keyboard.

Height Mode Button
The Height mode button lets you change your operating mode between Normal and Height modes. Normal mode uses a D to display distance. Height mode uses an H to display height.

When the Height button is set to Extra, it appears in the "Extra" drop down menu.

When the Height button is set to Desktop, an icon of a keyboard appears on the header tool bar. Press the icon to toggle between Normal and Height mode.

Desktop Setting

Extra

Extra

Extra

Desktop Setting
Displays when set to EXTRA

Desktop

Desktop

Desktop Setting
Displays when set to DESKTOP

7.2.10 Load Cell Correction

The Load Cell Correction setting should be used by experienced and authorized personnel responsible for load cell calibration. This setting is used during field calibration of load cell sensors used with your L3 System.

Additionally, this setting is used for linear error correction and for setting frame deflection compensation.

WARNING

Changes within the Load Cell Correction setting must be performed by personnel with experience in load cell sensor calibration, linear error correction and deflection compensation.

Improper revisions to this section may result in damage to equipment.

Load Cell Correction Setting

7.2.11 Extensometer Correction

The Extensometer Correction setting should be used by experienced and authorized personnel responsible for extensometer calibration. This setting is used during field calibration of load cell sensors used with your L3 System.

WARNING
Starrett recommends that you use the manufacturer of your extensometer for extensometer calibration and correction.

Improper revisions to this section may result in damage to equipment.

Extensometer Correction Setting

7.2.12 Loads

The Load Setting is used to specify options and characteristics concerning load measurement. The following options may be specified:

Compression Sign
You may specify how to designate a compression load using a negative sign. Tensile loads will have a positive sign (no sign actually shown), while compression loads with display a negative sign. Or, you may choose to reverse the sign so that tensile loads have a negative sign to distinguish them from a compression load (no sign).

Grip Protection

The Grip Load setting allows you to enter a load capacity limit based on the testing fixture used. For example, you may have a 1000N load cell, but you are using a test fixture with a maximum testing capacity of 50N. In order to protect the test fixture, you can set the Grip Load to 50N. When 50N is reached, the test run will terminate and protect the test fixture.

WARNING
Excessive crosshead speed may make it impossible to stop in sufficient time to prevent an overload. Do not use high speeds, particularly in compression directions.

Frame Capacity

The L3 software will identify the test frame capacity that it is communicating with. This is a read-only function.

Load Cell
The L3 software identifies the load cell sensor model that is connected to the test frame and that is communicating and controlled by the L3 workstation.

You may use the drop down list to select a load cell model if you choose to have a specific load cell associated with this system or a particular test setup.

Load Cell Limit
You may limit the capacity of a connected load cell sensor by specifying the maximum load allowed. Using this limit can help prevent accidental overloads. If you are using a 100N load cell, and you specify the Max load allowed at 75%, the 100N load cell will measure between 0 and 75N. A test run will terminate if this load limit is exceeded.

WARNING
Excessive crosshead speed may make it impossible to stop in sufficient time to prevent an overload. Do not use high speeds, particularly in compression directions.

Disable Overloads
Pressing the Disable Overloads button disables all overload protection for your system. Disable Overloads is used during a load cell calibration and should be reserved for experience personnel with expertise in load cell calibration.

Disabling overload protection requires the user to enter a password.

WARNING
Do not use Disable Overloads unless you are an experienced technician performing a field load cell calibration.

Limits the load based on the grip capacity. Test run will terminate when this load is reached. 0.00N means there is no load limit assigned.

Select how a negative (-) sign is used to distinguish between tensile and compressive results.

Indicates the connected test frame's load capacity. Read-only.

Loads Setting

Limits the load measurement of the connected load cell sensor. 100% means the load cell sensor can measure to its specified full scale capacity.

Select the load cell sensor model used for this system or for a test and on which the Max load allowed is specified.

Disable Overload Setting Password Protection Required.

WARNING
Obtain the Overload Password from your Starrett representative.

7.2.13 Motion

The Motion Setting is used to limit the Maximum crosshead travel speed allowed. You may specify a lower maximum velocity.

Starrett Models	Maximum Speeds Allowed	
	mm/min	inch/min
FMS/MMS 500N	1524	60
FMS/MMS 1000N	1524	60
FMS/MMS 2500N	1524	60
FMS/MMS 5000N	1524	60
FMD/MMD 10kN	1524	60
FMD/MMD 30kN	1524	60
FMD/MMD 50kN	752	30

Maximum Test Speeds

Reduce the maximum crosshead velocity by reducing the value setting.

Motion

Max velocity   1524.000   mm/min

Motion Setting

7.2.14 Test Authoring

When a user has the Test Authoring privilege (YES), the user has the ability to create a new test and to revise an existing test including:

- Editing
- Copying
- Renaming
- Deleting

If Test Authoring = No, the user cannot modify a test setup.

WARNING
A test setup may be deleted by any user with access to the Metlogix/Tests sub-directory. To prevent unauthorized test setup deletion, take appropriate measures to restrict users from this Windows-accessible function.

Security Settings

Display name	JJones2013
Password	JJ1234567890
Max days password is usable	
Account enabled	Yes
Automatically login as this user	No

Access rights for JJones2013

Capability	Access
Printouts	No
Security Settings	No
Sounds Settings	No
Desktop Settings	No
Load Cell Corrections	No
Loads	No
Motion	No
Test Authoring	Yes

This user has Test Authoring privileges.
This user may create a test, edit a test, copy a test, rename a test and delete a test.

Security Setting
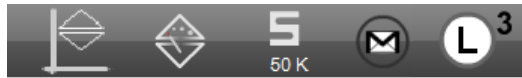*Privileges for a User with restricted access to only Test Authoring*

7.3 System Login

The System Login function may be used to require users to login to the L3 System by selecting their User Name and entering their password. This function is ideal for applications requiring audit trails of who is using the system.

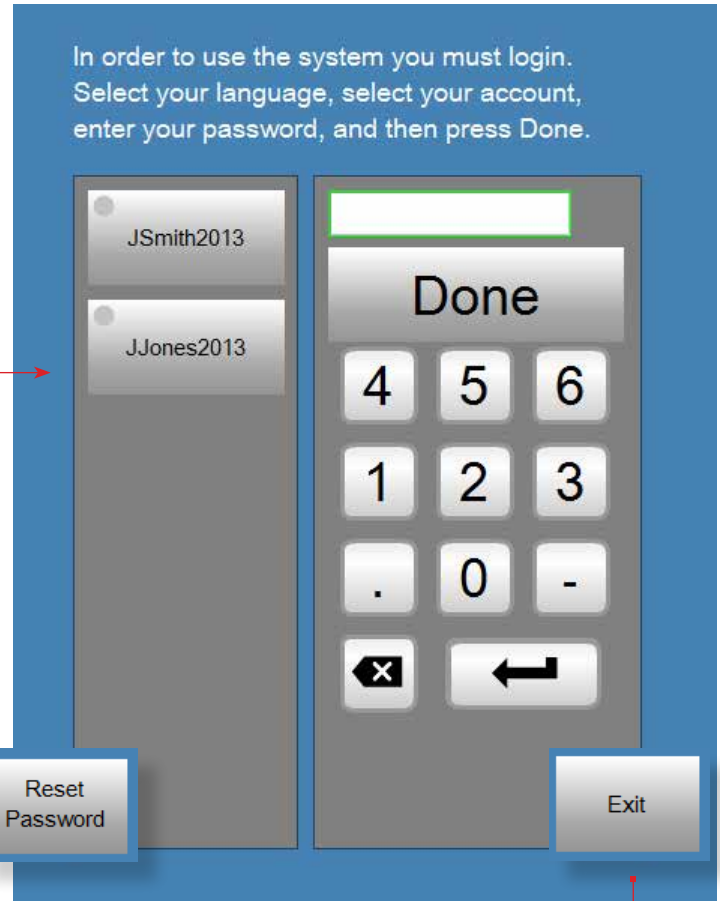If User Names or passwords are not being used, it is not necessary to use the System Login.

L3 Main Menu

Login

Password Recovery
Should you forget your password and you are NOT able to retrieve through the normal Security Setting, you may contact your Starrett representative for a temporary password.
Selecting RESET PASSWORD will launch a recovery login.

The number displayed at the top of the password entry box will be given to your Starrett representative. This number will be used to generate a temporary password that will be emailed to you.

7.4 System Logout

The System Logout function is used to exit and terminate your L3 application session.

In order to use the system you must login. Select your language, select your account, enter your password, and then press Done.

System Login view

Exit
L3 application