Logicube®

ZX-Tower™ (ZX-T) User's Manual

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MAN-ZX-T

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Logicube Technical Support Contact Information

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1.0   Introduction to the Logicube ZX-Tower

The Logicube ZX-Tower™ (also known as ZX-T) wipe solution provides secure sanitization of hard disk drives. The ZX-T delivers blazing fast wiping at 24GB/min. The multi-target ZX-T allows organizations to easily wipe up to 8 target hard drives simultaneously and also allows user to wipe up to 4 USB 3.0 enclosures. A simple to use icon-based interface and a 5" color touch screen makes it easy to operate for all skill levels. The unit features a secure erase mode, a custom pass wipe setting and a powerful DoD specification 7-pass wipe mode.

The ZX-T provides built-in support for 3.5" SAS/SATA hard drives and support is available for 2.5" SATA and 2.5" SAS with an optional slide-in caddy, (the caddy supports drives up to 9mm in height, adapters are available to support 2.5" drives greater than 9mm in height). The four USB 3.0 ports allow wiping of USB thumb drives and enclosures. Optional adapters are available to support other drive interfaces including IDE, ZIF, mSATA, microSATA, eSATA and flash media.

Network connectivity is easily accomplished via two gigabit Ethernet ports. Advanced administrative features include a Task Macro, a detailed audit trail/log report, remote control via a web browser and the ability to set user profiles. Three USB 2.0 host ports are available to connect a keyboard and mouse to the ZX-T.

The ZX-T provides IT professionals in corporate and manufacturing environments the ability to quickly and confidently erase hard drive data, ensuring that drives are properly sanitized prior to re-purposing or disposal.

> ⚠ **WARNINGS:** ⚠
>
> - **The power supply for the ZX-Tower has a manual voltage switch (115V/230V) located in the back of the ZX-Tower. Set the correct voltage input before attaching the power cable to avoid damage.**
> - Avoid dropping the Logicube ZX-T or subjecting it to sharp jolts. When in use, place it on a flat surface.
> - Keep the unit dry. If the ZX-T needs to be cleaned, use a lightly damp, lint free cloth. Avoid using soap or other cleaning agents particularly those containing bleach, ammonia, alcohol or other harsh chemicals.
> - Do not attempt to service or open the Logicube ZX-T. Doing so may void the warranty. If the unit requires service, please contact Logicube Technical Support for assistance.

1.1 Features

- **High speed wiping –** The ZX-T will sanitize drives at speeds exceeding 24GB/min

- **Multi-target Wiping –** 8 3.5" SAS/SATA bays, 4 USB 3.0 ports

- **DoD Wipe –** Supports 7 pass DoD specification 5220-22M wipe

- **Secure Erase –** Supports a single pass Secure Erase

- **Custom Pass Wipe –** Set a custom number of wipe passes. Gutmann 35 pass wipe can be accomplished using the Task Macro feature

- **Built-in support SAS/SATA hard drives –** Drive bays support 3.5" SAS/SATA hard drives. Support for standard-height (up to 9mm) 2.5" SAS/SATA drives is available with an optional slide-in caddy. 2.5" drives greater than 9mm in height are supported with optional adapters. For information on which adapters suit your needs refer to our ZX-T adapter guide.

- **IDE, 1.8" IDE ZIF drives –** Support is available using optional adapters

- **eSATA, mSATA, microSATA, Flash Media –** Support is available using optional adapters

- **Wipe USB Enclosures and Thumb Drives –** 4 USB 3.0 ports are available

- **Network Support –** Connect ZX-T to a network. Two Gigabit Ethernet ports are available

- **Cable-free, Slide-In Bays –** Provides fast, worry-free, insertion/removal of drives

- **Multi-Session Capability –** Allows user to perform multiple tasks – up to 5 tasks can be run concurrently

- **Icon-Based User Interface –** Simple to use, easy to navigate through menus

- **Remote Operation –** Connect ZX-T to a network and control all operations from a remote computer using a web browser. Remotely operate multiple ZX-T units that are connected to the same network

- **Color Touch Screen –** A vibrant, responsive 5" display makes it easy to navigate through menus

- **Advanced Administrative Functions –** Allows administrators to manage network settings, create user profiles, save configurations

- **Audit Trail/Log Report –** Provides detailed information of each operation. Can be exported to HTML, XML or PDF format

- **Task Macro –** Allows users to set specific tasks to be performed sequentially. Automates your processes to optimize and streamline operations

- **HDMI Port –** Allows you to connect to a projector or monitor

- **USB 2.0 Ports –** Three USB 2.0 device ports are available for mouse, keyboard or printer

- **Power-Protected Bays –** If a defective hard drive causes a power failure, only the bay in which the drive is inserted will shut down. The remaining bays will continue to operate.

- **HPA/DCO –** Wipe HPA/DCO areas of the drive

1.2 In the Box

The complete ZX-T system includes the following:

- The Logicube ZX-T unit
- Power cable
- CD-ROM with user's manual

2.0   Overview of the ZX-T

Special Icons – Throughout this manual, there are two icons that may be seen. These icons highlight additional information or important warnings on specific topics.

ZX-Tower Drive Bay

3.5" DRIVE SLIDES DIRECTLY INTO DRIVE BAY

POWER ON/OFF

HDMI PORT

USB 2.0 PORTS

USB 2.0 PORTS

GIGABIT ETHERNET PORTS

⚠️ **The power supply for the ZX-Tower has a manual voltage switch (115V/230V) located in the back of the ZX-Tower. Set the correct voltage input before attaching the power cable to avoid damage.**

115

ATTENTION!
Dual Voltage 115V/230V
Set correct voltage input before
plugging in to avoid damage!

2.1 Turning the ZX-T on and off

STOP **Before connecting the power cable to the ZX-T, set the voltage switch on the power supply (located in the back of the ZX-T) to the correct input voltage.**

The ZX-T comes with a standard power cable that connects to the back of the device. Attach the included power cable the power connector in the back of the ZX-T.

To turn the ZX-T on, make sure the power switch (located next to the power connector) is set to the ON position. Press and release the power button located on the top (front) of the ZX-T. The ZX-T will turn on and start the boot process.

To turn the ZX-T off, press and release the power button located on the top (front) of the ZX-T.

It is not recommended to use the power switch (located in the back) to turn the ZX-T off. Using the power button located on the top (front) gracefully shuts down the ZX-T's Operating System.

2.2 Connecting 3.5" Serial ATA (SATA) and Serial Attached SCSI (SAS) Drives

The ZX-T has hot swappable drive bays located in the front of the unit. There are eight (8) 3.5" drive bays labeled Bay 1 through Bay 8.

Each drive bay is hot swappable and drives can be removed or added as long as there is no activity on the drives.

1. Open the drive bay of your choice by gently pulling the release latch.
2. Carefully swing the drive bay door open all the way to the right.
3. Insert the 3.5" drive face up (SATA/SAS connectors should be facing in toward the back of the ZX-T) and push it mostly in. Do not push it in all the way.
4. To push the SATA/SAS drive all the way in, close the drive bay door. You should hear a 'click' when the drive bay door is closed all the way.

NOTE: The drive bay doors have two LEDs. The green LED shows that the drive is connected and has power. A blinking amber LED should light up showing there is activity on the drive. This amber LED will light up when you initially connect a drive and will also blink when the drive is being used for wiping.

2.3 Connecting USB Drives

The ZX-T has four (4) USB 3.0 ports (backwards compatible to USB 2.x) located in the front of the tower, below the 8 3.5" bays. Up to 4 USB drives can be connected (U1 through U4).

2.4 Connecting other drive types

ZX-T supports other drive types, including PATA (IDE), mSATA, microSATA, eSATA, and flash drives that require optional adapters. More information on the types of drives supported and available optional adapters can be found in **Chapter 8: Optional Adapters.**

Cables and adapters are available for the following drive types:
- 2.5" SATA
- 2.5" SAS
- eSATA
- microSATA
- mSATA
- 3.5" and 2.5" PATA/IDE
- 1.8" IDE
- 1.8" ZIF
- Flash drives/media

2.5 The user interface

The user interface (UI) has been designed to quickly and easily input commands. It is simple and intuitive showing common icons such as tasks, modes of operation, and scroll icons on the screen. The UI is designed to be easily followed, going from left to right across the screen.

A – Wipe Tasks currently running

B – Lock indicator/shortcut

C – Tasks

![Logicube]

D – Add or delete tasks

E – Types of Operations

F – Up and down scroll arrows

G – Operation options and settings

H – Start icon

2.6 Touch screen

The ZX-T features 5" color LCD capacitive touch screen that allows the user to quickly input commands. The screen is bright and easy to read.

2.7 HDMI

The ZX-T has an HDMI port located in the back panel. Simply connect an HDMI cable from the ZX-T to an external display that supports HDMI and the ZX-T will automatically show the display on both the ZX-T and the external display.

To change the display resolution on the external display:

1. Connect a wired USB keyboard to one of the back USB 2.0 host ports.
2. Press ALT+R. An on-screen display should appear on the external display that allows the display resolution to be changed.

2.8 USB flash drive (located in the back of the ZX-T)

There is a USB flash drive located in the back of the ZX-T that is connected to one of the USB 2.0 ports. This USB flash drive contains the Operating System and ZX-T software and must be connected to the ZX-T at all times.

3.0 Quick Start Guide

This chapter gives a basic overview and steps on how to perform different types of operations using the ZX-T. Complete details on each operation, menu, or selection, and the different screens can be found in **Chapter 4: Wipe** and **Chapter 5: Types of Operation**.

The ZX-T can perform up to five (5) concurrent wipe operations at the same time.

3.1 Drives

This screen shows the status of all drive bays. Each drive bay will be listed whether or not there is a drive connected.

If there is a drive connected, the model of the drive will appear in the Drive Information column and will have a ✔ symbol in the Drive Connected column.

If no drive is detected, the bay will have a ✗ symbol.

Additional drive information can be viewed by tapping the ⓘ more info icon.

3.2 Wipe

Drives connected to any bay or front USB port can be wiped. The following methods are available in the Wipe menu:

- *Secure Erase* – Sends a command to the drive instructing it to wipe the drive based on the hard drive manufacturer's specifications for the Secure Erase command.

> If errors appear when performing Secure Erase, contact the drive manufacturer to check if the drive supports Secure Erase. For Secure Erase specifications (what happens when the drive receives the Secure Erase command), contact the drive manufacturer.
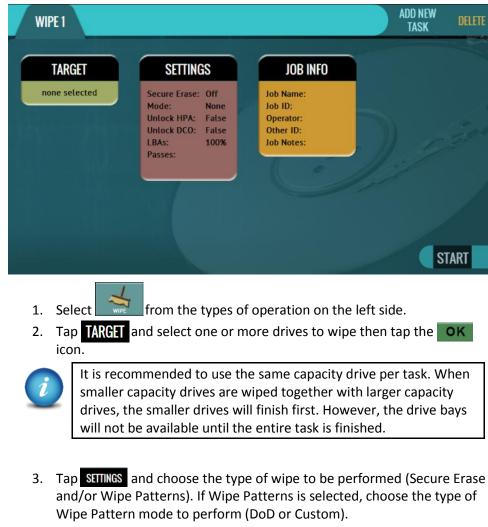
- *Wipe Patterns* – Allows the user to set a specific pattern to use for wiping the drive. The number of passes is customizable (up to 7 passes) along with the type of data written for each pass. In addition, a 7-pass DoD wipe can be set with pre-selected pass values.

> *i* It is recommended to use the same capacity drive per task. When smaller capacity drives are wiped together with larger capacity drives, the smaller drives will finish first. However, the drive bays will not be available until the entire task is finished.

The ZX-T can perform one or both methods on the same drive(s) using the same task. The ZX-T will perform each method in order (Secure Erase then Wipe Patterns) depending on which methods are chosen. For example, if both Secure Erase and Wipe Patterns are selected, the ZX-T will perform the Secure Erase first then a Wipe Patterns wipe.

3.2.1 Step-by-step instructions – Wipe

1. Select [WIPE icon] from the types of operation on the left side.
2. Tap **TARGET** and select one or more drives to wipe then tap the **OK** icon.

> *i* It is recommended to use the same capacity drive per task. When smaller capacity drives are wiped together with larger capacity drives, the smaller drives will finish first. However, the drive bays will not be available until the entire task is finished.

3. Tap **SETTINGS** and choose the type of wipe to be performed (Secure Erase and/or Wipe Patterns). If Wipe Patterns is selected, choose the type of Wipe Pattern mode to perform (DoD or Custom).
4. If the drive has an HPA or DCO area that needs to be wiped, tap the *HPA/DCO* icon and select *Yes* to wipe the HPA/DCO area of the drive.

QUICK START

5. Tap the **Passes** icon to edit the number of passes and what gets written on each pass.

> ⚠️ If **Custom** was selected, at least one pass must be edited and chosen. If **DoD** was selected, a 7th pass value must be edited/entered.

6. **Optional:** Tap **JOB INFO** to set the Job Name, Job ID, Operator ID, Other ID, or Job Notes.

> ℹ️ The ZX-T will convert any non-POSIX portable characters used in **Job Name** field to underscores "_" when creating the log or file names.
>
> POSIX portable characters are:
>
> | | |
> |---|---|
> | Uppercase A to Z | Period (.) |
> | Lowercase a to z | Underscore (_) |
> | Numbers 0 to 9 | Hyphen/Dash (-) |

7. Tap the **START** icon to start the wipe task. The ZX-T will perform a Secure Erase first (if selected), then a Wipe Pattern (if selected).

8. When finished, the status will show "COMPLETED". At this point, it is recommended to click Reset Task to reset the task, and also to delete the task in order for the drive bays to be properly reset and not show as being used or assigned for other tasks to be configured.

3.3 Task Macro

This operation allows up to five (5) macros that can be set. Each macro can run up to nine (9) tasks sequentially (one after another). For example, to perform a Wipe Patterns wipe with more than 7 passes, a macro can be set to perform the Wipe 1 task with 7 passes followed by the Wipe 2 task with another 7 passes.

3.3.1 Step-by-step instructions – Task Macros

Each task or operation must be set up before creating the macro. For example, to set up a Task Macro that will perform a Wipe Patterns wipe with 14 passes, users must first set up two wipe tasks, each with the maximum 7 passes. Once both Wipe 1 and Wipe 2 tasks have been set up, the Task Macro can be created.

1. First, set up tasks Wipe 1 and Wipe 2 in the Wipe Operation menu.
2. Select **Task Macro** from the types of operation on the left side.
3. Select a macro (Macro 1 through Macro 5).
4. Tap the **Task** icon to select up to nine (9) operations.
5. Set up to 9 operations by tapping on each operation in order (Operation 1, Operation 2, etc.). For this example, set Operation 1 to Wipe 1 and Operation 2 to Wipe 2.
6. When all the operations have been set, tap the **OK** icon.
7. Tap the **Start** icon to execute the macro and perform all the operations within that macro.
8. When finished, the status will show "COMPLETED". At this point, it is recommended to click Reset Task to reset the task, and also to delete the task in order for the drive bays to be properly reset and not show as being used or assigned for other tasks to be configured.

3.4 Logs

The ZX-T keeps logs of all wipe operations. Logs can be viewed directly on the ZX-T or from a computer's browser (if the ZX-T is connected to a network). In addition to viewing, the logs can be exported to an external USB location such as a USB flash drive. Logs are exported in PDF, HTML and XML format.

3.4.1 Step-by-step instructions – Viewing or exporting logs

1. Select *Logs* from the types of operation on the left side. A list of log files will appear sorted by date (newest on top).

2. Select the log file to view by tapping the name of the log file. This will highlight the log file chosen.

3. Tap the *View* icon to view the log file on-screen. The log files can also be exported to a USB drive. To export the log files:

   a. Connect a USB drive (USB flash drive or USB external drive) to one of the three available USB 2.0 ports located in the back of the ZX-T.
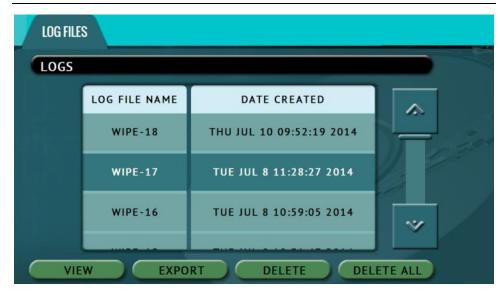
   > The USB drive must be formatted with a FAT, FAT32, NTFS, or EXT4 file system.

   b. Tap the *Export* icon to export the log file via USB. The log will be exported/copied to the attached USB drive and will be in HTML, PDF, and XML formats.

   Repeat steps 2 and 3 if other log files need to be exported or viewed.

   To print the log files, use the web interface as described in **Chapter 7: Remote Operation** and click the print icon on the bottom left corner of the screen. The browser's print menu will appear and the log can be printed to an available printer on configured on the computer.

3.4.2   Deleting log files

Log files can be deleted one at a time or all at once.

- To delete a single log file, tap or click the log file to highlight the log file to be deleted. Tap the **Delete** icon to delete the selected log file.
- To delete all the log files, tap the **Delete All** icon.

A log file deletion password can be set to add a layer of security when deleting log files. If a password was set, log files cannot be deleted without entering the correct password.

- If a log file deletion password was not created, a confirmation screen will appear confirming to delete the single log file or all log files.
- If a log file deletion password was created, a screen will appear prompting to enter the log file deletion password. Enter the log file deletion password. Tap the **OK** icon to delete the single log file or all the log files (depending on which was selected).
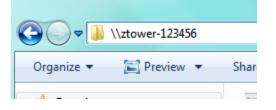
> The password can be set in the **Systems Settings**. More information about the log file deletion password can be found in **Section 5.0.6.2**

3.4.3   Accessing the logs over a network

The log files can also be accessed through a network on a computer if the ZX-T is connected on the same network. Alternatively, the ZX-T can be connected to a computer directly using one of the Ethernet ports located in the back of the ZX-T and a network cable.

1. Open Windows Explorer or a similar window and browse to the hostname or the IP address found in the Statistics screen. See **Section**

5.0.5 for more information on the Statistics screen.

2. A Windows security screen will appear prompting to enter a User name and Password to connect to the ZX-T. Login with the following credentials:
   - User name: *it*
   - Password *it*

3. Once connected, an *auditlog* folder will appear. Open the *auditlog* folder.

4. The auditlog folder contains the HTML, PDF, and XML files for each of the log files. There will be two folders (html and pdf) that contain either the HTML or PDF versions of the log files. The XML files can be used with any XML viewer which allows for some customization on how the information can be viewed.

3.5 Statistics

This will display two tabs: *About* and *Adv. Drive Statistics*. The *About* screen will show information about the ZX-T including the current software installed.

The *Adv. Drive Statistics* tab displays S.M.A.R.T. information taken directly from what the drives are reporting.

For more information on the Statistics screen, see **Section 5.0.5** of this manual.

3.6 System Settings

The *System Settings* screen allows users to configure three different settings for the ZX-T:

- User Profiles/Configurations
- Passwords
- Language/Time Zone

For more information on ZX-T's system settings, see **Section 5.0.6** of this manual.

3.7 IP Settings (Proxy settings)

In order for the ZX-T to be able to update software from a network (over the internet) or to synchronize the date and time, proxy server settings may need to be set. Networks that have a proxy server for internet access will require proxy settings for devices like the ZX-T to connect to the Internet. This typically includes a server (or IP address), a host port, a username and password.

For more information on the IP Settings screen, see **Section 5.0.7** of this manual.

3.8 Software Updates

New and improved software will be released from time to time. There are two ways to update the software on the ZX-T: From the web via a network connection or from a USB drive.

For more information on see **Chapter 6: Updating or Reloading the ZX-T Software**.

3.9 Restart

The ZX-T can be restarted from this menu. Simply select the Restart option.

For more details and a screen shot, see **Section 5.0.9** of this manual.

4.0 WIPE

The Wipe operation allows the user to erase and/or wipe one or more drives. There are two main settings: *Secure Erase* and *Wipe Patterns*.

- **Secure Erase –** Sends a command to the drive instructing it to perform a secure erase based on the drive manufacturer's specifications for the secure erase command.

- **Wipe Patterns –** Allows the user to set a specific pattern to use for wiping the drive. The number of passes is customizable (up to 7 passes) along with the type of data written for each pass. In addition, a 7-pass DoD wipe can be set with pre-selected pass values.

There are three selections when performing a wipe: *Target*, *Settings*, and *Job Info*.

4.0.1 Target

Tap this icon to choose a drive to erase and/or wipe.

A screen will appear, allowing the selection of one or more Target drives. Tap the drive(s) to be erased or wiped (The drive status will change to *Selected*) then tap *OK*.

4.0.2 Settings

Tap this icon to choose a drive to set the wipe settings. The Wipe Settings screen will appear.

There are two sections in the *Settings* screen:
- Secure Erase
- Wipe Patterns

> The ZX-T will perform each of the settings sequentially. For example, if Secure Erase is set to ON, and a Wipe Pattern mode is specified, the ZX-T will first secure erase the drive, then wipe the drive according to the Wipe Pattern specified.

4.0.2.1 Secure Erase

`Secure Erase` – Choose **ON** to Secure Erase the selected Target drive(s). Most drives support this function. Secure Erase will send a command to the drive instructing it to reset itself to the specifications the drive manufacturer has set. For information on what happens when the Secure Erase command is sent, please contact the drive manufacturer. If the secure erase process fails, contact the drive manufacturer to find out if Secure Erase is supported on that specific drive.

> For SAS (Serial Attached SCSI) drives, Secure Erase sends a 'Format' command. For SATA (Serial-ATA) drives, Secure Erase sends a 'Security Erase Unit' command. For SATA drives that support 'Enhanced Security Erase Unit' commands, the enhanced command will be sent. For questions on how each drive supports these features, or what the drive will do with these commands, please contact the drive manufacturer.

4.0.2.2 Wipe Patterns

`Wipe Patterns` – Allows the user to set a specific wipe pattern or patterns to use for wiping the drive. The number of passes is customizable (up to 7 passes) along with the type of data written for each pass. In addition, a 7-pass DoD wipe can be set with pre-selected pass values.

There are 4 selections when setting a wipe pattern:
- MODE
- HPA/DCO
- LBAS
- PASSES
-

`MODE` – Selecting this will open the Wipe Mode screen showing 3 options:

- `NONE` – Choosing this will instruct the ZX-T not to perform a wipe using Wipe Mode.
- `DOD` – Choosing this will instruct the ZX-T to perform a 7-pass wipe conforming to the DoD M-5220 standards.
- `CUSTOM` – Choosing this will allow the user to specify how many wipe passes will be performed and what

values each pass will be written on each of the passes selected.

HPA/DCO – This will open the HPA/DCO option for wiping. If the drive to be wiped has HPA and/or DCO that needs to be wiped, select *Yes* for the corresponding option.

LBA – By default, this is set to 100% which will wipe all Logical Block Addresses (LBAs) and will wipe the entire drive (100%).

PASSES – This Wipe Setting will change depending on the Wipe Pattern *Mode* selected.

- If *None* was selected, this is not selectable.
- If *DoD* was selected, the first six pass values will be filled automatically by default. It is mandatory that the user enter the 7th pass value by tapping the e icon or the operation will fail.

> When DoD is selected, the ZX-T automatically enters default values for pass numbers 1 through 6. It is mandatory that the user enters a value for the 7th pass or an error will appear and the ZX-T will not proceed with the wipe operation. Values can be changed or added by tapping the e icon.

- If *Custom* was selected, no passes will be filled out. It is mandatory that the user set the value for at least one pass or the wipe operation will fail. The pass value can be set by tapping the e icon.

> When Custom is selected, there is no default value entered for any passes. It is mandatory that the user select a value for at least the first pass or an error will appear and the ZX-T will not proceed with the wipe operation. Values can be changed or added by tapping the e icon.
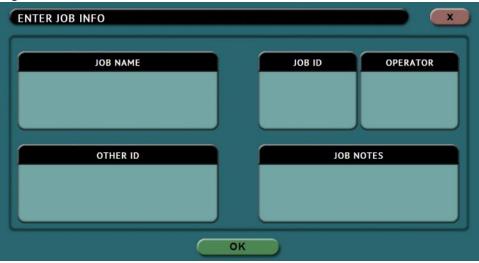
Editing one or more of the passes in DOD or CUSTOM mode will bring up some options:
- **SKIP** – Instructs the ZX-T to skip the pass.
- **RANDOM** – Instructs the ZX-T to perform a random pattern or value.

- **VALUE –** Instructs the ZX-T to use the specified hex value to be written for the pass. The values can range anywhere from 00 to FF.

4.0.3 Job Info

Job Info allows users to enter information about the job. This is optional and is not required to start an operation. Information entered here will appear in the logs.

Tap any of the boxes and an on-screen keyboard will appear allowing information to be entered. After entering the information, tap the *OK* icon to go back to the previous screen.

> Log names and file names can be customized by entering a *Job/File Name*. For example, if a clone operation is performed, and the Job/File Name is set to *TestJob*, the log name and file name will be called *TestJob*.

IMAGING

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The ZX-T will convert any non-POSIX portable characters used in **Job/File Name** field to underscores "_" when creating the log or file names.

POSIX portable characters are:

Uppercase A to Z	Period (.)
Lowercase a to z	Underscore (_)
Numbers 0 to 9	Hyphen/Dash (-)

4.1 Starting the Wipe Operation

Once all the settings and options have been selected or set, tap the (START) icon to begin the task. A confirmation screen will appear. Tap the *Yes* icon to continue.
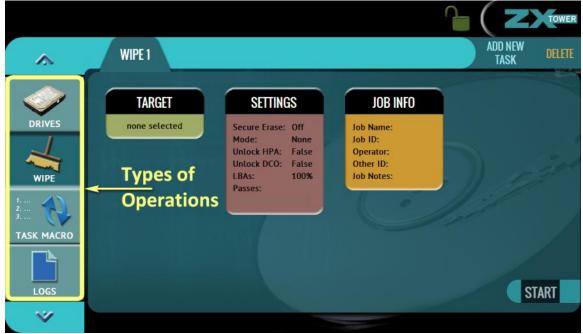
A progress bar will appear at the bottom of the screen showing the bytes processed, the rate (speed), elapsed time, and time remaining.

When finished, the status will change to COMPLETED. At this point, it is recommended to click Reset Task to reset the task, and also to delete the task in order for the drive bays to be properly reset and not show as being used or assigned for other tasks to be configured.

5.0 Types of Operations

There are nine (9) types of operations available on the ZX-T. The left side of the screen shows the different operation types that can be set. Detailed information on all of the different operations and their screens can be found in this section.

1. **DRIVES –** This screen shows the status of all drive bays. Each drive bay will be listed whether or not there is a drive connected.

2. **WIPE –** This type of operation is used to erase and/or wipe. There are two main settings:

    - **Secure Erase –** Sends a command to the drive instructing it to perform a secure erase based on the drive manufacturer's specifications.

    - **Wipe Patterns –** Allows the user to set a specific pattern to use for wiping the drive. The number of passes is customizable (up to 7 passes) along with the type of data written for each pass. In addition, a 7-pass DoD wipe can be set with pre-selected pass values.

    Details on the different screens found in the Imaging operation can be found in ***Chapter 4: Wipe.***

3. **TASK MACRO –** Set up to nine (9) different tasks to perform sequentially (one after another). For example, a macro can be set to perform these tasks in order: Wipe, clone then hash.

4. **LOGS –** Display logs of each task that has been performed on the ZX-T.

5. **ZX-T STATISTICS –** This will display information about the ZX-T including the current software installed. In addition, the Statistics screen has an *Advanced Drive Statistics* tab that shows raw S.M.A.R.T. data on any drive connected to the ZX-T.

6. **SYSTEM SETTINGS –** This mode allows changes to the system settings on the ZX-T which include the following:

   - **User profiles/configurations –** Allows the user to create, save, apply, or delete user profiles/configurations.

   - **Passwords –** Allows the user to set a password to lock the ZX-T from any configuration changes.

   - **Languages –** Sets the ZX-T's menu language.

7. **IP SETTINGS –** Allows the user to set proxy settings if required by their network.

8. **SOFTWARE UPDATES –** Perform software updates on the ZX-T. Software can be updated over an internet connection (from network) or from a USB flash drive.

9. **RESTART –** Allows the user to turn the ZX-T unit off by using the Graphical User Interface (GUI).

5.0.1 Drives

This screen shows the status of all drive bays. Each drive bay will be listed whether or not there is a drive connected.

If there is a drive connected, the model of the drive will appear in the Drive Information column and will have a ✔ symbol in the Drive Connected column.

If no drive is detected, the bay will have a ✗ symbol.

Additional drive information can be viewed by tapping the ⓘ more info icon.

DRIVE BAY	DRIVE INFORMATION	DRIVE CONNECTED	MORE INFO
T1	WDC_WD20EARS-00MVWB0 2.0 TB	✔	ⓘ
T2	WDC_WD20EADS-00W4B0 2.0 TB	✔	ⓘ
T3	WDC_WD30EZRX-22MMMB0 3.0 TB	✔	ⓘ
T4	-	✗	ⓘ

5.0.2 Wipe

This type of operation allows the user to erase and/or wipe one or more Target drives. There are two main settings: Secure Erase and Wipe Patterns.

Details on the different screens found in the Wipe operation can be found in **Chapter 4: Wipe**.

5.0.3 Task Macro

This operation allows up to five (5) macros that can be set. Each macro can run up to nine (9) tasks sequentially (one after another). For example, to perform a Wipe Patterns wipe with more than 7 passes, a macro can be set to perform the Wipe 1 task with 7 passes followed by the Wipe 2 task with another 7 passes.

Each of the five macros can be set by tapping on the Macro number on the top of the screen. Each task or operation must be set up before setting up the macro. For example, to set up a Task Macro that will perform a Wipe Patterns wipe with 14 passes, users must first set up two wipe tasks, each with the maximum 7 passes. Once both Wipe 1 and Wipe 2 tasks have been set up, the Task Macro can be created.

5.0.3.1 Tasks

TASKS – Tapping this icon allows the user to set specific tasks for each macro.

Tap **Operation 1** to set the first operation in the macro. The following screen will appear allowing the user to choose the task. Tap the **OK** icon to continue.

Example: Setting up a Macro to perform a 14 pass wipe

To set a macro to perform a 14 pass wipe on T1, two Wipe tasks first need to be set up.

1. First, set the Wipe Task in the Wipe Operation screen. Select T1 as the Target and change the settings to perform a Wipe Patterns wipe. Edit each of the 7 possible pass values so there are a total of 7 passes filled up. Do not start this task.

2. Next, add a new task. Make sure you select the second Wipe Task (Wipe 2). Select T1 as the Target and change the settings to perform a Wipe Patterns wipe. Edit each of the 7 possible pass values so there are a total of 7 passes filled up. Do not start this task.

3. Choose **Task Macro** from the list of operations on the left side.

4. Tap the **Tasks** icon to select the different tasks for the macro.

---

5. Tap the field next to **Operation 1** to set the first operation. Since the first task to be run is the Wipe task, select **Wipe 1** then tap **OK**.

6. Tap the field next to **Operation 2** to set the second operation. Since the second task to be run is the Drive to Drive Imaging task, select **Wipe 2** then tap **OK**.

7. The screen should now show **Wipe 1, Wipe 2** as the Tasks for Macro 1.

8. Tap the **Start** icon to begin the macro. The macro will run the Wipe 1 task first, then the Wipe 2 task.

5.0.4 Logs

The ZX-T keeps logs of all wipe operations. Logs can be viewed directly on the ZX-T or from a computer's browser (if the ZX-T is connected to a network).

In addition to viewing, the logs can be exported to an external USB location such as a USB flash drive. Logs are exported in PDF, HTML and XML format.

From this screen, log files can also be deleted one at a time or all at once.

The log file includes several sections, such as:

- Information on the ZX-T and its settings
- Job info (if entered)
- Drive details

> See **Section 3.4.1** for instructions on how to export the log files.
> See **Section 3.4.2** for instructions on how to delete the log files.
> See **Section 3.4.3** for instructions on how to Accessing the logs over a network.

5.0.5 Statistics

This will display two tabs: **About** and **Adv. Drive Statistics**.

The **About** screen will show information about the ZX-T including the current software installed.

The **Adv. Drive Statistics** tab shows S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) information taken directly from what the drive is reporting. Navigate between drives by using the left and right scroll arrows. The up and down scroll arrows scroll through the different information. The information shown is the raw value tracked by the drive and is not translated.

TYPES OF OPERATIONS

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5.0.6   System Settings

The *System Settings* screen allows users to configure three different settings for the ZX-T:

- User Profiles/Configurations
- Passwords
- Language/Time Zone

5.0.6.1   User Profiles/Configurations

This screen shows all user profiles/configurations for the ZX-T. There are three options in this screen:

- **New –** Allows the user to create a new profile/configuration name.
- **Save –** Saves the selected profile/configuration.
- **Load –** Loads the selected profile/configuration.

> The ZX-T will boot with the profile/configuration that has an asterisk (*) next to the name.

Profiles/configurations allow users to create different profiles or configurations. The profile/configuration can then be saved. When a profile/configuration is loaded using the *Load* icon, the ZX-T will load that configuration during its boot process.

For example, if the user wants the ZX-T to always boot up with the default Wipe settings where Secure Erase is set to ON:

1. Turn the ZX-T off then back on. This will reset all settings to its default configuration. This is an important

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step to help ensure only the changes desired will be the changes saved.

2. Go to the **Wipe** screen and in the Settings screen set Secure Erase to **ON**. By default this is set to OFF.

3. In the **System Settings**, go to **User Profiles/Configurations** and tap the **New** icon.

4. Type a name for this profile. For example, SECERASEON and tap the **OK** icon. The profile name should appear on the screen.

5. Tap the newly saved profile to highlight it then tap **Save**. A confirmation screen will appear.

6. Tap the **Yes** icon to save the profile.

7. Make sure the profile to be loaded (during the boot process) is highlighted (in this case, SECERASEON.DB) and tap the **Load** icon. A confirmation screen will appear.

8. The next time the ZX-T is turned on it will load the SECERASEON.DB profile.

To delete a profile, tap the delete icon. A confirmation screen will appear. Tap the **Yes** icon to delete the selected profile.

> It is highly recommended that the ZX-T is turned off then back on before making any changes to the profiles/configurations. This helps ensure that only the desired changes are saved.

> **Do not highlight and save over the INITIAL.DB configuration. This is the default configuration of the ZX-T and is used to reset the ZX-T to the factory default settings.**

5.0.6.2 Passwords

There are two sets of passwords that can be entered on the ZX-T.

- **File Deletion Password –** A password can be set as an extra layer of protection when deleting log files. If this password is set, ZX-T will prompt for the password before any log files can be deleted.

- **Config Lock –** The ZX-T can be configured to lock out any configuration changes. When this is enabled, changes to the different types of operations cannot be made without entering the correct key or password. Different types of operations can still be started.

  For example, when the ZX-T is locked, and it is configured for Drive to Image Imaging mode, the user will be unable to change this mode to Drive to Drive or File to File, but can start the Drive to Image task.

Tap **Password** or **Key** to enter a log file deletion password or a config lock key. The following screen will appear.

Tap the **Enable** icon to enter a password or key. The available characters are 0 through 9 and A through F.

5.0.6.2.1 Additional information for Config Lock

Tap the **Auto Lock** icon to set the time to automatically lock the configuration and require a password. By default, this is set to 1 minute.

A shortcut (and indicator) to the **config lock** can always be seen on the ZX-T's screen. It is located on the top-right of the screen, next to the ZX-T logo.
While in a locked state, the following operations will be affected as follows:

- **Wipe –** A wipe task can be started, but no settings can be changed. Additionally, no new task can be added, and no task can be deleted without the unlock key.

- **Task Macro –** A task macro can be started, but no settings can be changed. Additionally, no new macro can be set or edited without the unlock key.

- **Logs –** Since there are no settings or configurations for this operation, it is not affected by Config Lock.

- **Statistics –** Since there are no settings or configurations for this operation, it is not affected by Config Lock.
- **System Settings –** This entire section cannot be accessed without the unlock key.
- **IP Settings –** This entire section cannot be accessed without the unlock key.
- **Software Updates –** This entire section cannot be accessed without the unlock key.
- **Restart –** This entire section cannot be accessed without the unlock key.

> The Passwords can be saved into a user profile/configuration and loaded each time the ZX-T is turned on. See **Section 5.0.10.1** for more information on saving and loading a user profile/configuration.

> The ZX-T can still be turned off without the unlock key by using the power button in front of the ZX-T or the power switch located in the back of the ZX-T.

> Remember the Config Lock Key! If the ZX-T is configured to load with the Config Lock set (enabled) the only way to delete the Config Lock is to reset the ZX-T using the Command Line Interface (CLI) to factory defaults.

5.0.6.2.2 Forgotten password or config lock key

If the Log File Deletion password or Config Lock key is forgotten, the ZX-T will need to be reset using the Command Line Interface (CLI). See

Section 7.2 for more information on how to connect to the ZX-T using the CLI.

Once connected to the CLI:

1. Login with the username "*it*" (without the quotes) and the password "*it*" (without the quotes).

2. From the main prompt, type **command** then press the enter key.

3. Type **config** then press the enter key.

4. Type **db list** then press the enter key. This will show a list of databases or configurations saved. The db that shows an asterisk (*) before the name is the current database or configuration being loaded each time the ZX-T is turned on.

5. Type **db load initial.db** then press the Enter key to load the default database. There should be a response showing "Command (DbManagement) Successful".

6. Type **db list** again and there should be an asterisk (*) on initial.db.

7. Turn the ZX-T off and close the Telnet/SSH application.

8. Wait for the ZX-T to completely turn off then turn it back on. When the ZX-T boots up, it will load the default configuration. The default configuration can be checked by going to **System Settings** and looking at the **User Profiles/Configurations** tab. INITIAL.DB should have an asterisk next to it.

5.0.6.3   Language/Time Zone

The ZX-T menu system's language can be changed.

This screen also allows the time zone to be set.

5.0.9.3.1   Language

Select a language. As soon as the selection is made, the ZX-T's screen (or the computer's Internet browser) will automatically refresh and display the selected language.

> The *Custom* button is reserved for future language releases.

5.0.6.3.2   Time Zone

The ZX-T utilizes NTP (Network Time Protocol). Each time the ZX-T is connected to a network with internet access, it will automatically check for the correct time using NTP and adjust the time as needed.

The ZX-T also has a time zone setting. Tap *Time Zone* to select the time zone region. Tap the *OK* icon to continue.

After selecting the region, select the time zone where the ZX-T is located. Tap the *OK* icon to set the time zone.

5.0.7   IP Settings

In order for the ZX-T to be able to update software from a network (over the internet), proxy settings may need to be set.

Networks that have a proxy server for internet access will require proxy settings for devices like the ZX-T to connect to the Internet. This typically includes a server (or IP address), a host port, a username and password.

HTTP PROXY

SERVER

USERNAME/PASSWORD
Username:
Password:

5.0.7.1 Server

SERVER – Tap the Server icon to set the IP address (or server name) and port of the proxy server.

5.0.7.2 Username/Password

USERNAME/PASSWORD – If the proxy server requires a username and password for authentication, tap the *Username/Password* icon to set this information.
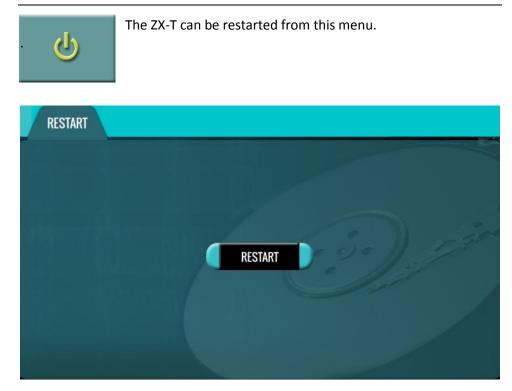
5.0.8 Software Update

New and improved software will be released from time to time. There are two ways to update the software on the ZX-T: From the web via a network connection or from a USB drive.

For the latest step-by-step instructions on how to update the ZX-T software, please read the *ZX-T Software readme* file located on the ZX-T's support page at www.logicube.com

In-depth information on updating the ZX-T software can be found in **Chapter 6: Updating or Reloading the ZX-T Software**.

5.0.9 Restart

 The ZX-T can be restarted from this menu.

A confirmation screen will appear. Select *Yes* to confirm the selection and the ZX-T will restart.

6: Updating or Reloading the ZX-T Software

6.0   Loading New Software

New and improved software will be released from time to time and will always be available on the ZX-T support page at http://www.logicube.com/knowledge/zx-tower.

6.1   Software Loading/Reloading Instructions

There are two methods of how to update the ZX-T software:

A. **FROM NETWORK –** Via the web through an internet connection
B. **FROM USB DRIVE –** Via software file download onto a USB drive flash.

> The actual software installation will take about 5 minutes. If **FROM NETWORK** was chosen, the total time can exceed 10 to 20 minutes (or longer) depending on Internet speeds and Internet traffic.

The most up-to-date instructions on updating the software can be found in the ZX-T Software readme file located on the ZX-T's support page at:
http://www.logicube.com/knowledge/zx-tower

6.1.1   From Network – Via the web

1. Connect the ZX-T to a network with Internet access. Set the proxy settings (IP settings) if necessary. Attach a network cable to the back of the ZX-T.

The ZX-T is DHCP enabled by default.

2. From the main menu on the ZX-T, tap the down arrow twice then tap the **Software Updates** icon. A screen will appear showing the current version of software installed towards the top of the screen.
3. Select **From Network**. The ZX-T will check for a newer version on the web. If one is found, it will display the version on the screen and the **Update** icon will be selectable.
4. Tap the **Update** icon to begin the update. A confirmation screen will appear. Tap **Yes** to continue the update.
5. Do not interrupt the update process. It may take several minutes. Once completed, a 'Successful' screen will appear.
6. Reboot the ZX-T by turning the unit off then back on using the Power button on the top of the unit or by using the Restart menu.
7. Verify the software version at the top of the 'Software Updates' screen.

6.1.2   From USB Drive – Via software download

The latest software can also be downloaded from Logicube's website and be placed onto a USB flash drive.

It is recommended to use an empty USB flash drive.

Download the latest software from the ZX-T product support page at
http://www.logicube.com/knowledge/zx-tower

1. Download the zip file from the download page.
2. Extract the contents of the downloaded zip file to the root of the USB flash drive (the file must not be in any folder).

> If the computer being used to extract the contents of the downloaded zip file has the software WinZip, or other third party zip software, please review *Section 6.1.2.1* before proceeding.

3. Connect the USB drive to U_1 (left most USB port located on the front).

4. From the main screen, tap the **Software Updates** icon.

5. Select From USB Drive. The ZX-T will check the USB drive for software and will display that version on the box next to the selected location.

6. Tap the Update icon to begin the update. A confirmation screen will appear. Tap **Yes** to continue the update. Do not interrupt the update process. It may take several minutes. Once completed, a 'Successful' screen will appear.

7. Reboot the ZX-T by turning the unit off then back on using the Power button on the top of the unit or by using the Restart menu.

8. Verify the software version at the top of the 'Software Updates' screen.

6.1.2.1 Extracting the software download on a computer with WinZip (or other third party zip software)

WinZip and other third party zip software may improperly extract the files required for the software update. There are compressed files within the download that need to stay compressed.

If the computer being used to extract the software download has WinZip or other third party zip software, it is highly recommended to use the built-in utility in Windows.

If the downloaded zip file is highlighted and WinZip is installed, there will be an option to 'Open with WinZip'.

A computer without WinZip installed will have an option to 'Open' when the file is highlighted.

If WinZip is installed, highlight the downloaded zip file then click the arrow pointing downward next to 'Open with WinZip'. A drop-down menu will appear. Select **Windows Explorer**.

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Windows Explorer will open the zip file and the files can be extracted using the **Extract all files** function to the USB flash drive. This will bypass WinZip and use the built in utility in Windows.

7: Remote Operation

7.0 Introduction

The ZX-T comes with two gigabit network connections in the back of the unit. Connecting the ZX-T to a network allows remote access to the ZX-T from any computer within the same network.

The ZX-T is configured for DHCP by default. See **Section 7.5** for instructions on how to configure the ZX-T with a Static IP address.

The ZX-T is setup with a Zero Configuration Network (Zeroconf). There are two ways to access the ZX-T:

- Web interface – A graphical interface using an Internet browser where the screens are shown exactly the way they appear on the ZX-T
- Command Line Interface (CLI) – A text only command line interface that can be accessed one of two ways:
    i. Telnet (via a network connection)
    ii. SSH (Secure Shell via a network connection)

> **BROWSER COMPATIBILITY**: Google Chrome and Mozilla Firefox are recommended. Other browsers may not compatible.

7.1 Web Interface

Using a web browser, go to the IP address or the name of the ZX-T with its serial number. Both IP address and serial number can be found by going to the *Statistics* screen on the ZX-T. For example, browse to http://192.168.1.100 or http://ZX-T-XXXXXX/ where XXXXX is the 6 digit serial number of the ZX-T. The ZX-T's web interface will appear on the browser screen. All screens and operations available on the ZX-T will be available on the browser.

> On some browsers or Operating Systems, the ZX-T will need to be accessed by browsing to http://ZX-T-XXXXXX.local/.

The ZX-T can be controlled by clicking on the icons appearing on the browser window.

REMOTE OPERATION

7.2 Command Line Interface (CLI)

The ZX-T also has a CLI, or Command Line Interface. This interface has no graphical content and is all command line (text) based and is for advanced users who have knowledge of command line functions. This type of connection requires a Telnet or SSH client. There are several telnet and SSH clients available from different software companies. Microsoft Windows also has a built-in Telnet client that can be used.

> - Windows XP has a built-in Telnet client.
>
> - Windows Vista, 7, 8, and 8.1 have a built-in Telnet client but is not installed by default. Installing the Telnet client may require the assistance of a Network or Systems Administrator. Other third party Telnet programs are available.
>
> - All versions of Windows do not have a built-in SSH client.
>
> - The instructions in this manual only refer to the clients that come with Windows. There are many third party Telnet or SSH clients available. For instructions and support for third party clients, please contact the software manufacturer.

7.3 Installing the Telnet client in Windows Vista, 7, 8, or 8.1

By default, the Telnet Client is not installed with Windows, but it can be installed it by following the steps below:

1. Open **Control Panel** and select either **Programs & Features** or **Programs**.
2. Click **Turn Windows features on or off**. If a prompt for an administrator password or confirmation, type the administrator password or provide confirmation (A Network or Systems Administrator may be required for administrator access).
3. In the Windows Features dialog box, select the Telnet Client check box.
4. Click OK. The installation might take several minutes.

7.3.1 Connecting via Telnet

Once the Telnet client is installed, follow the steps below to connect using the Windows Telnet client.

1. Connect the ZX-T to the network by attaching a network cable (CAT 6 type) to the RJ45 connector in the back of the ZX-T.
2. Turn the ZX-T on and allow it to boot up completely.
3. Open the Telnet client.

   a. For Windows XP, click **Start > Run.** The Run window should appear. Type **telnet** in the Open: field and press Enter. The Telnet window should appear.

   b. For Windows Vista or 7, click **Start** and in the **Search** field, type **Telnet**. Telnet should appear in search results.

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4. Type **open** followed by the IP address or name of the ZX-T. For example **open 192.168.1.100** or **open ZX-T-XXXXXX** where XXXXXX is the 6 digit serial number of the ZX-T, then press Enter. The ZX-T login screen should appear.

   Note: On some Operating Systems, the ZX-T will need to be accessed by opening ZX-T-XXXXXX.local.

5. Login with the username "**it**" (without the quotes) and the password "**it**" (without the quotes).

6. The ZX-T can now be configured or managed via the command line interface.

7.3.2   Connecting via SSH

Connecting to the ZX-T via SSH (Secure Shell) is very similar to connecting via Telnet. Since Windows does not have a built-in SSH client, a third party SSH client will need to be downloaded and installed to connect via SSH. For instructions and support on how to use third party SSH clients, please contact the SSH client's manufacturer.

1. Connect the ZX-T to the network by attaching a network cable (CAT 6 type) to the RJ45 connector in the back of the ZX-T.

2. Turn the ZX-T on and allow it to boot up completely.

3. Open the SSH client and select an SSH connection.

4. Connect to the ZX-T either by IP address or by name. The name of the ZX-T will be **ZX-T-XXXXXX** where XXXXXX is the serial number of the ZX-T).

On some Operating Systems, the ZX-T will need to be accessed by opening ZX-T-XXXXXX.local.

5. Login with the username "**it**" (without the quotes) and the password "**it**" (without the quotes).

6. The ZX-T can now be configured or managed via the command line interface.

7.4   Zero Configuration Networking (Zeroconf)

The ZX-T has the capabilities for Zero Configuration Networking (Zeroconf). Zeroconf allows devices to automatically create a usable computer network based on the Internet Protocol Suite (TCP/IP).

![Logicube logo]

For example, when the ZX-T is connected (connected via a network cable) directly to a Windows based computer that is DHCP enabled, both the ZX-T and the Windows based computer will automatically configure themselves to be seen by each other using TCP/IP.

7.5 Configuring the ZX-T with a static IP address

The ZX-T is DHCP enabled by default. Some networks do not support DHCP and require a static IP address. The ZX-T can be configured with a static IP address and needs to be connected to a network with DHCP first.

7.5.1 Step-by-step instructions – Static IP address

1. Connect the ZX-T to a network with DHCP.
2. Turn the ZX-T on. The ZX-T should automatically assign itself an IP address that the Windows computer can see. Go to the **Statistics** screen on the ZX-T and take a look at the HostName and IPAddress.
3. Using Telnet or SSH, connect to the ZX-T. Instructions on how to connect via Telnet or SSH can be found in **Section 7.3.1 or 7.3.2**.
4. Once logged in to the ZX-T via CLI, follow these steps to set the IP address to a static IP:
   a. From the main prompt, type **command** then press the enter key.
   b. Type **config** then press the enter key.
   c. Type **net del -n eth0** to delete the current network configuration.
   d. The following information is required: a static IP, the netmask, network gateway, the network nameserver, the domain. For example:
      i. IP Address: 192.168.1.123
      ii. Netmask: 255.255.255.0
      iii. Gateway: 192.168.1.10
      iv. Nameserver: 192.168.1.10 (typically the same as the gateway unless the network has a specific nameserver IP.
      v. Domain: LG

> ![info icon] Networks are configured differently and the necessary settings may require the assistance of a Network or Systems Administrator.

   e. Based on the info above, the example for this line will be to type (job sensitive): **net add -n eth0 -t static -a 192.168.1.143 -m 255.255.255.0 -g 192.168.1.1 -N 192.168.1.1 -d lg** then press the enter key.

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f. The ZX-T should respond with the following: Command (DbNetworkConfig) Successful

g. Now we need to save the configuration. Type **db save staticip.db** then press the enter key. A "Successful" message should appear.

h. Type **db load staticip.db** to load the database configuration.

i. Perform a full shut down on the ZX-T. Wait about 30 seconds then turn the ZX-T back on. The ZX-T should load the new configuration. The IP address can be checked by going to the Statistics screen.

8: Optional Adapters

9.0 Introduction

Logicube has many different adapters that allow you to use almost any drive with the ZX-T. This chapter lists the available optional adapters that can be used with the ZX-T. Please refer to our ZX-Tower Adapter Guide (available on our website) for illustrations on how these adapters connect to ZX-T.

9.1 2.5" SATA

The 2.5" SATA adapter (P/N F-ADP-Z-2.5-STA) fits 2.5" SATA drives up to 9mm in height.

9.2 2.5" SAS/SATA Extension Adapter

The 2.5" SAS/SATA Extension Adapter (P/N F-ADP-SATA-X-ZC) allows the connection of 2.5" SAS (Serial Attached SCSI) or SATA drives that are greater than 9mm in height. This extension adapter is also required for of the majority of the other drive adapters listed in this section.

9.3 eSATA Drives

eSATA drives can be connected using the SAS/SATA Extension Adapter. The SAS/SATA cable included with the Extension Adapter will need to be removed and replaced with the eSATA cable. Connect the SATA end of the eSATA cable to the Extension Adapter and connect the eSATA end of the cable to the eSATA drive. Power to the eSATA drive should come with the drive (typically some type of external AC adapter or power cable).

> *i* The SATA/SAS Extension Adapter (P/N F-ADP-SATA-X-ZC) is required when using this adapter.

9.4 1.8" microSATA Drives

1.8" microSATA drives can be connected using the adapter shown above. This microSATA adapter connects to the SAS/SATA Extension Adapter.

> *i* The SATA/SAS Extension Adapter (P/N F-ADP-SATA-X-ZC) is required when using this adapter.

9.5 mSATA (mini-SATA) Drives

mSATA (mini-SATA) drives can be connected using the adapter shown above. This mSATA adapter connects to the SAS/SATA Extension Adapter.

> *i* The SATA/SAS Extension Adapter (P/N F-ADP-SATA-X-ZC) is required when using this adapter.

9.6   3.5" and 2.5" Parallel ATA (PATA/IDE) Drives

3.5" and 2.5" PATA/IDE drives can be connected using the 3.5" adapter shown above. The 3.5" adapter connects to the SATA/SAS Extension Adapter.

 Technical Note: If PATA/IDE drives are not being detected by the ZX-T, change the jumper settings on the drive to 'Master' or 'Single Master'.

 The SATA/SAS Extension Adapter (P/N F-ADP-SATA-X-ZC) is required when using this adapter.

9.7   1.8" Parallel ATA (PATA/IDE) Drives

1.8" PATA/IDE drives can be connected using the 1.8" adapter shown above. This 1.8" adapter connects to the SATA/SAS Extension Adapter.

 The SATA/SAS Extension Adapter (P/N F-ADP-SATA-X-ZC) is required when using this adapter.

9.8   1.8" ZIF Drives

1.8" ZIF Drives can be connected using the adapter shown above. This ZIF adapter connects to the SAS/SATA Extension Adapter.

 The SATA/SAS Extension Adapter (P/N F-ADP-SATA-X-ZC) is required when using this adapter.

9.9 Flash Memory Cards

Flash memory cards can be connected using the adapter shown above. This multi-card reader connects to one of the USB ports in the front of the ZX-T.

 Third party multi-card readers are not supported and may not work with the ZX-T.

The multi-card reader supports the following formats:

- CF (CompactFlash)
- SD/SDXC/MMC
- Micro SD
- Memory Stick (MS)
- Memory Stick Duo (M2)
- X-Card

 Attach only one flash memory card to the multi-card reader at a time.

9: FREQUENTLY ASKED QUESTIONS

9.0 FAQs

Q. How many concurrent tasks can the ZX-T run?
A. The ZX-T can run up to 5 concurrent tasks.

Q. What operating system does ZX-T use?
A. ZX-T uses a Linux-based operating system. A Linux-based operating system provides increased stability and security over Windows-based systems.

Q. Does wiping performance slow down when multiple drives are wiped at the same time?
A. Performance is limited by the slowest drive in the configuration. However, there should not be any significant speed penalty when imaging multiple drives.

Q. How many separate tasks can you have running concurrently?
A. You can have up to five separate tasks running concurrently.

Q. Can I schedule or automate tasks?
A. ZX-T features the ability to create up to 5 separate "Tasks Macros". Each macro allows you to set up to 9 operations to be performed sequentially. You can add these operations to a Macro and from the ZX-T GUI select the Macro and the ZX-T will perform the specified tasks/operations in the sequence you have defined. The user can save the Macro to use in future imaging sessions.

Q. Does the ZX-T provide log files?
A. Yes, each operation/task produces a log file. The log file is viewable on the ZX-T screen (or remotely on a PC) in an HTML format. The log files can be exported to a thumb drive (the ZX-T will export in XML, HTML and PDF). XML log files can be customized using XML editors. The log files are stored on the internal hard drive within ZX-T and are accessible by pressing the log file icon from the left-side navigation bar on the ZX-T screen.

Q. If I am wiping USB enclosures, will the ZX-T's USB ports power my devices or will an additional power source be required?
A. Each of the ZX-T's USB ports meets the standard specification of up to 5V of power. If your USB device has higher power requirements an external power source will be necessary. Check with the manufacturer of your USB device to determine the exact power requirements.

Technical Support Information

For further assistance please contact
Logicube Technical Support at: **(001) 818 700 8488 7am-5pm PST, M-F (excluding US legal holidays)**
or by email to **techsupport@logicube.com**

Software Attribution

Ubuntu 12.04 LTS (http://www.ubuntu.com)
Linux Kernel (3.2.37) (GPL v2) (http://www.kernel.org) (modified)
libcli (1.9.5) (LGPL v2.1) (https://github.com/dparrish/libcli) (modified)
monitorix (3.2.1) (GPL v2) (http://www.monitorix.org) (modified)

Electrostatic Discharge (ESD) WARNING

All electronic products may be susceptible to Electrostatic Discharge (ESD). Electrostatic discharge (ESD) is the sudden flow of electricity between two electrically charged objects caused by contact, an electrical short, or dielectric breakdown. The ZX-Tower (ZX-T) has been designed to minimize the effects of ESD and if an ESD event occurs the unit may experience a temporary loss of functionality. If this occurs, please power down the ZX-T and power it back up, this should clear any temporary loss of functionality.