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MS1 Software
Installation and Operation Manual
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Installation and Login

Install the MS1 software from the MSI package.

The MS1 icon will now appear on your desktop.

![MS1 Icon]

Double click this icon to start the MS1 program.

If your copy of the MS1 is not yet registered you will see the following screen (or screens).

![Registration Screen]

Click Register to register your software with Westinghouse. Please note: you should have a registration key available to you prior to filling out the Registration form. If you do not have one but wish to purchase, please contact your Westinghouse Security dealer or visit [www.westinghousesecurity.com](http://www.westinghousesecurity.com) for more information.
Upon the expiration of your complementary 30-day trial period, your login screen will appear as below and you will need to acquire a valid registration key.

Assuming your trial period is still in effect, click Continue to start the program without registration.

Click Exit to end MS1.

After launching a licensed (registered) copy of the MS1 or clicking Continue on the trial version shown above, you will see the Login Screen.

The Administrator (Administrator) user is created by default. Other users may be created as needed and may be defined as Administrator or User role (defined later in this document).

Two fingerprint readers are supported: Pfs1600G305D2300 and Pfs1600G774D2300. Select your desired model (see bar code on the bottom of your reader if uncertain). If no fingerprint reader is connected, either device may be selected.

Click OK to begin using MS1.
You will then be asked for your password.

The default password for Administrator is blank (i.e. no characters). Click OK to proceed. Note: it is strongly recommended that you visit the Settings tab, modify this user (Administrator), and define a password, fingerprint, or both for future authentication and access to this program.

**Overview and Z-Wave Setup Guide**

You will then see the Overview screen. When the program is first run, the Z-Wave Setup screen will display as shown below, overshadowing the Overview screen.

If you have no Z-Wave locks, and do not wish this utility to be run each time you start the MS1, check the “Do not show Z-Wave Setup Guide at startup” box, and click Next, then Finish in the order shown below. However, if you have a Sigma Z-Wave USB controller and are working with the RTS-Z series of locks, select Connect and allow the MS1 application to search USB ports on your PC and associate the MS1 program with the USB Z-Wave controller stick.
Regardless, once you select Next you will be taken to the Finish screen.
The Overview screen shows a summary of the lock groups, locks, and user count for all locks administered by your MS1. Nothing is shown in this picture since no locks have yet been created.

**Lock**

This tab is used to manage lock groups, locks, and users for the MS1 database. Clicking Lock shows the screen below.

The left pane shows a tree view of the lock groups and locks within the groups. The top right pane shows the individual locks. The lower right pane shows the users.

Again nothing is shown since no locks have been added.

**NOTE:** The MS1 software does not scan for locks. Each lock must be added manually.
**Lock Groups**

A lock group must be created before any locks can be added. Lock groups may be created in two ways.

1. Click the blue folder icon above the left pane, or right click the yellow folder icon at the top of the left pane.
2. Select Add New Group in the flyout menu.
3. After taking either of these actions, the Add new group name entry screen will be displayed.

Enter the group name and an optional description. The group name is not case sensitive. It may be up to 24 characters long and may contain letters, numbers and symbols.

After entering the name and description, press the Add button to create the lock group. The screen below shows a group named Test with no locks added and no users.
Adding a Lock

A lock may be created in two ways: click the blue lock icon (lock shown with + sign) at the top of the form or right click on the group name in the left pane. Select Add New Lock in the flyout menu.

The Lock Wizard screen will then appear. Click Next to continue.

You will then be prompted to select the type of lock to be created: USB, PoE or Z-Wave.
Select the type and click Next. The screen below will appear.

Lock ID: A number between 1 and 9999. This must be unique for each lock. This value will auto-increment with each lock you create. Remember to manually administer this Lock ID at the lock itself as this value is not read by the lock but is very important to correctly Importing/Exporting via USB as well as in correctly deciphering the audit trail using the Events tab.

Lock Name: A descriptive name for the lock. RoomXXX is suggested by default but can be any name you choose.

IP Address: Network address. This is required for PoE locks. If you are using a PoE lock but do not have a network address, leaving this field blank will populate it with the value 255.255.255.255. This field cannot be accessed if you selected USB or Z-Wave as the lock type.

Fingerprint Sensitivity: This is a number between 1 and 9 which controls the matching of the scanned fingerprint with the stored fingerprint. 1 is the strictest setting. A setting of 1 requires an almost perfect finger placement. 9 is the least strict and is the recommended setting.

1:1: When this is chosen, all users enrolled at this lock must enter their User ID, then verify their enrolled Fingerprint or PIN Code to successfully unlock the door.

1:N: When this is chosen, all users enrolled at this lock only need to match their enrolled Fingerprint OR PIN Code to unlock the door.

Both (1&N): All enrolled users can use either the 1:1 or 1:N method to unlock the door.

Choose either 1:1, 1:N, or Both.
Press Next and the User Access Times screen will appear.

All Hour Access: If this is selected, the lock is accessible by users at any time.

Roster System: Selecting this option allows access to the lock to be restricted to certain days and times.
Note: this restriction does not apply to lock enrollees defined as Administrators.

Days: Check the days the lock should be accessible.

Date Range: If the lock should only be accessible for a date range, enter it here. If the lock should be accessible for the foreseeable future, enter 2099 for the year in the To time.

Time: Enter the time range when the lock should be accessible.

Press Next and the Scheduled Unlock Mode (aka TUMS) screen will appear.
This screen controls the times that the lock is available to be in an unlocked mode. For example, a business may want their door unlocked from 8:00 A.M. to 5:00 P.M.

NOTE: Even if a time is programmed, the lock will not unlock until the first user successfully enters a fingerprint or PIN code.

Invalid: This feature is disabled. This is the default mode.

Work Days: The lock will unlock after the first user access during the specified periods. Set time from 12:00 AM to 12:00 AM to disable any particular day.

All Days: The lock will be unlocked following a valid PIN or FP entry every day during the specified period.
Click Next and the Holiday Mode screen will appear.

This allows you to enter dates for Holidays. During these dates, the regular unlock schedule specified in the previous screen will not apply. The lock will remain locked for the entire day. Set the year to 2100 if the holiday date repeats each year.

Click Next and the Finish screen will appear.

Click Finish to save the lock settings and close the wizard.
Here is the Lock Screen showing the Test lock group with one lock in it – Room001. Note the user count for this lock is 0.

Click on the lock in the left pane to show the lock information.
Adding a User

To add a user, click the Lock button. The screen above will appear. Users may be added in two ways.

1. Click on the blue Add User Icon at the top left of the left pane, or
2. Right click on the lock in the left pane. Then select Add New User from the flyout menu.

The User Wizard will appear.

Click Next.

The Add New User screen appears.

Name: We recommend using a first and last name here (i.e. John Doe).

Notes: Enter any information you wish about this user.
User ID: There are 3 classes of User. User IDs 1 - 3 are Lock Admins. User IDs 4 – 7 are Managers. User IDs 8 – 999 are Users. For an explanation of the privileges of the different user classes, see your RTS manual. Note that each User Id must be unique for locks within a given Lock Group but may be given to a different user within a different Lock Group. E.g., within Lock group Test, Admin 001 (User Id 001) can be assigned to a user for some or all locks under this group but if we have a different Lock group governing a different area of the building or campus, User Id 001 may be assigned to someone else.

After entering a Name, Notes (if desired), and a User ID click Next.

The following screen appears.

Choose the locks to which the user is to be added and click Next.

The following screen appears.
You may choose to assign a PIN code, enroll fingerprints or both. The PIN code may be up to 10 digits and must be numeric. Enrolling a fingerprint requires a fingerprint scanner attached to your computer. You may enroll up to 3 fingers.

Press Next and the User Access Times screen appears.

This allows you to select the hours this user may access the lock(s) to which they are assigned.

All Hour Access: If this is selected, the lock is accessible at any time.

Roster System: Selecting this option allows access to the lock to be restricted to certain days and times.

Days: Check the days the lock should be accessible to this person.

Date Range: If the lock should only be accessible for a date range, enter it here. If the lock should be accessible for the foreseeable future, enter 2099 for the year in the To time.

Time: Enter the time range when the lock should be accessible.
Press Next and the Finish screen will appear.

![Finish Screen](image)

Press Finish to create the user.

The Lock Screen with a user added is shown below.

![Lock Screen](image)

**Editing a User**

To edit the user, double click or right click anywhere on the user row and select Edit. An abbreviated User form will be displayed. Modify the user’s information as necessary.
Removing a User

To remove the user, right click on the user name and select Remove. You will be given the choice to remove the user from the current lock, all locks or some locks. You may highlight several users and choose to remove them.

Adding Bulk Users

The MS1 software can read a list of users from a .csv (Comma Separated Values) file. To do this, highlight a lock within the Lock group and select the blue User icon in the upper left of the lock form or right click on a lock. Select Add Bulk Users from the flyout menu. You will be presented with the User Wizard.

Click Next
You will now be asked for the Bulk User file name. You may select to have the first row of your file read as a header.

Click the Browse button and browse to the desired .csv file.

Note that only .csv files are displayed. Double click on the desired file or highlight the desired file and then click Open.
You will then return to the previous screen with the file name displayed in the Browse box.

Click Next

The following screen will be displayed.

The following fields can be read from the csv file.

First Name – Character – First Name of user – Mandatory Field. Note: If your user’s first and last name occupy the same cell in your spreadsheet, associate that column with this choice.

Middle Name – Character – Middle Name of user

Last Name – Character – Last Name of user

Notes – Character – Comments
User ID – Numeric - User IDs 1 - 3 are Lock Admins. User IDs 4 – 7 are Managers. User IDs 8 – 999 are Users. – Mandatory Field

Has Password – Numeric – Enter 1 to use a PIN code. Enter 0 if you do not want to use a PIN code.

Password – Numeric - PIN Code. This may be up to 10 digits.

Has FP Regular – Not used in this release.

FP Regular - Not used in this release.

Has FP Backup – Not used in this release.

FP Backup - Not used in this release.

Has FP Alarm – Not used in this release.

FP Alarm - Not used in this release.

Match the field names with the csv column titles for the values you wish to read in the left pane.

Click Next.

You will be asked whether to assign these users to the current lock or locks in the group.

Make the selection and click Next.
Now select user access times and click Next. You can later edit individual users to better tailor their access times as well as to enroll fingerprints.

Click Finish and the users will be added.
Users are shown in the bottom left pane.

Note that you may also Copy/Remove users within the Lock group by highlighting a user or users, right clicking, and making the appropriate selection – much like a cut/paste operation within MS Office.

**Events**

The events button will import and display a listing of the lock events that have occurred on a lock or lock group.

**NOTE:** Events are deleted from a lock when they are imported so you should select the Export/Print option if you wish to retain this information.
Importing Events

1. Click on the desired lock in the left pane. Note: this sequence does not apply to RTS-Z models (see Z-Wave section for details).
2. Click the Import Lock Events button in the left pane above the lock.
3. Select USB or PoE lock from the flyout menu.
4. Select Yes to confirm importing events.
5. Click Close after the import summary is displayed showing you the number of Valid and Invalid records the MS1 has received from the selected lock.

6. Be sure the calendar FROM and TO dates in the top right pane are set correctly. You may also select a particular event type to search using the Events button to the right of the TO calendar. The default is All which will search for all events.
7. Click the Search button. This is the Magnifying Glass icon above the right pane.

8. Lock events are now displayed. The Name, User ID, Event Type and Date/Time are shown.
9. The records may be sorted by clicking on the desired sort field name. You may also export to a spreadsheet, print, print preview, or delete the records by using the 4 buttons to the left of the FROM calendar. Click on a record to activate these buttons.
a. - Exports lock events to spreadsheet or text file.

b. - Prints lock events.

c. - Print previews lock events.

d. - Deletes selected record(s).

**Z-Wave**

The Z-Wave Button allows the user to perform various Z-Wave functions between the MS1 and their RTS-Z lock or certain simple functions involving 3rd party Z-Wave certified devices (functions such as binary on/off). Administrators will initially use this menu to create an association between the MS1 Z-Wave control software and their Z-Wave device, allowing them to “include/add” or “exclude/remove” Z-Wave devices from previously administered locks. Further, the administrator can then send configuration information such as lock parameters and user information (fingerprint encoding and PIN information) and retrieve audit information from the associated lock.

![Z-Wave Interface](image)

This icon is used to associate the MS1 program with the USB Z-Wave controller stick if not done at MS1 program launch.

These icons are used to ‘Add’ or ‘Remove’ (‘Include’ or ‘Exclude’ at the Z-Wave device) a Z-Wave device to the MS1 serving as the controller.
These icons are used to either ‘Refresh’ (non-volatile) or ‘Reset’ (volatile) Z-Wave settings.

These icons send a ‘Lock’, ‘Unlock’, or ‘Get Lock State’ command to the selected Z-Wave lock.

These icons send ‘Sync Settings’ (send Lock settings), ‘Sync Users’ (send User FP and PIN info), and ‘Get Records’ (request Audit trail) to the selected Z-Wave lock.

This icon is used to push firmware updates ‘Over The Air’ to the selected Z-Wave lock.

These icons ‘Auto Routing’ and ‘Disable Node’ are used to either establish the most efficient path from the MS1 to the selected lock using available network nodes or to disable the previously established node path.

To initially build the association between the MS1 controller application and a lock, you may start with an idle template by first selecting the ‘Reset’ icon. Following this action, both the Lock Group and Lock screens appear as shown below:
Please follow the steps to “Include/Add” the RTS-Z and RTS-PZ lock to a Z-Wave network:

Use the MS1, a Z-Wave USB dongle installed on the same computer as the MS1, and a RTS-Z lock.

Launch the MS1 and use the Z-Wave Setup Guide which launches automatically to locate and connect to the attached USB dongle. Once connected, you will see the message “Z-Wave Controller is connected”.

Select the Lock tab in the left column. Create a Lock Group and Z-Wave lock(s) within that group. You may assign your users at a later time.

From the ZWave tab, click on your Lock Group. If this is the first time performing this operation, select the ‘Reset’ icon on the top row (mouse-over will show you the icon name). Note: If you have other locks already associated (via Bind operation), doing this will void those associations.

At this stage, you will either need physical access to the lock or an assistant to concurrently provide certain menu actions at the lock itself in tandem with your actions using the MS1.

Place the cursor back on the Lock Group, select the ‘Exclude’ (minus symbol) button. You will see the “Controller is waiting for node information” message within the MS1.

Using the lock’s main menu item “7.Zwave”, select the “ZwaveExclusion” option by using the arrow keys to scroll to it and then pressing ‘M’ to select it. After a few seconds, you should see “Success” on the lock; the MS1 will simply revert to an idle screen within the ZWave tab.
Using the MS1, select the ‘Include’ (plus symbol) button. Again, you will see the waiting for information message on your MS1 screen.

From the lock’s main menu item “7. Zwave”, select the “ZwaveInclusion” option by using the arrow keys to scroll to it and then pressing ‘M’ to select it. After a few seconds, you should see “Success” on the lock; the MS1 will again revert to an idle screen within the ZWave tab.

Using the MS1, notice the “Unbind List” now has a node entry. If it isn’t already, highlight it, and from the middle of the same screen select a particular lock from the pull-down list to associate this node with. Click the ‘Bind’ button and you’ll see your pairing entered into the “Bind List”.

The Unbind list shows Nodes that have been detected by the Z-Wave controller and are available for association with your Locks. The Bind list shows you all the associations that have been created via the ‘Add/Inclusion’ process.
You will also notice the Lock symbol in the left column of the screen now has a “z” symbol showing it is recognized as a bound Z-Wave device.

Now click on the Lock with the “z” symbol, select the ‘Refresh’ icon, and answer “Yes” to “Are you sure you wish to refresh nodes?” Select “Ok”.

On the top row of icons, select the 2nd last icon, ‘Auto Routing’. You should now notice the array has been updated in the lower quadrant of the MS1 to show a viable routing table between your PC and the RTS-Z.

The graphic array may vary in appearance and number of nodes involved in routing the communication path between the MS1 Z-Wave controller and the desired lock. With a greater number of nodes detected, a larger graphical array will be created with each cell’s status reflected based on its associated color.
From the interior side of the lock, press the ‘M’ button. You will see basic information about the lock displayed, such as voltage, firmware versions, etc.

In the main menu of your RTS-Z or RTS-PZ, scroll up to “1. Lock setup”, press ‘M’ to select, then scroll to “4. Lock ID”, again pressing ‘M’ to select. Now use the up/down arrow keys to increment/decrement to the unique lock id that will be assigned to this lock. Press ‘M’ to save your selection. This will return you to the main menu. You can press ‘E’ to exit or wait briefly for the menu to time out.

Log

The Log Button will display a list of the actions taken in the MS1 software. Searches may be performed by Date, Operator or Operation. This becomes particularly helpful when you have multiple people using the MS1 and need to determine who has made certain changes based on their unique MS1 login Id.

To perform a search, check the boxes by the desired conditions and click the Search button or simply select Search for all values.
Search conditions may be combined. The example below shows a search for all Login events by Administrator on May 27, 2015.

Note that the Operator box performs a “like” search. It searches for entries containing the text entered into the box.

After the records are displayed, they may be exported to a spreadsheet or text file, printed, cleared individually or all cleared using the buttons in the lower left pane.

**Settings**

**General**

This screen allows configuration of various general Z-wave settings. The following items may be configured:
1. Do not show Zwave Setup Guide at startup – Normally, the Zwave Setup Guide is shown each time the MS1 is launched. See Page 2. Check this box to disable the Guide. If you had previously inhibited the display of the Zwave Setup Guide at startup, you can re-enable it here but unchecking this box.

2. Low Battery Alarm – If this box is checked, the RTS-Z will sound an alarm when a battery for any associated Z-wave device gets low. This is the default setting. Uncheck this box to disable the alarm.

3. Low Battery Limit – This sets the threshold for the low battery alarm. Default is 15%.

4. Using Polling Cycle – TBD

5. Disconnect Room Alarm – TBD

6. Polling Cycle – TBD

7. Failed Count – TBD

8. Retry Count – TBD

After making the desired changes, click the Apply button to save the changes.

**Add User**

This button allows the addition of users to the MS1 software. Note that this does not add users to locks.

The following items may be entered on this page:

1. Login Name

2. Verification Mode – Verify by Password, Fingerprint, or both.

3. Role – Administrator or User. Administrators can access all fields shown on the Settings form displayed above. Persons designated as User can access all functions of the MS1 except being limited to only making Settings tab changes to the functions General and Modify User.

4. Password – This may be up to 26 characters and may be letters or numbers.

5. Confirm Password – Enter the same password as above.

6. Regular FP – Requires a USB fingerprint scanner. Place finger on scanner and hit Enroll.

After making the desired changes or additions, click the Apply button to save the changes.

**Modify User**

![Modify User Interface]

This button allows changes to be made to the users of the MS1 software. The information is populated from the user database. The fields are the same as described above in the Add User section. Note, only the currently logged in user (Administrator or User) can make changes to this form, thereby only affecting their own password or fingerprint values.

After making the desired changes, click the Apply button to save the changes.

**Delete User**

![Delete User Interface]

This button allows users to be deleted from the MS1 software. To delete a user, perform the following steps:
1. Click on the down arrow to the right of the displayed login name to show all the enrolled users.
2. Click on the desired name to be deleted.
3. Click Apply. You will be asked to confirm the deletion.

4. Confirm the deletion by clicking Yes.

Database

Various tasks can be performed on the user database from this button.
**Backup Database** – Make a copy of the current database. This should be done whenever significant changes are made to the user database. After clicking the button, you will be prompted for a file name.

A default file name is provided. If this is acceptable, click Save. If not, enter a new file name and then click Save. Note, we cannot stress how important it is to periodically copy your database! Please be sure to regularly perform this function – it’s easy and you’ll be glad you did.

**Restore Database** – Replaces the current user database with a previously saved version. After clicking on the Restore Database button, you will be asked to confirm.
After confirming, you will be asked to browse to the desired database file.

Select the desired file, and click Open.

If the restore is successful, you will be prompted to restart MS1.

Click OK, and MS1 will restart using the restored database.
**Import Old Database** – This allows you to import a database from the older RUMS software. After clicking this button, you will be prompted to browse to the old database (*.L32 file).

Click Browse to browse to the old database.
Click Open. A message will be displayed saying the database is connected.

Click Next.
Click the Browse button and browse to the folder to contain the new database.

You will see a message that the database is prepared.

Click Next.

Select the elements to be copied.

Click Start Process.
The data will then be migrated.

Click OK.

Click Finish.

The new database will have the same name as the old database with “_new” appended to it.

For example, if the old database name was ACD20150528.L32, the new database name will be ACD20150528_new.L32.

You will then be able to use this newly modified database file with the Restore Database function.

**Clear Database** – This will remove all entries from the current database. All lock groups, locks and users will be deleted.
After clicking Clear Database, you will be prompted to log in again. This is to ensure you have the appropriate password required to perform this administrative function.

Enter password.

Click OK.

After the database is cleared, MS1 will restart.

Click OK.

The application will restart.

**Register**

The MS1 software is provided with a 30 day free trial. After this time, you must register the software. Contact your Westinghouse Security dealer to obtain a registration code.
If you have secured a license key, you may click the Register button at startup or from this form to register your software any time during your evaluation period. Once your trial period expires you will need to access this function during MS1 startup.

Click Register.

Enter all your information.

Click OK
About

This will display information about your MS1software (version number and license info) and also provide links to Westinghouse Security, including technical support and access to our Knowledge Base.