

Update History

REV.	DESCRIPTION	DATE
1.0	Initial Release	03/13/13
2.0	p.8 Added "2-2. Lamp power adjustment" Added "2-3. NC3200 with Doremi IMB and HFR problem" p.16 Corrected IC1/15 to IC12/15 in "4-5. Ballast Communication Issue"	03/14/13
3.0	p.13 Corrected typo. From "MRN_NXP_0316" and "MRN_NXP_1120" To "MR_NXP_0316" and "MR_NXP_1120"	03/15/13

RP4.201 of NEC Series2 Cinema Projector adds new capabilities and corrects the issues below.

1. For NC1200C/NC2000C/NC3200S/NC3240S/NC900C series

1-1. Public Key Thumbprint(DnQualifier) of certificate data

Support to show Public Key Thumbprint(DnQualifier) of ICP/Enigma certificate data in log file as below.

**** ICP Version ****	
Serial Number	01 02 03 04 05 06 07 08
ICP 1.5(16M)	Release Prod4.2(Gamma)
Satellite Red	2xLVDS
Satellite Green	2xLVDS
Satellite Blue	2xLVDS
DMD	0.69" DC2K (2xLVDS)
LUT-SCC	ones2K_LE.LUT-SCC
Signature Test	Enable
OS	0.00 (0)
Kernel	2.06 (10)
RAMDISK	0.00 (0)
ICP Boot Software	0.00 (0)
ICP Boot Firmware	0.00 (0)
ICP Main Software	4.01 (432)
ICP Main Firmware	4.02 (93)
ICP Configuration Firmware	0.00 (4)
Secure Processor Software	1.06 (0)
FMT Boot Software	0.00 (0)
FMT Boot Firmware	0.00 (0)
FMT Main Software	4.05 (176)
FMT Main Firmware	4.05 (129)
FMT Satellite Firmware	0.00 (42)
FMT Configuration Firmware	1.00 (25)
FMT Sequence File	1.00 (1309)
FMT DMD File	0.00 (16)
ICP Login List	NEC Ver2.01
dnQualifier	abcdefghijklmnopqrstuvwxyz1234567980ABCD

E.G. Thumbprint of ICP certificate data.

Also support SNMP OID to get the thumbprint.

vICPdNQualifier(OID : 1.3.6.1.4.1.119.2.3.123.1.12.15)

vEnigmadNQualifier(OID : 1.3.6.1.4.1.119.2.3.123.1.12.16)

For more detail, refer to the "snmp interface for NC series2 Rev1.06.pdf".

1-2. DCC Full- Auto Update

Before)

- The download of CPU DATA and Built-in DCC is dependently on Full-Auto update. In other words, need to download CPU DATA when only Built-in DCC download is required.
- Enigma Security Log will be cleared by Full-Auto update.

After)

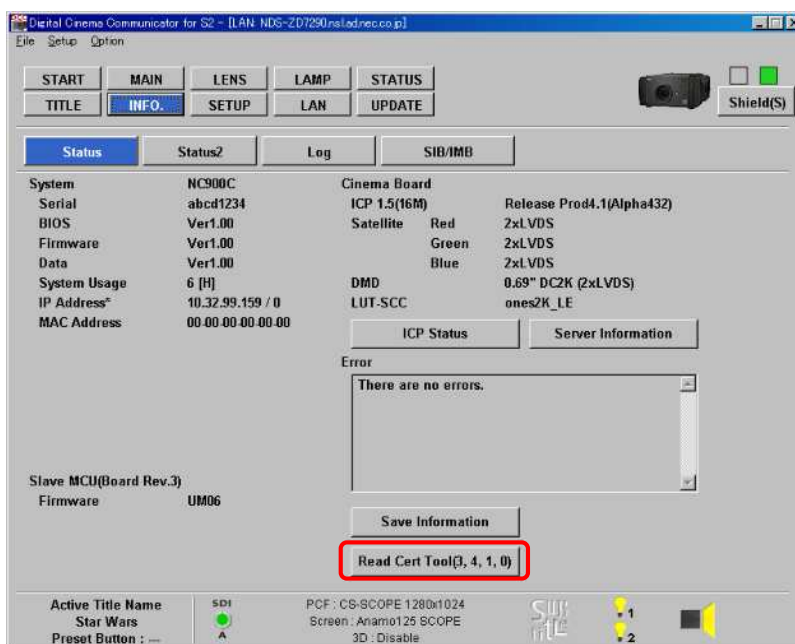
- Support to download CPU DATA and Built-in DCC independently on Full-Auto update.
- Enigma Security Log will not be cleared by Full-Auto update.

1-3. DCC Layout

- [Read Cert Tool] button

Before) DCC-UPDATE-Others

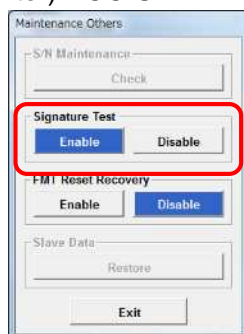
After) DCC-INFO-Status



When click on [Read Cert Tool] button, next folder tree dialog shows up.
So please select the destination folder to upload the CSV file.



- Signature Test – [Enable]/[Disable] buttons
Before) DCC-UPDATE
After) DCC-UPDATE-Others



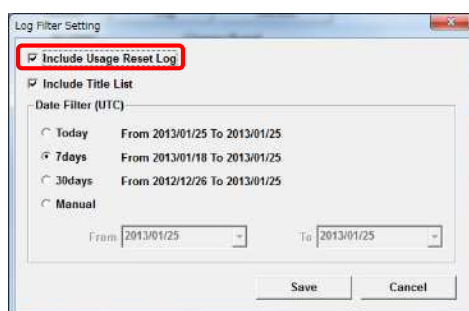
1-4. Timestamp of Maintenance Log

Fix the issue where the timestamps in maintenance log are not updated as below.

```
2013/02/01 09:03:52 ===== Update Start(2013/02/01 16:00:26) =====
2013/02/01 09:03:52 Full-Auto Update
2013/02/01 09:03:52 "Release4.100_Service.ncrelease"
:
:
2013/02/01 09:03:52 *** ICP Configuration File ***
2013/02/01 09:03:52 Signature OK      81
2013/02/01 09:03:52 ===== Update End(2013/02/01 16:02:43) =====
```

1-5. DCC-Save information-Include Usage Reset Log

Change the default setting to “check on” as below.



1-6. Key Lock

When Key Lock is cleared, LCD shows current menu again.

Before)



Home menu

After)

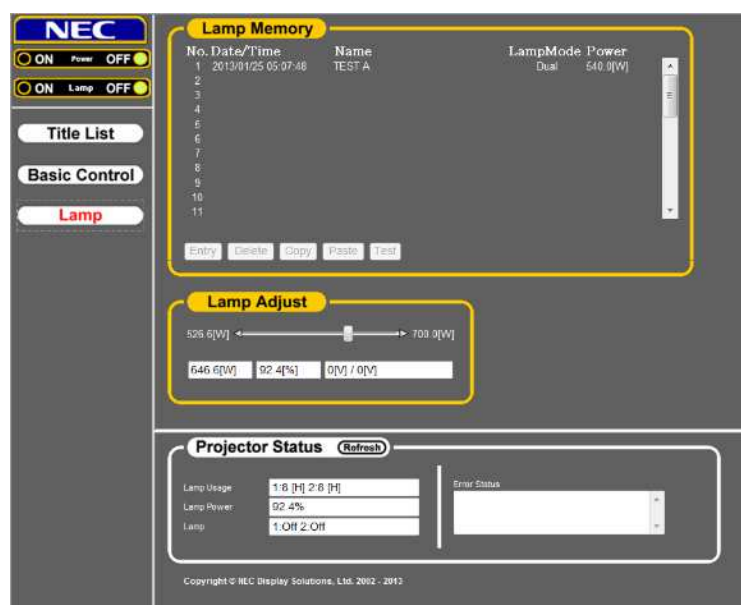


Keep menu

1-7. HTTP Server (Lamp memory/Lamp control/Bulb alignment)

HTTP Server supports Lamp Memory, Lamp Adjustment, and Bulb Alignment(*).

(*)Bulb Alignment is available for NC1200C/NC2000C/NC3200S/NC3240S.



NC900C HTTP Server menu

1-8. SNMP

Add new OIDs and update mib file(Ver1.06).

For more detail refer to the “snmp interface for NC series2 Rev1.06.pdf”.

1-10. (586) “IMB:Service Door Tamper” Not Cleared Issue

Fix the issue where 586 error can not be cleared by projector automatically when service door open and close within a second.

1-11. Detection of different ICP/Enigma installation

Every power-on, projector reads ICP/Enigma ESN to compare with last one.

If they are different, the next example message shows in operation log.

“New ICP Detected : ESN 00 11 22 33 44 55 66 77 << 12 34 56 78 9A BC DE F0 “
 ESN for new board ESN for old board

In the first use, the next message shows.

“New ICP Detected : ESN 00 11 22 33 44 55 66 77 “

1-13. NP-90MS Product Name

Fixed the bug the incorrect NP-90MS product name shown in LCD(*1)/Log(*2).

Before) NC-90MS

After) NP-90MS

1-14. Enigma S/W

Enigma S/W update from P1.6(22) to P1.7(23)

For more detail, refer to the “ICP ReleaseNote” of “NC_S2_Release_List_20133015.xls”.

1-15. ICP S/W

ICP S/W Prod4.2(Gamma) is applied to NC3240/NC3200 series.

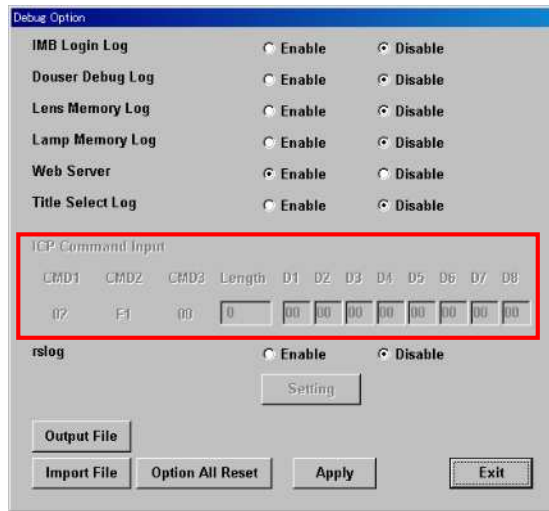
(NC900, NC2000, and NC1200 are already applied.)

1-16. NP-90MS power-off wait

Changed the power-off wait for NP-90MS from 60sec to 90sec.

1-17. Debug Option- ICP Command Input

Disabled this debug option due to ICP S/W limitation.



1-18. Service Door Tamper manual clear

If only projector does not know Enigma/IMB/IMS service door event by some trouble, Advanced user or higher can clear the event from LCD menu as below.
Use for emergency or trouble only.

1. Hold down [RIGHT]+[LEFT] buttons for 3 sec to show the below menu.

```
** SD Tamper **  
  Clear  
< Execute >  
*****
```

2. Press [ENTER] to clear the service door event on the projector
If it is successful, the next message shows up on the LCD.

```
** SD Tamper **  
  Clear  
  
IMB : Done
```

1-19. Screen File Name

During test pattern is activated from DCC-MAIN-Test menu, the current screen setting can be changed temporarily from DCC- MAIN – Test – Advanced – SCREEN File Setting menu. However, the new file name does not show on the bottom of DCC, so fixed this bug.

2. For NC1200C/NC2000C/NC3200S/NC3240S series

2-1. Add Certified Lamps

Add the next lamps as certified.

NC1200C

XDC-2000NH(Philips)

NC2000C

XDC-3000NH(Philips)

XDC-2000NH(Philips)

NC3200S/NC3240S

XDC-4200NH(Philips)

2-2. Lamp power adjustment

In NC1200/NC2000, fixed the issue where lamp power can be reduced to 50% while feedback is enabled. It is fixed to 70%.

2-3. NC3200 with Doremi IMB and HFR problem

There is no picture when striking the lamp while plying HFR content with Doremi IMB.

It is caused by the DMD mirrors remained in the flat/parked state because of the side effect of the satellite serial link error recovery.

It occurs on NC3200 with the 2D content(, 2Kx1K, Vf=96Hz, and Clk=270Mhz) only.

TI has fixed the issue with ICP Prod4.2 version.(Not yet with Prod4.2(Gamma))

NECDS will release it in the next release.

For short term solution, NC3200 CPU FW adds mirror park/un-park toggle during satellite serial link error recovery.

3. For NC3240S series

3-1. 302/372 errors occur on power-on

The next two errors possibly occur at power-on.

(372) ICP Data Path Signature Test Result Fail(Red/Green/Blue)

(302) Self Test Error

It is caused by ICP Prod4.1.1 bug on DC4K.

NEC CPU FW adds a short term solution to remove the issue.

4. For NC900C series

4-1. Lens Memory

Support “Lens Memory” feature which is almost the same as NC2000/NC1200 series.

In NC900C, there are two types of lens(with/without sensor) supported.

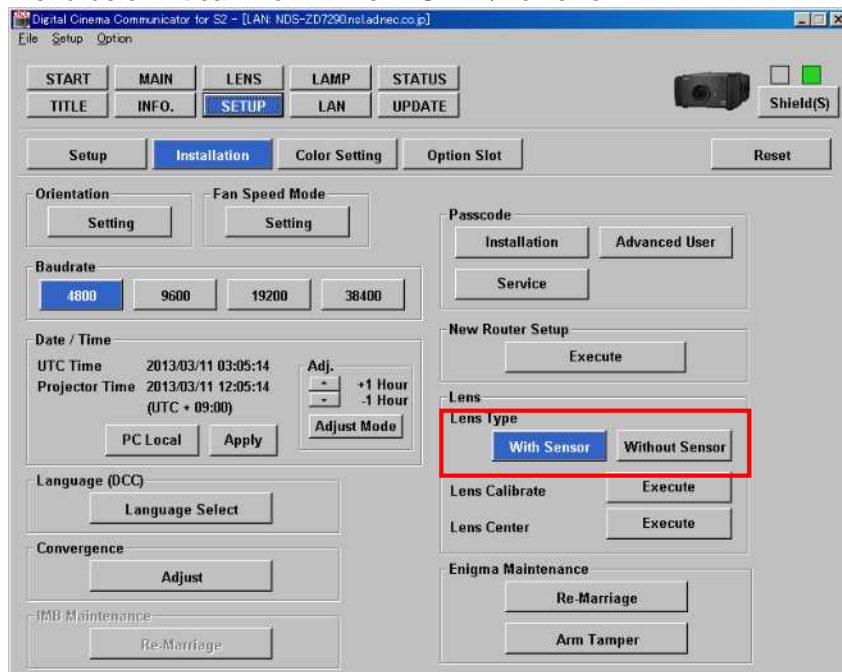
The only lens with sensor is available for lens memory.

The difference between NC900C and NC2000/NC1200 series is “Lens Type” setting.

NC900 HW can not detect lens type, so user needs to setup lens type setting(with/without sensor) every when lens replacement. Here is the procedure to setup lens type. If it is not followed, the lens will not work.

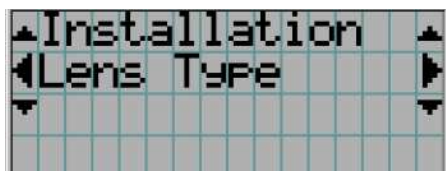
Projector setup after lens replacement

1) When you change lens, you should setup lens type setting through either of DCC or LCD menu below. It can work while in STBY/Power-on.



DCC menu (*1)

(*1) Need to enter installation mode or higher on DCC.



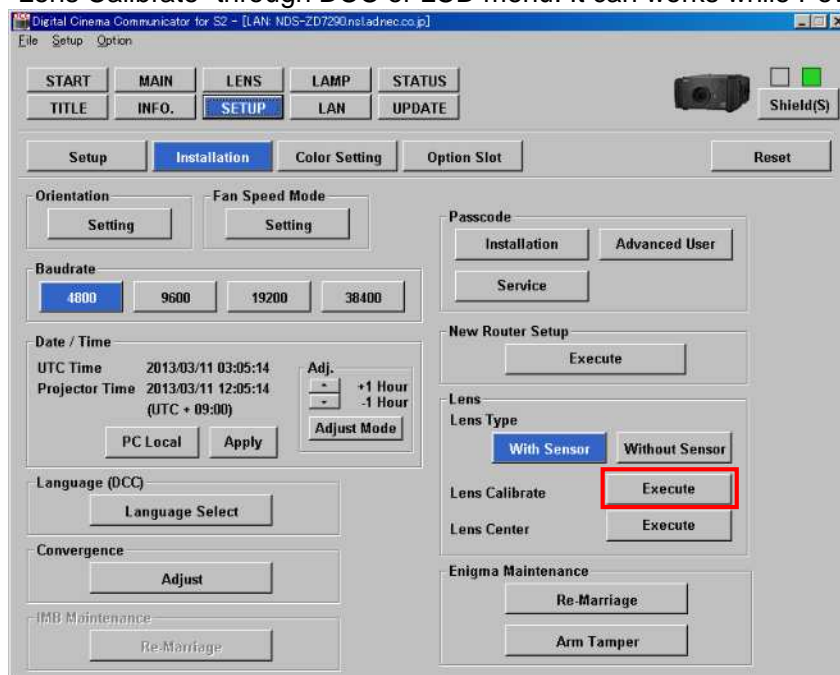
LCD menu(Configuration – Installation – Lens Type) (*2)

(*2) Need to enter Installation mode or higher on LCD password menu.

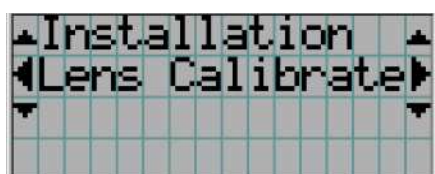
Lens Type setting

With Sensor	Select when attaching lens with sensor.
Without Sensor	Select when attaching lens w/o sensor.(Default)

2) When you attach lens with sensor, make sure that lens type is “With sensor”. Then do “Lens Calibrate” through DCC or LCD menu. It can works while Power-on only.



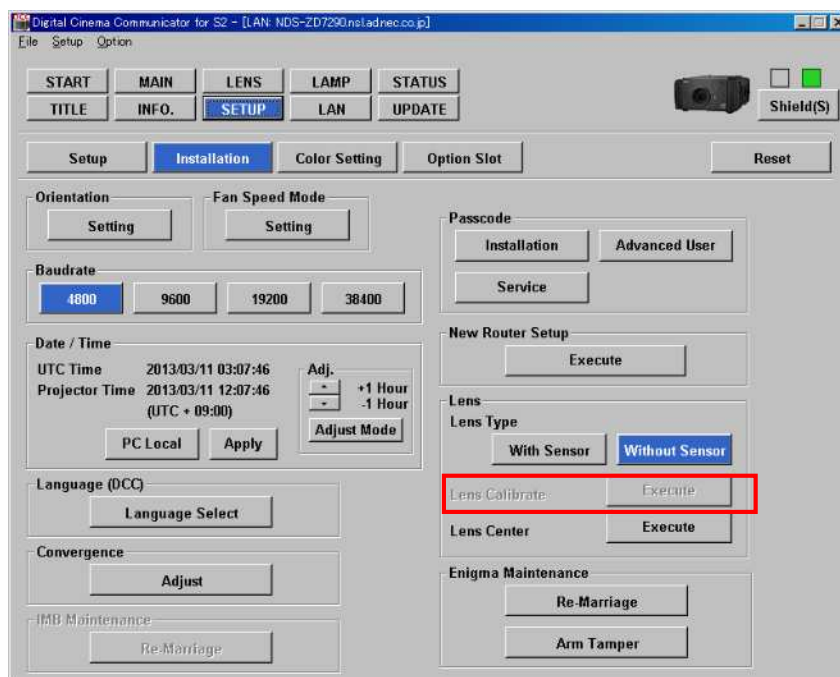
DCC menu



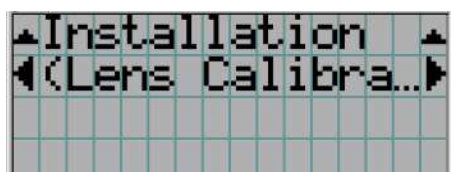
LCD menu(Configuration – Installation – Lens Calibrate)

<Note>

1. If you setup <Without Sensor> as Lens Type, Lens Calibration feature can not work like below.

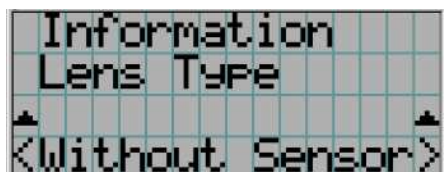


DCC menu

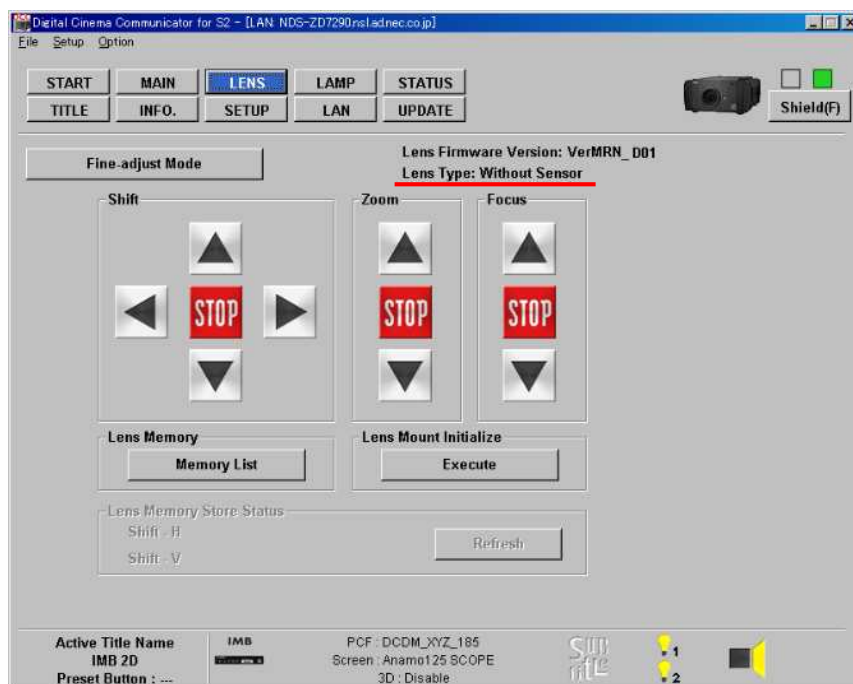


LCD menu(Configuration – Installation – Lens Calibrate)

2. When lens w/o sensor is attached while lens type setting is “with sensor”, that lens will not work at all.
3. Current setting of Lens Type is shown on LCD/DCC/log like below. (They are available for user mode or higher.)



LCD menu(Information – Lens Type)



DCC menu

```

ICP Fan          5013 rpm
SP               PUJ245SH737U0B191YAKEEA8
SNMP
  Read          0.0.0.0/0.0.0.0/
  Write         0.0.0.0/0.0.0.0/
Lens Type   Without Sensor
  
```

**** ICP Status ****

General Status:

```

3D not available on Blue satellite
3D not available on Green satellite
  
```

4. The lens memory corresponding to title is shown in log like below.
 (The same as NC2000C/NC1200C series.)

```

**** Title List ****
001:IMB 2D
  (Current)
  Preset Button      ---
  Modified           2013/02/06 23:51:22
  Lens Memory       1:mem1
  Lamp Memory        1:(No Memory)
  Image Scaler       On
  Input              PortIMB
  Format              444 12bit
  Data Type           Progressive
  CSC-P7 Bypass      Off
  MACRO File          "Title00"
  PCF File             "DCDM_XYZ_185"
  MCGD File           "M10I"
  SCREEN File         "2048x1080 No Crop"
  3D File             "Disable"
  
```

5. The old Lens Firmware, "MR_NXP_0316" and "MR_NXP_1120", does not support lens memory feature. In that case, update to "MRN_D**" version to support lens memory.(**: 01, 02, ...)

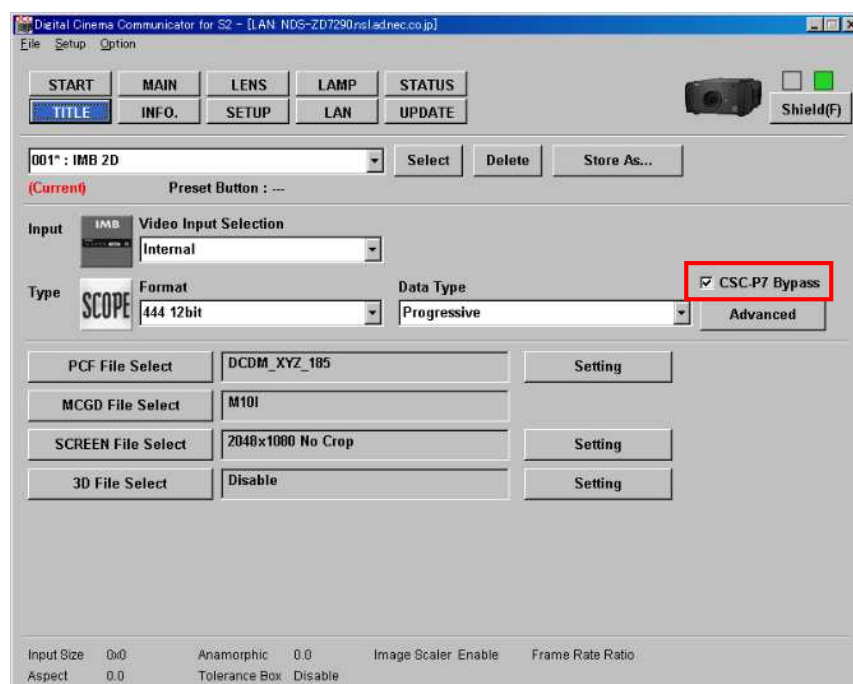
For update, follow the manual, "Lens_FW_Update_Proc_rev1.0.pdf".

4-2. CSC-P7 Bypass (NC900C only)

CSC-P7 correction can be enabled/disabled for each title through DCC-TITLE menu below.

If you want to get native color, check on "CSC-P7 Bypass". (*)

(*) In this case, it does not meet DCI spec.



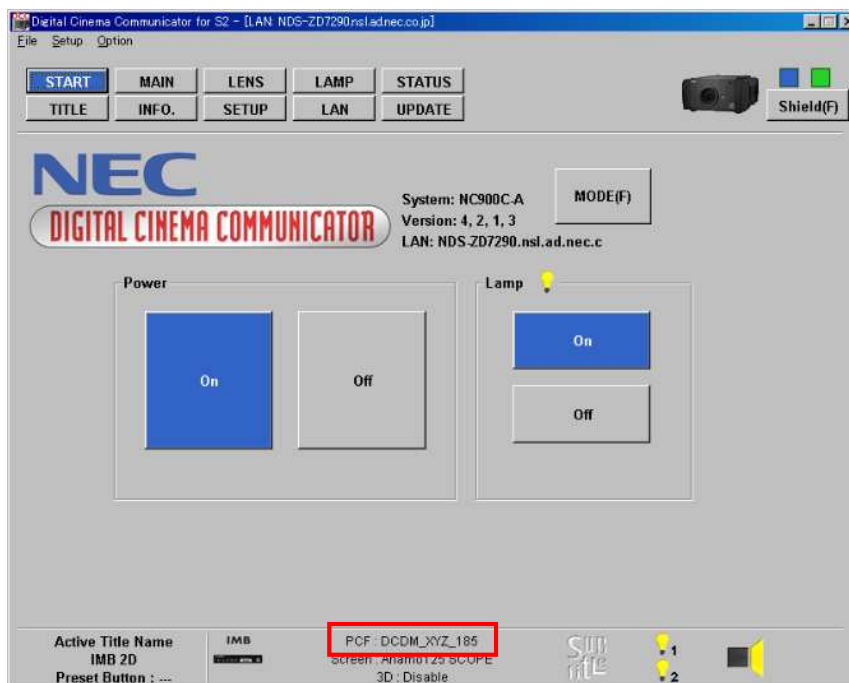
<input type="checkbox"/> CSC-P7 Bypass	(Off)	Enabled CSC-P7 correction.(Default)
<input checked="" type="checkbox"/> CSC-P7 Bypass	(On)	Disabled CSC-P7 correction.

You can check the setting value for titles through log below.

**** Title List ****	
001:IMB 2D	
(Current)	
Preset Button	---
Modified	2013/02/06 23:51:22
Lens Memory	1:mem1
Lamp Memory	1:(No Memory)
Image Scaler	On
Input	PortIMB
Format	444 12bit
Data Type	Progressive
CSC-P7 Bypass	Off
MACRO File	"Title00"
PCF File	"DCDM_XYZ_185"
MCGD File	"M10I"
SCREEN File	"2048x1080 No Crop"
3D File	"Disable"

<Note>

1. LUT-CLUT, LUT-DG can not be disabled in this function.
2. While "CSC-P7 Bypass" is check on, user can configure PCF/MCGD setting. However, color correction is disabled.(CSC-P7 hardware is disabled).
3. While "CSC-P7 Bypass" is check on, PCF file name corresponding to the current title shows up on DCC like below.



4-3. MCGD brightness

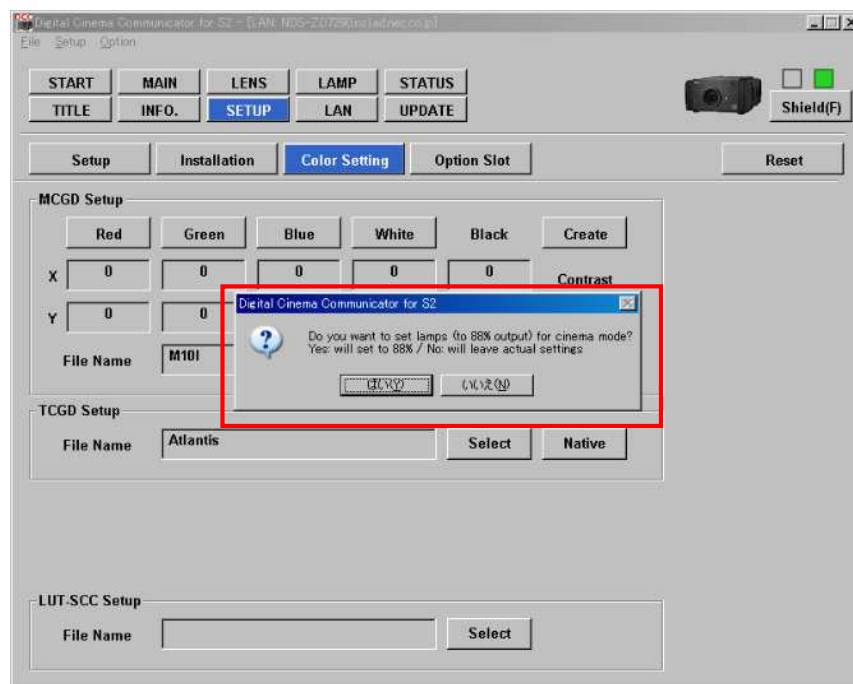
In NC900C, NEC recommends to set 88% brightness for MCGD.

Because the measured value with 88% will cover lamp power ranging from min to max.

When click on [Create] button of MCGD Setup, the below message will show up.

If you click on [Yes], then projector will set 88% brightness automatically. And message is stored in operation log like below.

The 88% brightness will keep until user changes lamp power or calls lamp memory.



If brightness sets to 88% by this feature, the next message is stored in operation log.

```
***** Operation Log ****
2013/02/07 00:16:00 MCGD Brightness Set
```

4-4. Lens FW update

Fixed the problem where the update is sometimes failed.

The serial baud rate for update is changed from 57600bps to 19200bps.

And lens firmware recovery procedure is added in the trouble case.

For more detail, refer to "Lens_FW_Update_Proc_rev1.0.pdf".

4-5. Ballast Communication Issue

The slave board has I2C-UART convert ICs(IC12/IC15) between slave MCU and Ballst1/2.

Fixed the bug where slave MCU not declare "(785) SoftwareI2cFail" when the IC12/15 not work correctly.

4-6. "(180) CPU Fail" occurs on lamp on

Fixed the bug where "(180) CPU Fail(Mem) 00000000H: 00000000H<->00000000H" possibly occurs on lamp on. The issue possibly occurs in very lower rate when multiple lamp-on requests through DCC/Control Button/PC command/GPI are coming to projector at the same time. The 180 error is warning level, so projector will not go shutdown.

4-7. Fixed the bug where "(788) Lamp2 Door Open" is not detected while "(762) OverTemp.Lamp" is declared.