

NovaLCT

V5.6.0



Release Notes

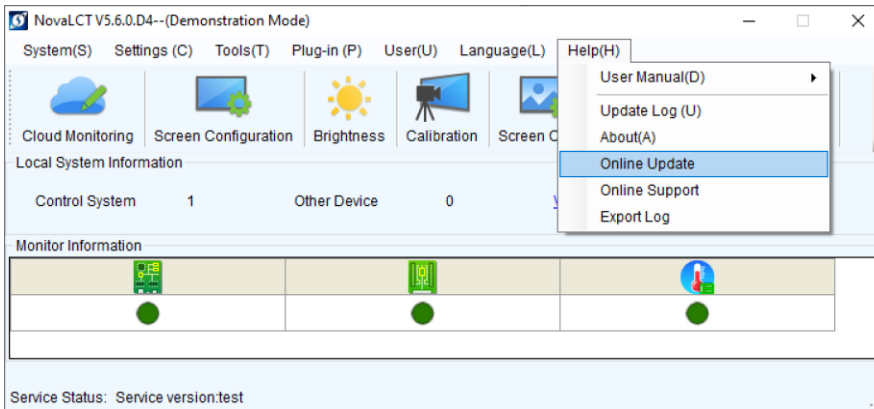
Contents

Contents	i
1 Update Instructions	1
1.1 Online Update	1
1.2 Local Update	1
2 Core Functions	1
2.1 NCP Configuration.....	1
3 Newly Supported Chips	7
4 New Features	7
4.1 Screen Configuration.....	7
4.1.1 Independent Sending of Receiving Card Performance Parameters	7
4.2 Display Effect Adjustment	8
4.2.1 Thermal Compensation On/Off and Intensity Settings	8
4.3 Monitoring.....	9
4.3.1 View Monitoring Information of the TBS614 Chip Module.....	9
5 Improvements	10
5.1 Screen Configuration.....	10
5.1.1 Check the Ethernet Port Load Information of the Sending Card	10
5.2 Display Effect Adjustment	10
5.2.1 Standardize the Custom Gamma Adjustment Interface	10
5.2.2 Improve the View/Save Function for Full-Grayscale Coefficients	11
5.2.3 Auto Upload and Save of Module Calibration Coefficients to Receiving Card Configuration File	12
5.2.4 Bright and Dark Line Adjustment Function Supports Custom Module Width and Height for Each Cabinet	12
5.2.5 Image Booster Supports Selecting Specific Cabinets via Sending Card Ethernet Port	13
5.3 Load from Cloud.....	13
5.3.1 Search for Files by Module ID.....	13
5.3.2 Intelligent Matching of Receiving Card Firmware.....	14
6 Updated Features	15
6.1 Login.....	15
7 Deleted Features	15
7.1 Save as USB Drive File.....	15
7.2 Video Control.....	16
8 Bug Fixes	16
8.1 Construct Cabinet.....	16
8.1.1 Fix for Abnormal Display When Constructing Irregular Cabinets	16
8.2 Display Effect Adjustment	16
8.2.1 Fix for Issue with Saving Full-Grayscale Calibration Setting.....	16
8.2.2 Fix for Abnormal Display During Multi-batch Adjustments	16

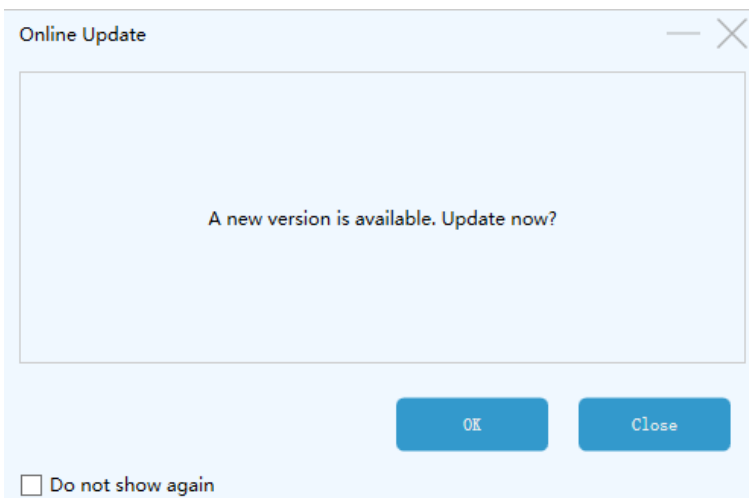
1 Update Instructions

1.1 Online Update

Step 1 From the menu bar, choose **Help > Online Update**.



Step 2 Click **OK**.



1.2 Local Update

Step 1 Visit the "Downloads" page on the NovaStar website and download the NovaLCT V5.6.0 installation package.

Step 2 Double-click to open the package and proceed with the installation.

2 Core Functions

2.1 NCP Configuration

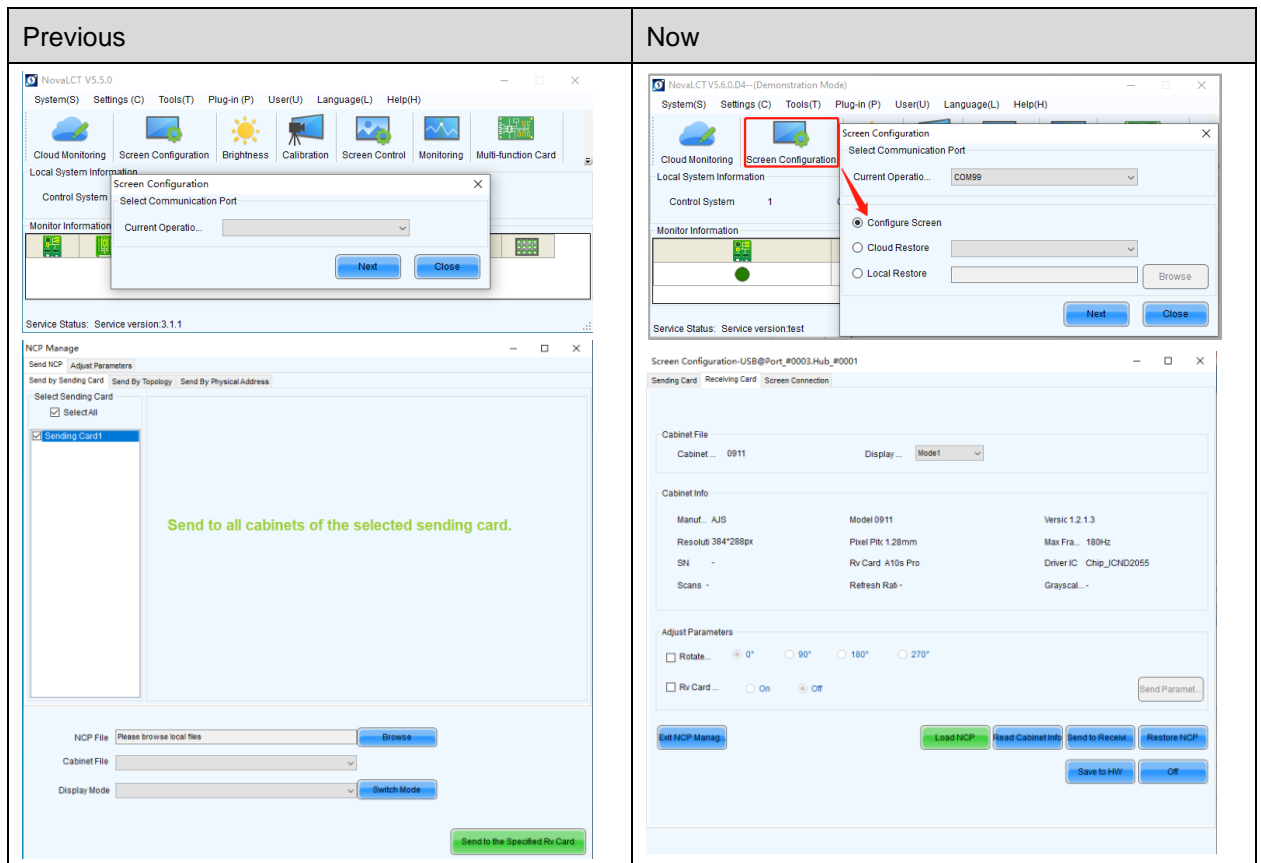
- Improved access points for functionalities.
- Added essential configuration features like readback and hardware saving.
- Introduced smart sending mode to boost NCP distribution speed.
- Enabled support for restoring NCP settings to factory defaults.
- Updated the method for switching display modes.
- Revised access points for adjusting parameters such as brightness.

Reasons for Optimization/Change

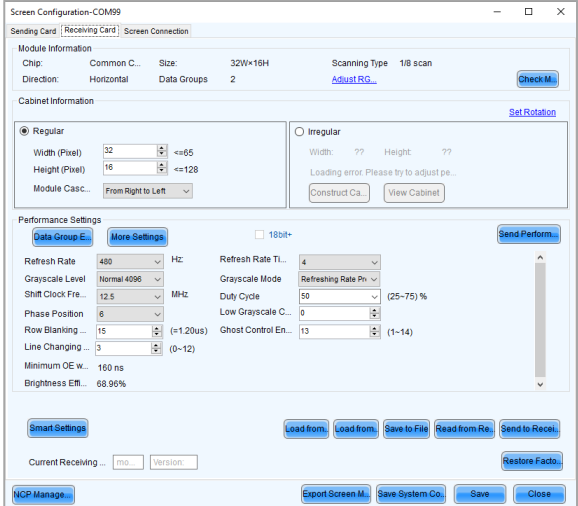
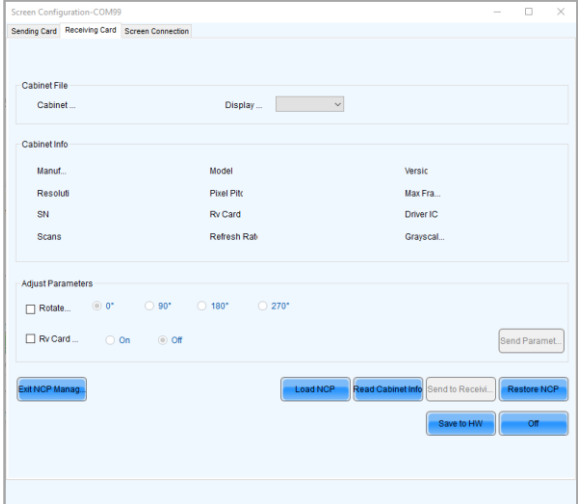
- Users can currently configure receiving cards through *.rcfgx or *.ncp files. We aim to unify these access points to ensure consistent and seamless LED screen configuration operations.
- Introduced features like parsing, readback, and hardware saving to help users verify file accuracy before configuration and confirm configuration parameters post-completion.
- Enhanced NCP file distribution efficiency to aid LED screen manufacturers in timely production and expedite terminal debugging.
- Addressed poor display effects caused by post-factory adjustments to receiving card configurations by enabling quick restoration to factory defaults.
- Ensured proper switching of display modes, which should only occur when the cabinet files on both the receiving and sending cards match, and the receiving card supports mode switching.
- Avoided redundant functions and ensured consistent logic and access points for adjusting parameters like brightness, color temperature, gamma, and mode selection.

Function Descriptions

1. Relocation of function access point: The **Send NCP** function has been moved from **Tools > Send NCP** to **Screen Configuration > Receiving Card > NCP Management**.

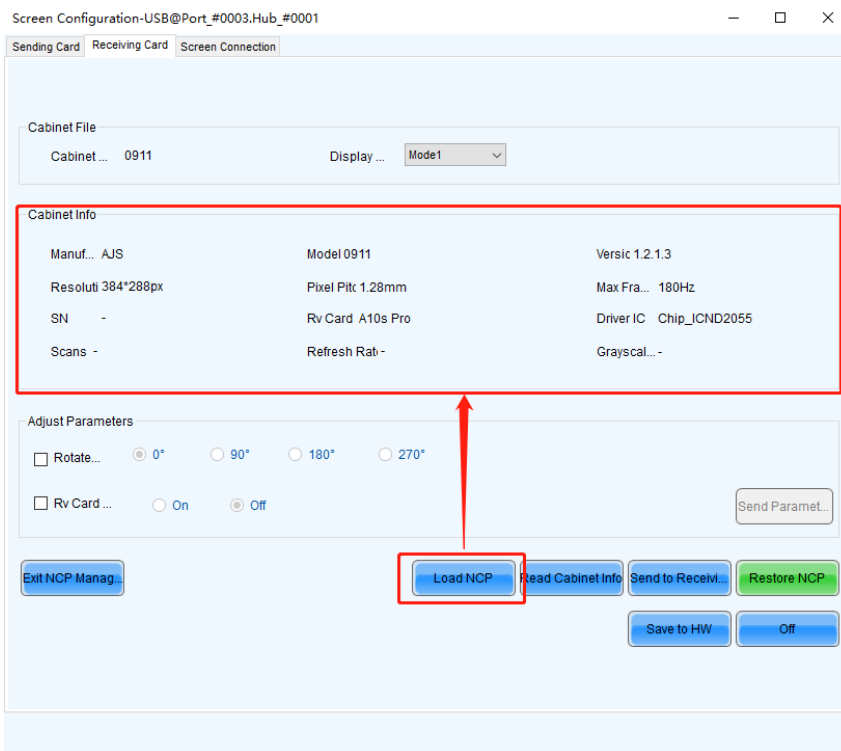


Additionally, on the **Screen Configuration > Receiving Card** page, NovalCT will suggest a configuration method based on the receiving card model and the current configuration file type being used.

<p>Via rcfgx</p>	<p>For example, if the receiving card model is A5s Plus and the configuration file format is *.rcfgx, NovaLCT will recommend using rcfgx-specific configuration features.</p> 
<p>Via NCP</p>	<p>For example, if the receiving card is currently using an NCP configuration file, NovaLCT will recommend settings and features in NCP Management.</p> 

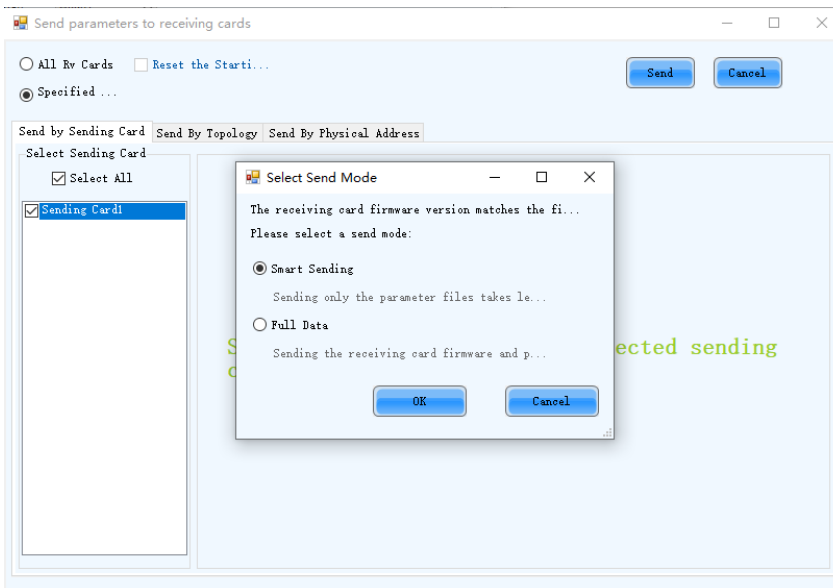
2. Parse cabinet file information.

NovaLCT can parse and display cabinet information from an NCP file once it is loaded.



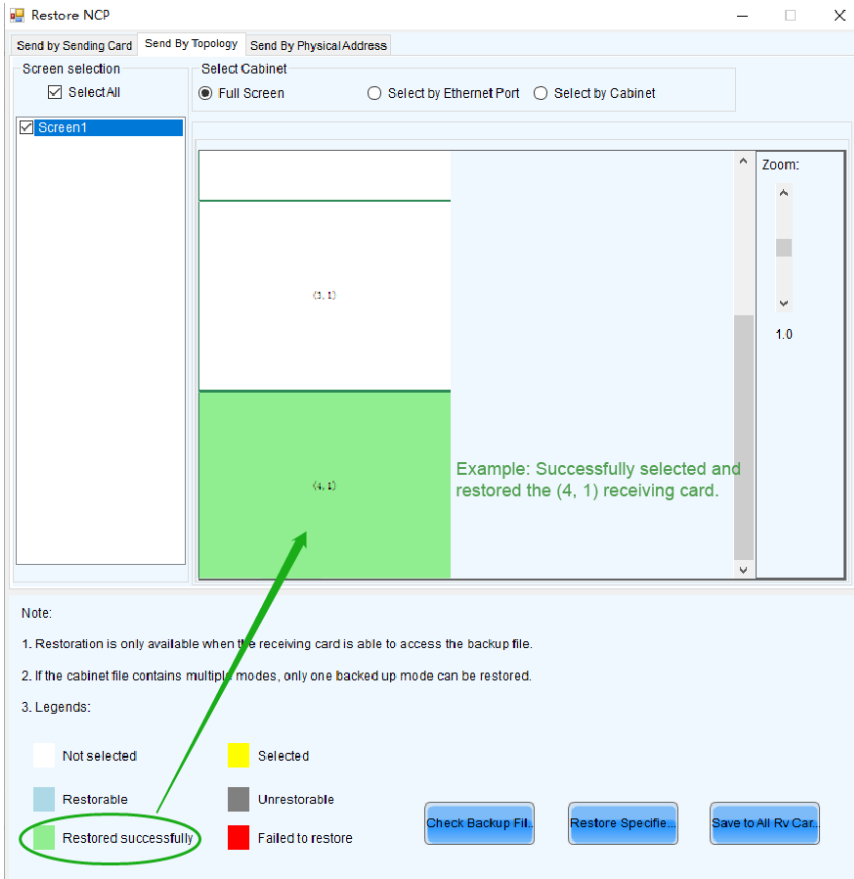
3. Enhance NCP distribution efficiency.

NovaLCT provides two modes for distribution: Smart Sending and Full Data. If the firmware version of the receiving card matches the NCP file, users can opt for Smart Sending, which only sends the parameter files.



4. Restore NCP.

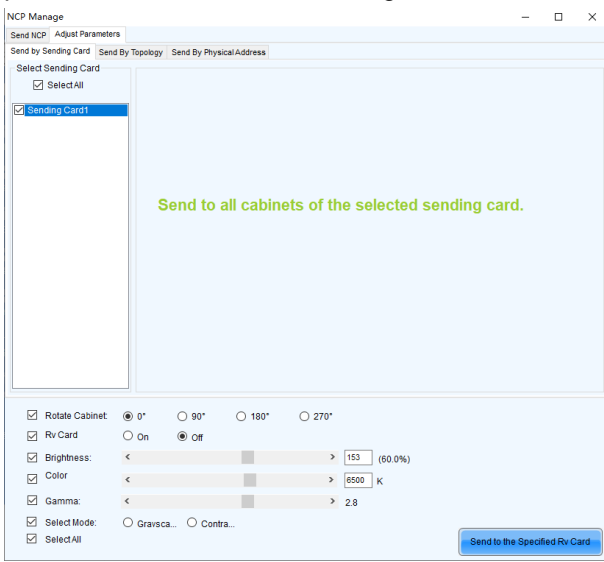
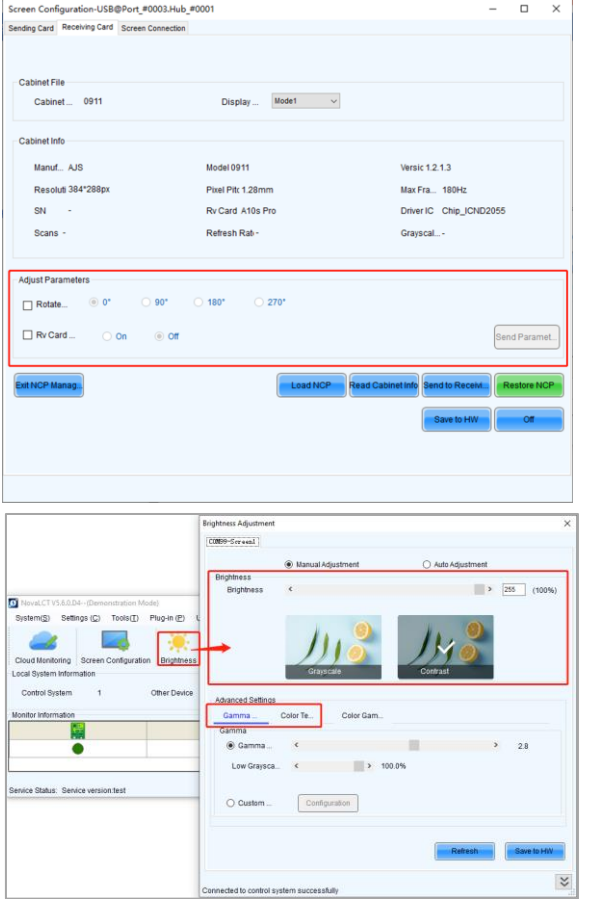
For the A8s Pro receiving card (version V1.2.0.0 and above), if the display performance is abnormal, the NCP can be restored to its factory settings.



5. Switch display mode.

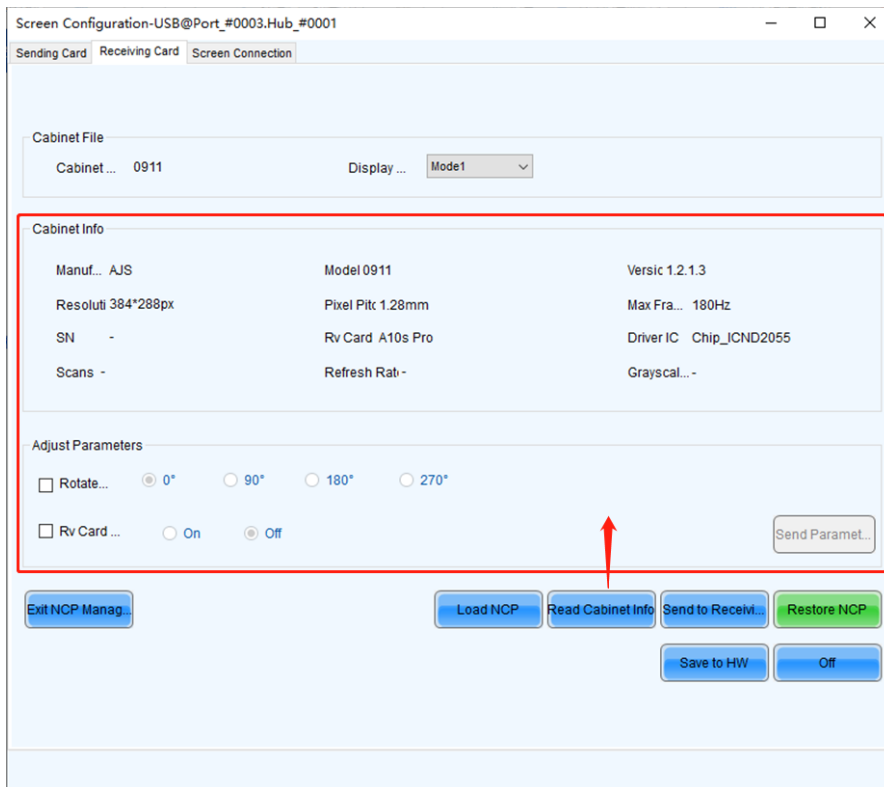
Previous	Now
<p>Apply a display mode and then send the mode separately.</p>	<p>The display mode switching function has been removed. Now, users should use the Send to Receiving Card function to send both the cabinet file and the display mode.</p>

6. Adjust parameters.

Previous	Now
<p>Parameter adjustment included a variety of parameters as shown in the image.</p>  <p>The screenshot shows the 'NCP Manage' window with the 'Adjust Parameters' tab selected. On the left, there's a 'Select Sending Card' list with 'Sending Card1' checked. A green message says 'Send to all cabinets of the selected sending card.' Below are several adjustable parameters: 'Rotate Cabinet' (radio buttons for 0°, 90°, 180°, 270°), 'Rv Card' (radio buttons for On, Off), 'Brightness' (slider at 153/60.0%), 'Color' (slider at 6500 K), 'Gamma' (slider at 2.8), and 'Select Mode' (radio buttons for Grayscale, Contrast). A 'Send to the Specified Rv Card' button is at the bottom right.</p>	<p>In NCP Management, only Rotate Cabinet and Rv Card Indicators remain. Brightness, Color Temperature, Gamma, and Mode Selection settings are now centralized under the Brightness module.</p>  <p>The top screenshot shows the 'Screen Configuration-USB@Port_#0003:Hub_#0001' window. The 'Adjust Parameters' section is highlighted with a red box, showing radio buttons for 'Rotate...' (0°, 90°, 180°, 270°) and 'Rv Card...' (On, Off), along with a 'Send Paramet...' button. Below are 'Load NCP', 'Read Cabinet Info', 'Send to Recent', and 'Restore NCP' buttons, and 'Save to HW' and 'Off' buttons at the bottom.</p> <p>The bottom screenshot shows the 'Brightness Adjustment' dialog box. The 'Manual Adjustment' tab is selected and highlighted with a red box. It features a 'Brightness' slider at 100%, 'Grayscale' and 'Contrast' preview images, and 'Advanced Settings' for 'Gamma' (slider at 2.8) and 'Low Grayscale' (slider at 100.0%). 'Refresh' and 'Save to HW' buttons are at the bottom.</p>

7. Read cabinet information.

Added the **Read Cabinet Info** function, allowing users to read back and display cabinet and parameter information for the receiving card (this feature is only available when the receiving card is using an NCP configuration).



8. Save NCP to hardware.

Send and save the NCP file and parameter adjustments to the receiving card, ensuring that the data persists even after power-off.

3 Newly Supported Chips

The following chips are now supported:

FM6373, FM6864, FM6869, ICND3069, DP3357, DP3364S, DP3365S, DP3369S, xcolor888, xcolor999, NT27052, CFD855A, SM16386S, ICND1068, TX1816, CommonRZCChipV2, RT59X2 (decoding IC), DP32129 (decoding IC), LS9708/LS9716 (decoding IC).

4 New Features

4.1 Screen Configuration

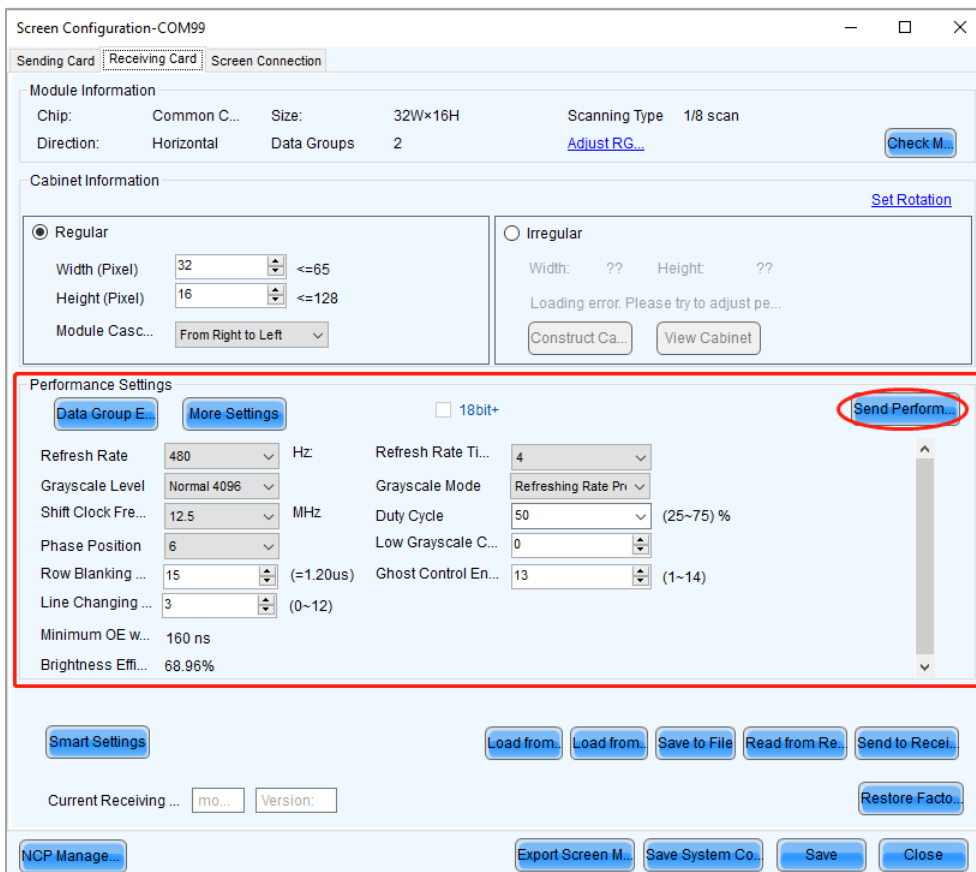
4.1.1 Independent Sending of Receiving Card Performance Parameters

Reason for Change

When the module and cabinet construction is complete and the LED screen is operational, optimizing display effects through performance settings is crucial. By supporting the independent sending of performance parameters, we can enhance the efficiency of receiving card configurations, especially when only performance settings need adjustments.

Function Descriptions

Supports the independent sending of performance setting parameters.



4.2 Display Effect Adjustment

4.2.1 Thermal Compensation On/Off and Intensity Settings

Application Scenario

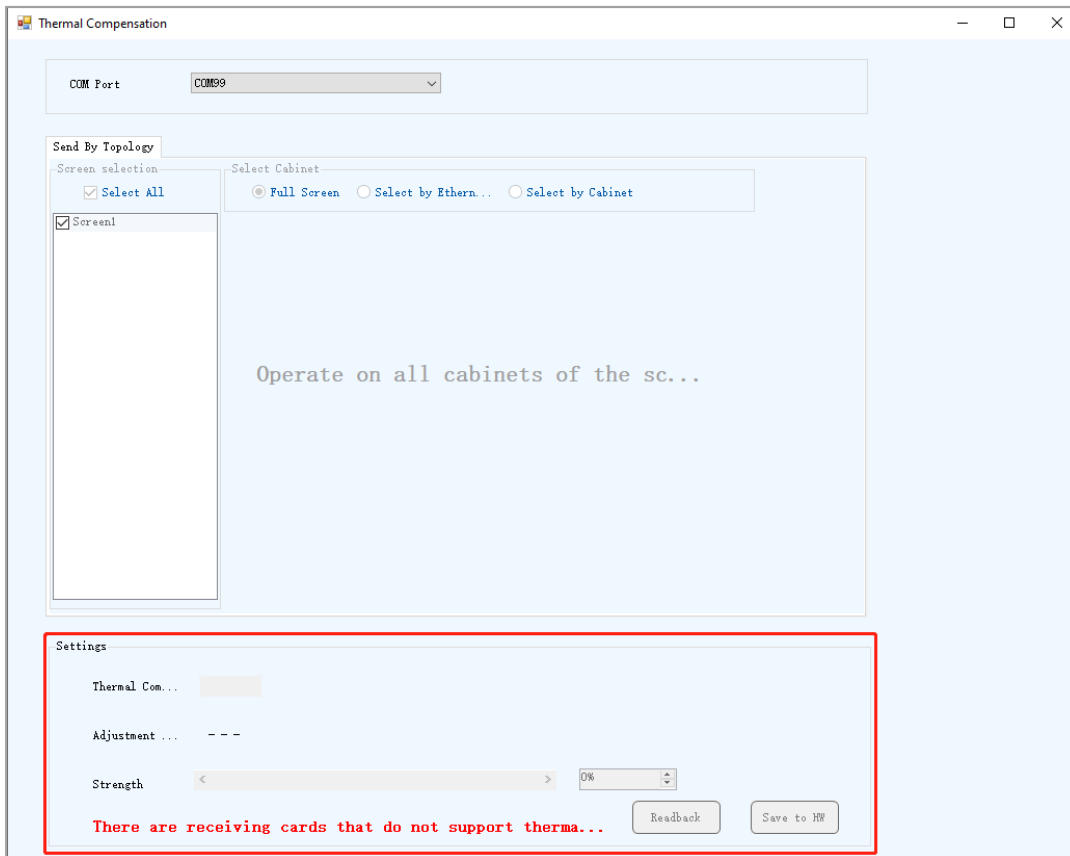
During routine usage of the LED screen, prolonged operation causes temperature increases, leading to varying degrees of "greening" on the display. To counteract this, the thermal compensation feature is necessary for maintaining optimal visual quality.

Reason for Change

This feature allows users to flexibly enhance display quality based on real-time environmental conditions and display scenarios. For example, adjusting the compensation intensity can address different degrees of "greening" across various temperatures.

Function Descriptions

A new **Thermal Compensation** menu is added to the settings. And for the A8s Pro receiving card (V1.2.0.0 or later), it also allows users to control the on/off state and intensity of thermal compensation, provided that compensation coefficients are available.



4.3 Monitoring

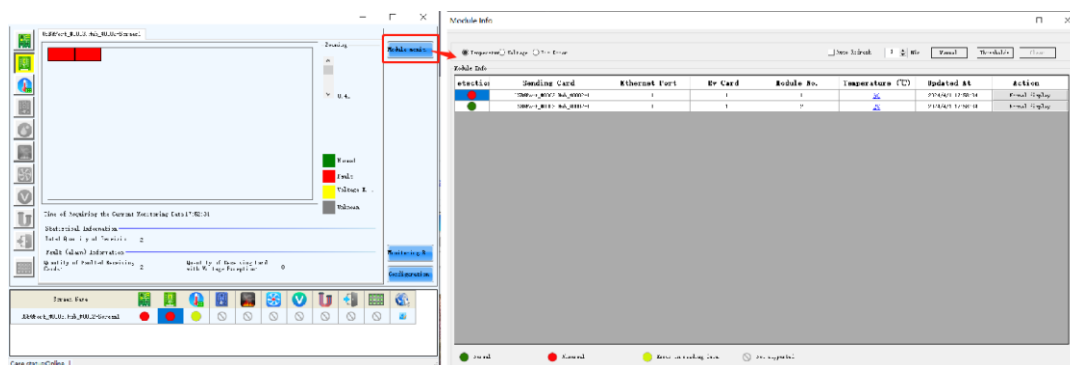
4.3.1 View Monitoring Information of the TBS614 Chip Module

Reason for Change

The TBS614 chip offers a standard solution for monitoring display modules. NovaLCT needs to present this module monitoring information to help users precisely diagnose issues.

Function Descriptions

Compatible with the TBS614 chip, this feature supports module-level data monitoring. Users can view temperature, voltage, and error code information for each module. Additionally, the system supports both scheduled and manual refresh of monitoring data, as well as setting monitoring thresholds.



5 Improvements

5.1 Screen Configuration

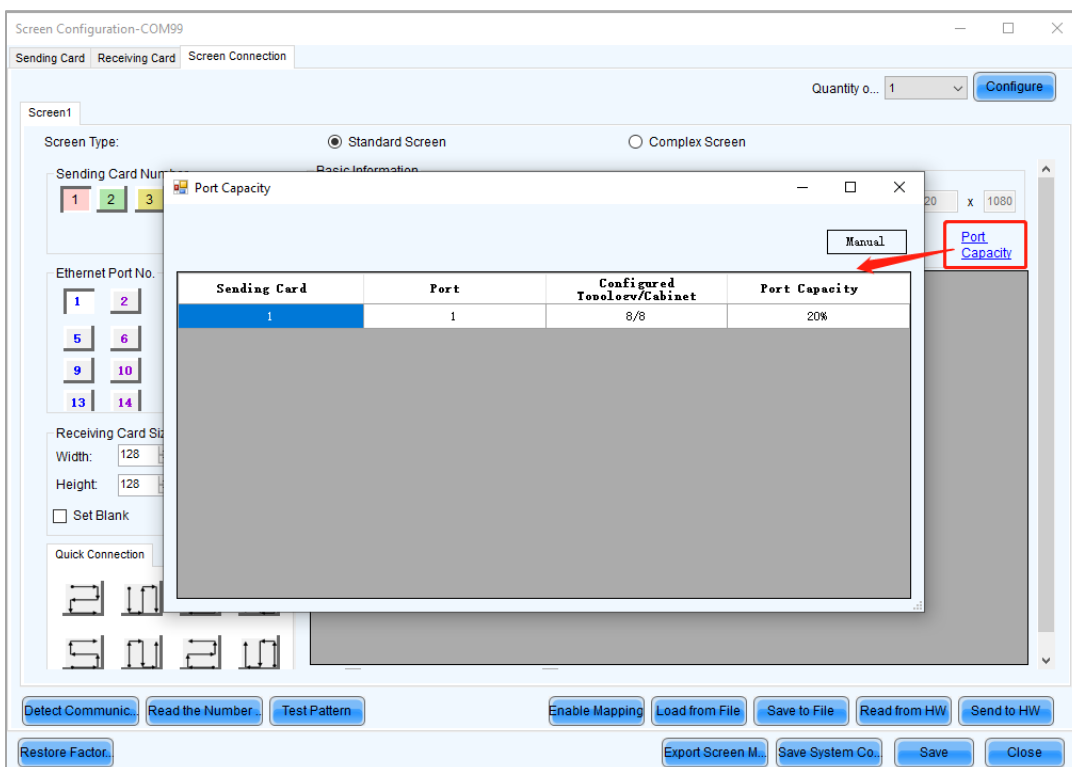
5.1.1 Check the Ethernet Port Load Information of the Sending Card

Reason for Optimization

When connecting an LED screen, it's crucial to ensure that the wiring of the cabinets don't exceed the load capacity of the sending card. NovaLCT should be able to calculate the load data to enhance the efficiency of configuring the screen topology.

Function Descriptions

A new feature under the **Screen Connection** tab displays **Port Load** information. If the configured cabinets exceed the sending card's load capacity, an "Overload" warning will appear.



5.2 Display Effect Adjustment

5.2.1 Standardize the Custom Gamma Adjustment Interface

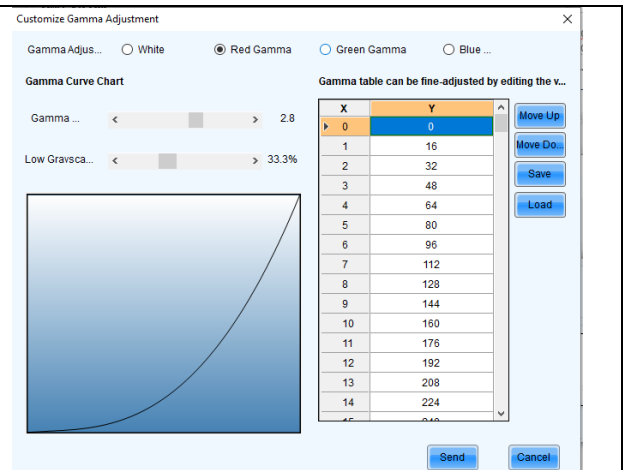
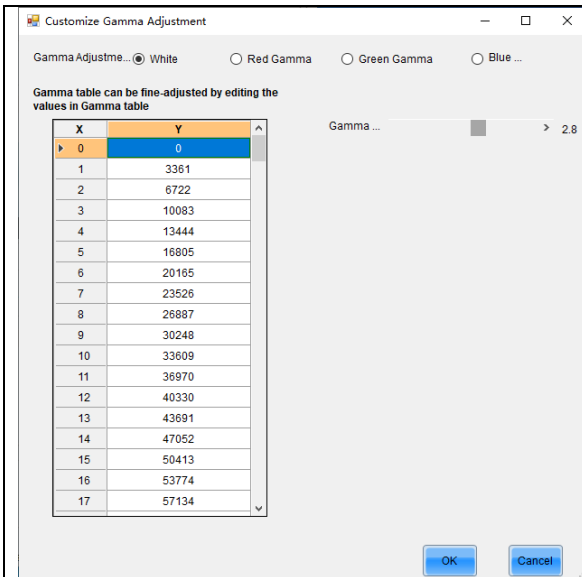
Reason for Optimization

For receiving cards with different chip models, the gamma adjustment algorithms and configuration interfaces should be unified to make them user-friendly and easier to understand.

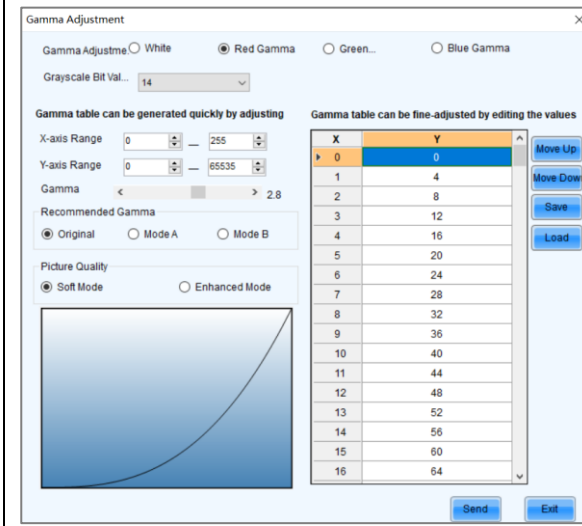
Function Descriptions

The custom gamma adjustment algorithm and its corresponding configuration interface have been standardized.

Previous	Now
Receiving cards with a TBS6332 or TBS6336 chip:	All receiving cards:



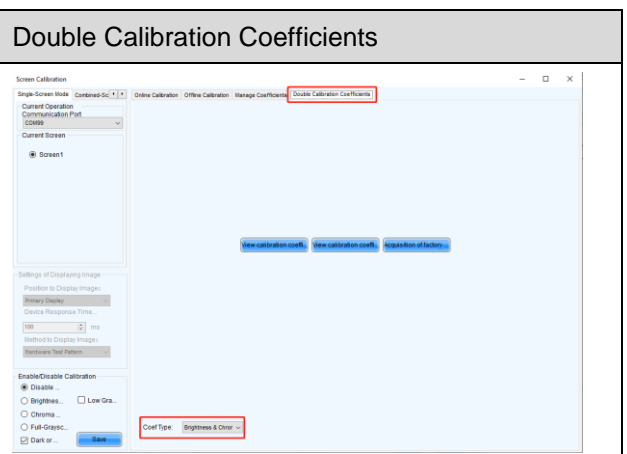
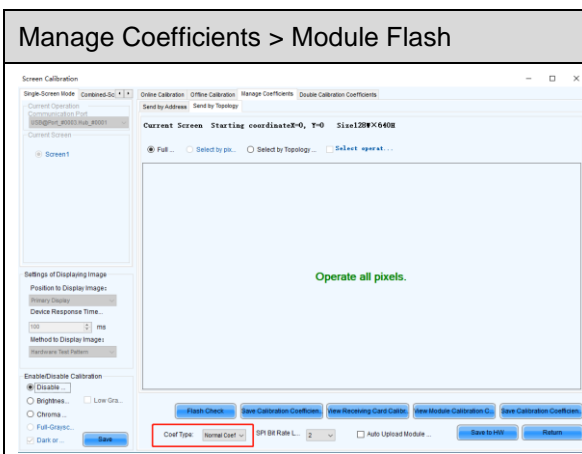
Other receiving cards:



5.2.2 Improve the View/Save Function for Full-Grayscale Coefficients

Function Descriptions

1. When viewing or saving the **Full-grayscale Coefficients**, both multi-layer brightness and single-layer chroma coefficients are now included, addressing the previous issue where only multi-layer chroma coefficients were included.



2. In the calibration interface, the dropdown menu item **Normal Coef** under **Coef Type** has been renamed to **Brightness and Chroma Coef**.

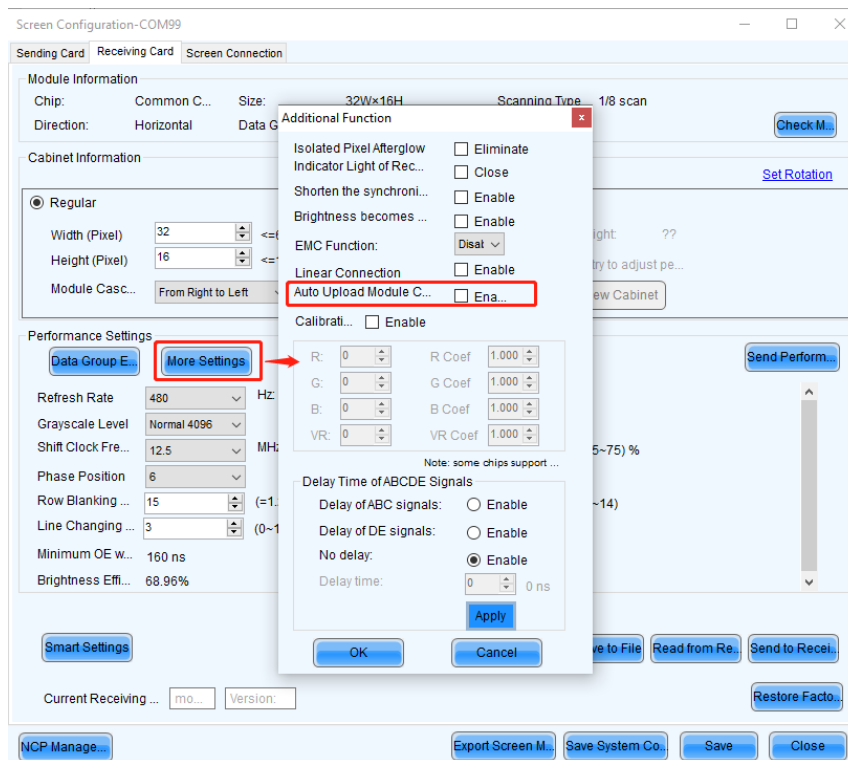
5.2.3 Auto Upload and Save of Module Calibration Coefficients to Receiving Card Configuration File

Reason for Optimization

To enhance product content and align with user expectations, it's important to accurately define full-grayscale coefficients and normal coefficients. Moreover, saving the **Auto Upload Module Calibration Coef** configuration to the receiving card file helps prevent configuration oversights, reducing the need for repeated remote support from screen manufacturer personnel.

Function Descriptions

Auto Upload Module Calibration Coef: A new configuration option, **Auto Upload Module Calibration Coef**, has been added under **Screen Configuration > Receiving Card > More Settings > Additional Function**. This option enables users to send and save the calibration coefficients to the receiving card.



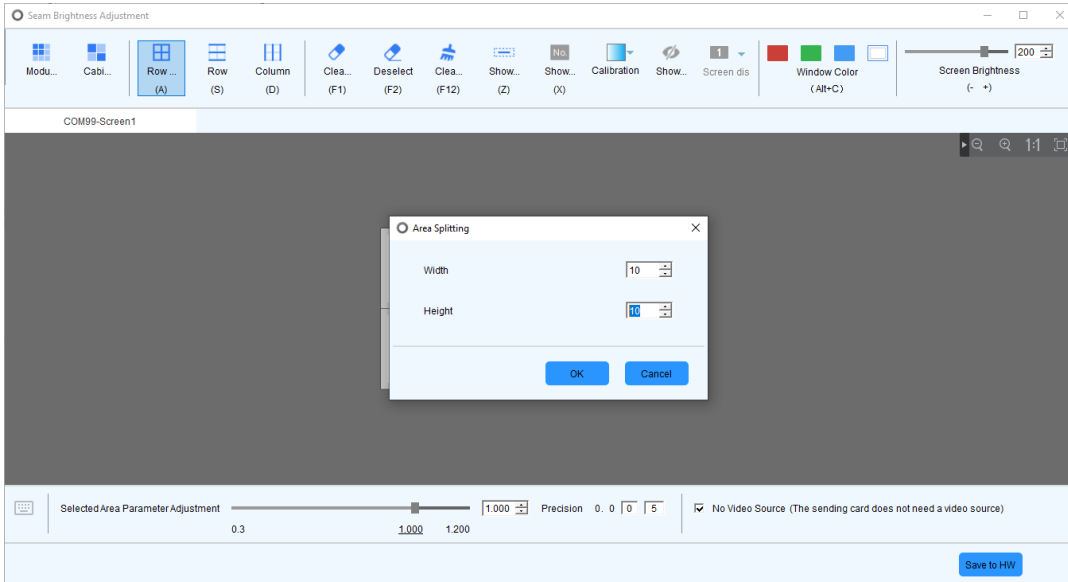
5.2.4 Bright and Dark Line Adjustment Function Supports Custom Module Width and Height for Each Cabinet

Reason for Optimization

When dealing with scenarios where module configuration have varying cabinet load capacities, it is necessary to ensure the correct representation of the topology diagram. This enables users to adjust the seams between different cabinets appropriately.

Function Descriptions

In module mode, users can set the width and height of the module for each cabinet individually, allowing for the proper adaptation of LED screens with cabinets of different load capacities.



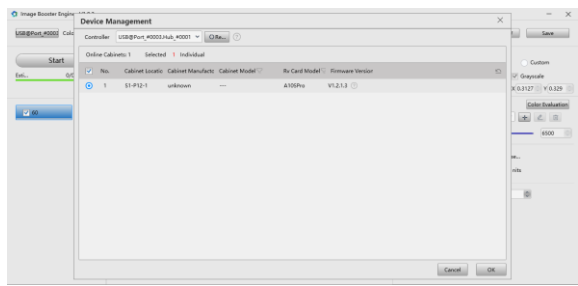
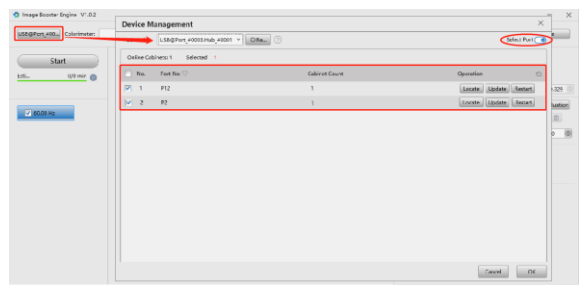
5.2.5 Image Booster Supports Selecting Specific Cabinets via Sending Card Ethernet Port

Reason for Optimization

To allow clients to observe and compare the display effects in different sections of the same screen and to verify the image booster improvements, NovaLCT should enable users to select different loading areas for individual adjustments.

Function Descriptions

Enhanced the Image Booster, allowing users to select specific cabinets based on the sending card's Ethernet port.

Previous	Now
<p>Only single or all cabinets could be selected.</p> 	<p>Specific cabinets can be selected based on the sending card's Ethernet port.</p> 

5.3 Load from Cloud

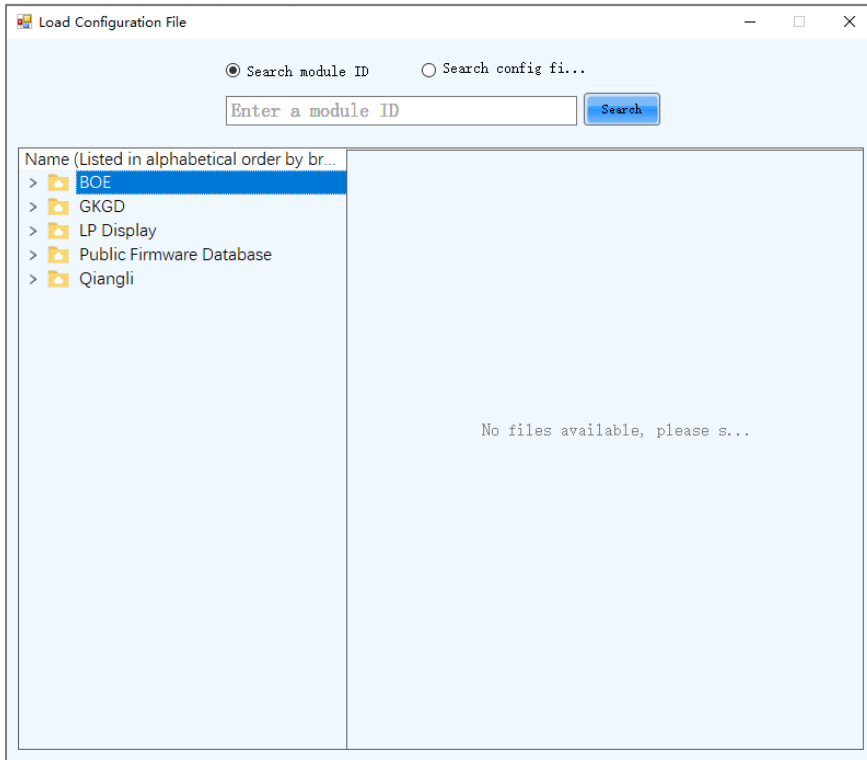
5.3.1 Search for Files by Module ID

Reason for Optimization

To offer a more user-friendly display of configuration files, enhance the file search functionality, aid users in swiftly locating the needed configuration files, and boost loading efficiency.

Function Descriptions

The folder and file display interface has been improved, allowing users to search configuration files using the Module ID.



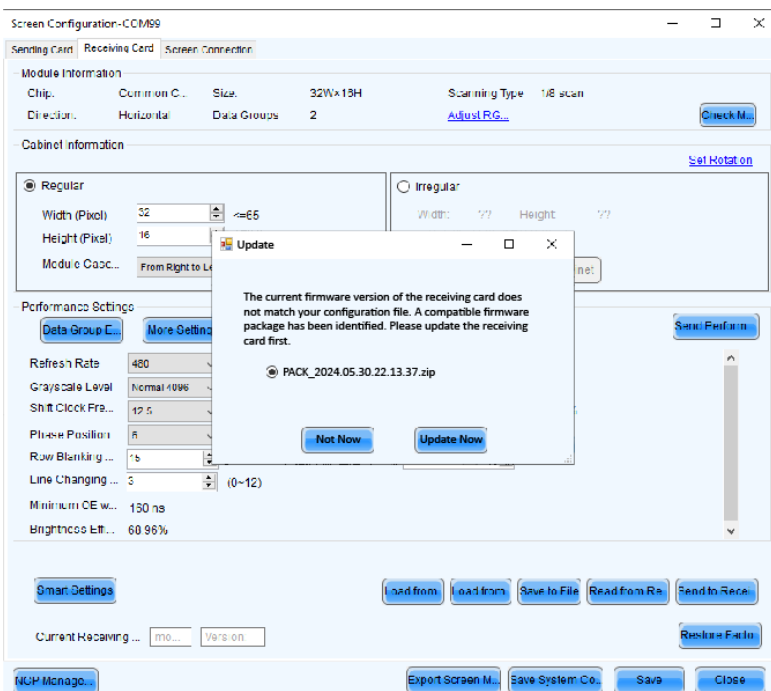
5.3.2 Intelligent Matching of Receiving Card Firmware

Reason for Optimization

To address issues where the receiving card firmware version does not match the configuration file, users should be assisted in promptly locating and updating the firmware to prevent display problems.

Function Descriptions

If a mismatch between the receiving card firmware version and the configuration file is detected, an intelligently matched firmware package will be provided, enabling users to download and update the receiving card firmware.



6 Updated Features

6.1 Login

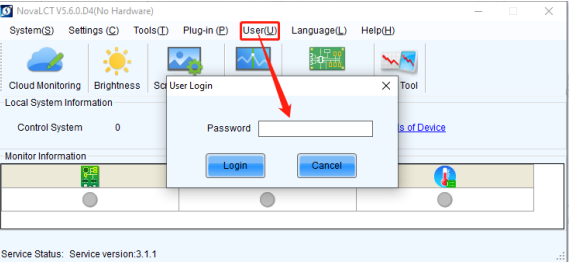
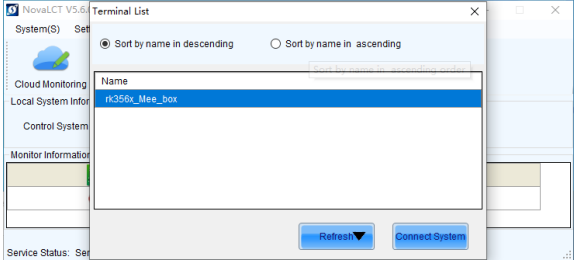
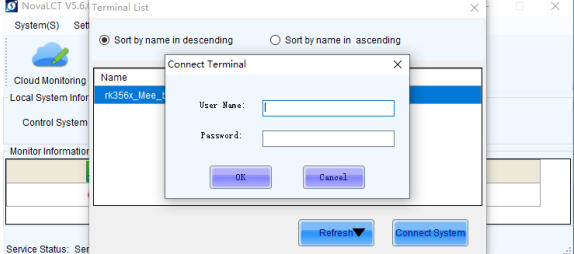
The TU series devices now use Media Player Login for access.

Reason for Change

Previously, the TU series devices used **Advanced Synchronous Login**, which allowed NovaLCT to control client devices once connected to the client's router, creating a security risk.

Function Descriptions

The login method for TU series devices, including TU20 Pro, TU15 Pro, SMP6 Pro, and SMP4 Pro, has been updated to Media Player Login.

Previous	Now
<p>Advanced Synchronous Login: Log in with password:</p> 	<p>Media Player Login</p> <p>Step 1: Select the device.</p>  <p>Step 2: Enter the username and password.</p> 

7 Deleted Features

7.1 Save as USB Drive File

Reason for Deletion

The **Save as USB Drive File** feature is now obsolete, as saving the *.rcfgx file for the receiving card suffices for current needs.

Note

The function **Screen Configuration > Receiving Card > Save as USB Drive File** has been removed.

7.2 Video Control

Reason for Deletion

The **Video Control** feature is no longer used with current video processors.

Note

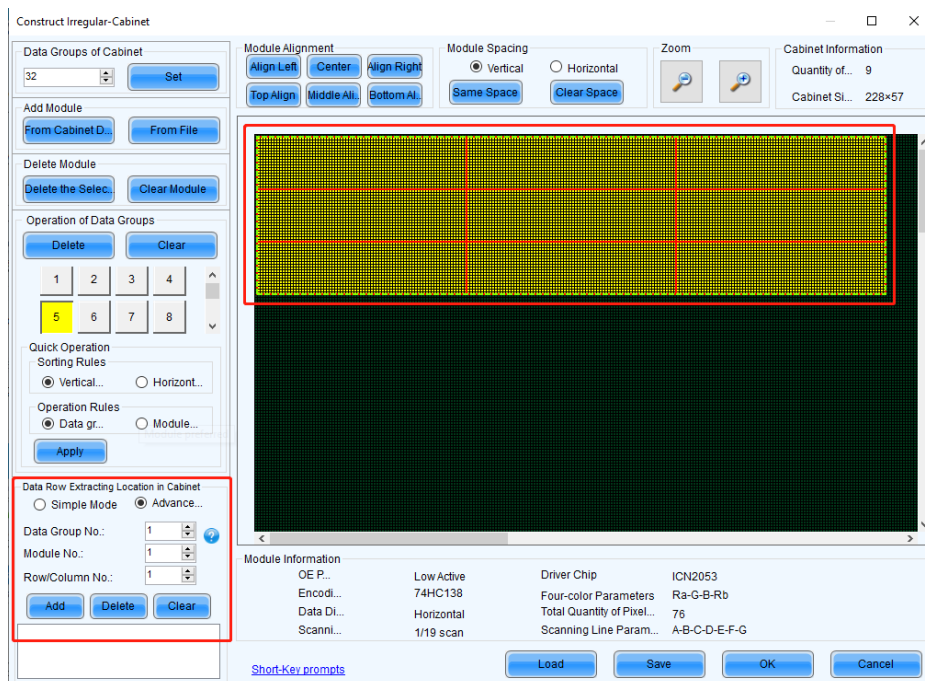
The function **Tools > Video Control** has been removed.

8 Bug Fixes

8.1 Construct Cabinet

8.1.1 Fix for Abnormal Display When Constructing Irregular Cabinets

Fixed the issue of abnormal displays such as black screens when constructing irregular cabinets with inconsistent module cascade rules and row extraction configurations.



8.2 Display Effect Adjustment

8.2.1 Fix for Issue with Saving Full-Grayscale Calibration Setting

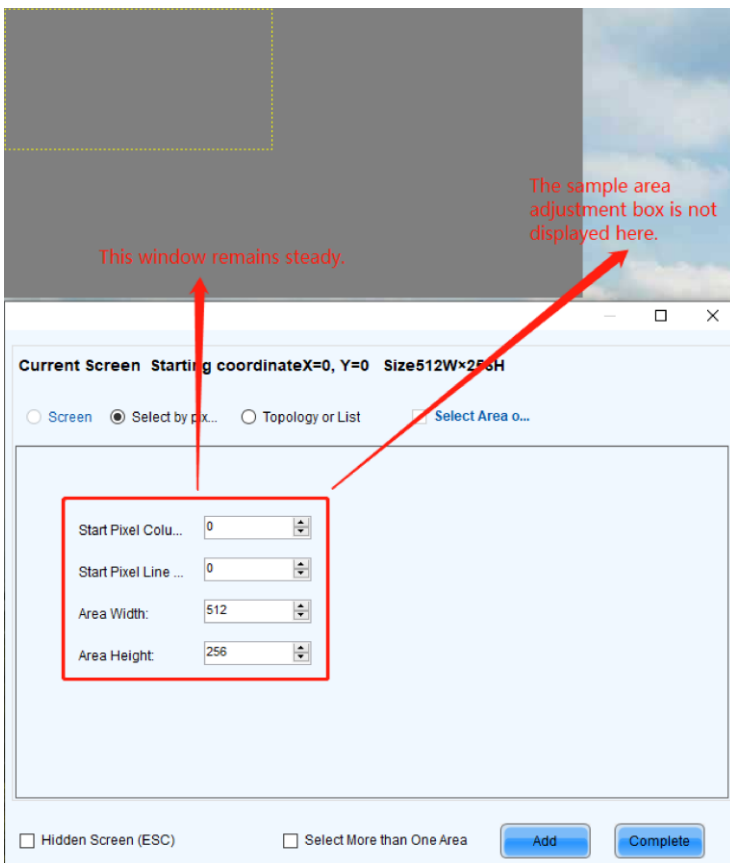
Fixed the issue where the receiving card configuration file did not save the on/off state of the **Full-Grayscale Calibration**, ensuring display quality is not compromised by the calibration not being enabled.

8.2.2 Fix for Abnormal Display During Multi-batch Adjustments

- Fixed the issue where checking and then unchecking Hide Screen while adding sample areas caused display errors with the test pattern.



- Fixed the issue of flickering adjustment boxes and flashing test pattern windows on the PC monitor outside the display area when inputting area parameters while adding sample areas by pixel, ensuring users can stably set sample areas.



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