NEC

Android Application for NEC Projectors

Wireless Image Utility Operating Guide

Wireless
Image Utility

NEC's Image

Contents

1. Description of the Wireless Image Utility

1-1. Features

The Wireless Image Utility is an application for Android devices

It can be used with an Android tablet or Android smartphone.

Wireless transfer of files stored on the Android device to the projector

Images and text stored on the Android device can be sent to the projector and projected on the screen using a computer over a USB cable.

* Photos taken with an Android device can also be used.

Transfer of images taken with the Android device's internal camera to the projector

Images taken with the Android device's internal camera can be sent to the projector and projected on the screen.
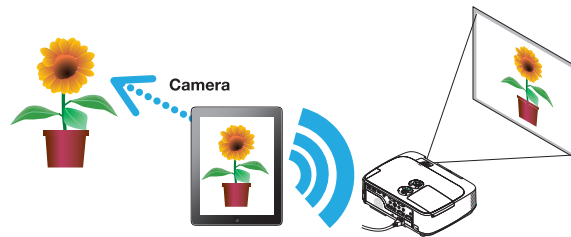
Wireless transfer to the projector of web pages searched for on the Android device

Web pages can be searched for and displayed in the Wireless Image Utility. The pages can be sent to the projector wirelessly and projected on the screen.

Cloud files can be projected with the projector in combination with a file sharing application

By using in combination with Dropbox or another file sharing application, files in the cloud can be projected with the projector.
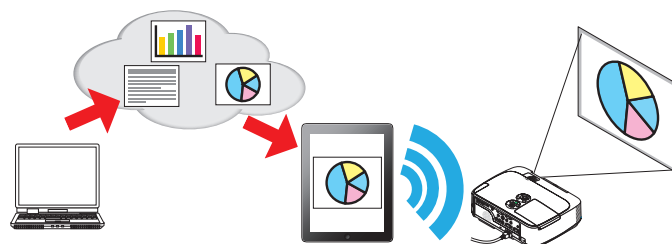
Supports the IMAGE EXPRESS UTILITY receiving function equipped on the latest projector.

The functions of simultaneous connection, simultaneous display with multiple numbers of smart phones and computers are provided as the IMAGE EXPRESS UTILITY receiving function. The MANAGED mode is also provided.
The latest Wireless Image Utility supports this function.
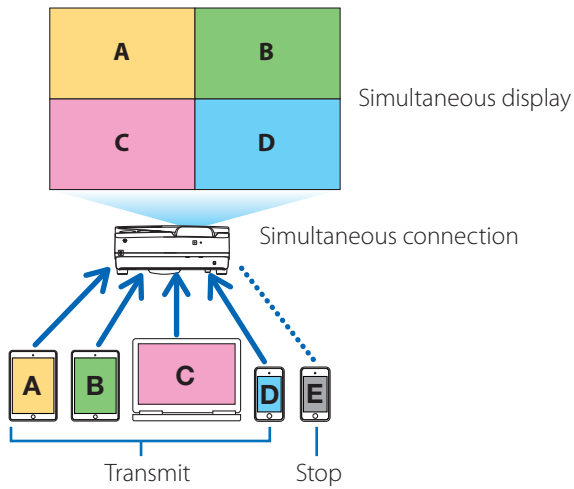
Operation during the simultaneous display
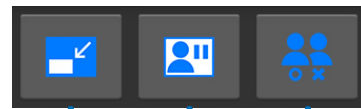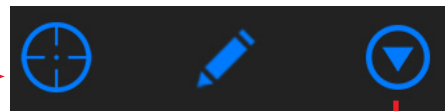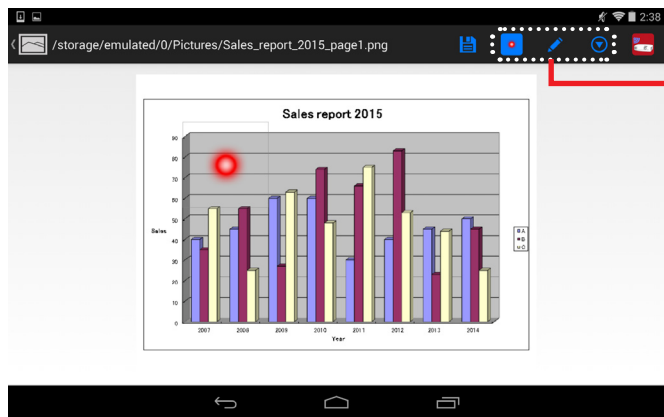
Interruption Forbid/Allow

Self-mute/Projection

Projection size Maximize/Minimize

3

Marker function, pointer display and zoom in/out operations for effective presentations

Marker function

The marker function can be used to write lines, words, etc. on images or documents displayed with the Wireless Image Utility.
The images or documents onto which lines, words, etc., have been written can be saved as images and reused for presentations.

① ①
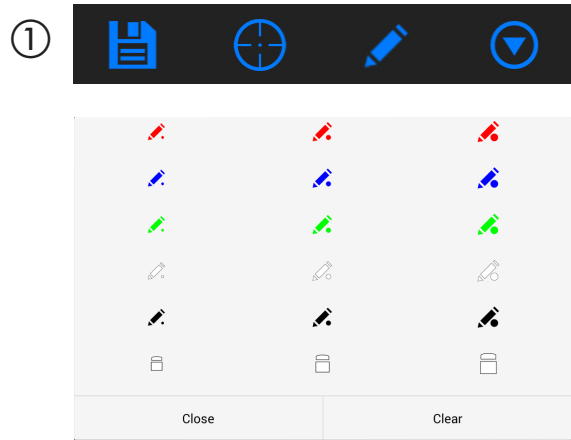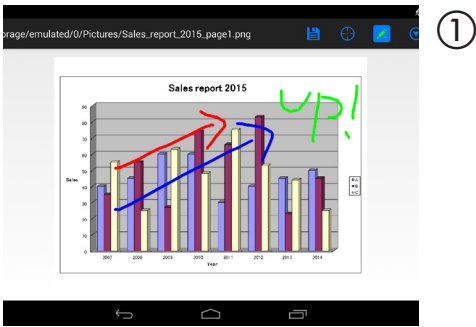
Pointer display

Pointers can be used to indicate sections you want to call attention to. A number of different pointer shapes can be selected, and the size of the pointer can be changed by pinching in or out.

④ ②

⑤
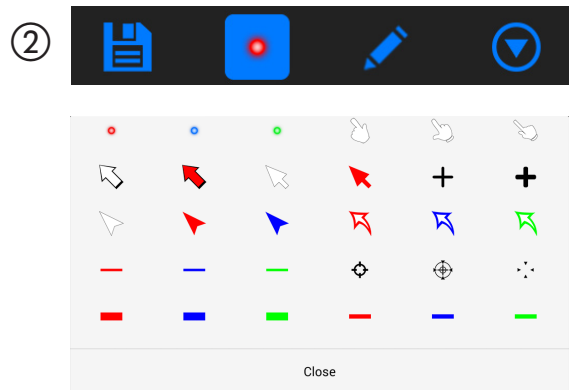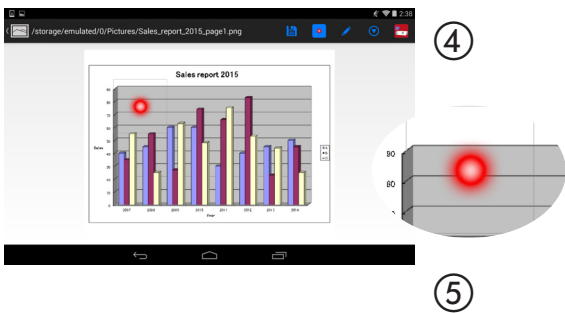
Zooming in/out

The screen can be zoomed in and out by pinching in or pinching out.
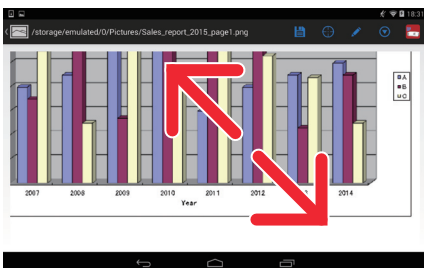
Switching pages

Pages can be switched by flicking.

Projector control function

When an Android device is connected to the projector by wireless LAN and the projector icon in the upper right of the screen is tapped, the projector control screen appears.

Such operations as turning off the projector's power, switching the input terminal, adjusting the volume and cutting off communications with the projector can be performed from this screen.

Projector icon

Supplemental information

The types of data below can be sent from the Wireless Image Utility to the projector.

Images files	JPEG format (.jpg/.jpeg), PNG format (.png), GIF format (.gif), Bitmap format (.bmp)
PDF files	Adobe Acrobat (.pdf: PDF1.7 [Acrobat 8 compatibility])

NOTE

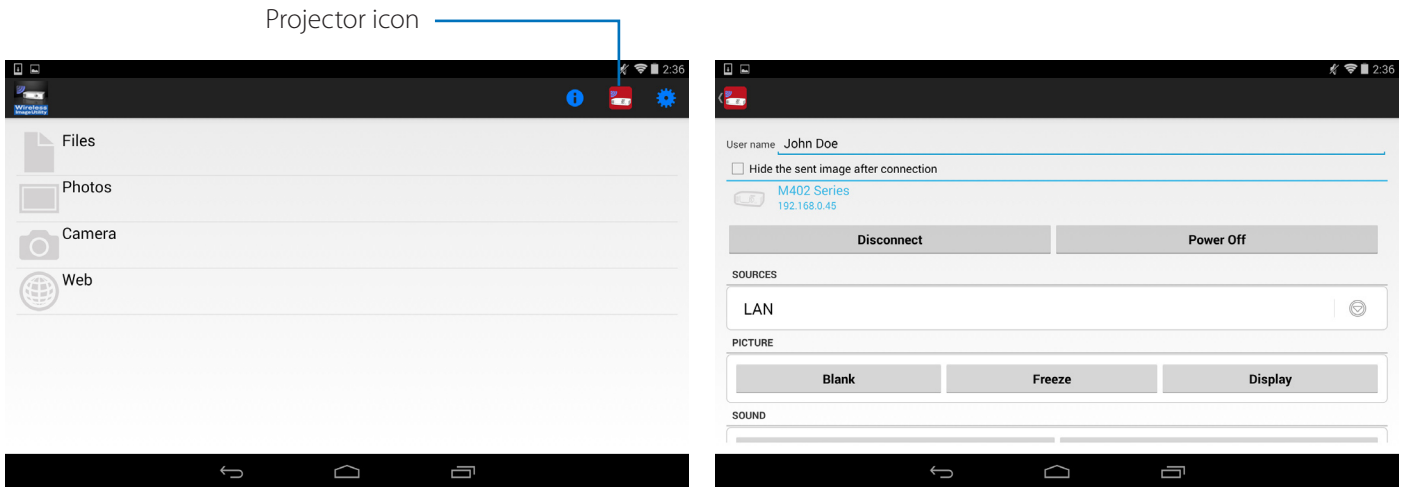- The Wireless Image Utility uses a simplified display, so images may appear different from when they are displayed with applications for a computer. Before using images for presentations, check how they are displayed with the Wireless Image Utility.
- Files with passwords cannot be displayed.
- When image files that contain animations are displayed, the first image is displayed as a still picture.

1-2. Operating conditions

For the latest information, see the Wireless Image Utility's website.

Supported operating systems	Android 4.0 or later
Supported models	Android device (such as Android tablet and Android smartphone) on which a supported operating system is running
Supported projectors	NP-M series, NP-UM series, NP-P series, NP-PA series, NP-PX series, NP-PH series
Wireless LAN	Mount a wireless LAN unit on the projector. Depending on the projector, the wireless LAN unit may be built-in or sold separately. If the projector does not have a built-in wireless LAN unit, purchase the separately sold wireless LAN unit*. If you cannot purchase the wireless LAN unit, it is also possible to connect one of the above projectors to a commercially available wireless LAN router by LAN cable. (→ page 15) * Usable wireless LAN unit is differed depending on the projector model. Please visit our web site for finding an appropriate wireless LAN unit.

1-3. Flow of operations

The Wireless Image Utility settings and operations are performed in the following step.

(1) Installing the Wireless Image Utility on an Android device

     ↓

(2) Transferring the files to be projected to the Android device

     ↓

(3) Connecting the projector to the network

     ↓

(4) Connecting the Android device to the same network as the projector

     ↓

(5) Operating the Wireless Image Utility

2. Installing the Wireless Image Utility on an Android device

Search for "Wireless Image Utility" on the GooglePlay and install it.

- On the Android device's home screen, the Wireless Image Utility is displayed as an icon named "NEC's Image".

3. Transferring the files to be projected to the Android device

Transfer and save the image and text files to be sent from the Wireless Image Utility to the projector from the computer onto the Android device.

[1]   **Connect the iPad and computer by USB cable.**

     It is recognized as a USB storage device.

[2]   **Use the computer's file management tool to copy files to the Android device.**

[3]   **Once copying is completed, disconnect the Android device from the computer.**

4. Connecting the projector and Android device to the network

4-1. Connecting the projector to the network

[1] **Display the projector's on-screen menu and make the settings at "NETWORK INFORMATION".**

For detailed instructions, see "6. Appendix: Examples of settings for connecting the projector to the network" (→ page 7).

4-2. Connecting the Android device to the same network as the projector

[1] **On the Android device's home screen, tap the "Settings" icon.**

[2] **Tap "Wi-Fi settings".**

[3] **Switch "Wi-Fi" to "On".**

The list of networks is displayed.

[4] **Tap the SSID selected in the projector's network settings.**

[5] **If the SSID you want to connect to is encrypted by WEP, etc., input the encryption key.**

[6] **Press the home button to return to the home screen.**

5. Operating the Wireless Image Utility

[1] **On the Android device's home screen, tap the "NEC's Image" icon.**

The Contents screen is displayed.
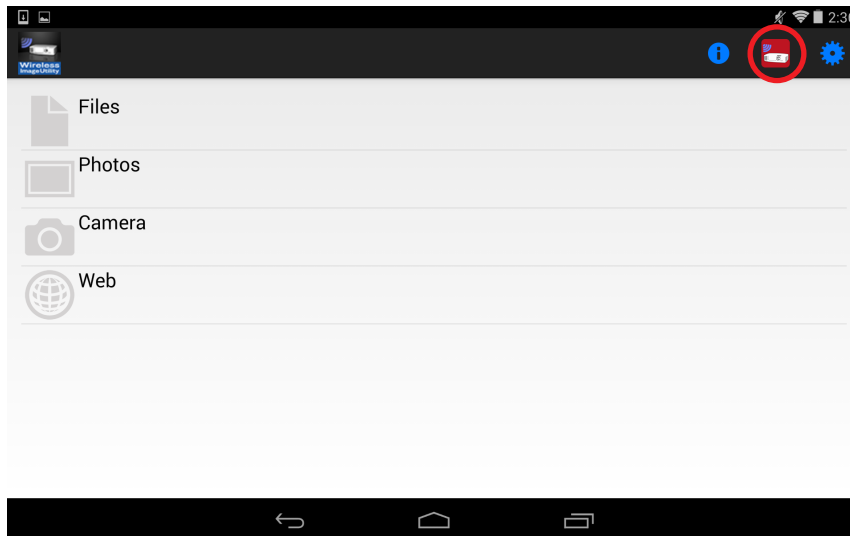
[2] **Tap the projector icon at the upper right of the Contents screen.**

A list of NEC projectors on the network is displayed.

[3] **Tap the projector to which you want to connect.**

Once the projector is connected to, the Contents screen reappears.

- It is also possible to connect to the projector by tapping the "Search" icon at the upper right of the projector selection screen and in- putting the IP address.

[4] **Tap the desired contents on the Contents screen.**

The selected image or text is displayed on the Android device's screen, then projected from the projector.

6. Appendix: Examples of settings for connecting the projector to the network

Check that the wireless LAN unit is mounted on the projector.

The network settings procedure differs according to the projector model (series).

Also, if you cannot purchase the wireless LAN unit, it is possible to connect the projector to a commercially available wireless LAN router by LAN cable ($\rightarrow$ page 15).

6-1. For the NP-P, NP-PA, NP-PX and NP-PH series

With the NP-P, NP-PA, NP-PX and NP-PH series, the network settings can be made on the projector itself.

* Besides the above models, the network settings can be also made on the projector itself equipped with the APPS menu.
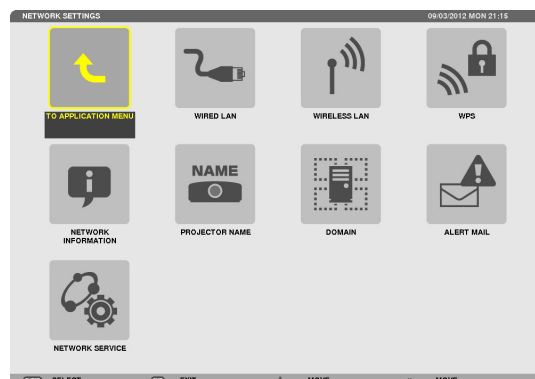
Operations on the projector

Here we describe the procedure using the P420X as an example.

[1]   Turn on the projector's power.

[2]   Press the NETWORK button on the remote control.
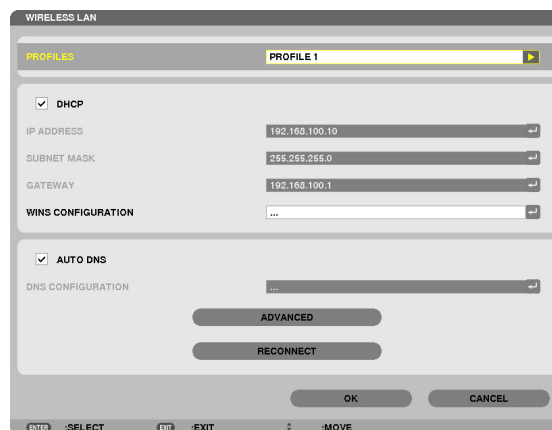
The application menu is displayed.

[3]   Set the cursor to [NETWORK SETTINGS], then press the ENTER button.

[4]   Set the cursor to [WIRELESS LAN], then press the ENTER button.

[5]   Set the cursor to the [PROFILES] field, press the ENTER button, then set the cursor to [PROFILE 1] or [PROFILE 2] and press the ENTER button again.
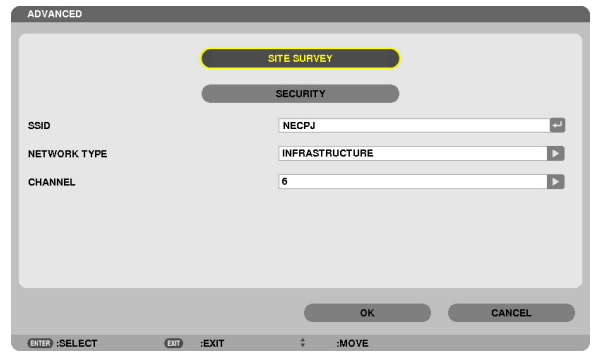
[6]   Set the cursor to [OK], then press the ENTER button.

The wireless LAN unit turns on and the network settings menu reappears.

[7]   Set the cursor to [WIRELESS LAN] again, then press the ENTER button.

[8]   Set the cursor to [ADVANCED], then press the ENTER button.

[9] **Set the cursor to [SITE SURVEY], then press the ENTER button.**

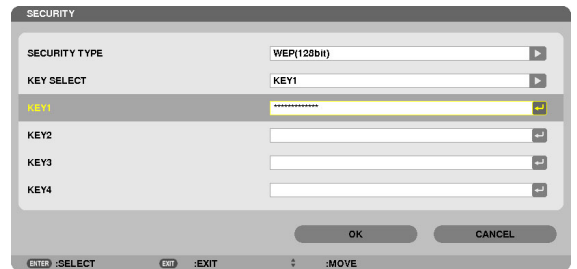**[10]** **Select the SSID to which you want to connect, then press the ENTER button.**

If the SSID you want to connect to is encrypted by WEP, etc., the [SECURITY] screen appears.

> **NOTE**
> - Ask your network administrator what SSIDs you can connect to.

[11] **Make the necessary settings, then set the cursor to [OK] and press the ENTER button.**

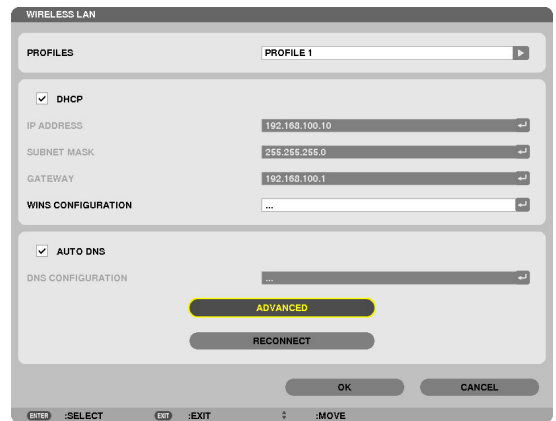The advanced settings screen reappears.

[12] **Set the cursor to [OK], then press the ENTER button.**

The wireless LAN screen reappears.

[13] **Set the cursor to [RECONNECT], then press the ENTER button.**

[14] **Set the cursor to [OK], then press the ENTER button.**
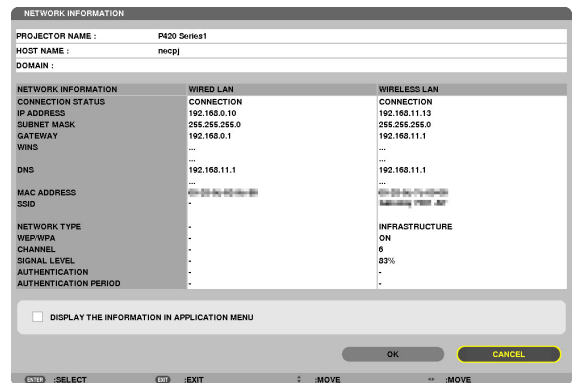
The network settings screen reappears.

[15] **Set the cursor to [NETWORK INFORMATION], then press the ENTER button.**

On the network information screen, check that you are connected to the network.

[16] **Check that the cursor is set to [CANCEL], then press the ENTER button.**

The network settings screen reappears.

This completes the network settings.

6-2. For the NP-P501/NP-P451 series and other supported models (utilizing the simple access point function)

With the NP-P501/NP-P451 series and other supported models in the environment of no access point, the simple access point function can be utilized for connecting the projector and Android device in a network.
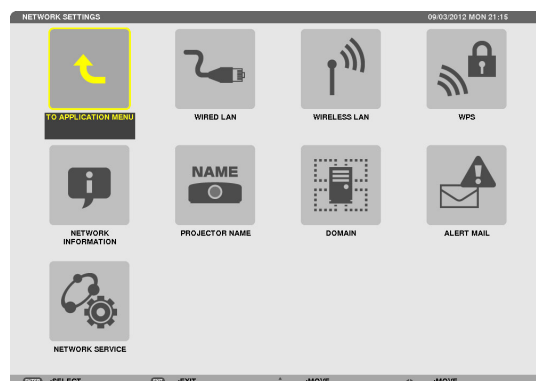
Operations on the projector

Here we describe operations on the NP-P501X as an example.

[1]   Turn on the projector's power.

[2]   Press the NETWORK button on the remote control.

The APPLICATION MENU appears.

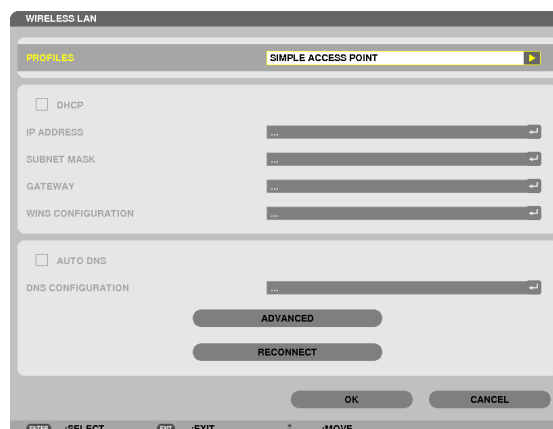**[3]   Set the cursor to [NETWORK SETTINGS], then press the ENTER button.**

[4]   Set the cursor to [WIRELESS LAN], then press the ENTER button.

[5]   Set the cursor to the [PROFILES] field, press the ENTER button, then set the cursor to [SIMPLE ACCESS POINT] and press the ENTER button.

[6]   Set the cursor to [ADVANCED], then press the ENTER button.

The ADVANCED screen appears.

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[7]   Check the name in the SSID field.

"NPAP_XXXXXXXX" is displayed in the SSID field ("XXXXXXXX" differs from product to product).

- This can be changed to a name that is easier to remember.

<table>
<tr><td colspan="2">ADVANCED</td></tr>
<tr><td></td><td>SITE SURVEY</td></tr>
<tr><td></td><td>SECURITY</td></tr>
<tr><td>SSID</td><td>NPAP_XXXXXXXX</td></tr>
<tr><td>NETWORK TYPE</td><td></td></tr>
<tr><td>CHANNEL</td><td>10</td></tr>
<tr><td></td><td>OK   CANCEL</td></tr>
<tr><td colspan="2">ENTER :SELECT   EXIT :EXIT   ↕ :MOVE</td></tr>
</table>

> **IMPORTANT**
>
> - The SSID will be selected later when making the Wi-Fi settings on the Android device, so remember the SSID name displayed here.
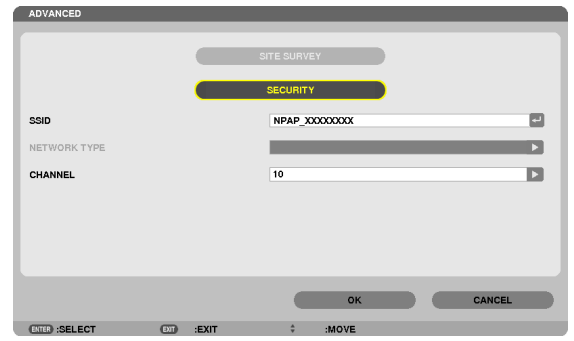
[8]   Set the cursor to [OK], then press the ENTER button.

The WIRELESS LAN settings screen reappears.

[9]   Set the cursor to [RECONNECT], then press the ENTER button.

[10]   Set the cursor to [OK], then press the ENTER button.

The NETWORK SETTINGS screen reappears.

This completes the network settings.

6-3. For the NP-M series and NP-UM series

To make the network settings for the NP-M series and NP-UM series*, connect the projector and computer by LAN cable and display the projector's HTTP server screen on the computer.

* Except the projector equipped with the APPS menu.

Operations on the projector

Here we describe the procedure using the M350X as an example.
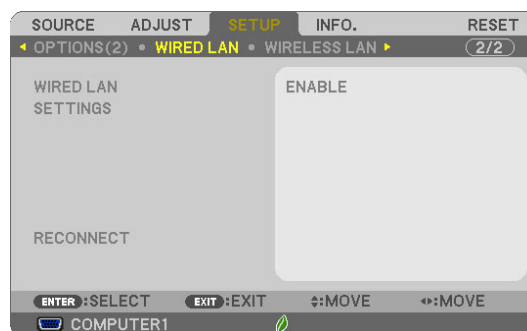
[1]   Connect the projector and computer by LAN cable.
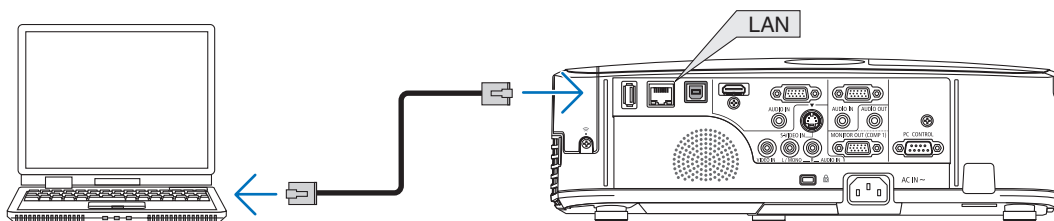
[2]   Turn on the projector's power.

[3]   Press the MENU button on the remote control.

The on-screen menu appears.

[4]   Select the [SETUP] tab, then the-[WIRED LAN] tab.
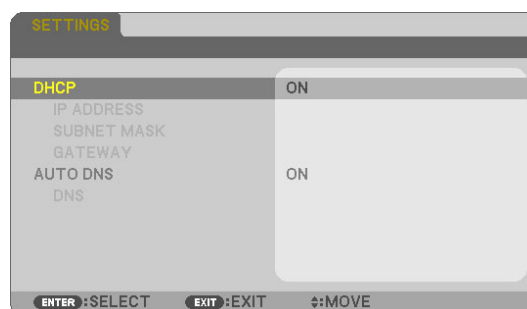
Check that [WIRED LAN] is set to [ENABLE].

If it is set to [DISABLE], press the ENTER button to switch it to [ENABLE].

[5]   Set the cursor to [SETTINGS], then press the ENTER button.

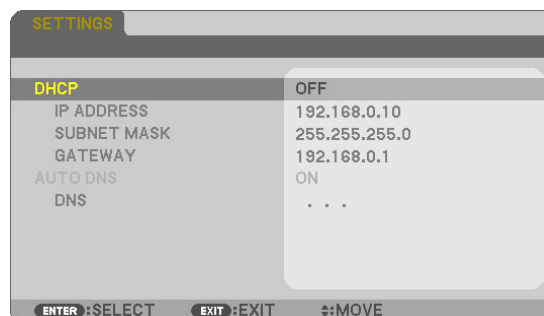**[6]   Set the cursor to [DHCP], then press the ENTER button.**

[7]   Set the cursor to [OFF], then press the ENTER button.

[8]   Make a note of the IP address, subnet mask and gateway settings.

For this example, we use the values below.

- IP address: 192.168.0.10

- Subnet mask: 255.255.255.0

- Gateway: 192.168.0.1

[9]   Press the EXIT button.

The connection confirmation screen appears.

[10] Set the cursor to [YES], then press the ENTER button.

The wired LAN screen reappears.

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Operations on the computer

[11] **Open the computer's network settings screen and set the wired LAN settings as follows:**

- IP address: 192.168.0.11

- Subnet mask: 255.255.255.0

- Gateway: 192.168.0.1

> **NOTE**
> - Set the computer's IP address to a different value from the projector's IP address.
> - Be sure to make a note of the network settings values (IP address, subnet mask and gateway) that were previously set on the computer.

[12] **Launch an Internet browser on the computer.**

[13] **In the browser's URL field, input "http:// 192.168.0.10/index.html", then press the Enter key.**
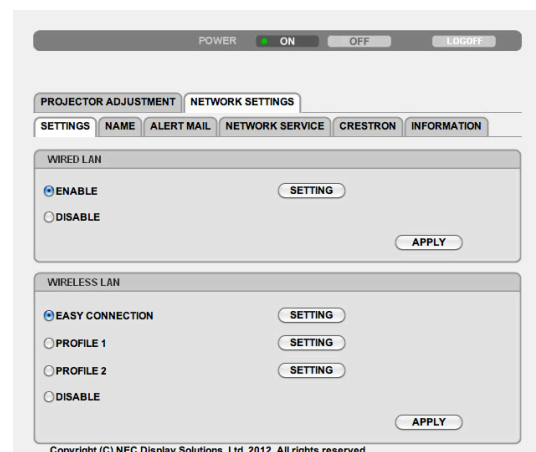
The projector's HTTP server screen appears.

- The HTTP server screen is in English.
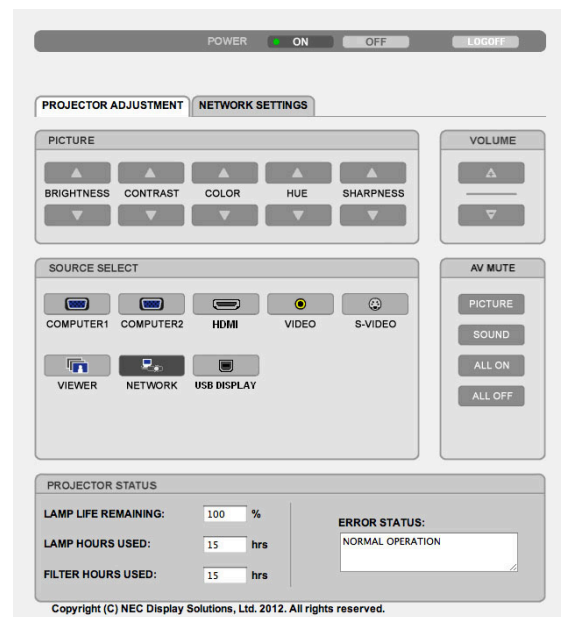
[14] **Click the [NETWORK SETTINGS] tab.**

[15] **Click [PROFILE 1] under [WIRELESS LAN], then click [SETTING] on its right.**

[16] Click the [CONNECTION] tab.
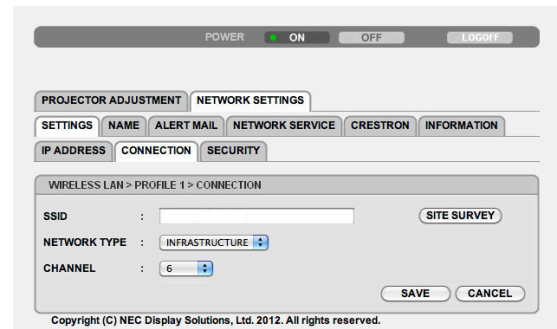
[17] Click [SITE SURVEY].

The list of SSIDs is displayed.

[18] Select the SSID to which you want to connect, then click [OK].

> **NOTE**
> - Ask your network administrator what SSIDs you can connect to.

The CONNECTION screen reappears.

[19] Click [SAVE].

If the selected SSID is encrypted, make the security settings.

[20] Click the [SECURITY] tab.

[21] Click [SECURITY TYPE] and select the appropriate type.
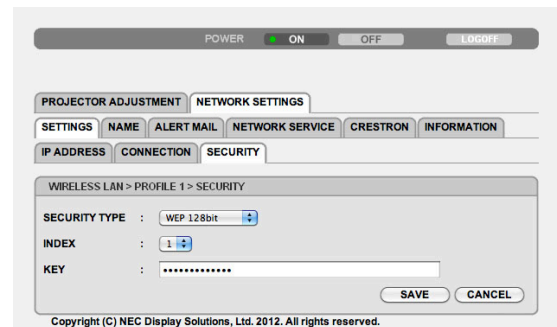
[22] Input the encryption key in the [KEY] field.

[23] Click [SAVE].

[24] Click the [NETWORK SETTINGS] tab.

[25] Click [APPLY] at [WIRELESS LAN].

[26] Check the message, then click [OK].

[27] Close the browser window.

Operations on the projector

[28] Press the MENU button on the remote control.

[29] Select the [INFO.] tab, then the [WIRELESS LAN] tab.

Check that the SSID is the one you have selected and that WEP/WPA is on or off as necessary.

[30] Press the MENU button.

The on-screen menu turns off.

[31] Disconnect the LAN cable connecting the computer and projector.

Operations on the computer

[32] Set the network settings you changed at step [11] on page 13 back to as they were originally.

This completes the network settings.

6-4. Connecting the projector to a commercially available wireless LAN router

Here we describe the procedure using the NP-M series as an example. The NP-UM, NP-P, NP-PA, NP-PX and NP-PH series can also be connected to a wireless LAN router.
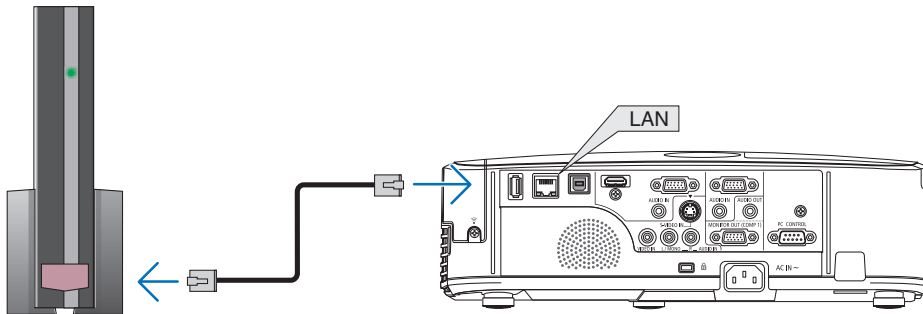
Operations on the wireless LAN router

First make the network settings on the wireless LAN router.
For the setting procedure, see the wireless LAN router's operating instructions.

Operations on the projector

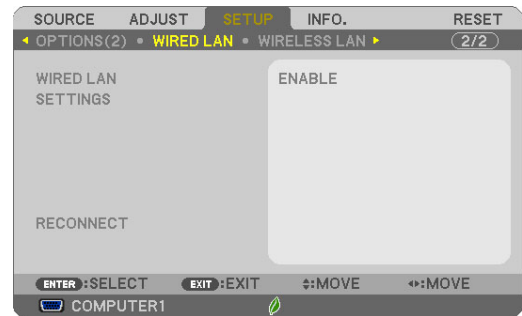**[1]** **Connect the projector and wireless LAN router by LAN cable.**

[2] **Turn on the projector's power.**

[3] **Press the MENU button on the remote control.**

The on-screen menu appears.

[4] **Select the [SETUP] tab, then the [WIRED LAN] tab.**

[5] **Check that [WIRED LAN] is set to [ENABLE].**

If it is set to [DISABLE], press the ENTER button to switch it to [ENABLE].

[6] **Set the cursor to [SETTINGS], then press the ENTER button.**

[7] **Check that [DHCP] is set to [ON].**

If it is set to [OFF], press the ENTER button to switch it to [ON].

[8] **Press the EXIT button.**

The "WIRED LAN" screen reappears.

[9] **Set the cursor to [RECONNECT], then press the ENTER button.**

[10] **Press the MENU button.**

The on-screen menu turns off.

This completes the network settings.

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