NSP-100 / BZNP-100 Tutorials

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Sony Electronics Inc.

www.sony.com/nsp100

Contents

1. Scope

This document describes basic usage of Sony NSP-100 "network player" and BZNP-100 software based on NSP-100 (version 3.00) and BZNP-100 (version 3.00).

Please contact "The Product Operations Support Center (POSC)" at (800) 883-6817 about product related questions.

2. Introduction

Sony **NSP-100** is a network appliance (hardware) to play back video, graphic and text content.

Sony **BZNP-100** is system software to ingest content, create a playlist, schedule play out, distribute content and monitor status. BZNP-100 can manage up to 100 units of NSP-100.

Sony **BZNP-100LE** is a light edition of BZNP-100 that comes with NSP-100, but we do recommend purchasing BZNP-100 software considering limitations of BZNP-100LE. Please refer to a specification sheet for details of differences between BZNP-100 and BZNP-100LE.

Sony **BZNP-100PLUS** is a package product consists of BZNP-100 and Canopus ProCoder software for your convenience, because in many cases ProCoder is required to convert various types of video files to MPEG2 file that is compatible to NSP-100.

3. Note about version of NSP-100 and BZNP-100

Firmware version of NSP-100 and software version of BZNP-100 must match, and Sony does not guarantee any other combination. Please refer to the release note of each version and update BZNP-100 and NSP-100 if necessary. The release note and installer are available at www.sony.com/nsp100.

4. Configuration

Please refer to "Configuration and Integration guide" to decide what options, equipment or network infrastructure is required.

Here is a sample configuration of a small system.

Plasma display is connected with NSP-100 via video cable.

NSP-100 is connected to Ethernet switch or router via Ethernet cable.

PC is connected to the same Ethernet switch or router.

BZNP-100 software and Canopus ProCoder software are installed in the PC.

DVCAM VCR is connected to the PC via i.Link cable to capture video.
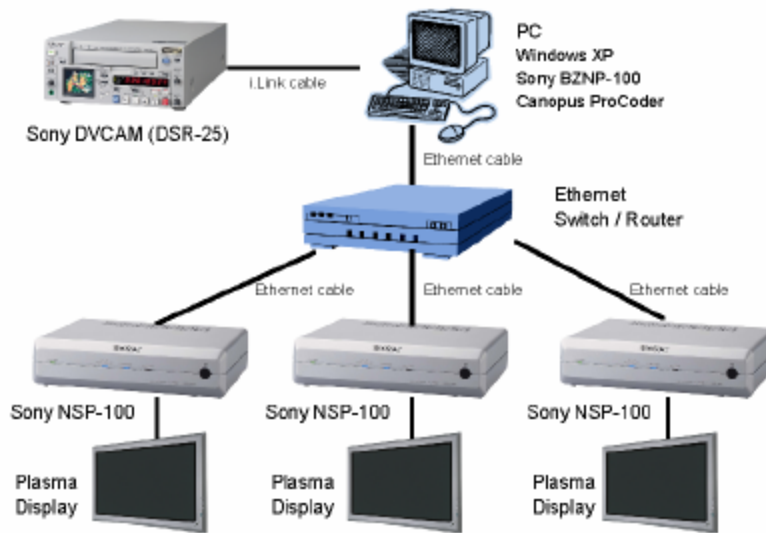
Display

Output signal from NSP-100 to a display is conventional video signal, not computer monitor signal. So you can connect wide variety of displays such as Plasma Display, LCD display or regular TV set. When the display has RS232C control input, NSP-100 can control display via RS232C such as to turn on / off, or select input channel.

PC

Here is a list of recommended specifications of a PC for BZNP-100 software.

Hardware	
CPU	Intel Pentium4 2.0 GHz or faster is recommended. If CPU is slow, frame drop may happen during capturing video signal.
Memory	512 MB of RAM or more is recommended If memory size is small, frame drop may happen during capturing video signal.
HDD	Good enough capacity is required to store video content. For example, 10 minute DV-video consumes 2GB of capacity. Dedicated large-capacity of fast HDD (7200 rpm or faster, and UDMA100IDE or SCSI interface) is recommended, when you capture video.
Display	1,280 x 1,024 pixels or greater is recommended
Network	100 BASE-T
i.Link interface[1]	Interface to DVCAM VTR or DV equipment to capture video

Software	
OS	Microsoft Windows 2000 or Windows XP professional
DirectX	DirectX is a component of Windows OS. DirectX 8.1 or later is required[2]. DirectX can be downloaded from www.microsoft.com.
Web browser	Note-1: DO NOT set *Work Offline* at the file menu of Microsoft Internet Explorer. BZNP-100 may NOT communicate NSP-100 if so. Note-2: Microsoft Internet Explorer is recommended if you need to collect "Error Log".
Excel	Microsoft Excel 2000 or later is required when you display or print *Playout Log*
ProCoder	Canopus ProCoder software can be utilized to convert almost any video file including Flash to MPEG2 file that is compatible with NSP-100. ProCoder can be purchased as a stand alone product or as "BZNP-100PLUS" package that consists of BZNP-100 and ProCoder.
CleanerXL	Discreet ClaenerXL software can be utilized to convert almost any video file to MPEG2 file that is compatible with NSP-100.
PowerPoint	Microsoft PowerPoint can be utilized to create graphic content without animation
Photoshop	Adobe Photoshop or Photoshop Element can be utilized to resize or convert graphic content

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[1] It is also called as "DV interface", IEEE1394 or Firewire

[2] How to check the version of DirectX
1. Click *START* button on Windows
2. Select *RUN...*
3. Type *dxdiag*, and click *OK*
4. Version number will be displayed at the *System* tab

Network

Ethernet connection is required between a PC that runs BZNP-100 software and NSP-100s. Set up for network such as IP address is described later. Some topics such as Wireless LAN, Firewall and satellite content delivery will be described in a separate document.
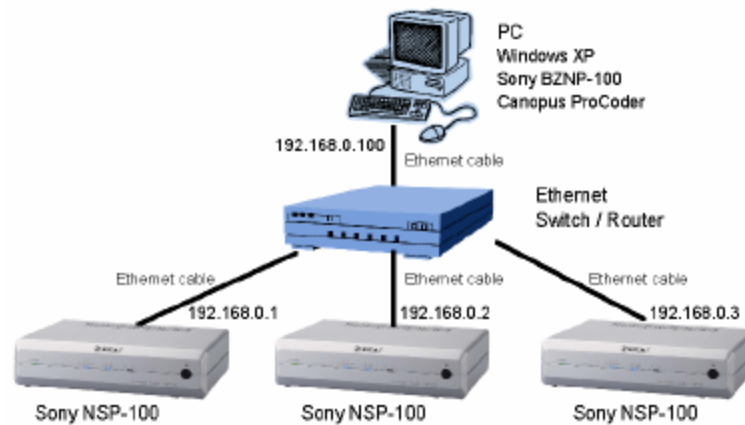
(A) Direct connection between a PC and a NSP-100

When you connect a PC and NSP-100 directly, you need an Ethernet "*cross cable*" that is different from the cable for the normal connection between a device and Hub / Switch / Router.
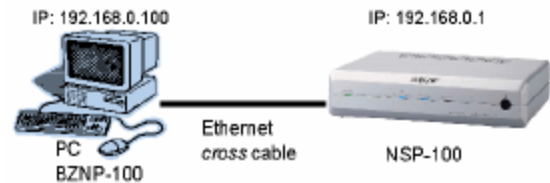
(B) Network connection

You can connect NSP-100 to your network as one of network devices.

DVCAM

You can capture video from Sony DVCAM VTR via i.Link (IEEE1394) interface using BZNP-100 software. Following models are recommended.

 DSR-25, DSR-45, DSR-1500, DSR-1500A

Canopus ProCoder

Canopus ProCoder is software encoder. Using ProCoder, almost any type of video file format including FLASH (.swf) can be converted into MPEG2 file that is compatible with NSP-100. Sony BZNP-100PLUS package product includes ProCoder.

Canopus MPEG PRO-MVR

Canopus MPEG PRO-MVR is hardware encoder that is installed into a PC with PCI bus.

5. Installation of BZNP-100

Latest version of BZNP-100 installer can be downloaded from www.sony.com/nsp100. The installer is identical to BZNP-100 and BZNP-100LE, BZNP-100 will be installed when you type *key code* during installation, BZNP-100LE will be installed when you leave *key code* blank during installation. Please refer to a release note how to install BZNP-100 software. BZNP-100 version is displayed at the main menu (see below). Please refer to the chapter 6.2.1 about *schedule mode* and *presentation mode.*
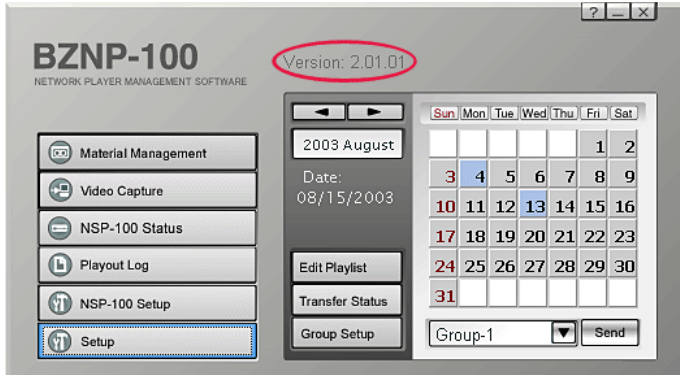
Main menu in a schedule mode   Main menu in a presentation mode

6. Setup

6.1 Network

(A) Direct connection between a PC and a NSP-100

Subnet mask and *Default Gateway* must be identical between NSP-100 and PC. Top nine digit of IP address must be identical between NSP-100 and PC, and last three digits must be different between NSP-100 and PC. Here is a sample of network settings for NSP-100 and PC.

	NSP-100 (factory default)	PC
Automatic (DHCP) or Fix	Fix	Fix
IP address	192.168.000.001	192.168.000.100
Subnet mask	255.255.255.000	255.255.255.000
Default Gateway	000.000.000.000	000.000.000.000

How to check network settings of NSP-100 with a remote controller

1. Press STOP, if any content is played on NSP-100
2. Press MENU
3. Select *Setup* and press *ENTER* at the center of cursors
4. Select *System Administrator Setup* and press *ENTER*
5. Select *Network Setup Menu*, and then network settings will be displayed

How to check network settings of PC

1. Click *START* button
2. Select *RUN...*
3. Type *cmd*, and click *OK*, then a window will be opened
4. Type *ipconfig* and press *ENTER* in the window
5. Then network settings will be displayed

How to change network settings of PC (Windows 2000)

1. Click *START* button
2. Select *Settings*, and then *Network and Dial-up Connections*
3. Right click *Local Area Connection* and select *Properties*
4. Select *Internet Protocol (TCP/IP)* and click *Properties*
5. Select *Use the following IP address*
6. Type IP address, Subnet mask and Default gateway
7. Click OK
8. Click OK

(B) Network connection

Under the normal network infrastructure, IP address of each device is provided automatically by DHCP server. You can confirm it at the network setting of PC described above. Fix IP address is recommended for NSP-100 under the normal usage with BZNP-100. Please contact your network manager to obtain fix IP address.

Here is a sample of network settings for NSP-100 and PC. Automatic IP address for a PC, and fix IP address for three units of NSP-100 in the same local network.

	PC	NSP-100 (A)	NSP-100 (B)	NSP-100 (C)
Automatic or Fix	Automatic	Fix	Fix	Fix
IP address	192.168.000.100	192.168.000.001	192.168.000.002	192.168.000.003
Subnet mask	255.255.255.000	255.255.255.000	255.255.255.000	255.255.255.000
Default Gateway	192.168.000.101	192.168.000.101	192.168.000.101	192.168.000.101

Just for an interim solution, you can find an unused IP address, and set it to NSP-100.

How to find unused IP address (in case IP address of a PC is 192.168.0.100)

1. Click *START* button
2. Select *RUN...*
3. Type *cmd*, and click *OK*, then a window will be opened
4. Type *ping 192.168.0.1*
   If the reply is *Request time out*, 192.168.0.1 is unused IP address.
   If the reply is *Reply from 192.168.0.1: ...*, 192.168.0.1 is assigned already. Try different IP.

Note about "Automatic IP address"

When you set "Automatic" for IP address, but there is no DHCP server in the network,
   (A) Before NSP-100 version 2.10:   NSP-100 does not finish booting. [3]
   (B) NSP-100 version 2.10 or later: In few minutes, NSP-100 boots with default IP address (192.168.0.1).

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[3] Find a network that has a DHCP server, connect and reboot NSP-100. If you don't have a DHCP server on your network, please call POSC at 1-800-883-6817

(C) How to check connection

It is recommended to check the connection from BZNP-100 to each NSP-100.

1. Click *NSP-100 Setup* in the main menu
2. Select *Individual* and target NSP from the pull-down menu at the *Destination* section.
3. Click *Check Connection* at the *Security Network* section.
4. Then you will see the result at the pop up window.
5. Number in the parenthesis is the firmware version of NSP-100.
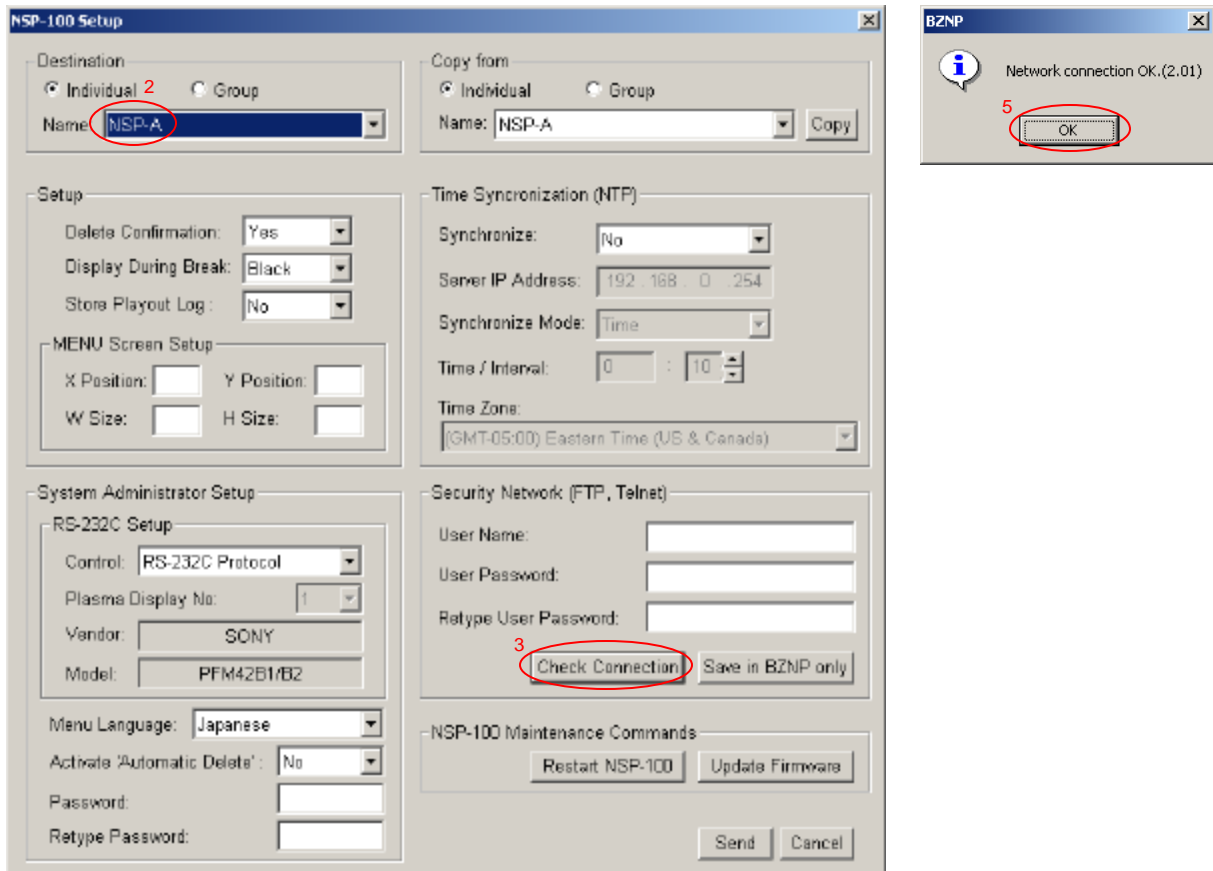
6.2 Settings on BZNP-100

There are several setup menus on BZNP-100 that can be accessed from a main menu. Followings are setups required on BZNP-100 to perform basic operations.

6.2.1 Setup

Video Format:
Make sure *NTSC* is selected

Application Mode:
Presentation:
This mode is available at the both BZNP-100 and BZNP-100LE. There is no scheduling function in this mode. It is supposed to playback content by manually such as remote controller, GPI or RS232C.

Schedule:
This mode is available only at the BZNP-100. Scheduling function is available in this mode. It is also possible to playback content by manually. So this mode is recommended when you use BZNP-100. This tutorial is based on "Schedule mode".
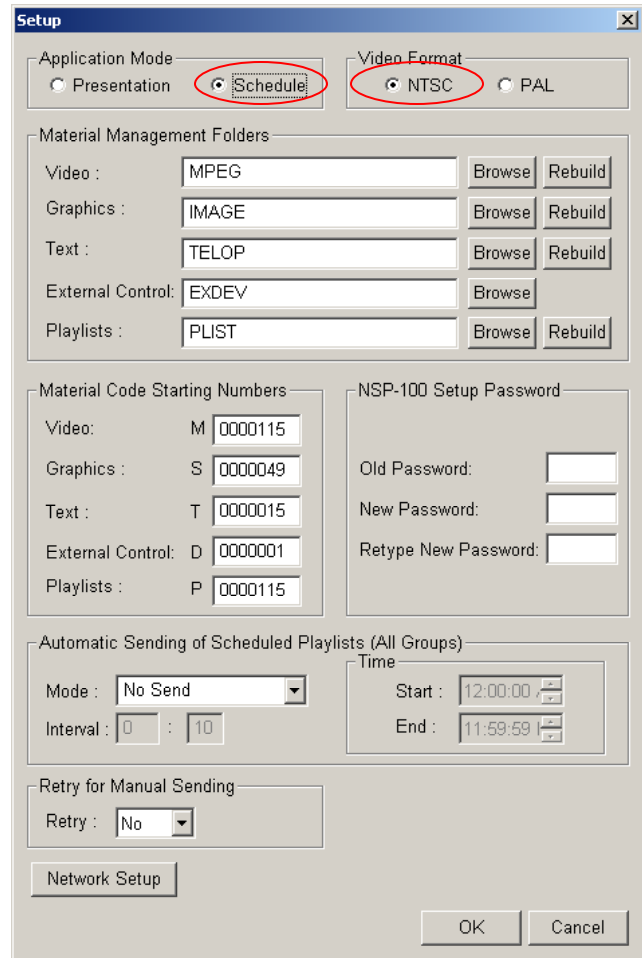
6.2.2 Group Setup

IP address and a name of each NSP-100 is registered in this setup, and then Group is created. NSP-100s in the same group play back the same playlist based on the same schedule.
Supposing you have 5 food stores, and each store has fish, meat and vegetable section, you'd like to play dedicated content to each section through the stores. Create Group-Fish, Group-Meat and Group-Vegetable, and each group contains 5 units of NSP-100s. You can create content for Group-Fish, Group-Meat and Group-Vegetable, and played them back independently.

Here is a sample of group setting for this Tutorial

| Name of NSP-100	IP address		Name of a group	Member of NSP-100
NSP-A	192.168.0.1		Group-ALL	NSP-A, NSP-B, NSP-C
NSP-B	192.168.0.2		Group-A	NSP-A
NSP-C	192.168.0.3		Group-BC	NSP-B, NSP-C

Register NSP-100s

1. Click *Group Setup* in the main menu
2. Click *New* in the Group Setup window, and then NSP-100 settings window is opened
3. Type *NSP-A* at the NSP-100 Name and *192.168.0.1* at the IP address
4. Click OK in the NSP-100 Settings window
5. Repeat through 2 and 4 to register NSP-B (192.168.0.2) and NSP-C (192.168.0.3)
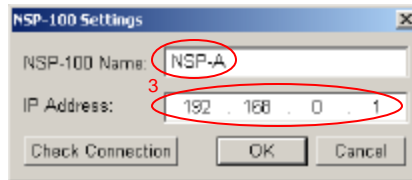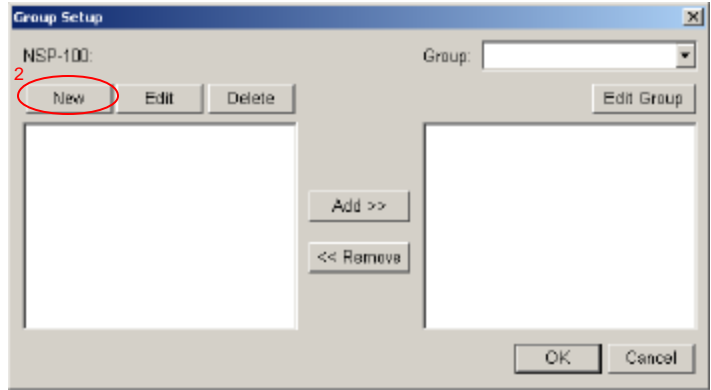
Create groups

1. Click *Group Setup* in the main menu
2. Click *Edit Group* in the Group Setup window
3. Click *New* in the Edit Group window
4. Type *Group-ALL* at the Group Name
5. Click OK in the Group Settings window
6. Click OK in the Edit Group window
7. Select *Group-ALL* at the Group in the Group Setup window
8. Select *NSP-A* in the left bin and click Add
9. Select *NSP-B* in the left bin and click Add
10. Select *NSP-C* in the left bin and click Add
11. Click *OK* in the Group Setup window
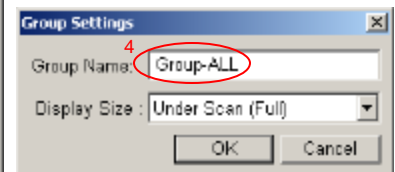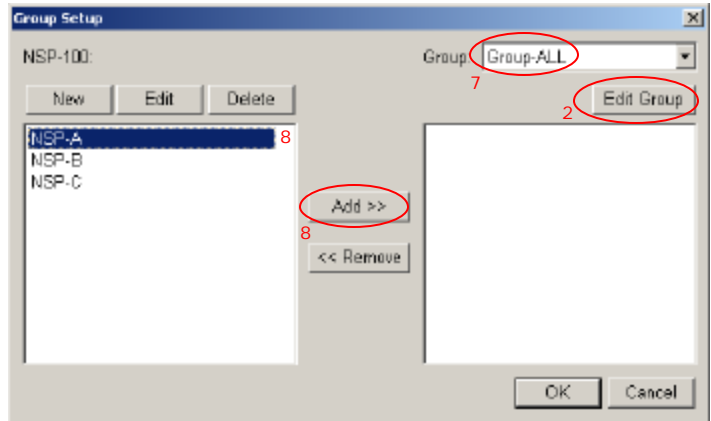
6.3 NSP-100 firmware update

NSP-100 firmware can be updated with BZNP-100. Please refer to a *Release note* at www.sony.com/nsp100 for details.

7. Video Content Preparation

BZNP-100 software can ingest a specific AVI or MPEG file as video content. But utilizing optional hardware and/or software, very wide variety of video content can be utilized. This chapter describes how to prepare the AVI or MPEG file. The procedure to ingest these files with BZNP-100 is described in the next chapter.

7.1 Video Capture via iLink interface

BZNP-100 can capture video signal through iLink interface as an AVI file. When Sony DVCAM VCR is connected, BZNP-100 can control it and capture an exact segment between IN-Point and OUT-Point.

(A) Sony DVCAM VCR

1. Connect DVCAM VCR and a PC with i.Link cable
2. Turn on DVCAM and insert a pre-recorded tape
3. Select *Remote* (DSR45, 1500 or 1500A) and *i.Link* (DSR1500 or 1500A) on the DVCAM
4. Launch BZNP-100
5. Click *Video Capture* in the main menu, then Video Capture window is displayed (see right)
6. Select Folder to store captured video
7. Use transport control to search In point
8. Click *In*
9. Use transport control to search Out point
10. Click *Out*
11. Click *REC*, then DVCAM is rewinded and played back automatically, and video is captured in the PC as AVI file.
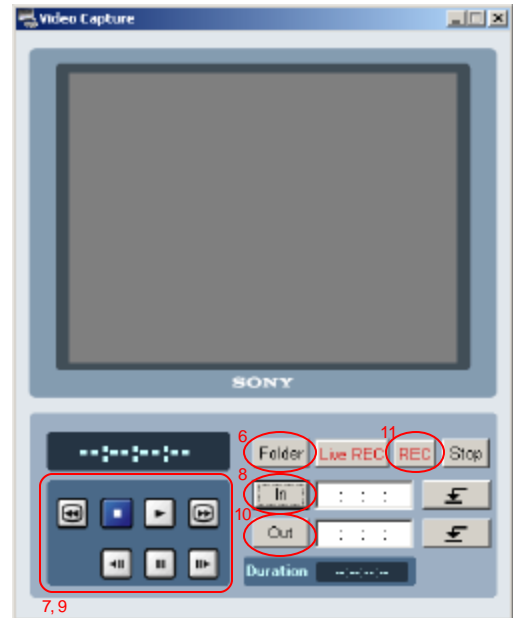
Tips
1. Every time you click FF or REW, speed changes accordingly.
    Very Slow -> Slow -> Mid -> High -> Very Slow
2. You can type the time code of In or Out point in the time code window directly

Notes
1. BZNP-100LE does NOT support *Video Capture* function
2. Frame drop may happen under the following condition. Capture several times and compare file sizes to assure the recording.
    CPU is slow / memory size is not enough / HDD is slow / other applications are running on the PC

3. Known problem about DSR-25 and DSR-45.

    When you click STEP (◀ or ▶) during FF, REW or PLAY, an error

    message is displayed (see right). To prevent this error, click PAUSE (▮▮)
    first during FF, REW or PLAY, then click STEP
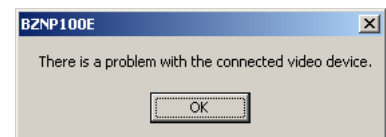
FAQ
Q1. Can I use consumer DV VCR?

A1. Yes, but there may be some restrictions depending on products. When "REC" doesn't work correctly, operate the VCR manually and use "Live REC".

(B) Other iLink (DV) equipment
1-6: Same as above
7: Click *Live REC* to start recording

7.2 Video file conversion with Canopus ProCoder

Almost all types of video file format such as AVI, QuickTime or even Flash (.swf) can be encoded to MPEG file that is compatible to NSP100 using Canopus ProCoder software.
When you export a video file out of non-linear editing program, followings are suggested parameters.

File format:	AVI or QuickTime
Video Compression:	DV, M-JPEG or uncompressed
Audio:	48k Hz, 16 bits, uncompressed

ProCoder version 1.50 or higher is required. Demo version of ProCoder is available at the following URL.
http://www.canopus.com/US/products/ProCoder/pm_procoder.asp

1. Double click a file "sony_sample_ntsc.PCP*[4]", and then ProCoder is launched with correct setups.
2. Click Source tab and click Add, then select a source video
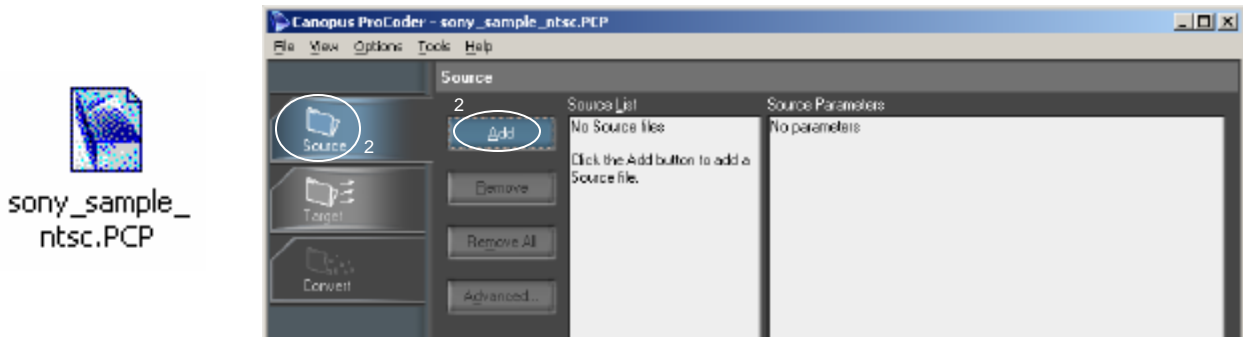
3. Click Target tab and confirm Destination. Change *Base Name* and *Path* if necessary.
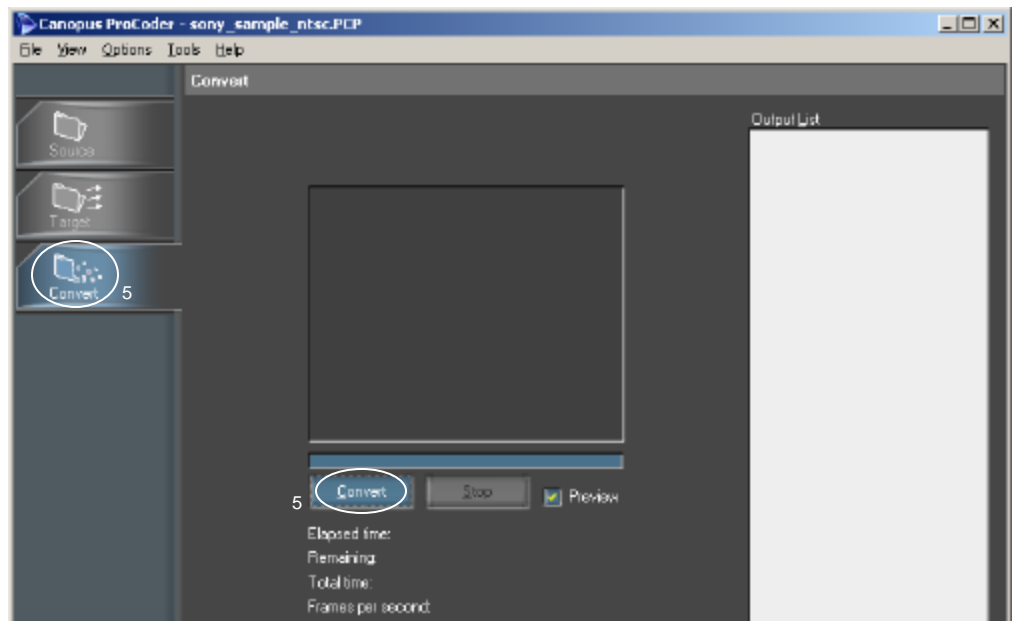4. Modify some parameters to adjust picture quality*[5] if necessary
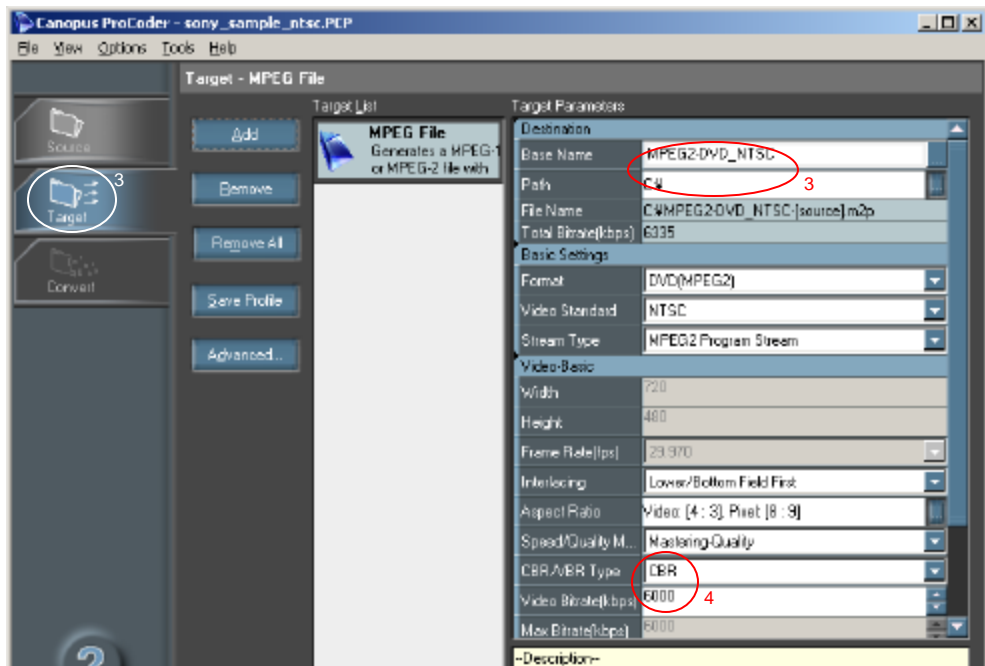
5. Click Convert tab, and then click Convert button.

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[4] This file can be downloaded from www.sony.com/nsp100
[5] CBR / VBR (1 pass) / VBR (2 pass), bit rate from 4.0 to 9.0

6. MPEG file ".m2p" will be created as specified at step 3.

Note:
ProCoder version 1.50 converts Flash (.swf) file to MPEG without audio. This will be fixed at the next version of ProCoder.

7.3 Video file conversion with Discreet CleanerXL

Almost all types of video file format such as AVI, QuickTime can be encoded to MPEG file that is compatible to NSP100 using Discreet CleanerXL software. BZNP-100 version 3.00 or later is required. When you export a video file out of non-linear editing program, followings are suggested parameters.

File format:	AVI or QuickTime
Video Compression:	DV, M-JPEG or uncompressed
Audio:	48k Hz, 16 bits, uncompressed

1. Double click a file "NTSC_NSP.cjb*[6]", and then CleanerXL is launched with correct setups.

2. Select File/Save As, and save it with different name
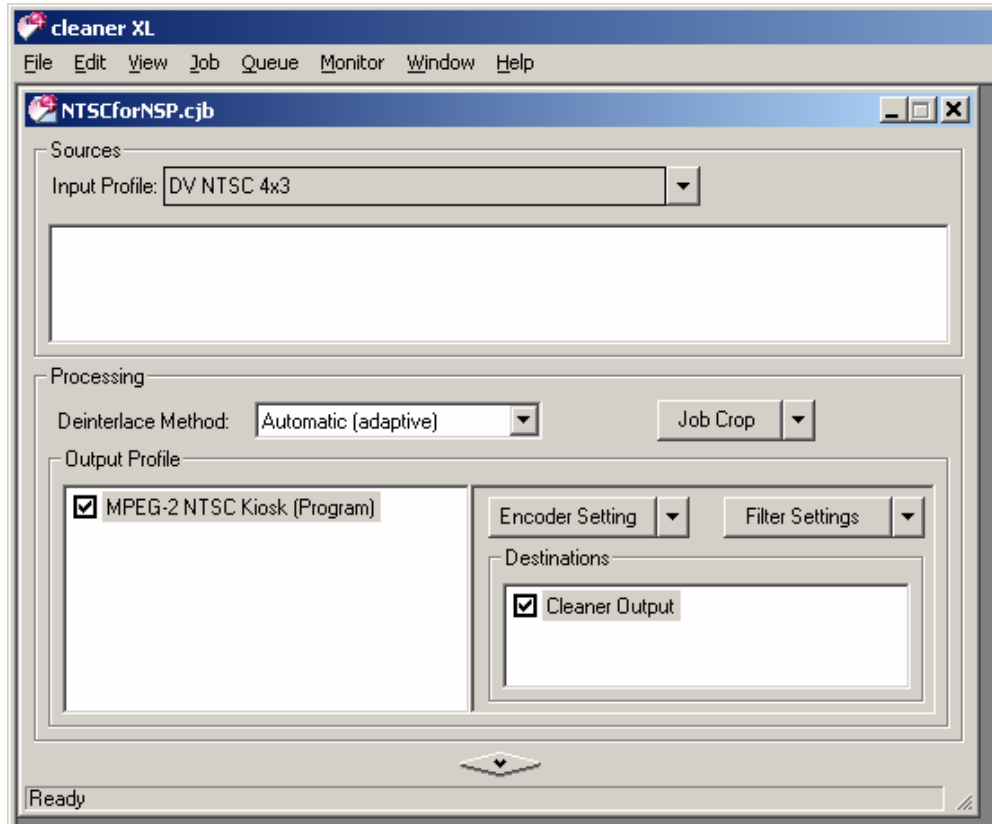
3. Select View/Destination Editor and select a folder where encoded files are saved.

4. Select Job/Add Source Media... and select a source file

5. Select View/Encoder Setting Editor and change "Bit Rate Control" and/or "Bit Rate" if necessary

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[6] This file can be downloaded from www.sony.com/nsp100
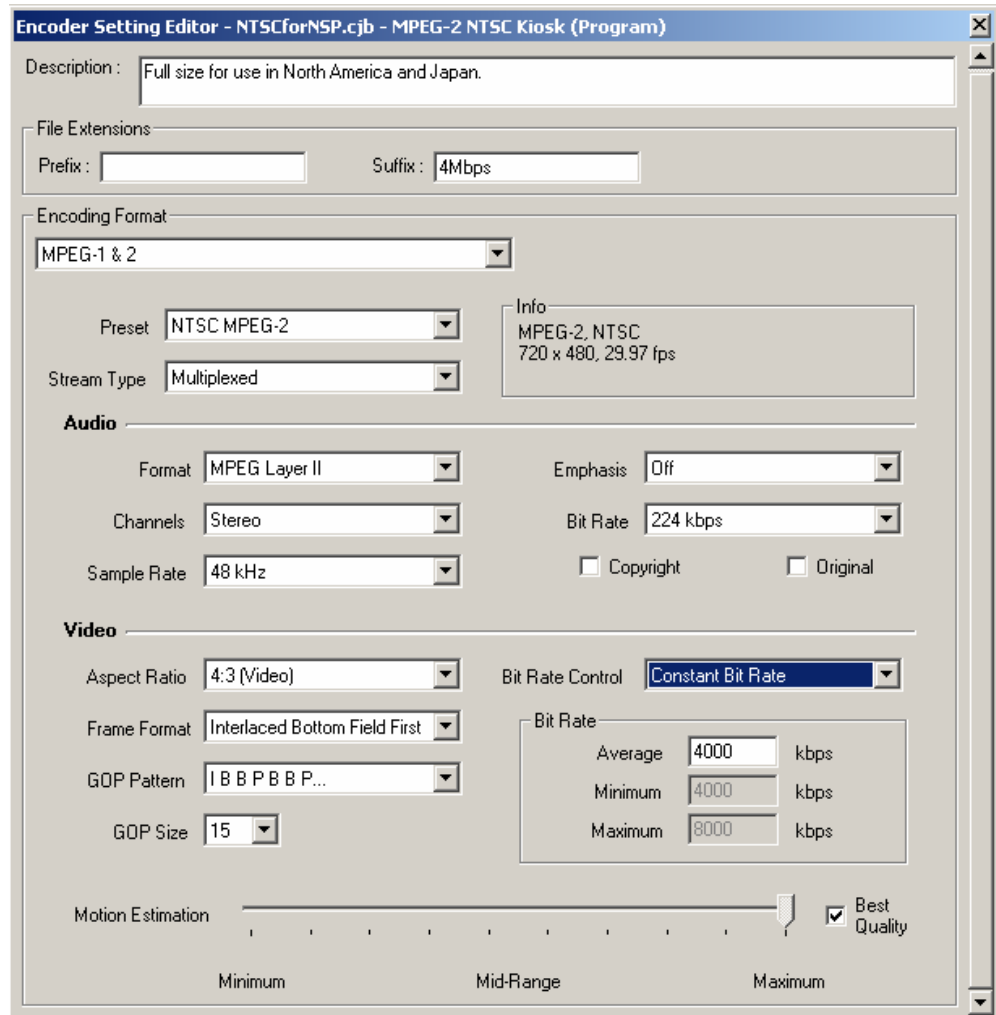
6. Select Job/Encode Now..., then encoding starts

7. Progress is displayed in Job Queue window

8. MPEG file ".mpg" will be created as specified at step 3.

7.4 Video Capture with Canopus MPEG PRO-MVR

Canopus MPEG PRO-MVR is an MPEG hardware encoder that can capture video signal and encode into MPEG file in real time. This chapter explains setups of MediaCruise™ software that comes with MPEG PRO-MVR. Please refer to an operation manual of MediaCruise how to capture video.

1. Double click a file "MediaCruise_SONY.mvr[7]", and then MediaCruise software is launched with correct setups.
2. Click "Format" button on the MediaCruise, then "Capture Parameter settings" window is displayed.
3. Click "Format" tab, and then confirm followings

       Mode: MPEG-2
       Stream type: Program Stream
       Quality: User defined
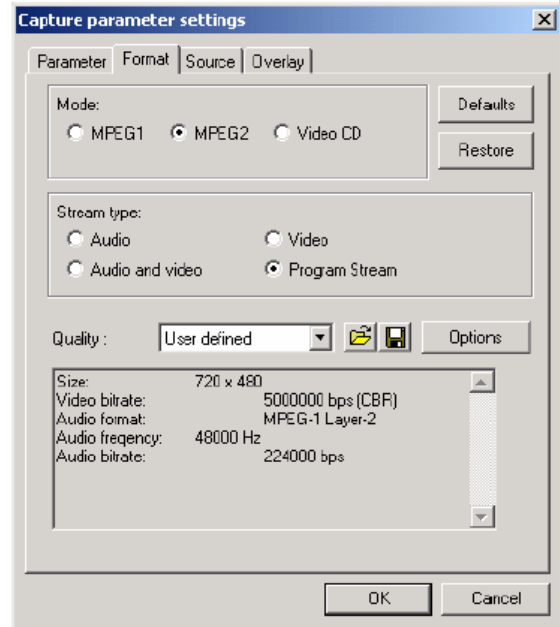
3. Click "Options" button on the MediaCruise, then "user defined settings" window is displayed.
4. Click "Video" tab, and then confirm followings

Profile and Level:	MP@ML
Video bit rate:	Between 4000000 and 9000000
Max Video bit rate[8]:	Between 4000000 and 9000000
CBR or VBR:	As you like
GOP Pattern Picture	15
GOP Pattern Interval	3, IBBP
GOP's for streaming	Leave unchecked
Image size	720 x 480
Standard	NTSC

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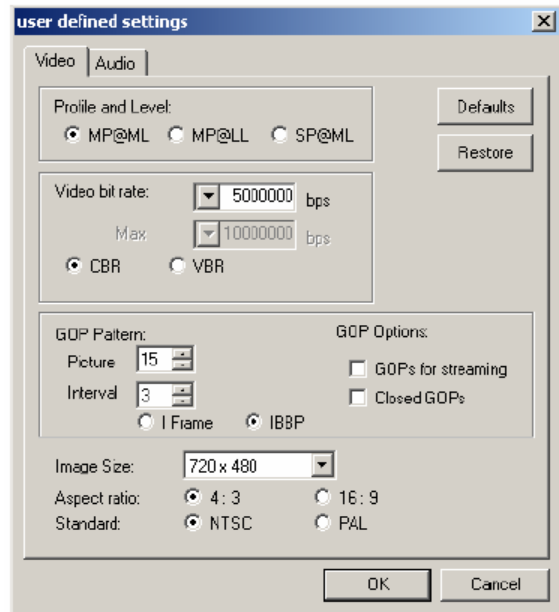
[7] This file can be downloaded from www.sony.com/nsp100
[8] You can enter a number when VBR is selected.

7.5 FAQ

Q. Is it possible to use a plasma display in vertical position?
A. Yes, you can.

Q. How can I produce video content for a plasma display in vertical position?
A1. Shoot video with a video camera sideway. Then edit it as 720x480.
A2. Create Flash movie (.swf) sideway as 720x480, and then convert it in MPEG file with Canopus ProCoder.

Q. How can I convert Falsh movie (.swf) into MPEG file with Canopus ProCoder?
A. It is exactly the same procedure as to convert a video file. Select the .swf file when you add a source file.

8. Graphic Content Preparation

8.1 Background graphic

General Spec
    Size (resolution) of graphic: between "360 W x 240 H" and "720 W x 480 H"
        When the size smaller than 720 x 480, it is positioned at center
    File format: bitmap (.BMP) or JPEG (.JPG)
        BZNP-100 version 2.01.01 or higher is required for JPEG file import

PowerPoint
    You can create graphics using Microsoft PowerPoint

    1. Select the menu on the PowerPoint *File / Page Setup*
    2. Set **10** inches at Width and **6.66** inches at Height
    3. Create content
    4. Select the menu on the PowerPoint *File / Save As*
    5. Select "JPEG (.jpg)" or "Bitmap (.bmp)" at the *Save as type*
    6. Click Save

    Note-1:
    PowerPoint is not recommended if you are going to use a regular TV set, because of severe aliasing at the hard edge due to interlace and limitation of NTSC signal.

    Note-2:
    JPEG is recommended if you are using PowerPoint2000, because BITMAP file created by PowerPoint 2000 seems to be not full color but indexed (and reduced) color.

8.2 Foreground graphic

General Spec
    Size (resolution) of graphic: within 720 W x 100 H, up to 315 KByte
    File format: bitmap (.BMP)
    Color: indexed color
    Key to transparency: index color #0 can be a key

How to convert a graphic file
    1. Open a graphic file with Adobe Photoshop or Photoshop Element
    2. Paint the background with black as a key to transparency
    3. Select a menu *Image / Mode / Indexed color*
    4. Save as Bitmap (.bmp)

8.3 FAQ

Q. Is it possible to use a plasma display in vertical position?
A. Yes, you can.

Q. How can I produce graphics for a plasma display in vertical position?
A. Create graphics in 480x720 resolutions, rotate it 90 degrees, and then export it as 720x480 resolutions.

9. Ingest content

In this chapter, the procedure to ingest video, graphic and text content is described based on content in a CD-ROM "*NSP100_Tutorials*". Please request the CDROM to hiro.fujita@am.sony.com, if necessary.

9.1 Files in a sample CDROM

Folder Name			File Name	
NSP100_Tutorials	SampleContent	BUG	Sample_BUG.bmp	
NSP100_Tutorials	SampleContent	FLASH	Sample_Flash.swf	
		Graphic	Sample_BMP1.bmp Sample_BMP2.bmp Sample_BMP3.bmp	Sample_JPEG1.bmp Sample_JPEG2.bmp
		Text	Sample_Text1.txt	Sample_Text2.txt
		Video	Sample_AVI1.avi Sample_AVI2.avi Sample_AVI3.avi	Sample_MPEG.m2p

9.2 Video

BZNP-100 can ingest two types of video file format with specific parameters, AVI (.avi) and MPEG2 (.m2p or .mpg) files. There is no difference of procedure to ingest AVI file or MPEG2 file.

1. Click *Material Management* at the main menu
2. Select the *Video* tab
3. Click *Convert Material* button, and then *Convert Material* window will be opened
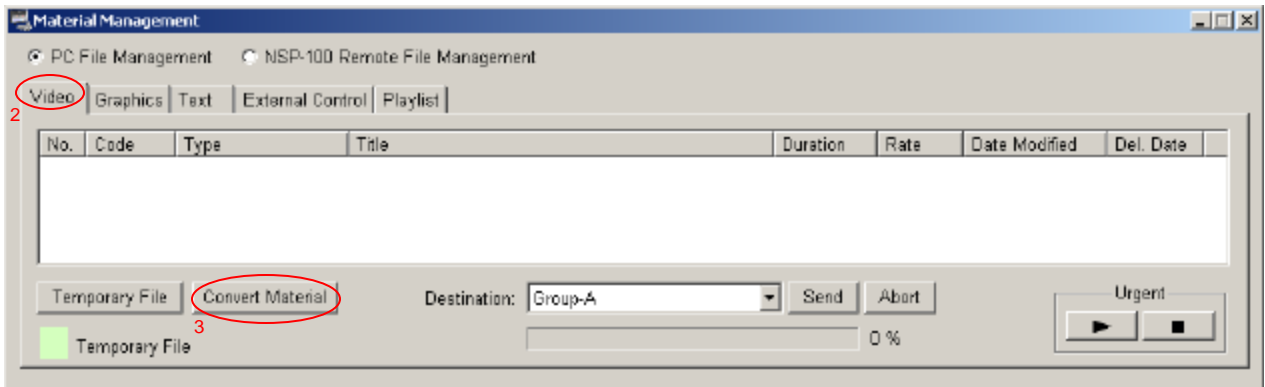
4. Click *Browse* and select *Video* folder under *Samples* folder in the CDROM, then video file names will be displayed in the upper window

5. Select *Sample_AVI1.avi*

6. Click *Start*

7. Wait until conversion finishes

8. Repeat through step 5 and 7 to convert all other video files
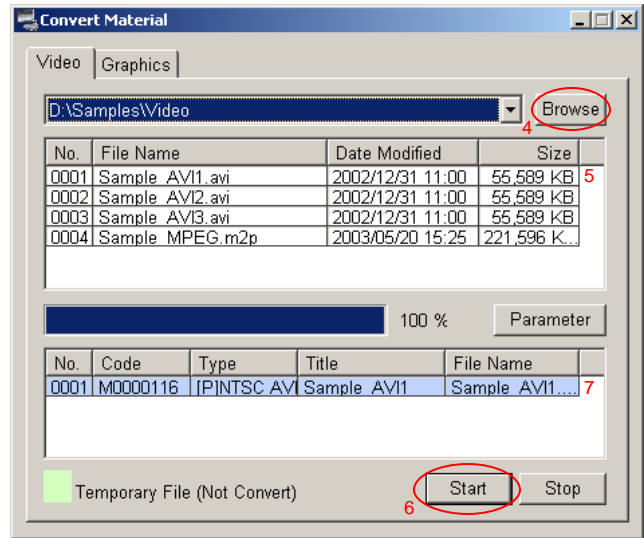
9.3 Graphic (Background)

BZNP-100 can ingest two types of graphic file format as background graphic, Bitmap (.bmp) and JPEG (.jpg) files. There is no difference of procedure to ingest Bitmap file or JPEG file.
The resolution of a graphic must be within the followings for NTSC.

    Min.: 360 (W) x 240 (H)
    Max.: 720 (W) x 480 (H)

1. Click *Material Management* at the main menu
2. Select the *Graphic* tab
3. Click *Convert Material* button, and then *Convert Material* window will be opened
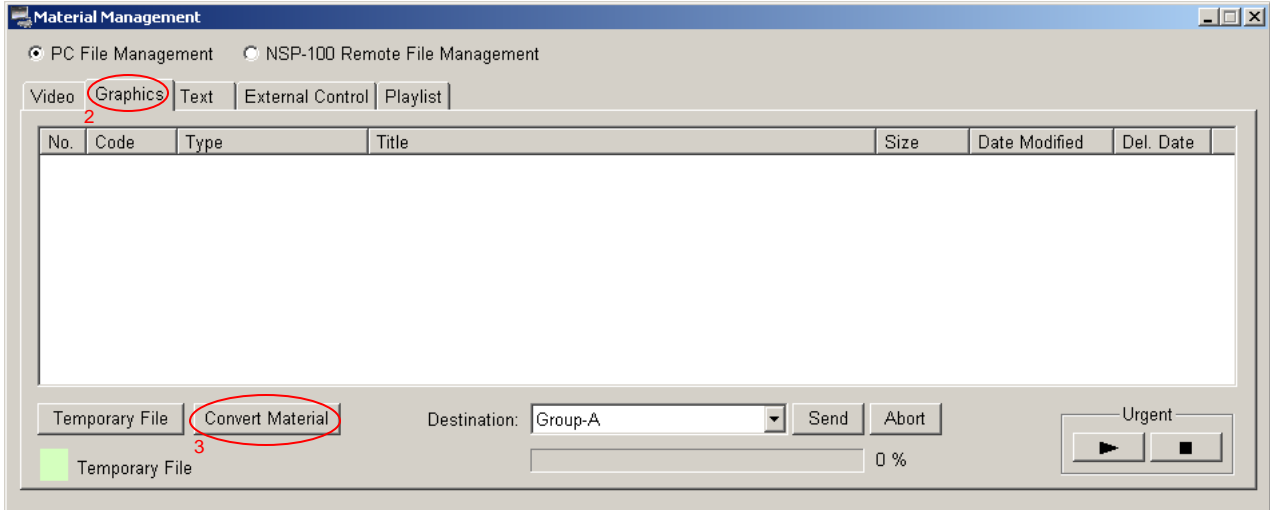
4. Click *Browse* and select *Video* folder under *Samples* folder in the CDROM, then graphic file names will be displayed in the upper window
5. Select *Sample_BMP1.bmp*
6. Click *Start*
7. Wait until conversion finishes
8. Repeat through 5 and 7 to convert all other graphic files
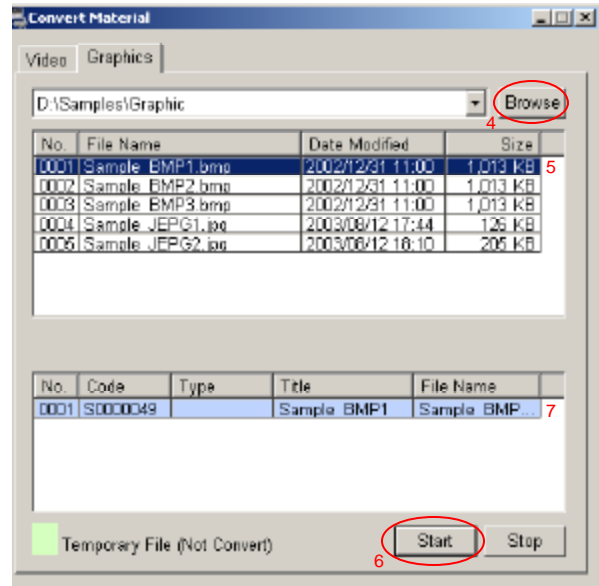
9.4 Text

BZNP-100 can ingest text file (.txt), or you can type the message in the BZNP-100 software.

1. Click *Material Management* at the main menu
2. Select the *Text* tab
3. Click *New* button, and then *Edit Text* window will be opened
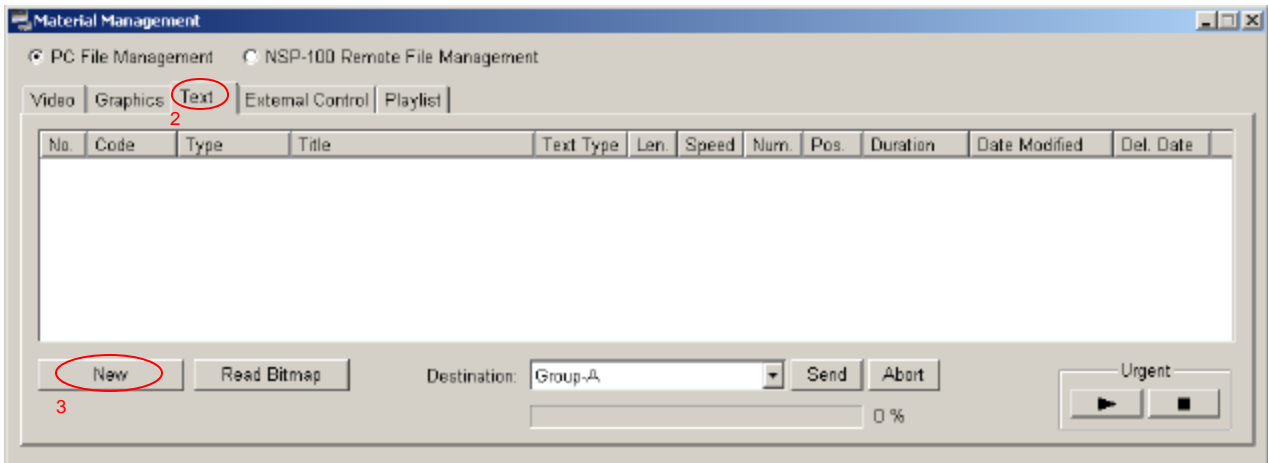
4A. Click *Read Text File* and select
   Sample_text1.txt file under *Samples / Text*
   folder in the CDROM.
4B. Type the message in the text box
5. Click *Save*
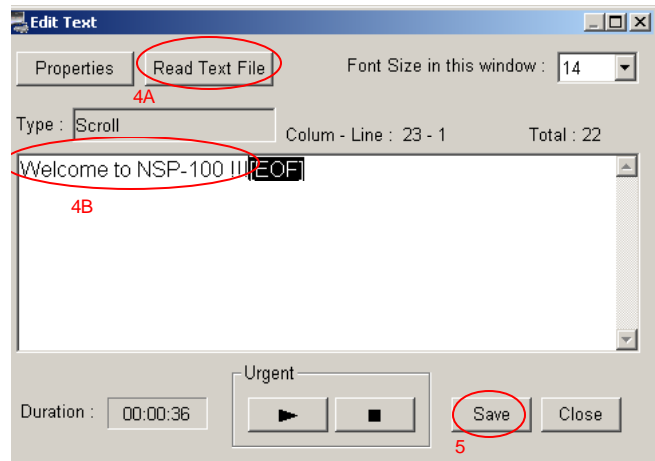
9.5 Graphic (Foreground)

BZNP-100 can ingest bitmap file (.bmp) as a foreground graphic to put a bug on the screen.
The resolution of the graphic must be within the followings for NTSC.

Max.: 720 (W) x 100 (H)

Foreground graphics are handled as one of text content, because it utilizes the same mechanism inside NSP-100.

1. Click *Material Management* at the main menu
2. Select the *Text* tab
3. Click *Read Bitmap* button, and select *Sample_AVI1.bmp* file under *Samples / Bug* folder in the CDROM
4. Click *Open*
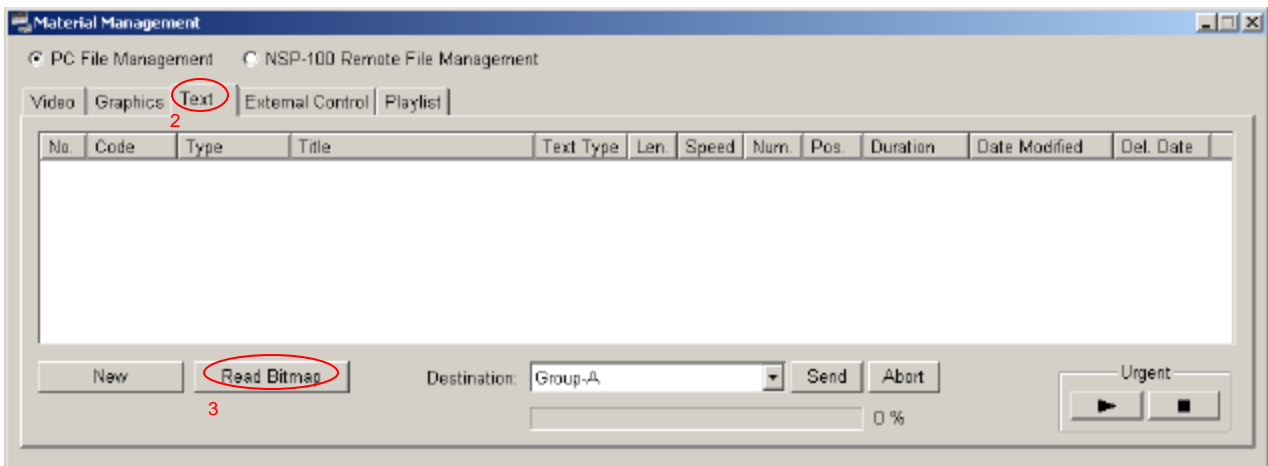
9.6 External Device Control

Using GPI or RS232C, NSP-100 can control external device. And external device controls can be described in a playlist. Control code for Sony Plasma display comes as default. When you need to control other devices than Sony Plasma, please call Sony.

First of all, you need to set a function of D-sub 9 pin connector by one of following methods.

(A) IR remote control

1. Select MENU/SetUp/System Administrator Setup/RS-232C Setup Menu
2. Select *External (GPI)* for GPI control or *Plasma Display* for RS232C control
3. Select *No* to choose external device type in case of RS232C control

(B) BZNP-100

1. Click *NSP100 setup*
2. Select *External (GPI)* for GPI control or *Plasma Display* for RS232C control at RS232C setup
3. Select *Plasma Display No* to choose external device type in case of RS232C control

(C) Web browser

1. Connect NSP100 with web browser
2. Click Setup and Configure, then login with "nsp100" for username and "kiss" for password as default
3. Click System Setup
4. Scroll down to RS-232C/GPI
5. Select *GPI* for GPI control or *External (PDP) Control* for RS232C control
6. Select controlled device from pull down menu.

Then you can register a control.

(A) GPI

1. Click *Material Management* at the main menu
2. Select the *Control* tab
3. Click *New*, and then *Edit Control* window will be opened
4. Click *GPI Control* and select *GPI Out*
5. Click OK
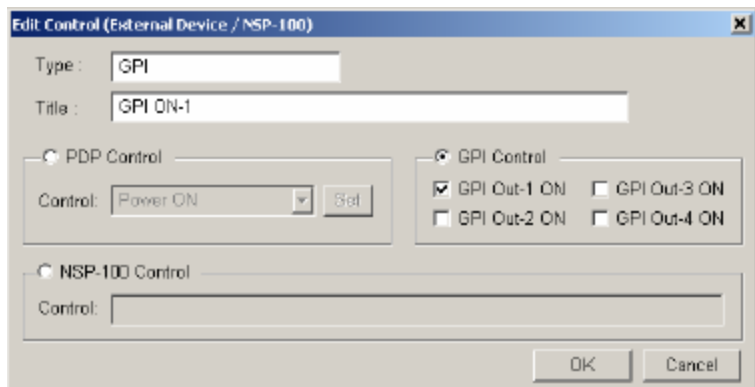
(B) RS232C

1. Click *Material Management* at the main menu
2. Select the *Control* tab
3. Click *New*, and then *Edit Control* window will be opened
4. Click *PDP Control* and select Control
5. Click Set
6. Click OK
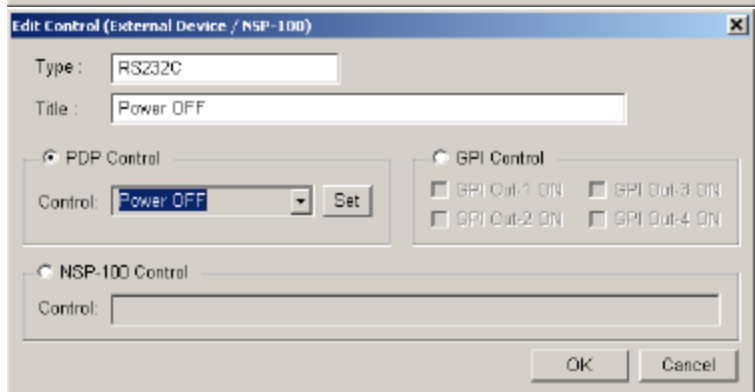
10.   Manage content

In this chapter, the procedure to manage content in the Material Management window is described. Management window can be accessed by clicking Material Management button at the top menu.

10.1 List Content in the PC

1. Select PC File Management, and then available content that has been ingested is listed.
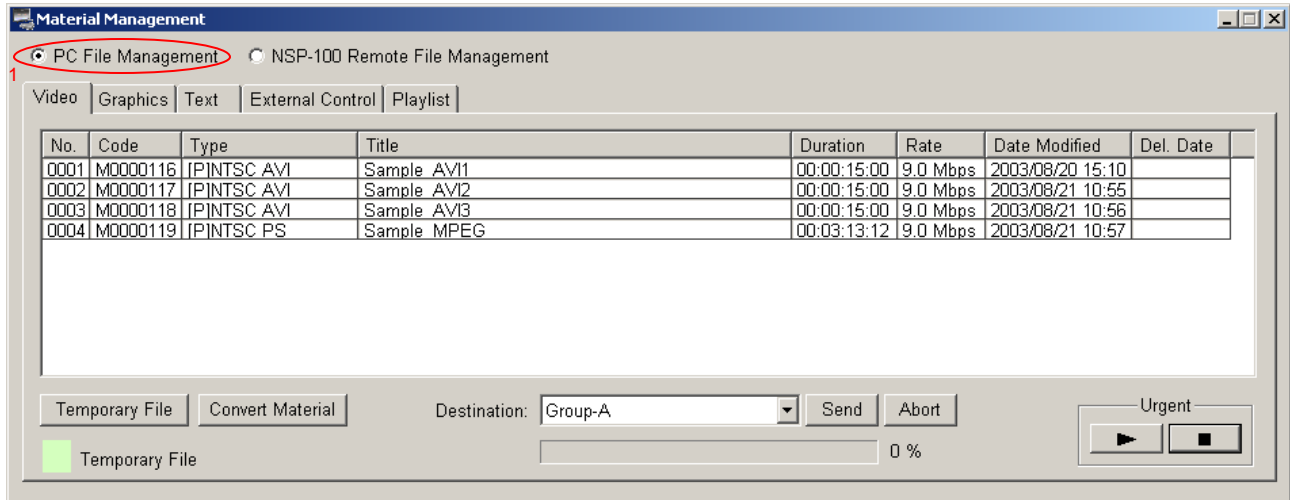
Type and Title can be modified by double-clicking the item, though only title can be displayed on the screen.

10.2 List Content in the NSP-100

1. Select NSP-100 Remote File Management
2. Select destination NSP-100 from pull down menu
3. Click update
4. Available content in the NSP-100 is listed
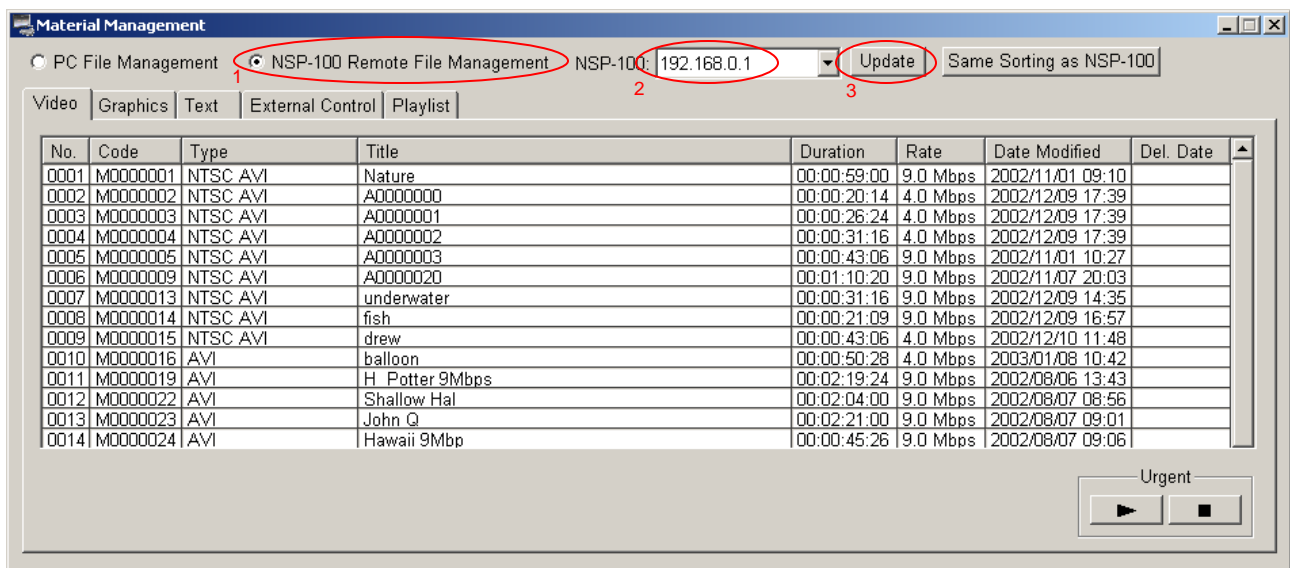
10.3 Right-click the content

When you right-click content, available functions will be displayed.

10.4 Send content from the PC to NSP-100

In the Material Management window

1. Select PC File Management
2. Select Destination from pull down menu
3. Select content
4. Click Send
5. Content can be played back with a remote controller.
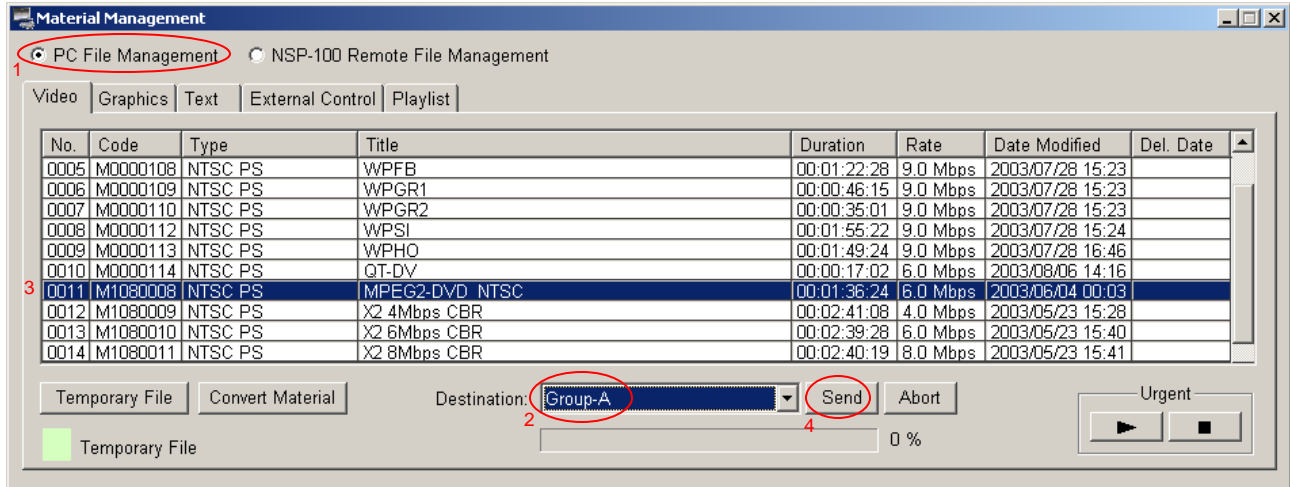
10.5 Urgent Play

Urgent Play is convenient function to send and play back content right now overriding current playback.

1. Select PC File Management
2. Select Destination from pull down menu
3. Select content
4. Click ▶
5. NSP-100 plays back specified content
6. Click ■ when the playback finishes. Remote controller is inactive during Urgent Play.
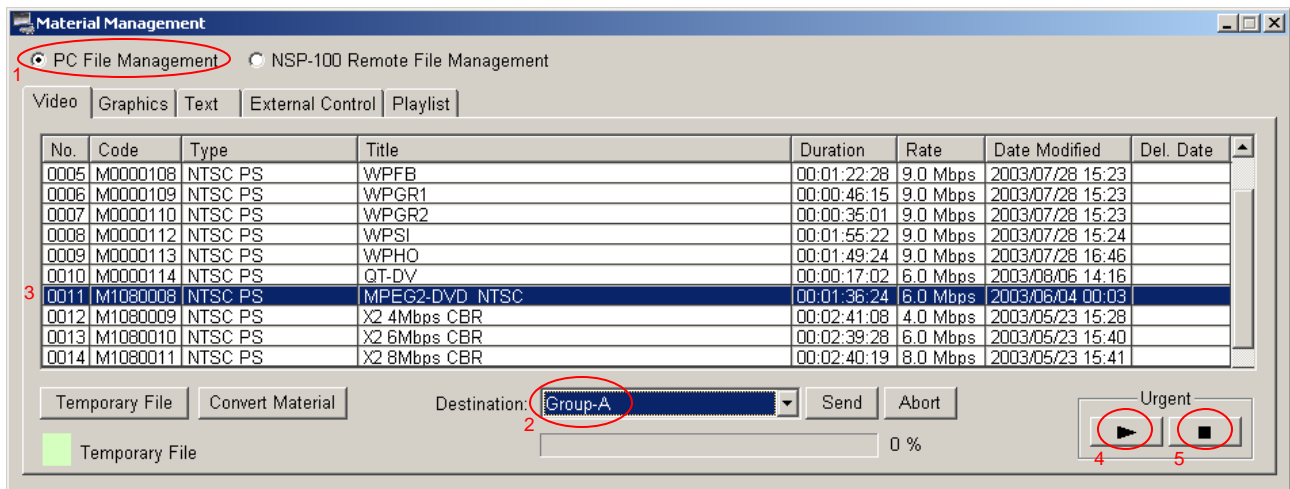
11. Create a playlist

Playlist is a key concept for NSP-100, and enables following functions.

- Create a time line program to play back contents sequentially
- Loop playback
- Arrange composition of video, graphic and text content in the same screen
- Scheduled playback (refer to chapter 10)

11.1 Simple time line program
Here is a sample playlist of a simple time line program.

Event number	Type of content	Title	Duration
1	Graphic	Sample_JPEG1	10 second
2	Video	Sample_AVI1	15 second
3	Graphic	Sample_JPEG2	10 second
4	Video	Sample_AVI2	15 second

At first, the first event, a still graphic "Sample_JPEG1" is displayed in 10 second.
Then, the second event, video "Sample_AVI1" is played back.
After that, the 3rd event, a still graphic "Sample_JPEG2" is displayed in 10 second.
Finally, the 4th event, "Sample_AVI2" is played back.
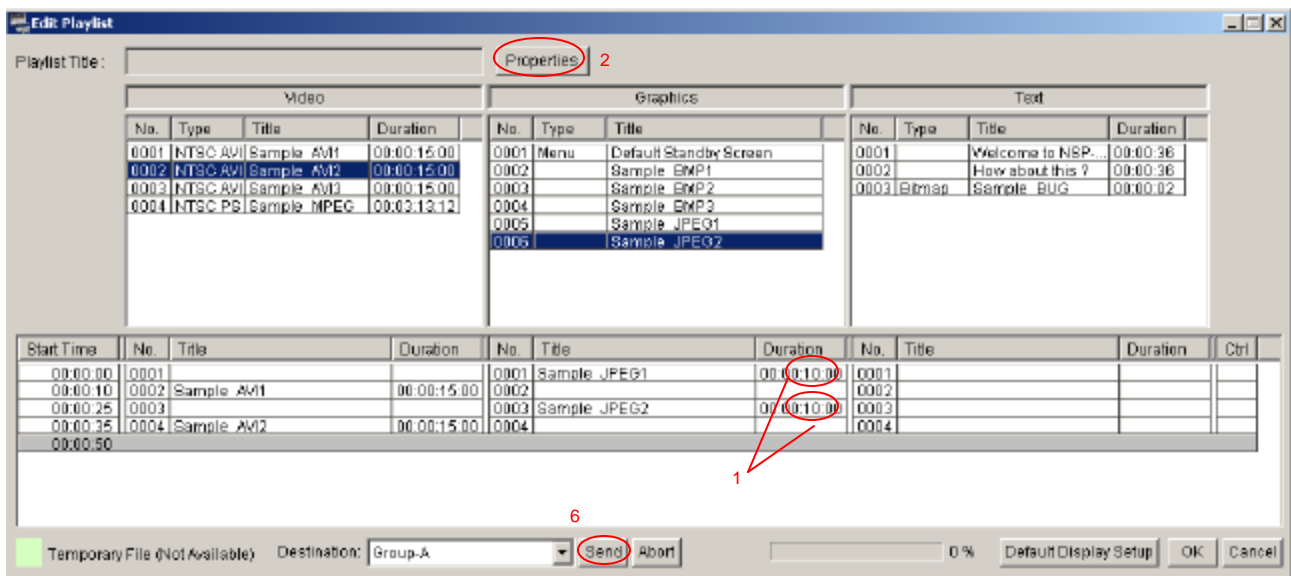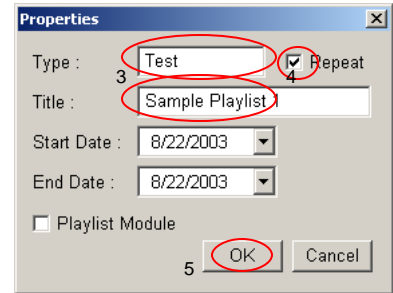
How to create a playlist
1. Click *Edit Playlist* at the top menu, and then *Edit Playlist* window is opened
2. Select a destination group from pull down menu
3. Drag *Sample-JPEG1* from Graphics bin and drop to the bottom window
4. Drag *Sample-AVI1* from video bin and drop to the bottom window in a next line
5. Drag *Sample-JPEG2* from Graphics bin and drop to the bottom window in a next line
6. Drag *Sample-AVI2* from video bin and drop to the bottom window in a next line
7. Click *Send*
8. Play back the playlist on the NSP-100 with a remote controller
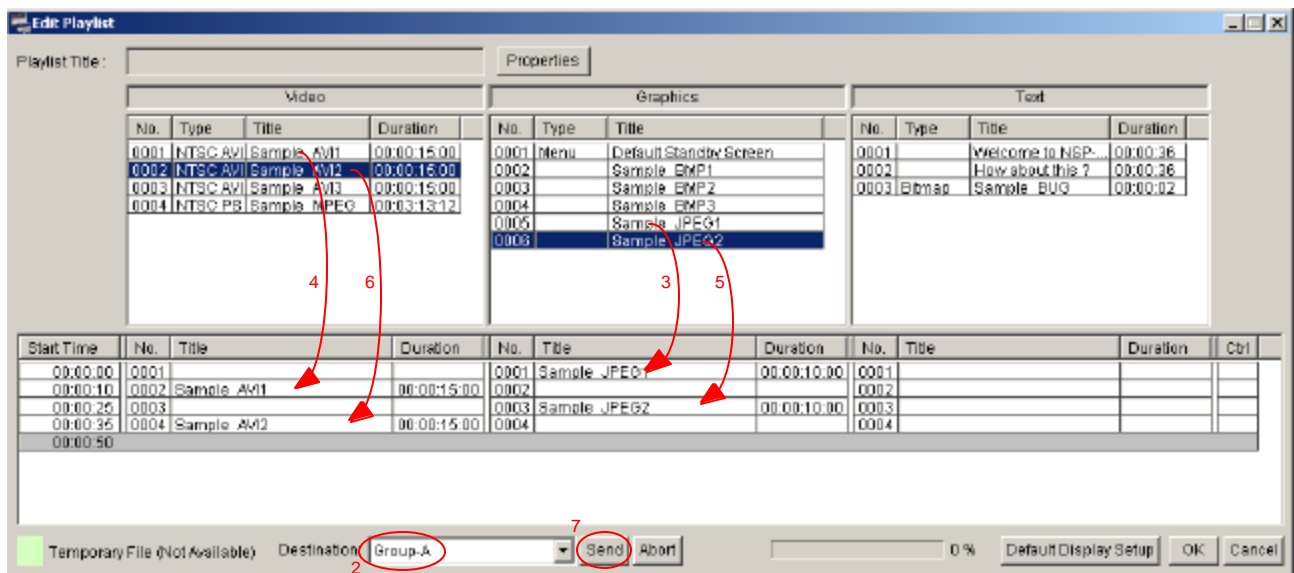
Let's modify this playlist as followings

- Change the duration of graphics from 10 second to 8 second
- Add Type and Title to this playlist
- Change the play back mode from normal to loop playback

1. Double click the duration of graphics, and then you can modify it from 10 sec to 8 sec
2. Click Properties, then Properties window will be opened
3. Input Type and Title
4. Check Repeat
5. Click OK
6. Click Send in the Edit Playlist window
7. Play back the playlist on the NSP-100 with a remote controller

11.2 Text message over video

You can put text message over video.

1. Click *Edit Playlist* at the top menu, and then *Edit Playlist* window is opened
2. Select a destination group from pull down menu
3. Drag *Sample-AVI1* from video bin and drop to the bottom window
4. Drag *Welcome to NSP-100* from Text bin and drop to the bottom window in the same line
   (When you select "Sample_BUG" from Text bin, you can put a "bug" on the screen.)
5. Click *Send*
6. Play back the playlist on the NSP-100 with a remote controller
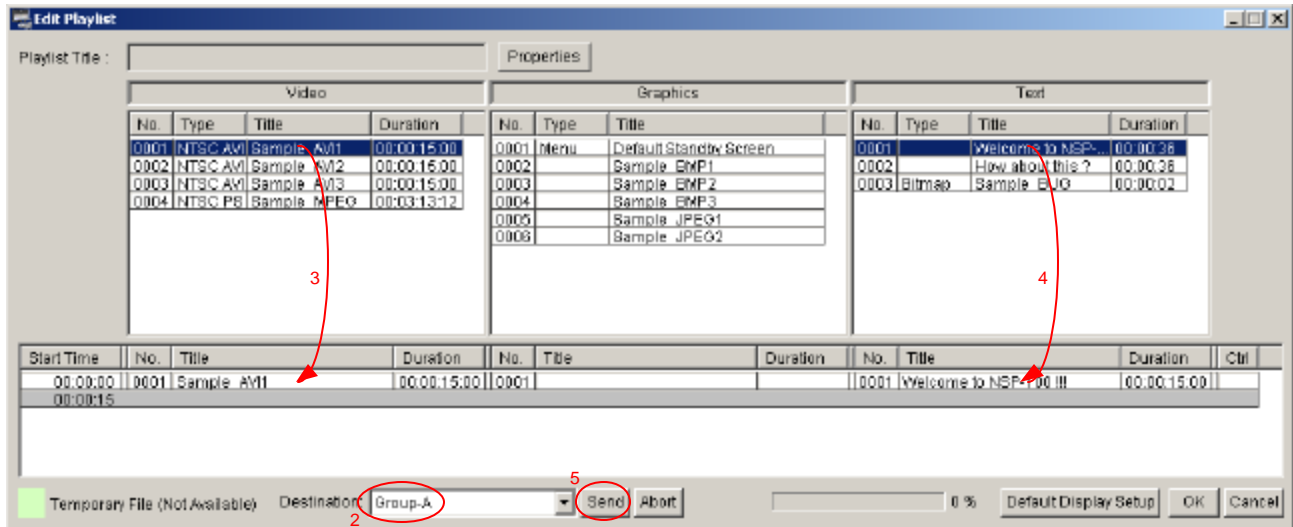
Let's modify this playlist as followings

- Make the background of text transparent
- Make the text scroll
- Change the position of the text

1. Click *Material Management* at the top menu, and then *Material Management* window is opened
2. Select PC File Management
3. Select Text tab
4. Select a text "*Welcome to NSP-100"* with right click, and then select Edit from pop-up menu
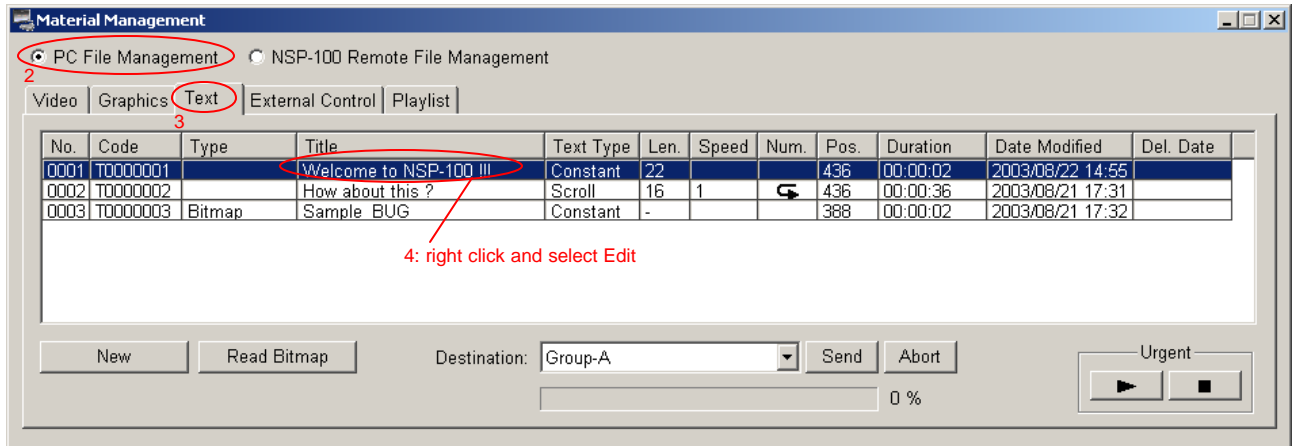
5. Click Properties in the Edit Text window
6. Select Scroll at the Text Type in the Properties window
7. Select Full at the Transparency
8. Click OK
9. Click Save in the Edit Text Window
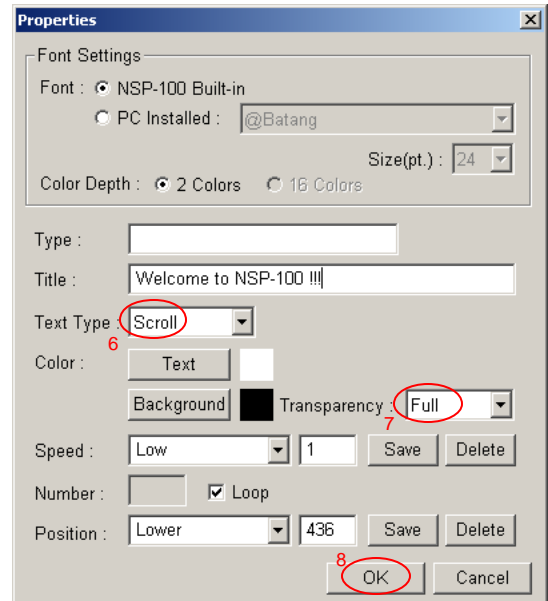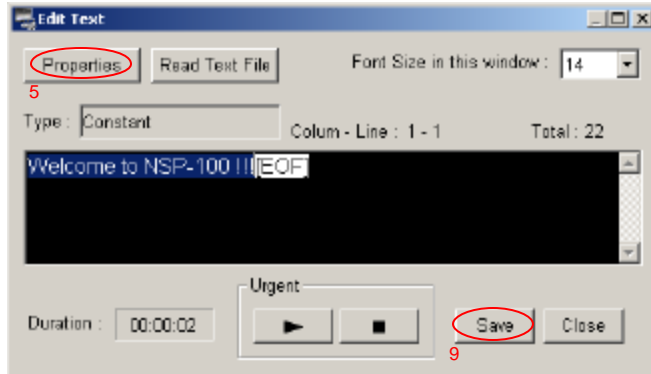
10. Select the Edit Playlist window
11. Select a text "*Welcome to NSP-100"* in the time line window with right click, and then select Display Setup
12. Drag the text in the screen and change the position as you like (see next page)
13. Click OK
14. Click *Send* in the *Edit Playlist* window
15. Play back the playlist on the NSP-100 with a remote controller

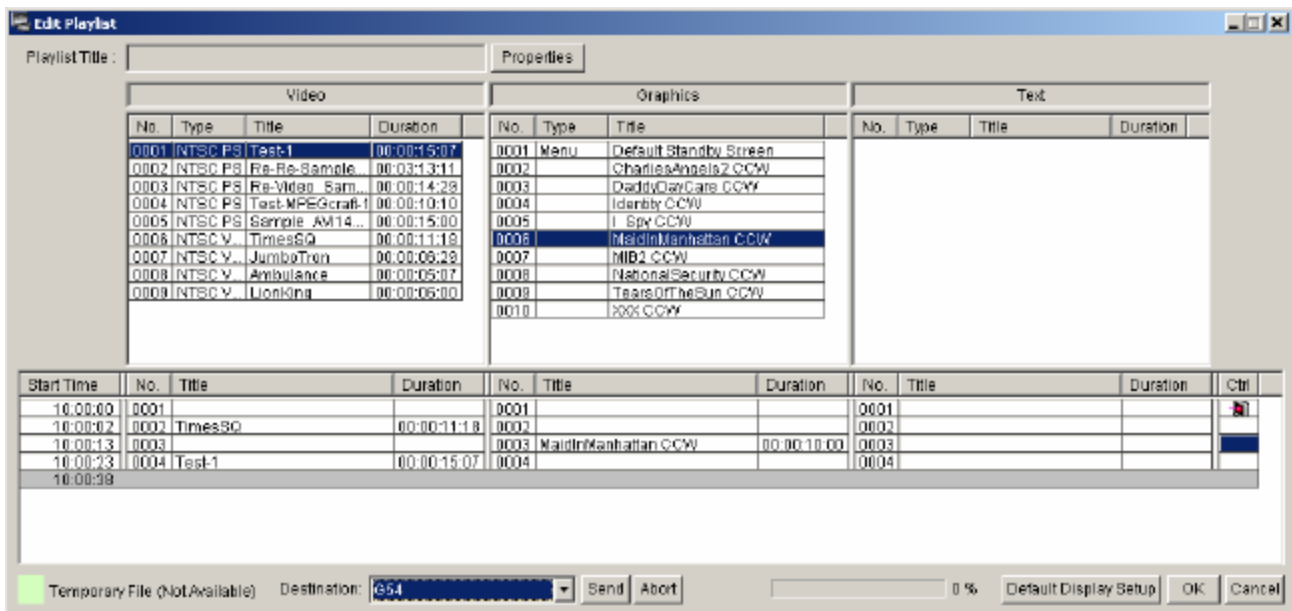12: Drag the text and change the position
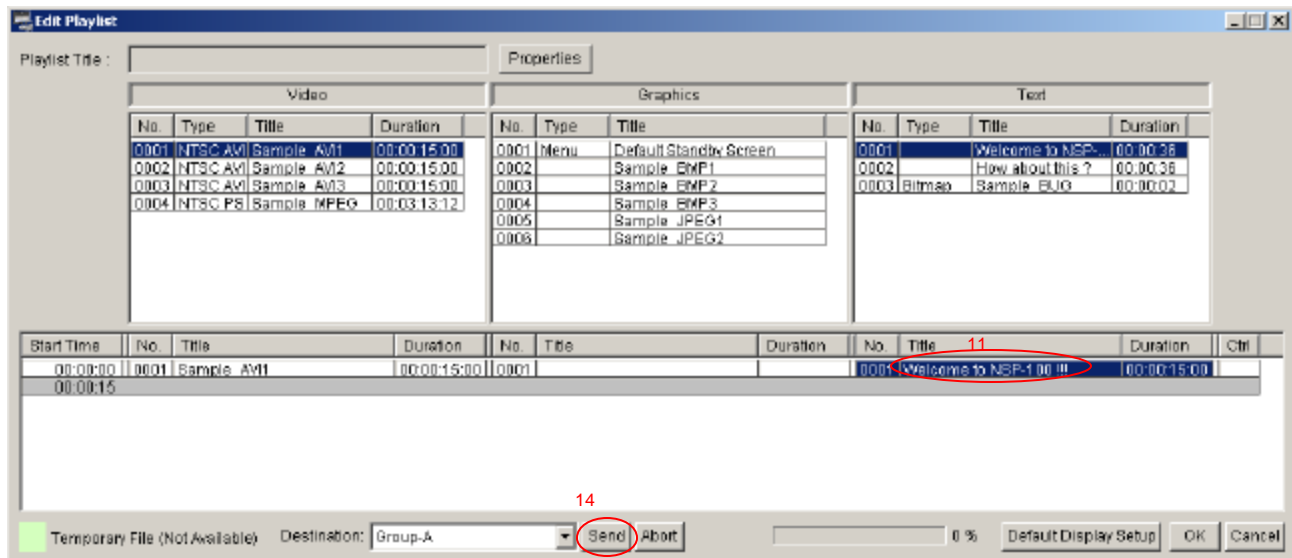
11.3 External Device Control

You can put "External Device Control" into a playlist.

1. Click *Edit Playlist* at the top menu, and then *Edit Playlist* window is opened
2. Right click at the *Ctrl* column
3. Select *Insert Control* to add a new control
4. Select *Control* to change a control

## 11.4 Text and resized video over a graphic

NSP-100 can handle three types of content, video graphic and Text. Graphic is a full size (720 x 480) back ground. Video can be resized and placed on the graphic. Text can be placed on the graphic too. Here is a sample of composition of three types of content (see right).

1. Click *Edit Playlist* at the top menu, and then *Edit Playlist* window is opened
2. Select a destination group from pull down menu
3. Drag *Sample-AVI1* from video bin and drop to the bottom window

Text message   Video   Graphic

6 Right Click and select Display Setup
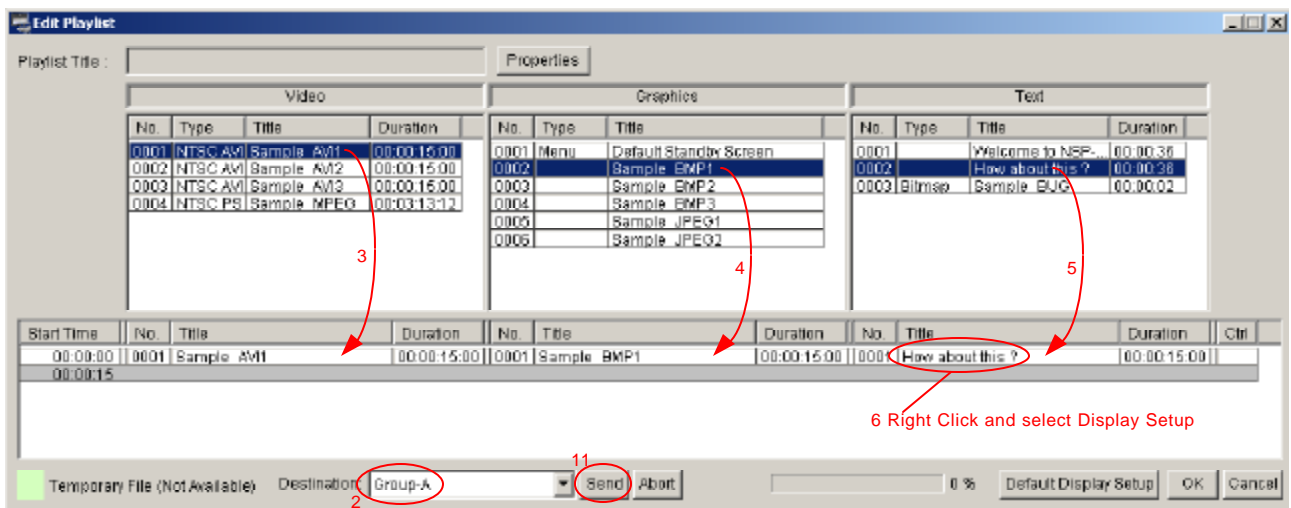
4. Drag *Sample-BMP1* from graphic bin and drop to the bottom window in the same line
5. Drag *How about this* from Text bin and drop to the bottom window in the same line
6. Select a text "How about this?" in the time line window with right click, and then select Display Setup
7. Select Center at the Position
8. Select 1/2 x 1/2 at the Video Size
9. Select Lower at the Text Position
10. Click OK
11. Click *Send* in the *Edit Playlist* window
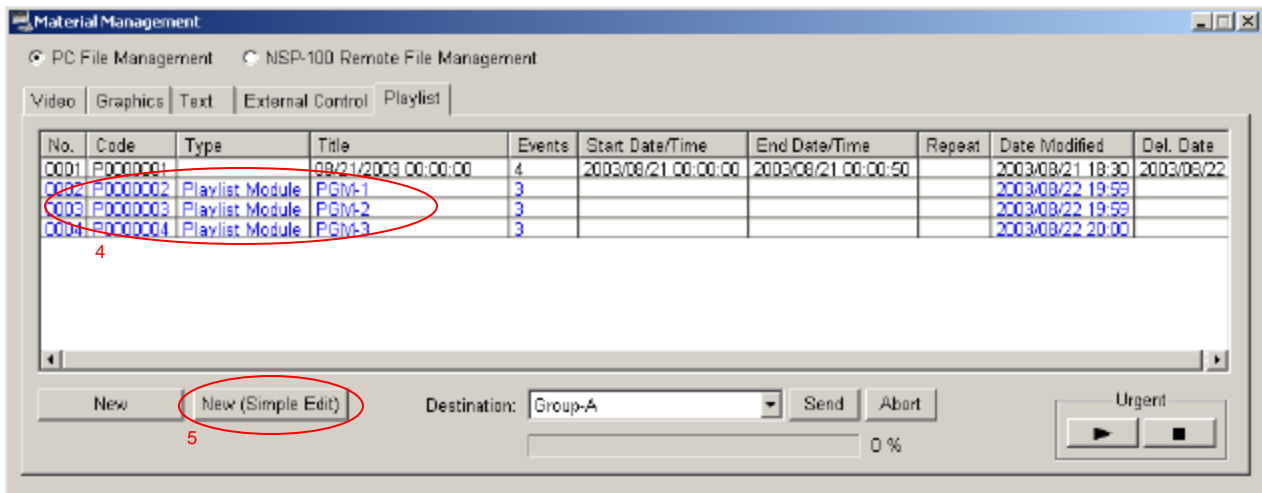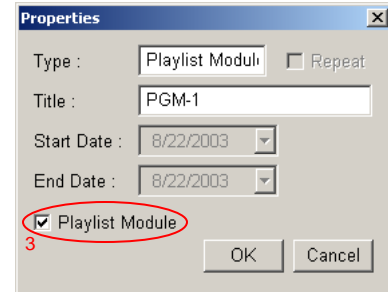12. Play back the playlist on the NSP-100 with a remote controller
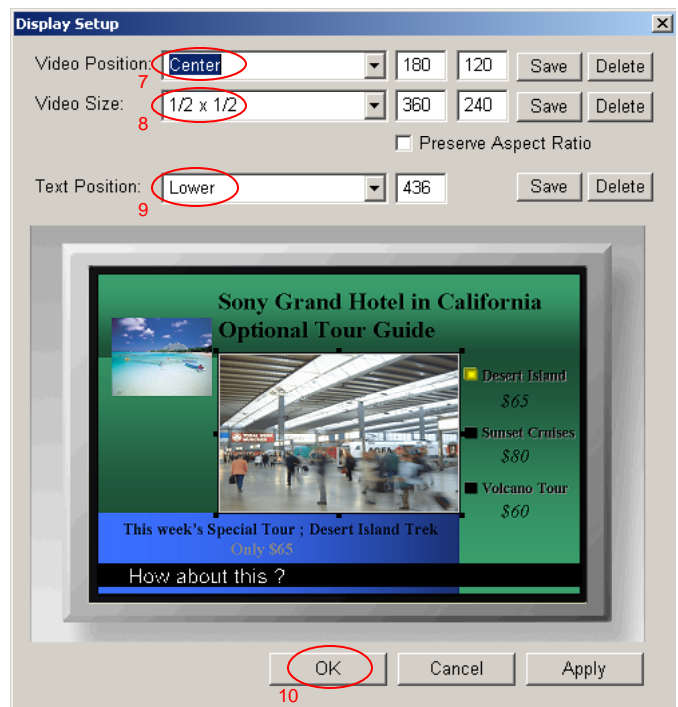
11.5 Playlist Module and Simple Edit

When you need to create a long program with complicated display setup, "Playlist Module" and "Simple Edit" function helps you.

- Create several short programs as a Playlist Module.
- Then use these short programs in a simple edit

1. Create a playlist as described in chapter 9.3
2. Click Properties in the Edit Playlist window
3. Select Playlist Module (see right) and click OK
4. Playlist Module is displayed in blue in the Material management window (see below)
5. Click New (Simple Edit) in the Material Management window

6. Select the Playlist module in the left window and drag & drop to the right window
7. Click *Send* in the *Edit Playlist* window
8. Play back the playlist on the NSP-100 with a remote controller
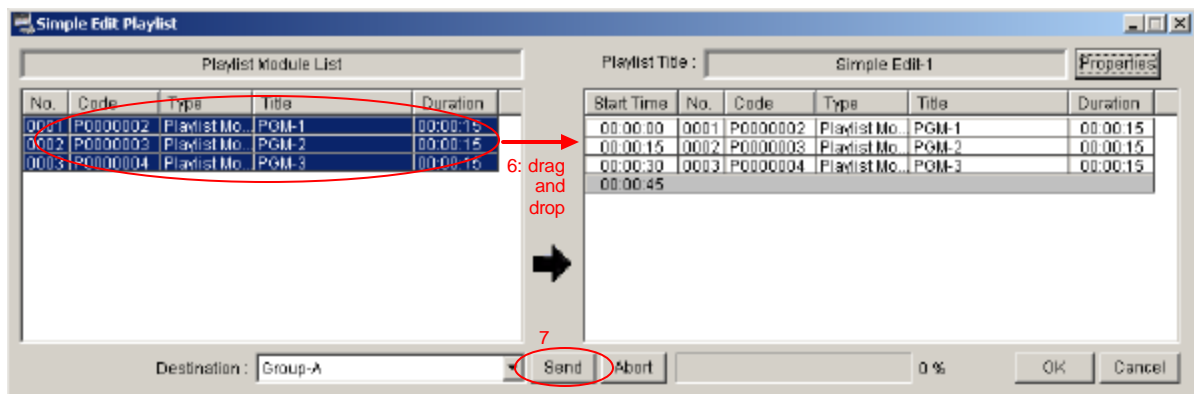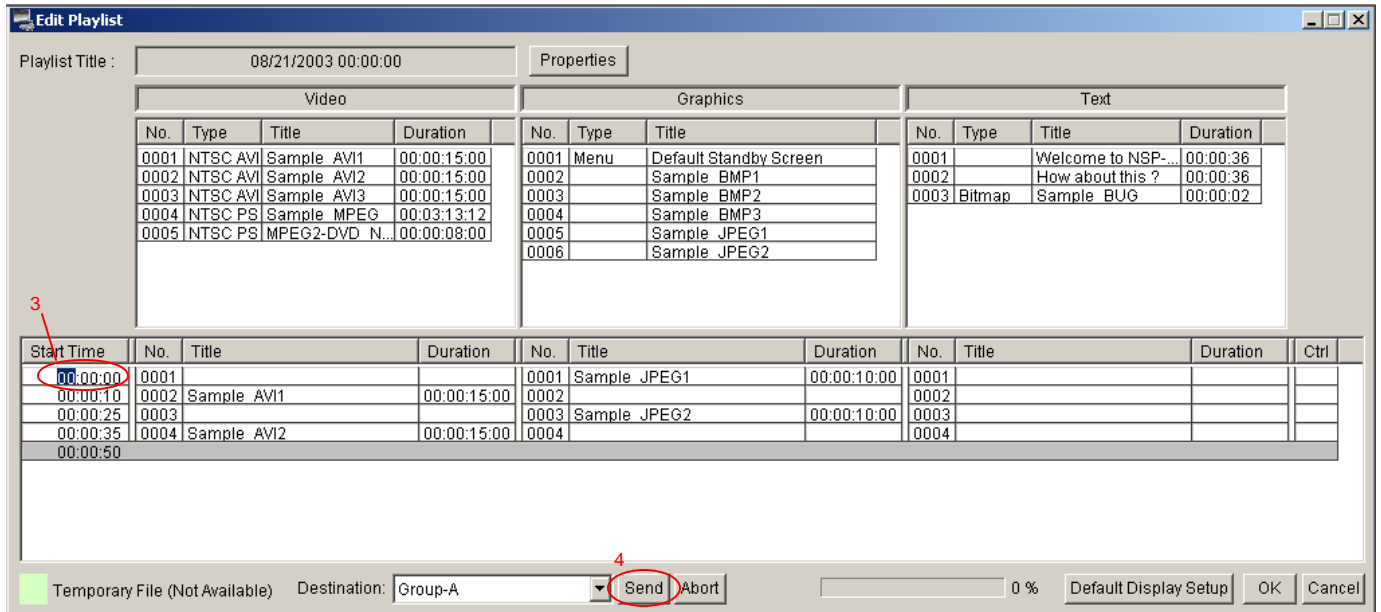
12.   Scheduling

You can set "Date and Time" to each playlist to start playback automatically. You can schedule multiple playlist in the same day. BZNP-100LE does NOT support this function.

0. Confirm it is *Schedule mode.* Please refer to chapter 4 and chapter 5.2.
1. Click the Material Management window at the top menu and select Playlist tab
2. Select a playlist and right-click, and then select edit
3. Double click the first column of Start time, and then you can define the time to playback
4. Click Send

Combining the capability of "Loop play back" and scheduling multiple playlist, you can easily program for the morning, for the afternoon and for the evening.

Here is an example of playlist. Duration of each playlist is 10 minutes.

Playlist	Start time	Duration	Loop play
PGM_Morning	9:00:00	00:10:00	Yes
PGM_Afternoon	11:30:00	00:10:00	Yes
PGM_Evening	17:00:00	00:10:00	Yes
PGM_Closing	20:50:00	00:10:00	No

PGM_Morning starts play back at 9AM and loop play back till 11:30AM.
Then PGM_Afternoon starts play back at 11:30AM and loop play back till 5PM.
Then PGM_Evening starts play back at 5PM and loop play back till 8:50PM.
Then PGM_Closing starts playback at 8:50PM and ends at 9PM.
(You can program turn on the plasma at 9AM and turn off at 9PM.)