MDC
(Multiple Display Control Tool)



Agenda

1. MDC Tool Overview
2. Installation Guide
3. Environment Configuration
4. Connection Configuration
5. Connection Management
6. Device Management
7. Device Monitoring
8. Group Management
9. Schedule Management
10. Auto Set ID feature

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MDC Tool Overview

About Multiple Display Control

☐ Objectives

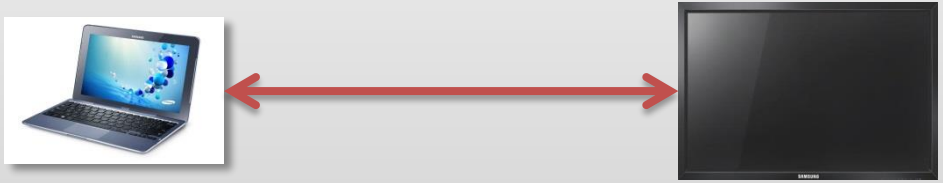
- What is MDC?
- What is MDC Tool and how it is different from MDC?
- Look at basic MDC Tool UI.
- To understand the need of MDC tool.

☐ After finishing this module, you can

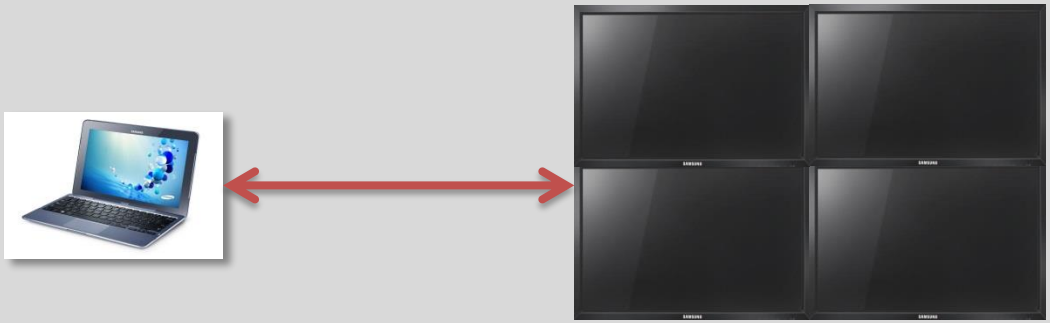
- Differentiate between MDC protocol and MDC tool.
- Understand the need of MDC tool.

Our Goal is to set and control LFD easily!

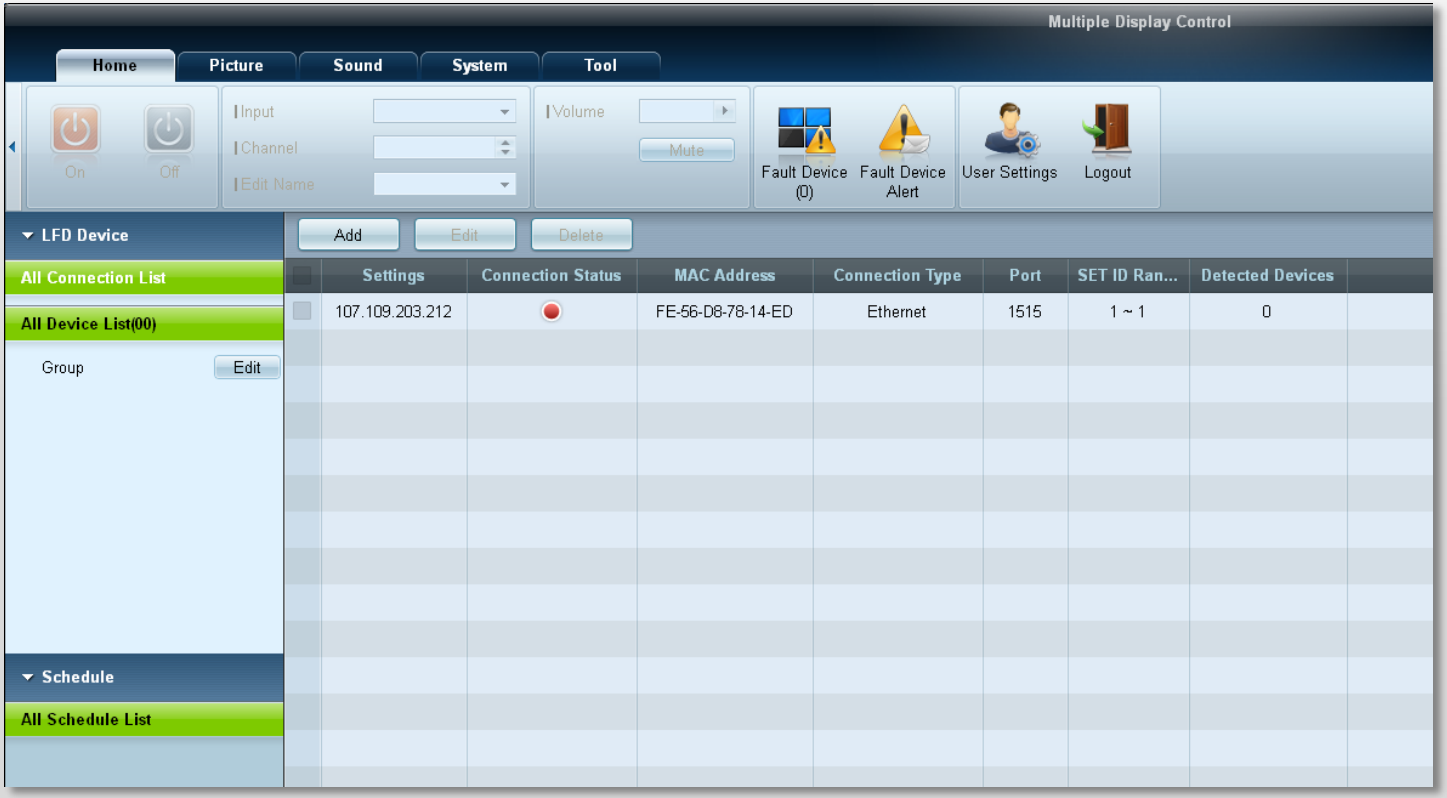
1. Single LFD



2. VideoWall



MDC Tool UI


Multiple Display Control
Home
Picture
Sound
System
Tool
On
Off
Input
Channel
Edit Name
Volume
Mute
Fault Device (0)
Fault Device Alert
User Settings
Logout
LFD Device
All Connection List
All Device List(00)
Group
Edit
Schedule
All Schedule List
Add
Edit
Delete
Settings
Connection Status
MAC Address
Connection Type
Port
SET ID Ran...
Detected Devices
107.109.203.212
FE-56-D8-78-14-ED
Ethernet
1515
1 ~ 1
0

2

Installation Guide

Installation Guide

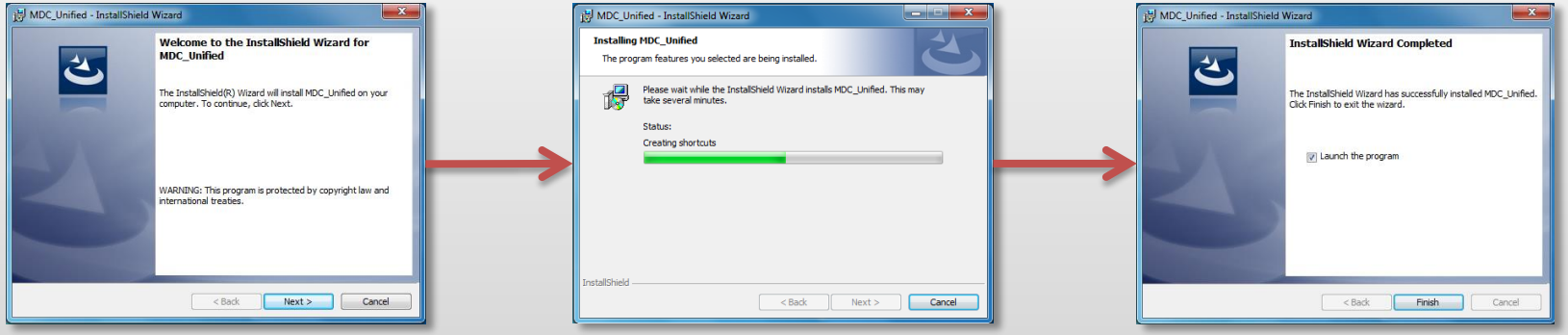
☐ Objectives

- To understand the basic installation process.
- Ease of use of the install-shield setups.
- To understand the uninstall process.

☐ After finishing this module, you can

- Install and uninstall the application.

Installation Process



- MDC tool set-ups or executables are built in third-party and popular tool Install-Shield.
- There is a single set-up file and user just need to double click on it to run it.
- User is prompted for location where to install the set-up.
- See the screen images of installer in next slide.

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Connection Configuration

Connection Configuration

☐ Objectives

- To understand Serial Connection and Serial-In and Serial-Out ports.
- To understand Ethernet Connection.
- To understand the Daisy-Chain Connection.

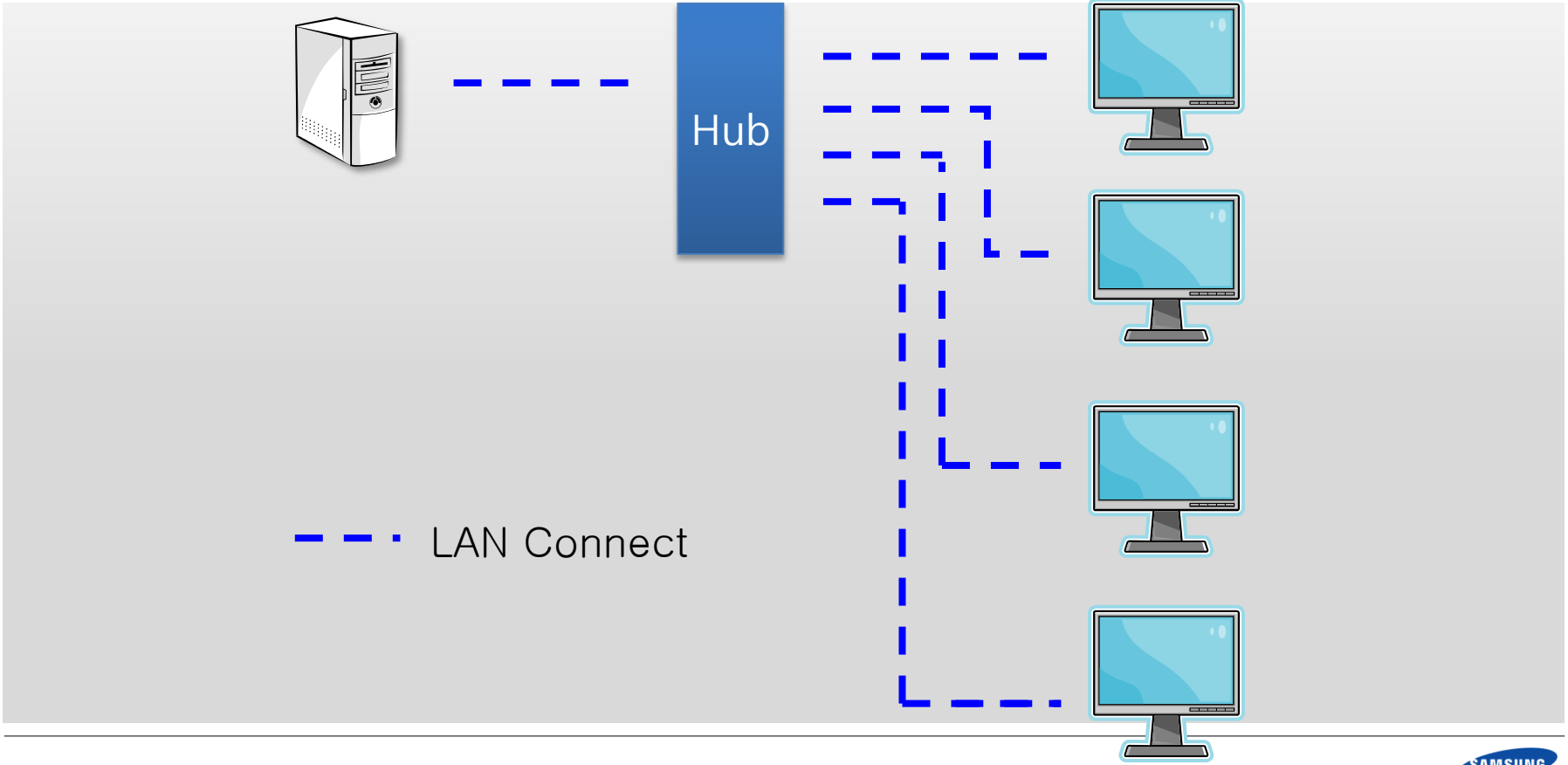
☐ After finishing this module, you can

- Connect LFD in any form of connection.

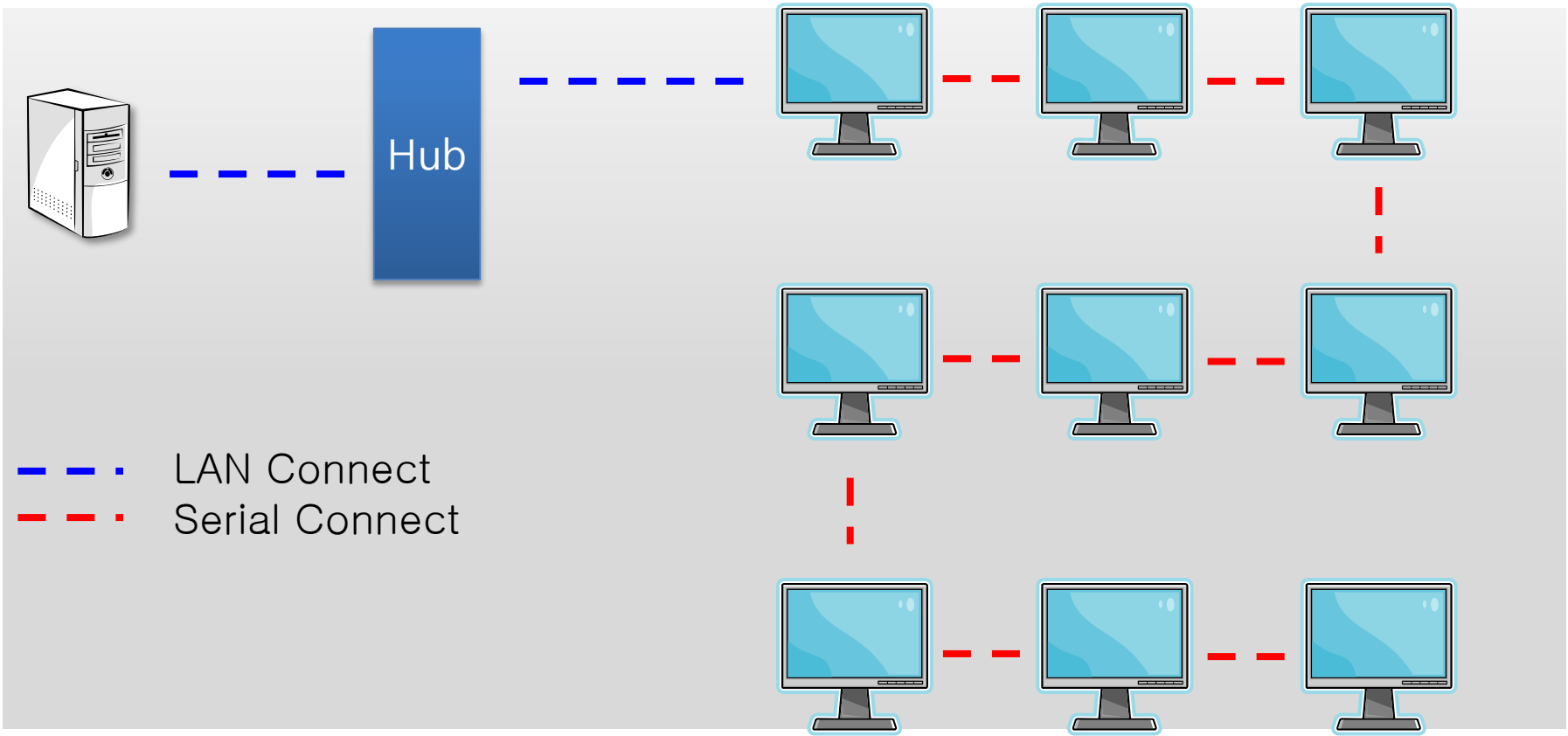
Ports and Connection

- LFD have serial port based on RS232C protocols with both serial – in and serial – out.
- Normal Ethernet ports are also present in most of the LFDs.
- Using serial ports LFD can be connected using a serial cable either in a single connection or in a d aisy chain connection.
- We will discuss the connections in subsequent slides in more details.

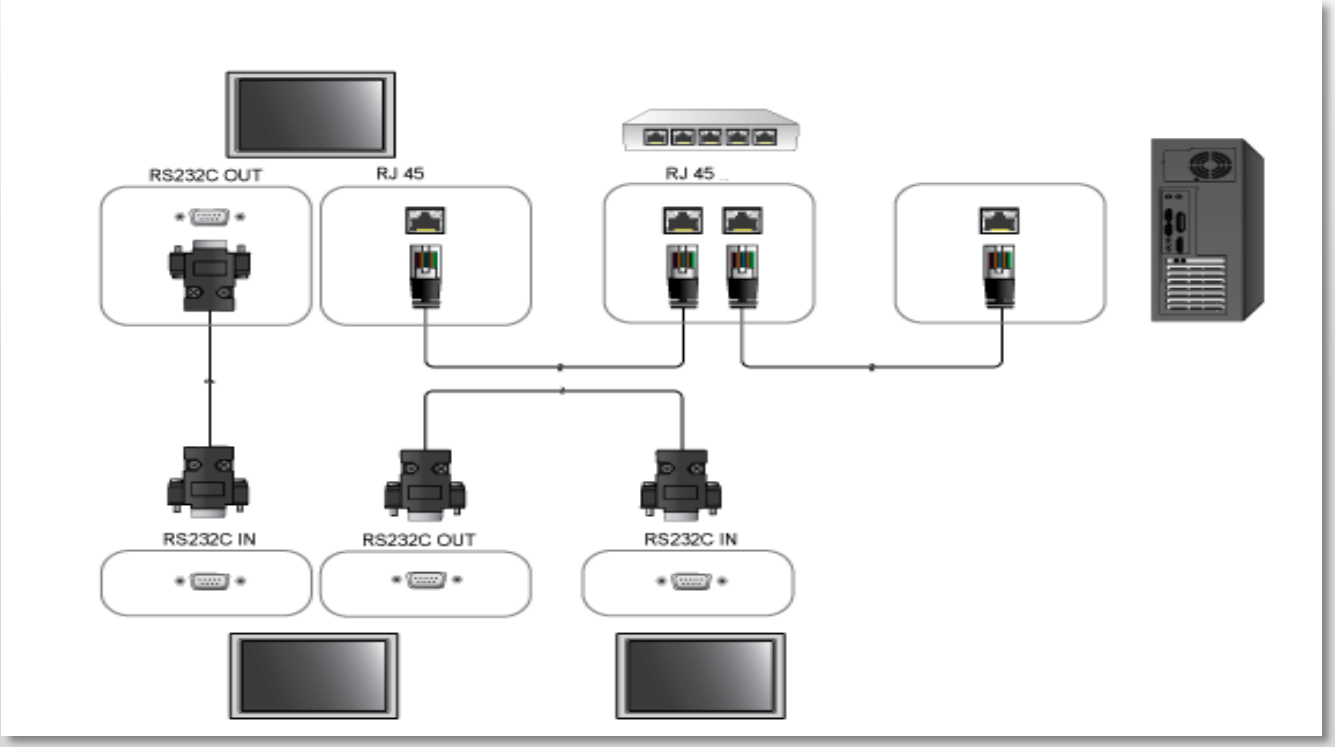
Ethernet Connection



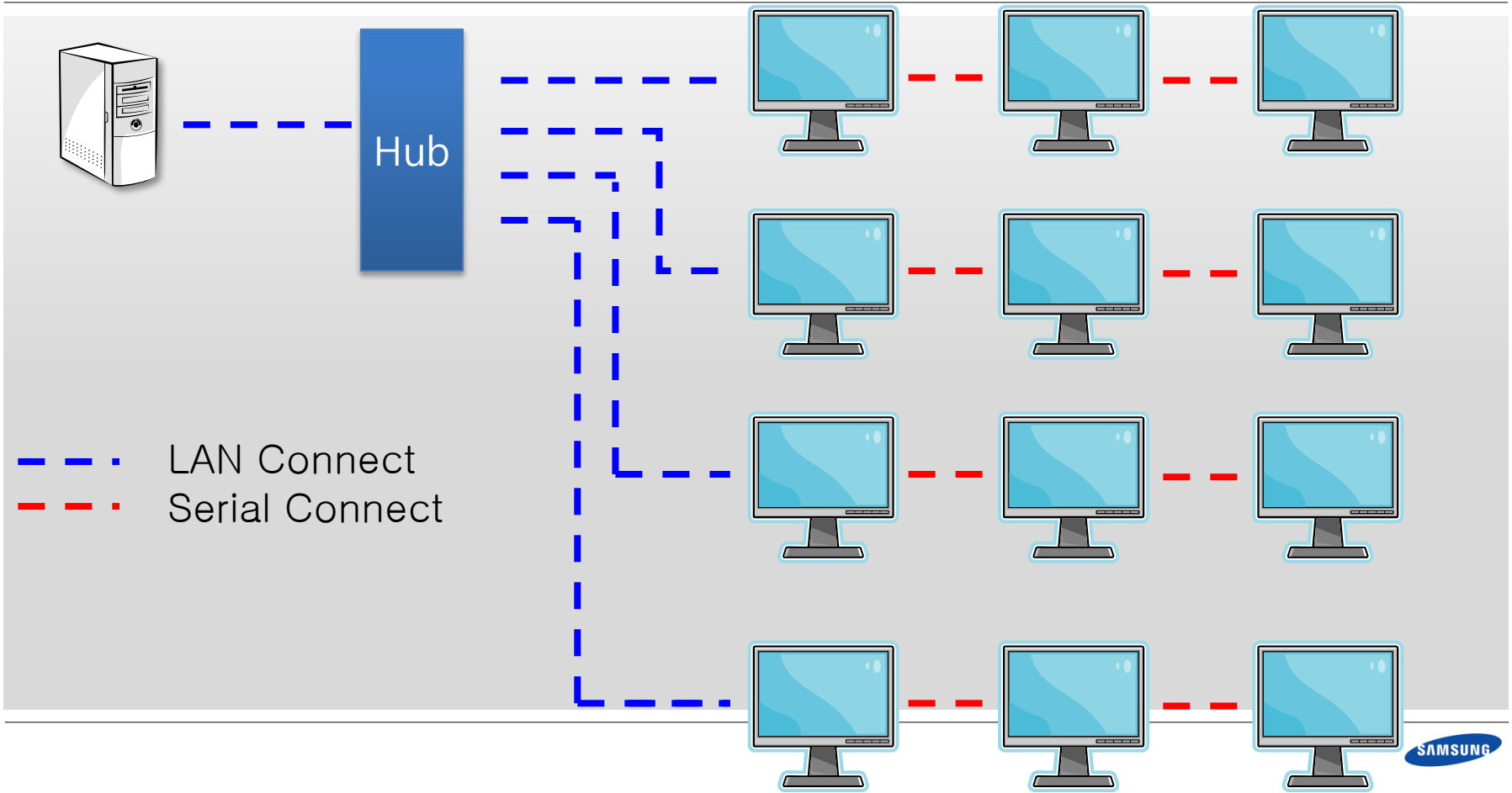
Ethernet Connection with Daisy Chain



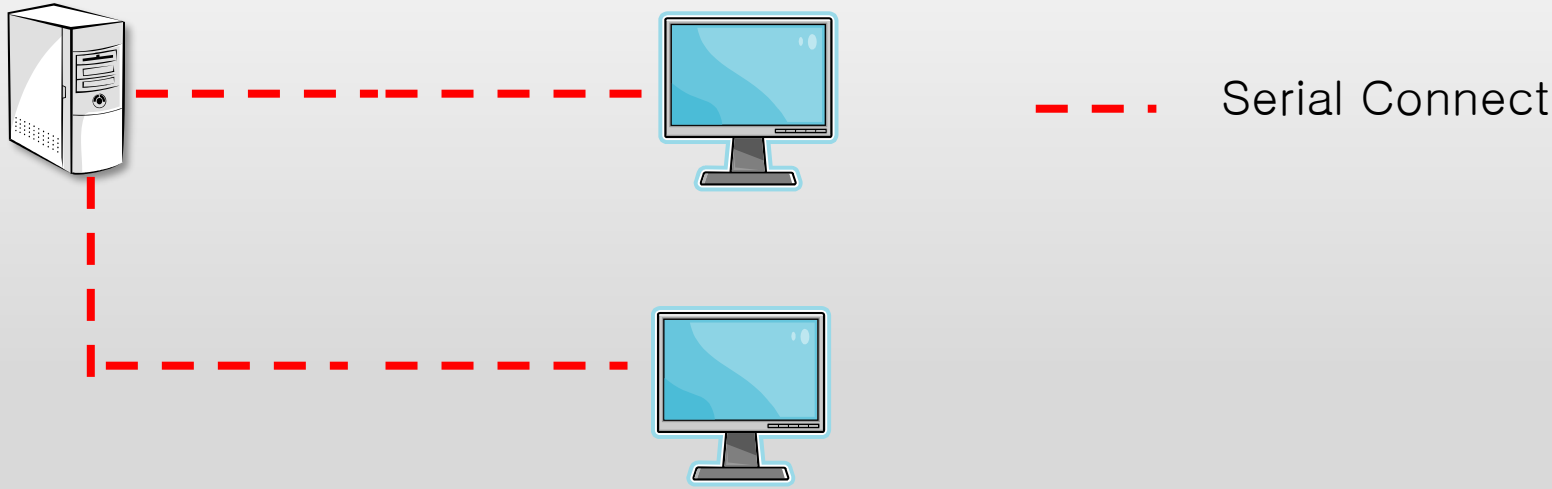
Ethernet Connection with Daisy Chain Continued (2/2)



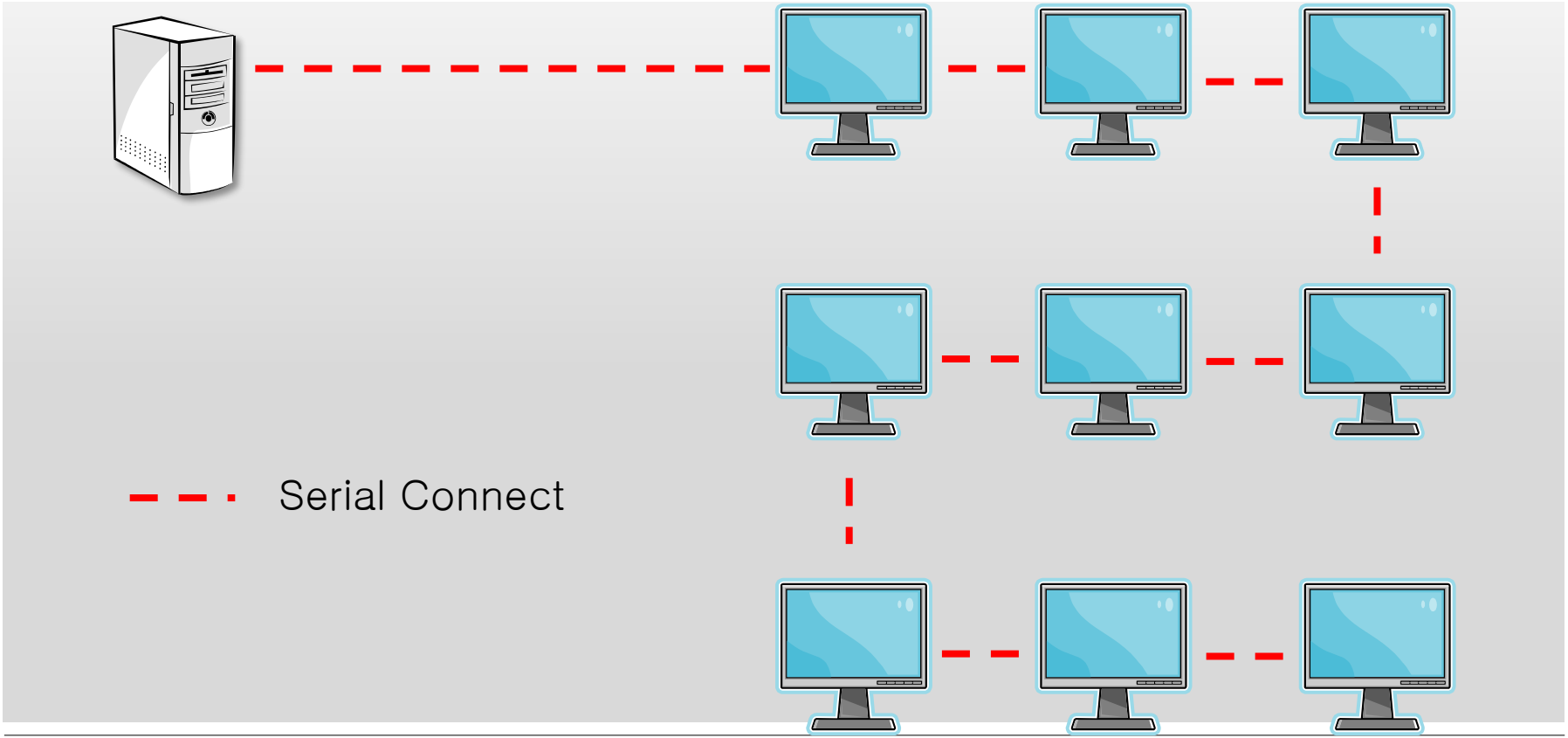
Ethernet Connection with Multiple Hubs



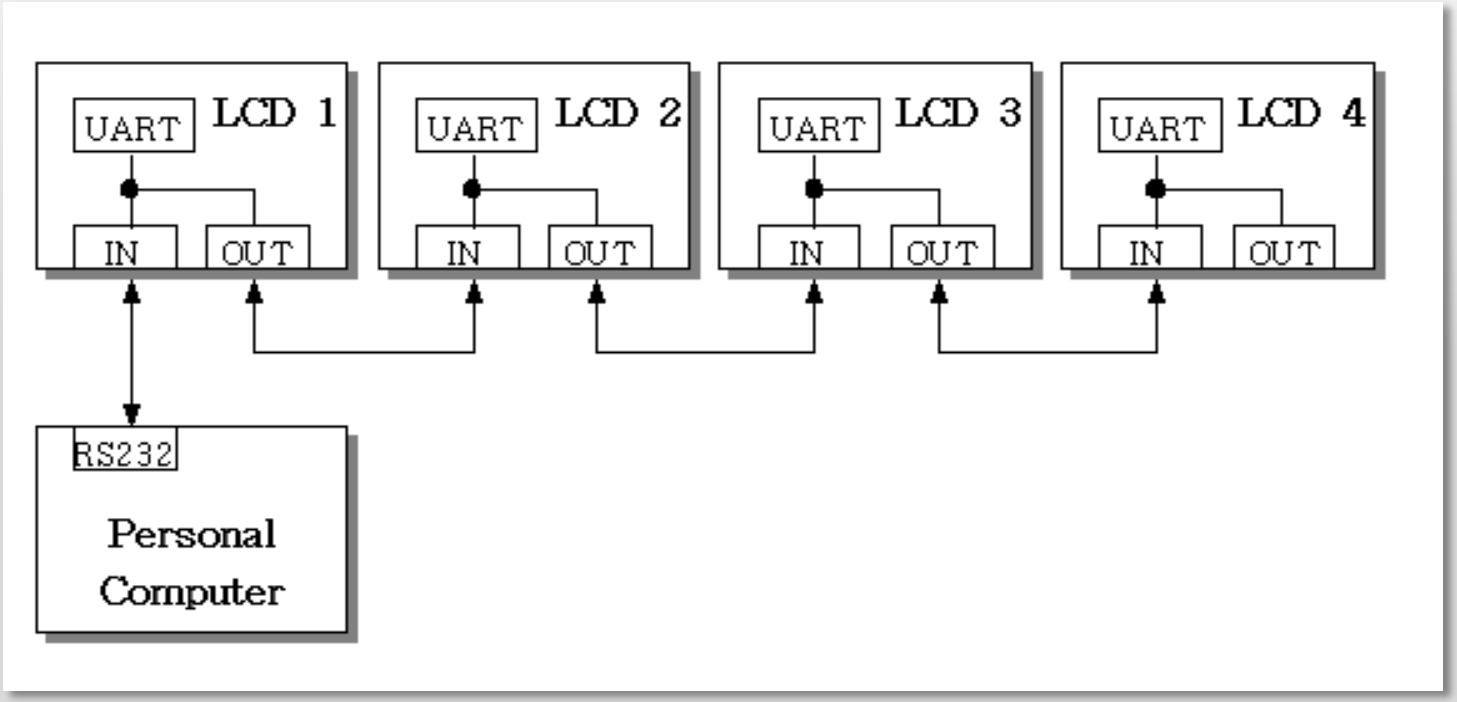
Serial Connection



Serial Connection with Daisy Chain



Serial Connection with Daisy Chain Continued



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Connection Management

Connection Management

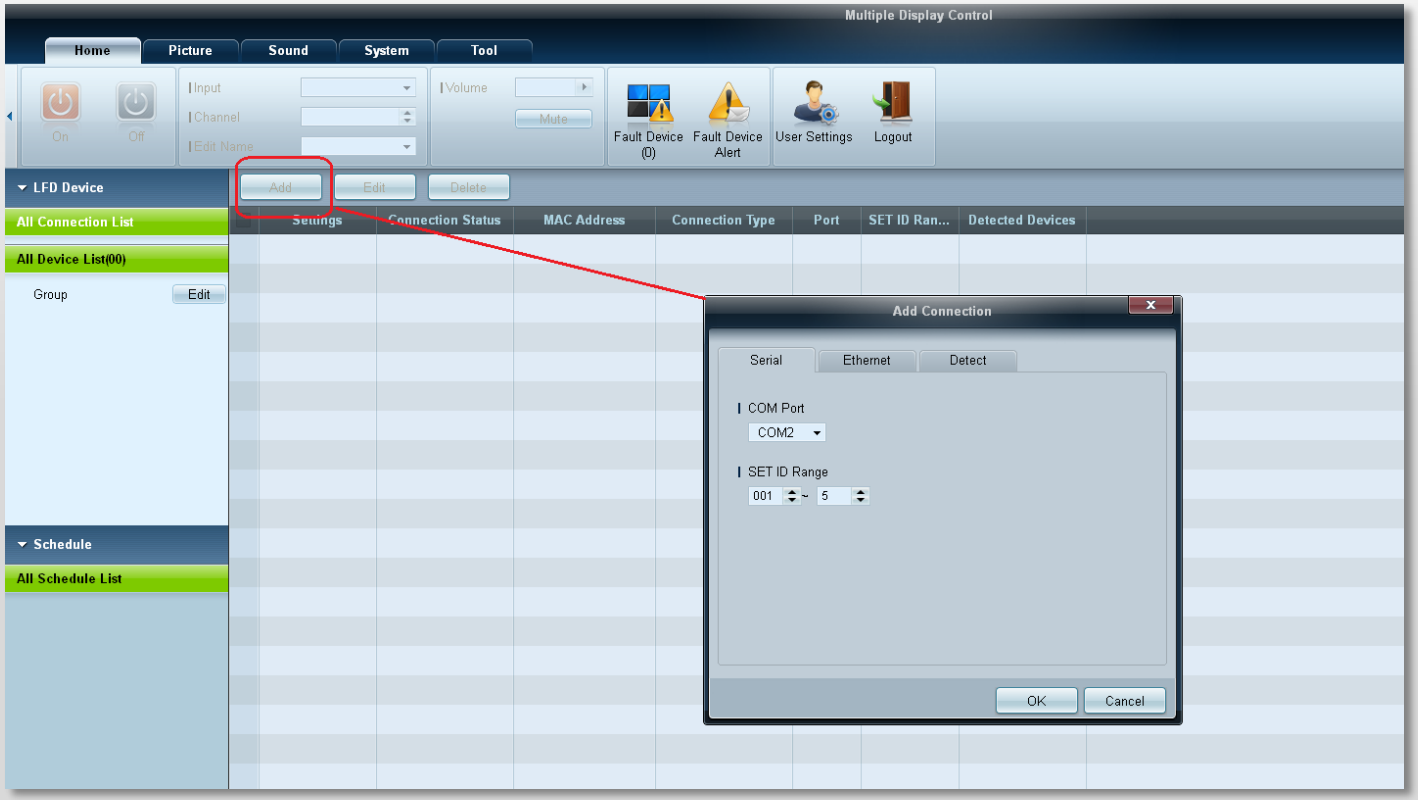
☐ Objectives

- To understand the process of connecting devices with MDC tool.
- To understand the Detect Device functionality.
- To have a look and feel of MDC UI for connection management,

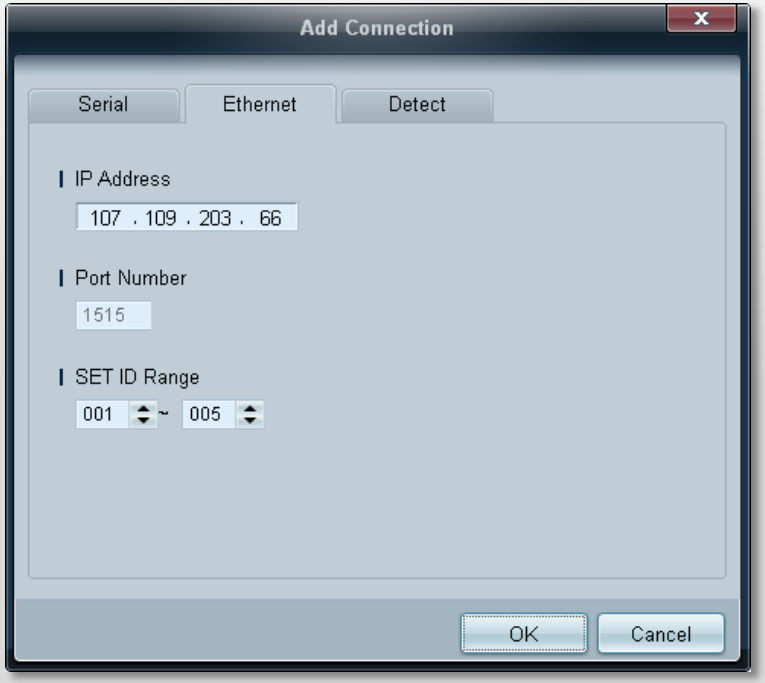
☐ After finishing this module, you can

- Connect with MDC tool using various connections.
- Become familiar to the MDC tool connection pages.

MDC Add Connection : Serial



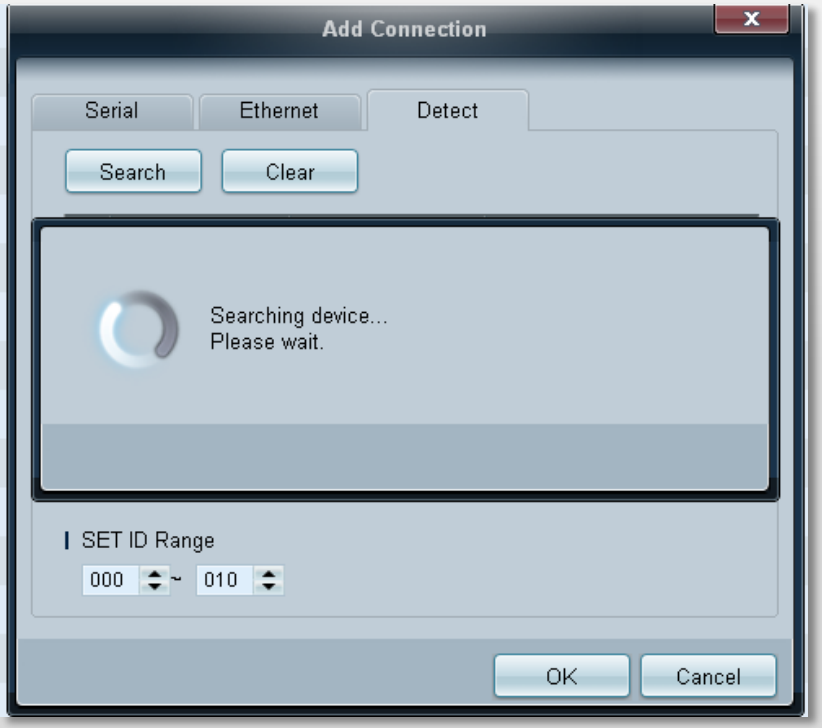
MDC Add Connection : Ethernet



What we need:

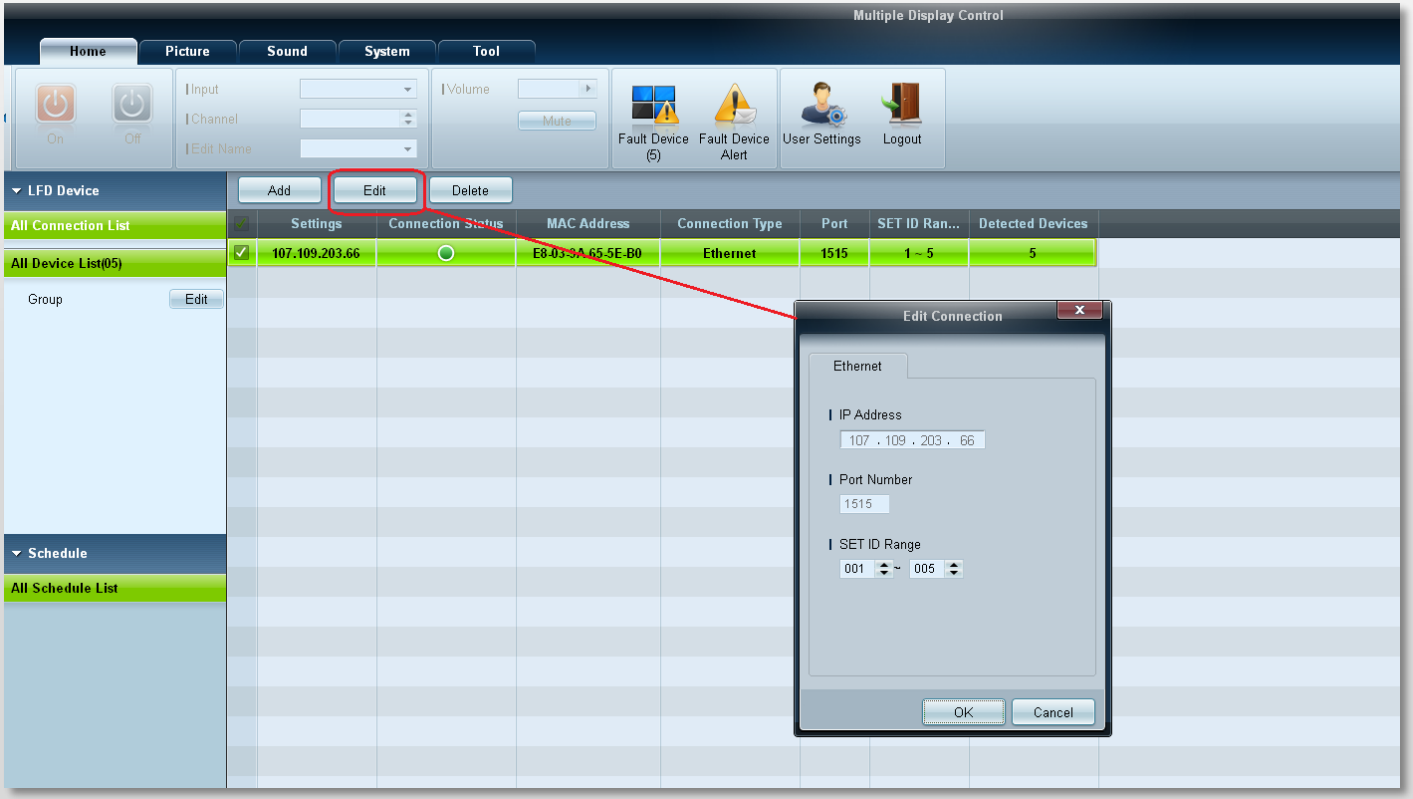
- IP Address of first LFD that has it
- Port Number, always 1515
- SET ID Range of devices that will be added

MDC Add Connection: Detect Device



- MDC Detect device functionality search for any Ethernet device connected in the network using windows UPnP service.
- All the detected Ethernet connected devices are shown in the grid.
- User can select the Set Id range for the devices s/he wants to add.
- This feature is only for Ethernet Device Search.

MDC Edit Connection



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Device Management

Device Management

☐ Objectives

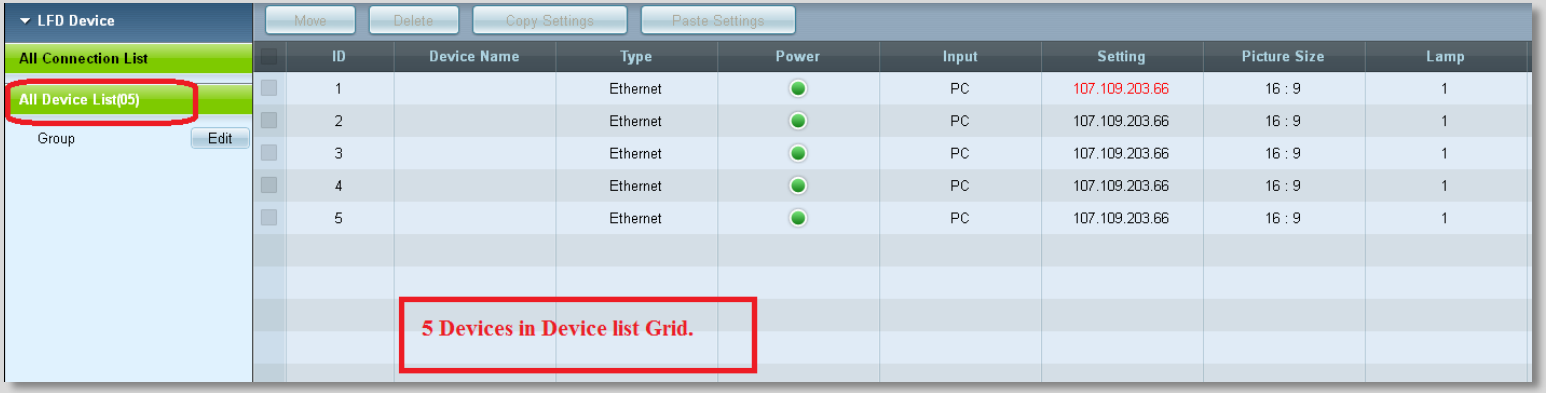
- To understand the difference be the devices and connection.
- To get the feel of MDC Tool UI for Connection and Devices.
- To get familiar to various MDC Tabs.

☐ After finishing this module, you can

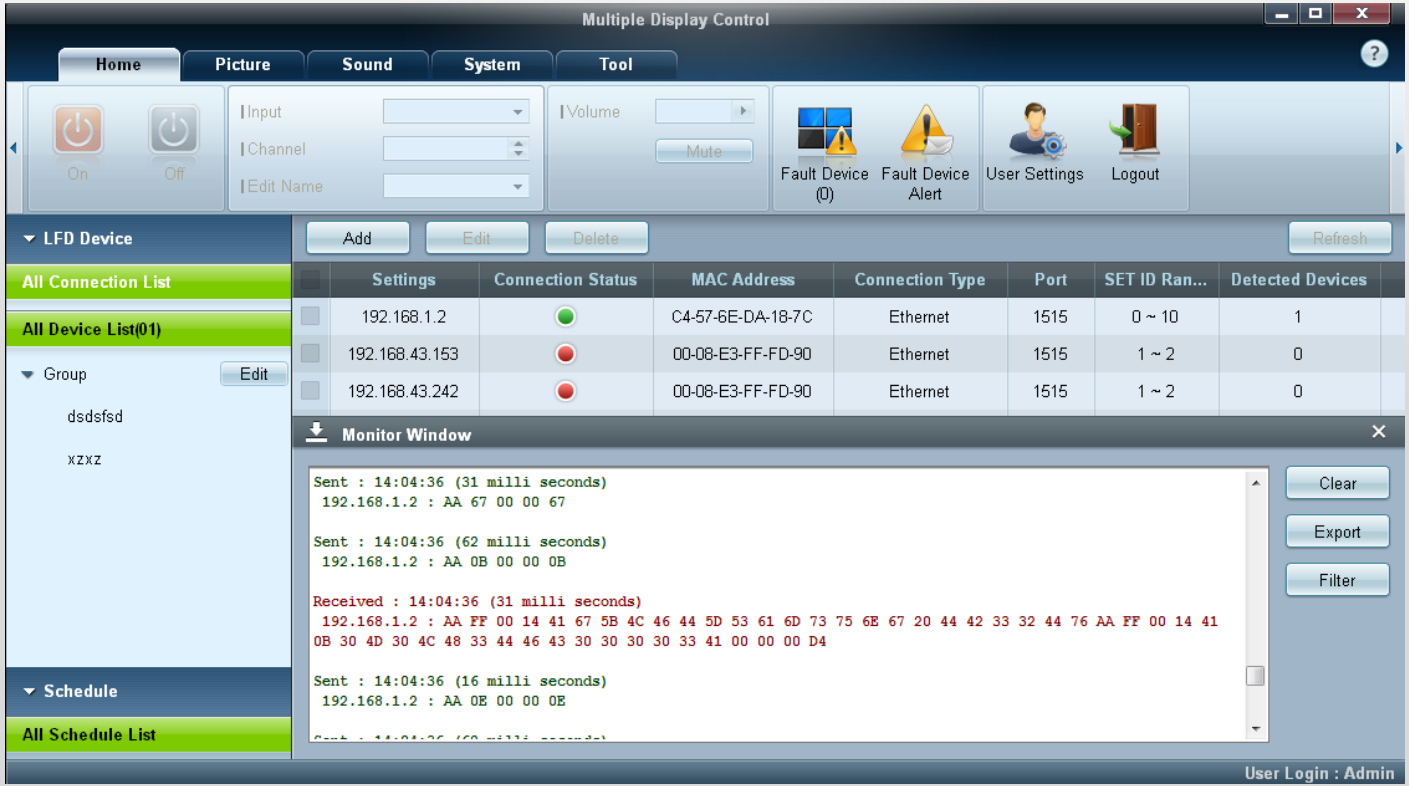
- Differentiate between the devices and connections.
- Know the look and feel of various UI tabs.

Connection and Devices

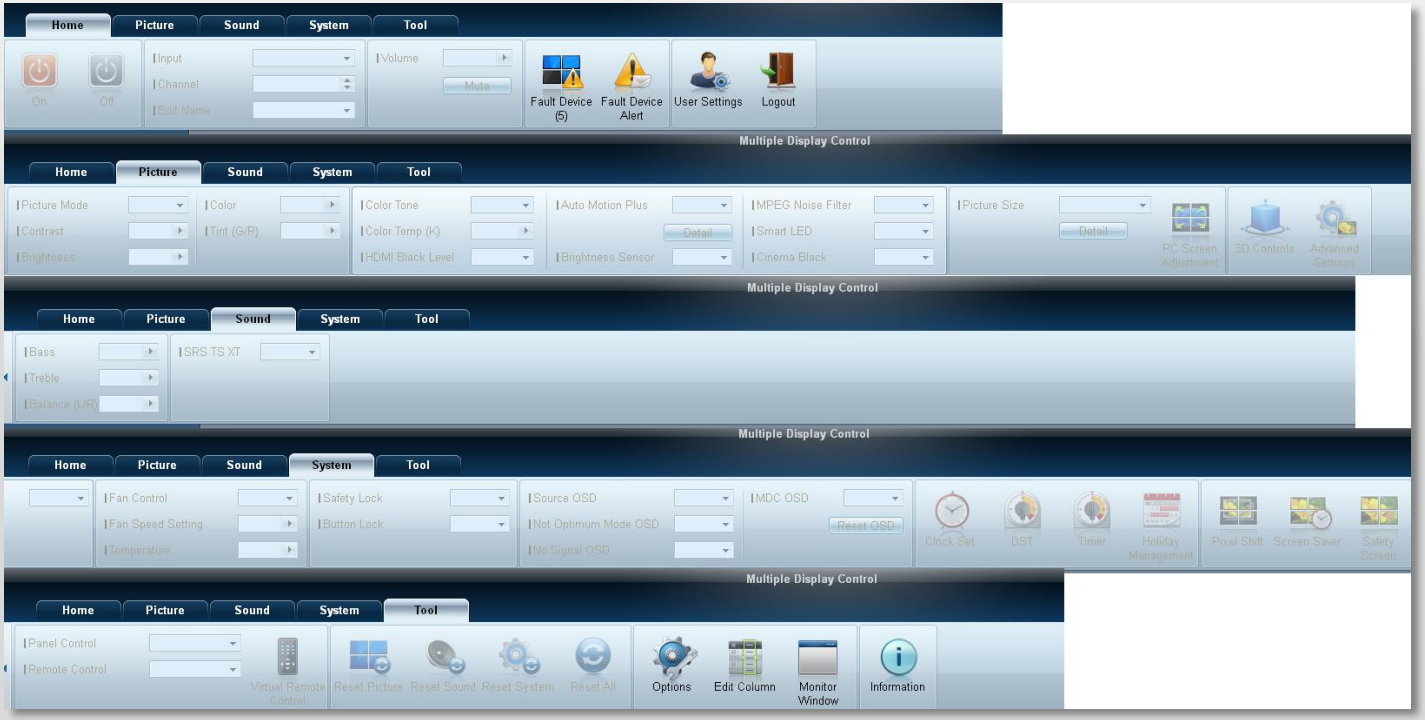




Monitor Window Feature



MDC Tabs


Home
Picture
Sound
System
Tool
On
Off
Input
Channel
Edit Name
Volume
Mute
Fault Device (5)
Fault Device Alert
User Settings
Logout
Multiple Display Control
Picture Mode
Contrast
Brightness
Color
Tint (G/R)
Color Tone
Color Temp (K)
HDMI Black Level
Auto Motion Plus
Detail
Brightness Sensor
MPEG Noise Filter
Smart LED
Cinema Black
Picture Size
PC Screen Adjustment
3D Controls
Advanced Settings
Bass
Treble
Balance (L/R)
SRS TS XT
Fan Control
Fan Speed Setting
Temperature
Safety Lock
Button Lock
Source OSD
Not Optimum Mode OSD
No Signal OSD
MDC OSD
Reset OSD
Clock Set
DST
Timer
Holiday Management
Pixel Shift
Screen Saver
Safety Screen
Panel Control
Remote Control
Virtual Remote Control
Reset Picture
Reset Sound
Reset System
Reset All
Options
Edit Column
Monitor Window
Information

7

Device Monitoring

Device Monitoring

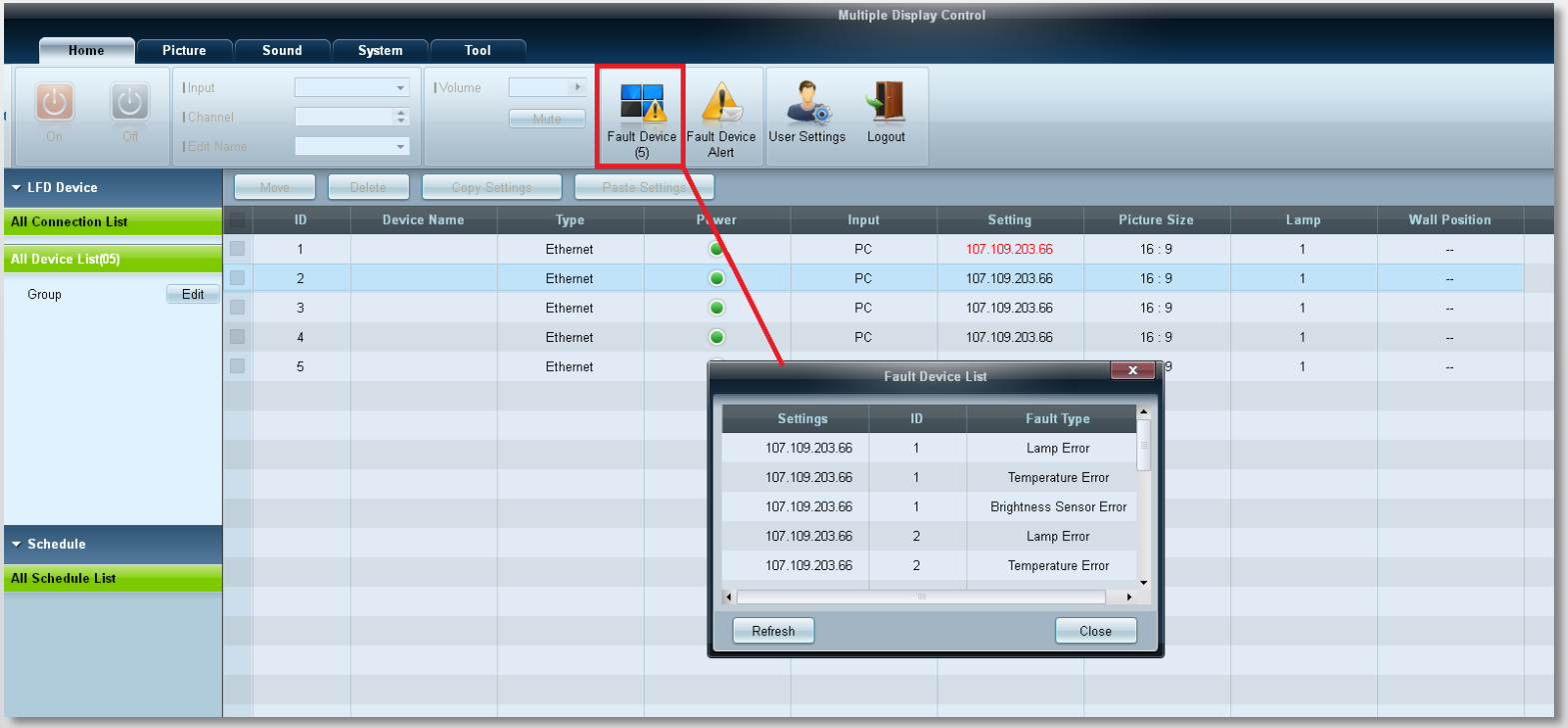
☐ Objectives

- Why the need of monitoring.
- To learn how MDC monitor devices.
- To know about Faulty Device Alert.

☐ After finishing this module, you can

- Understand the need of Device monitoring.
- Set the Fault Device Alert Mail System.

Device Monitoring: Fault Device List



Device Monitoring Automation: Fault Device Alert



- MDC Tool provides extra functionality of infor ming certain person related to the fault in the LFD devices by sending out mails.
- User can configure the mails of the recipients of these alert mails from the tool.
- Email interval can be changed in Options men u in tool tab (we will discuss this later).

8

Group Management

Group Management

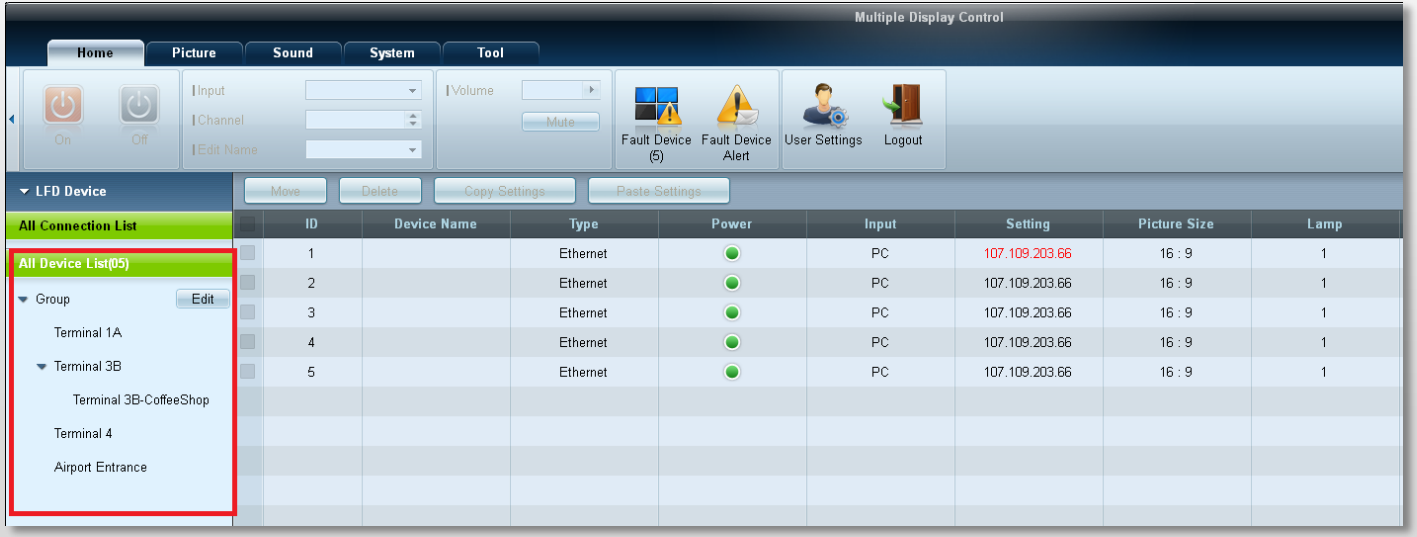
☐ Objectives

- Understand what is a group.
- Why Group is needed.
- Functions can be performed on a group.

☐ After finishing this module, you can

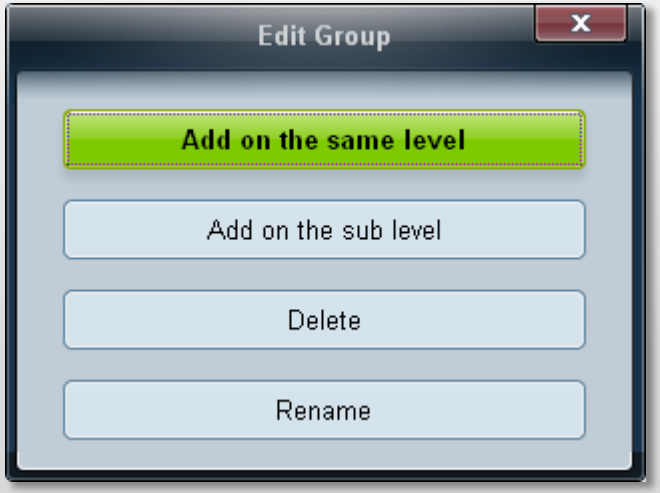
- Be able to use Grouping Feature in MDC Tool.

Group Management



- MDC tool allows user to move devices in logical group as per need.
- Groups segregate the LFDs according to their location and helps the user in management.
- All commands can be sent to the LFDs in groups.
- Some MDC Tool functionality applies only on groups like Video Wall, Scheduling.

Group Management: Edit Group



- Groups can be created, renamed, deleted.
- Added group can be on the same level or sub-level.
- It is advised to use logical naming for groups as per business needs.

9

Schedule Management

Schedule Management

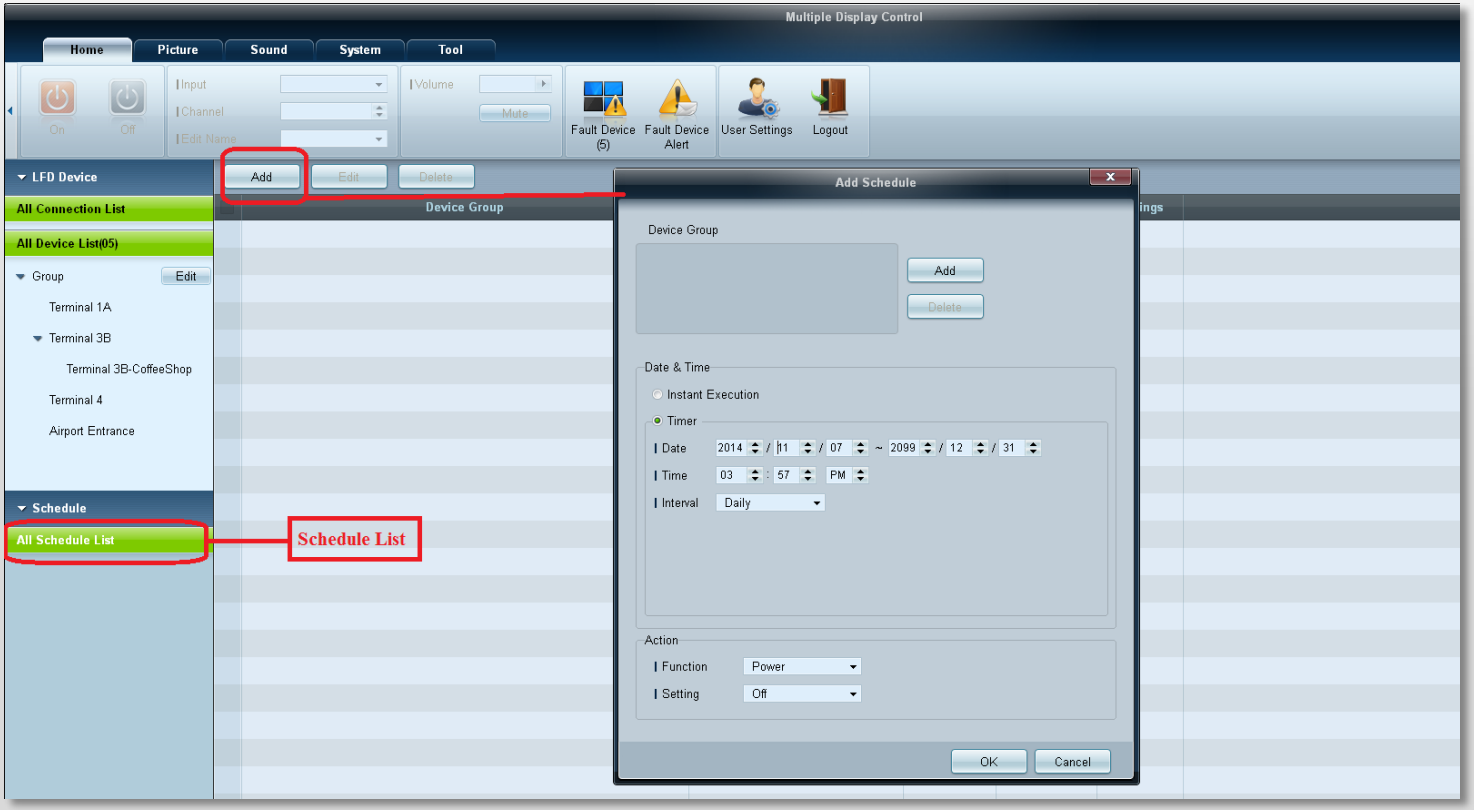
☐ Objectives

- Need Schedules.
- To understand how to configure a schedule.
- Feel and look of the schedule UI.

☐ After finishing this module, you can

- Create schedules as per business needs.

Schedule Management



10

Auto Set Id

Auto Set Id Control

☐ Objectives

- Need of Auto Set ID feature.
- To understand the Auto Set ID feature.
- Precautions to be taken during Auto Set ID.

☐ After finishing this module, you can

- Differentiate the purpose when to use Auto set id.
- Run Auto Set ID efficiently on a connection.

Auto Set ID Control

- Assigning set id automatically to the devices connected in a connection.
- Single connection is dealt at a time, multiple connections cannot be mixed.
- Need of this feature arises due to a number of devices connected in a connection.
- Sequential numbering is done to these number of devices by using this feature.
- This feature can be ignored if number of devices in a connection are very less as time taken by auto-set id is large.
- Auto Set ID uses 0xFD command from MDC protocol.
- User should take extra precautions to use this feature on alike devices like connection of Golf-S devices or a connection of Echo-E devices.
- Though intermixing of different models of LFDs do not create a problem but it should be still avoided.
- User should make sure that devices are not in energy saving mode as during the process no LFD device should go in standby or switch off.

11

Option Settings

Option Settings

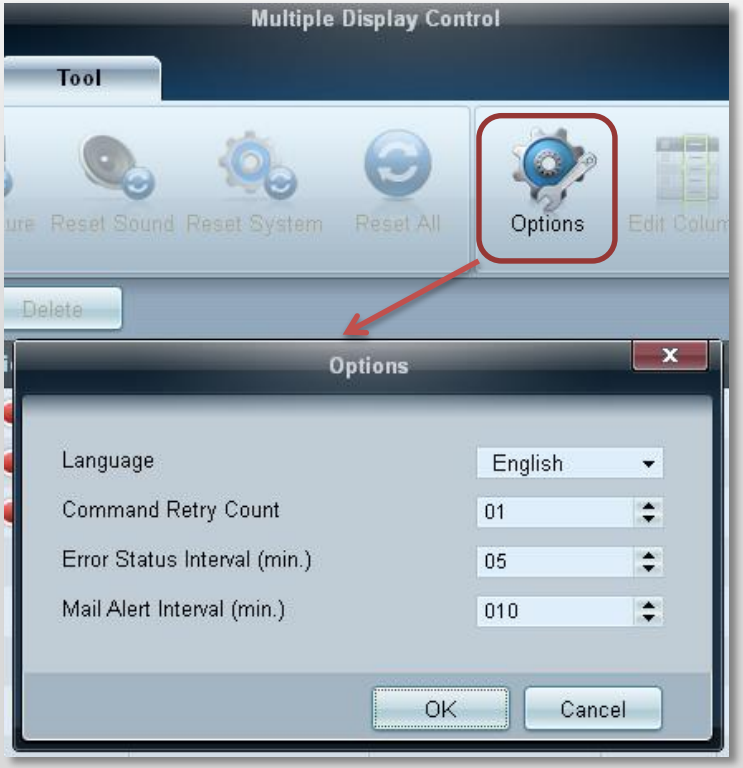
☐ Objectives

- To understand various options available in the Options Settings Menu.

☐ After finishing this module, you can

- Use these options with ease.

Option Settings



- Language Dropdown has 14 languages for user, which can be set to the MDC tool.
- Command Retry Count is used to set the number of retries MDC should made for a command with no reply from the LFD.
- Error Status Interval is the time interval after which MDC tool should check for fault in devices.
- Mail Alert Interval is the time interval after which MDC tool sends faulty device alert mails.

Q&A



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