

# Camera Training Center Breda The Netherlands



grass valley

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A **BELDEN** BRAND

## Jan Paul Campman

- **Your Host for this session**
- *Training Manager*
- *Trainer*
- *Acceptance Engineer*
- *Demo specialist*
- *Web master*

- your guide for this INTERACTIVE session.
- **Welcome to the LDX Series WEB-Training**



# Downloading Packages and LDX inside

This part gives you some more details about the Download procedures  
And the Service tool LDX Inside

## In this session:

- ◆ LDX Package update
- ◆ LDX inside



# LDX Package Download

## Important:

- ◆ Please be aware that Software and Firmware are the heart of all devices.
- ◆ Errors that occur due to wrong upload-procedures or wrong software can sensitively damage your equipment; so if you do not feel comfortable or in case you prefer to have the update done by our field service on site, Please get in touch with our local Grass Valley Service engineer who will be ready to assist you.

<http://www.grassvalley.com/support/contact/broadcast>

# LDX Package Download

## The Scriptor

- ◆ The **Scripter** tool is used for downloading packages to the LDK/LDX products.
- ◆ On the camera head (LDK series) you find a RS232 connector. (not available on LDX)
- ◆ On Basestation and Controls MCP / OCP a network connection is used.
- ◆ As the systems are running with various combinations of FW and SW version we create “**Packages**” for all our products.
- ◆ A “**Package**” is a validated and tested official release and should always be installed completely.



Index of ftp://ftp.grassvalley.com/cameras/Utilities/LdkScripter/Version 09/

[Up to higher level directory](#)

Name	Size	Last Modified
<a href="#">Setup.exe</a>	17960 KB	28/02/14 00:00:00



**First step is to INSTALL the GV Scriptor program on your Windows based computer**

# LDX Package Download

## The Scripter

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Index of ftp://ftp.grassvalley.com/cameras/PACKAGE\_RELEASES/1\_camera/

Up to higher level directory

Name	Size	Last Modified
FOCUS Live		06/01/16 05:33:00
LDK3000		12/11/14 00:00:00
LDK4000_8000		02/04/13 00:00:00
LDK8300		12/11/14 00:00:00
LDX 80 Series		06/01/16 05:33:00
LDX 86 Series		06/01/16 05:33:00
LDX Compact		06/01/16 05:33:00
LDX Compact Xtreme Speed		28/10/15 07:06:00

Index of ftp://ftp.grassvalley.com/cameras/PACKAGE\_RELEASES/1\_camera/LDX 80 Series/

Up to higher level directory

Name	Size	Last Modified
package_LDX9020_392240761901_22.exe	6279 KB	28/01/15 00:00:00
package_LDX9020_392240761901_24.exe	6385 KB	17/08/15 22:30:00
package_LDX9020_392240761901_25.exe	6300 KB	23/08/15 23:32:00

From ftp

Next step is to find the PACKAGE and bring this to your computer

package_LDX9020_392240761901_21	4-12-14 09:35	File folder	
package_LDX9020_392240761901_22	26-2-15 03:59	File folder	
package_LDX9020_392240761901_25	19-8-15 15:47	File folder	
SI2020_Package Release LDX Series Came...	14-6-13 10:47	PDF File	342 KB

# LDX Package Download

## The Scripter

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Name	Date modified	Type	Size
392240760341_110_000_V00_31	25-9-14 10:57	BIN File	421 KB
392240760771_110_000_V01_13	6-6-13 15:34	BIN File	727 KB
392240761891_110_000_V23_00.hex	19-8-15 15:32	HEX File	6,122 KB
392240761911_110_000_V07_09.rbf	7-7-14 13:09	RBF File	2,972 KB
392240761921_110_000_V00_48.hex	24-7-15 11:15	HEX File	745 KB
392240761931_110_000_V07_11.rbf	24-11-14 15:50	RBF File	3,138 KB
392240761941_110_000_V00_42.hex	30-3-15 12:02	HEX File	575 KB
392240761951_110_000_V20_00.rbf	23-7-15 11:35	RBF File	180 KB
bt6190bk.125	19-8-15 15:37	125 File	1 KB
Comp_Lib_Actel	5-10-12 11:07	TSC File	7 KB
Comp_Lib_ArmApplSw	17-8-12 11:30	TSC File	5 KB
Comp_Lib_ICFw	17-8-12 11:30	TSC File	4 KB
Comp_Lib_ICSw	17-8-12 11:30	TSC File	23 KB
Comp_Lib_RCB	22-8-12 15:33	TSC File	4 KB
Comp_Lib_Sensor_Blue	17-8-12 11:30	TSC File	3 KB
Comp_Lib_Sensor_Green	17-8-12 11:30	TSC File	3 KB
Comp_Lib_Sensor_Red	17-8-12 11:30	TSC File	3 KB
Comp_Lib_VPFw	17-8-12 11:30	TSC File	4 KB
Comp_Lib_VpSw	17-8-12 11:30	TSC File	23 KB
Load_Package_392240761901	28-8-12 13:12	TSC File	1 KB
Package_Content_392240761901	19-8-15 15:37	TSC File	2 KB
Package_Content_Generic_Lib	28-8-12 13:13	TSC File	13 KB
Package_Form_Generic.dfm	4-12-14 14:19	DFM File	7 KB
Package_Form_Generic	25-11-10 08:45	TSC File	31 KB
Package_Form_Interface	28-8-12 15:33	TSC File	10 KB
Package_Main_392240761901	20-3-15 09:13	TSC File	16 KB
PCB_392240655961_RPB_Lib	22-8-12 15:34	TSC File	5 KB
PCB_392240655971_RCB_Lib	17-8-12 11:32	TSC File	
PCB_392240656011_Sensor_Lib	22-8-12 15:33	TSC File	
PCB_Download_Cfg_Lib	0-0-13 11:54	TSC File	

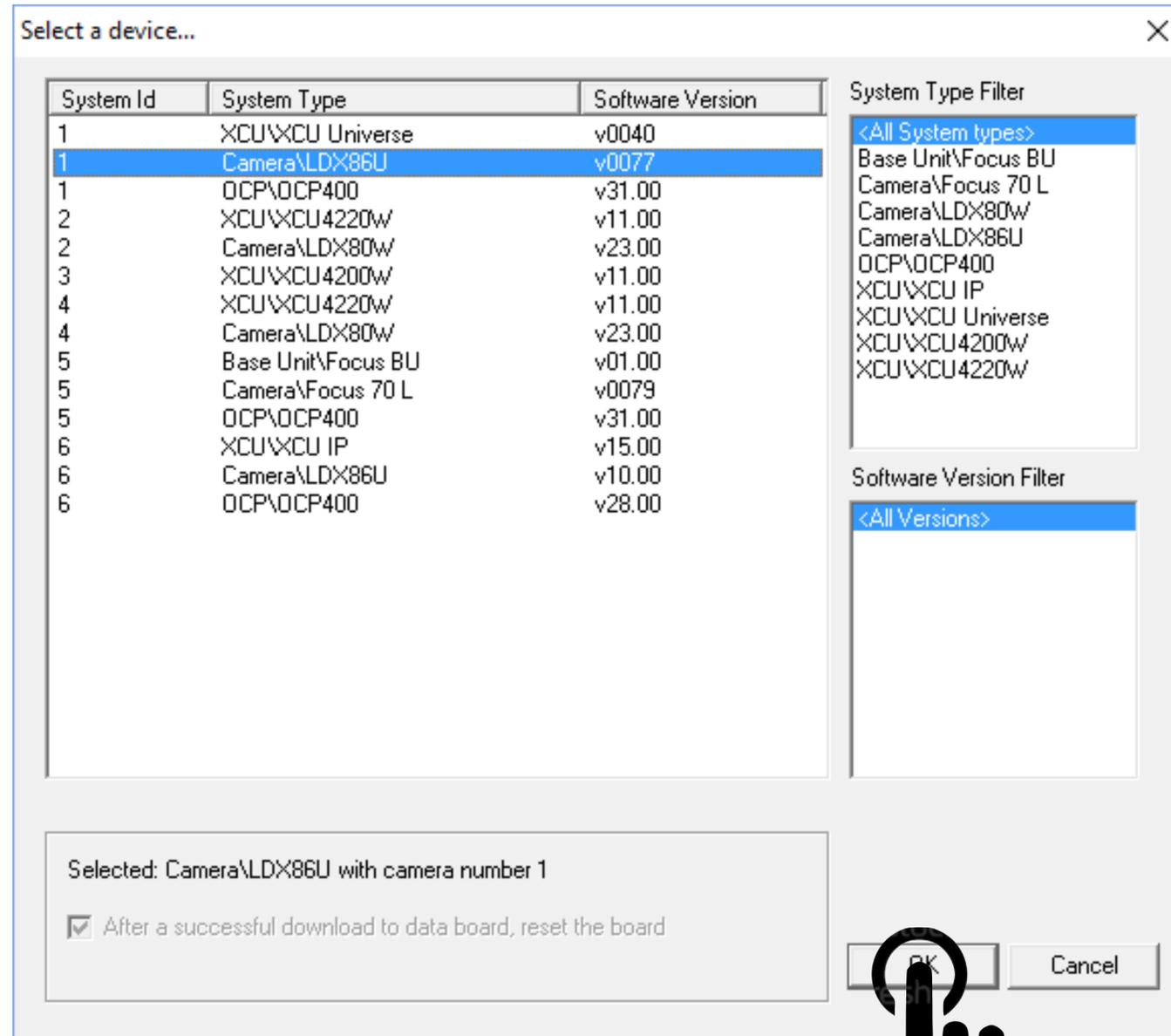
package_LDX9020_392240761901_20	8-10-14 22:58	File folder	
package_LDX9020_392240761901_21	4-12-14 09:35	File folder	
package_LDX9020_392240761901_22	26-2-15 03:59	File folder	
package_LDX9020_392240761901_25	19-8-15 15:47	File folder	
SI2020_Package Release LDX Series Came...	14-6-13 10:47	PDF File	342 KB

**LDKScripter**  
0.9.0.0

# LDX Package Download

## The Scripter

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# LDX Package Download

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- ◆ A **“Package”** is a validated and tested official release and should always be installed completely.

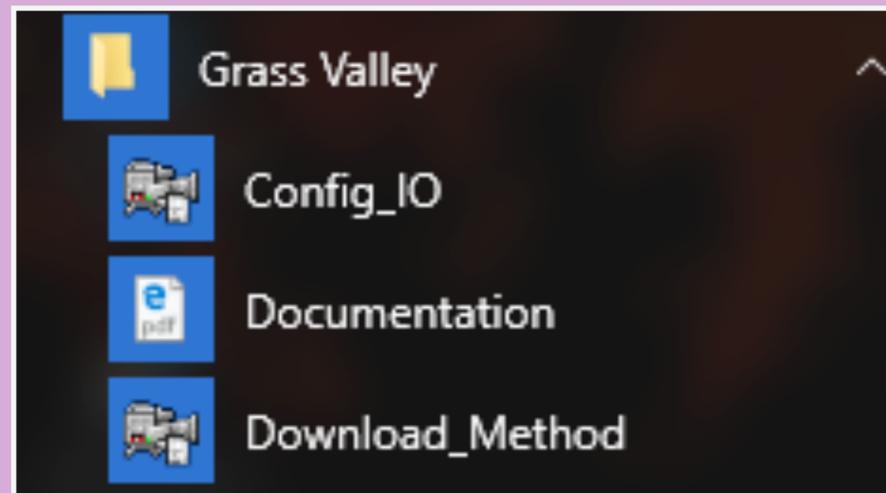
The screenshot displays the 'LDK Package Loader' application window. At the top, it shows 'Camera LDX80 W' and 'Package 12NC : 3922 407 6190.1 Date : 19-08-2015 Status : 25.00'. Below this is a table with three columns: 'Update Component', 'Current SW / FW version', and 'Required package SW / FW Version'. A 'Progress status' dialog box is open in the foreground, showing a progress bar at 55% done and an 'Abort' button. The dialog also displays 'Time elapsed : 00:00:00', 'Time left : 00:00:00', and 'Errors : 0'. At the bottom of the main window, there is a log window showing the following text: '12:09:53: Nothing to Program', '12:09:53: Updating Package Info', '12:09:58: PACKAGE\_CODENUMBER=3922 407 61901', '12:09:58: PACKAGE\_VERSION=25.00', and '12:09:58: Update completed'. The time 'Time: 12:06:24' is displayed in the bottom right corner.

Update Component	Current SW / FW version	Required package SW / FW Version
<input type="checkbox"/> Application Software	12NC : 3922 407 6189.1 Date : 19-08-2015 Status : 23.00	12NC : 3922 407 6189.1 Date : 19-08-2015 Status : 23.00
<input type="checkbox"/> Diagnostic Software	12NC : 3922 407 6034.1 Date : 25-09-2014 Status : 00.31	12NC : 3922 407 6034.1 Date : 25-09-2014 Status : 00.31
<input type="checkbox"/> ImagerControl Firmware	12NC : 3922 407 6191.1 Date : 07-07-2014 Status : 07.09	12NC : 3922 407 6191.1 Date : 07-07-2014 Status : 07.09
<input type="checkbox"/> ImagerControl Software	12NC : 3922 407 6192.1 Date : 24-07-2015 Status : 00.48	12NC : 3922 407 6192.1 Date : 24-07-2015 Status : 00.48
<input type="checkbox"/> VideoProc Firmware	12NC : 3922 407 6193.1 Date : 24-11-2014 Status : 07.11	12NC : 3922 407 6193.1 Date : 24-11-2014 Status : 07.11
<input type="checkbox"/> VideoProc Software	12NC : 3922 407 6194.1 Date : 30-03-2015 Status : 00.42	12NC : 3922 407 6194.1 Date : 30-03-2015 Status : 00.42
<input type="checkbox"/> RCB Firmware	12NC : 3922 407 6077.1 Date : 06-06-2013 Status : 01.13	12NC : 3922 407 6077.1 Date : 06-06-2013 Status : 01.13
<input type="checkbox"/> Sensor_R Firmware	12NC : 3922 407 6195.1 Date : 23-07-2015 Status : 20.00	12NC : 3922 407 6195.1 Date : 23-07-2015 Status : 20.00
<input type="checkbox"/> Sensor_G Firmware	12NC : 3922 407 6195.1 Date : 23-07-2015 Status : 20.00	12NC : 3922 407 6195.1 Date : 23-07-2015 Status : 20.00
<input type="checkbox"/> Sensor_B Firmware	12NC : 3922 407 6195.1 Date : 23-07-2015 Status : 20.00	12NC : 3922 407 6195.1 Date : 23-07-2015 Status : 20.00

# LDX Package Download

## The Scripter

- ◆ For more details
- ◆ Use the pdf (documentation) in the Grass Valley Directory



### Important:

Please be aware that Software and Firmware are the heart of all devices. Errors that occur due to wrong upload-procedures or wrong software can sensitively damage your equipment; so if you do not feel comfortable or in case you prefer to have the update done by our field service on site, please get in touch with our local Grass Valley Service engineer who will be ready to assist you.

<http://www.grassvalley.com/support/contact/broadcast>

### Overview:

- 1: What is the LDK Scripter ?
- 2: What hardware tools do I need ?
- 3: How to Install the Scripter ?
- 4: How to Setup the Scripter ? - Config\_IO  
- Downloadspeed  
- Download Method  
- Help
- 5: How to download (Step by Step) ?
- 6: MCP400 update.
- 7: Known issues.
- 8: RS232 cable pinning.



### Conditions:

- \* Windows based OS (admin rights needed)
- \* Network connection ( Switch + Cables )
- \* RS 232 Null modem Cable (see chapter 8)
- \* Service Dongle or USB - RS232 adaptor.
- \* Scripter, Package and Tools (Last versions)  
(ask local 1<sup>st</sup> line GV Service.)



### 1: What is LDK Scripter ?

The Scripter tool is used for downloading packages to the LDK/LDX products. On the camera head (LDK series) you find a RS232 connector. (not available on LDX) On Basestation and Controls MCP / OCP a network connection is used. With the additionally available GV service dongle also USB to RS232 or JTag is possible. For higher download speed a JTag connector is located on the 3G Triax Transmission board from Basestation, Adapter and Conversion box. The Scripter program is needed to make the connection to RS232, UTP and JTag. This program will check the package in the LDK/LDX system and if needed you can start the upgrade with the latest package. As the systems are running with various combinations of FW and SW versions we create "Packages" for all our recent products. A "Package" is a validated and tested official release and should always be installed completely. There are still some products that are not using a package for software and firmware updates: SD/LDK4502/OCP400/MCP400/LDK6000 In this case there are individual software and firmware files available.

It is also possible to check the status from each LDK/LDX item with the Collect Data script (excel overview) To check the different versions of the LDK8000 it recommended to use the Package advisor script.

Page 1 of 8

# Downloading Packages and LDX inside

This part gives you some more details about the Download procedures  
And the Service tool LDX Inside

## In this session:

- ◆ **LDX package update**
- ◆ **LDX inside**

**NEW!**



# LDX Inside

## For our service department LDX Inside

A tool to find problems in  
your LDX system.

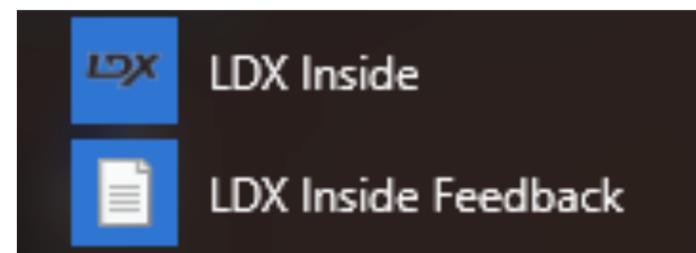
### Ready for:

- ◆ LDX head / adaptor
- ◆ Focus 70 / adaptor
- ◆ BaseUnit
- ◆ XCU
- ◆ **NOT for LDK**

Name	Date modified	Type	Size
 LDX Inside Installer V 2.0	11-12-15 10:10	Application	12,706 KB

**Install LDX inside  
on your computer**

**Start LDX inside  
from your computer**



Windows dock



or Desktop

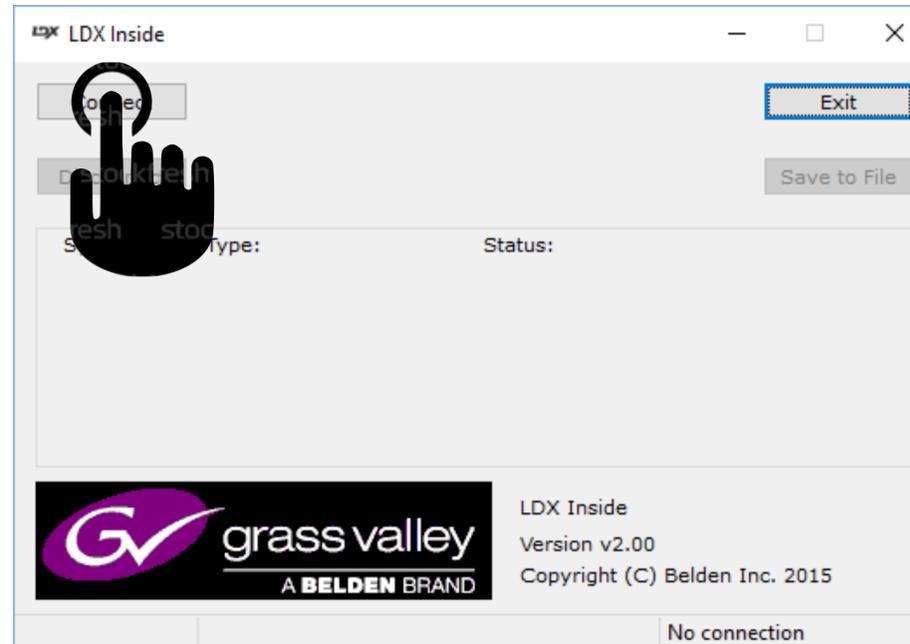
# LDX Inside

## For our service department LDX Inside

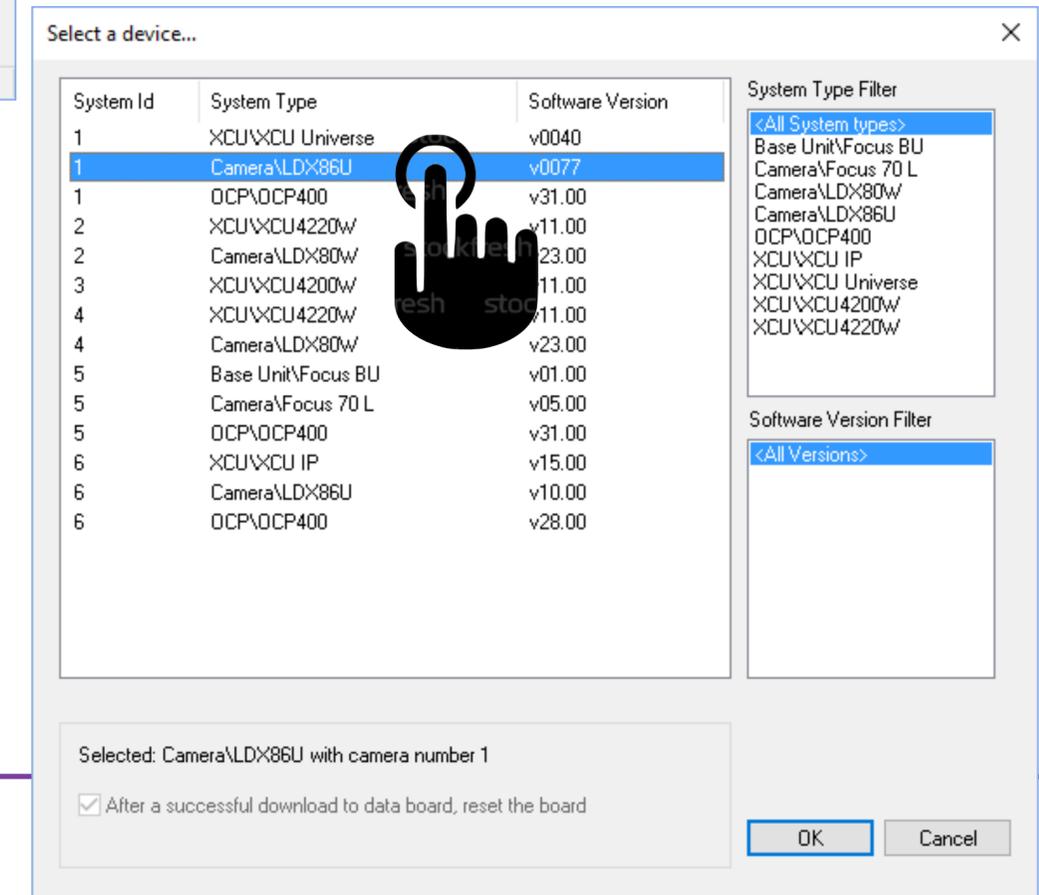
A tool to find problems in  
your LDX system.

### Ready for:

- ◆ LDX head / adaptor
- ◆ Focus 70 / adaptor
- ◆ BaseUnit
- ◆ XCU
- ◆ **NOT for LDK**



Select item  
Camera or XCU or BaseUnit



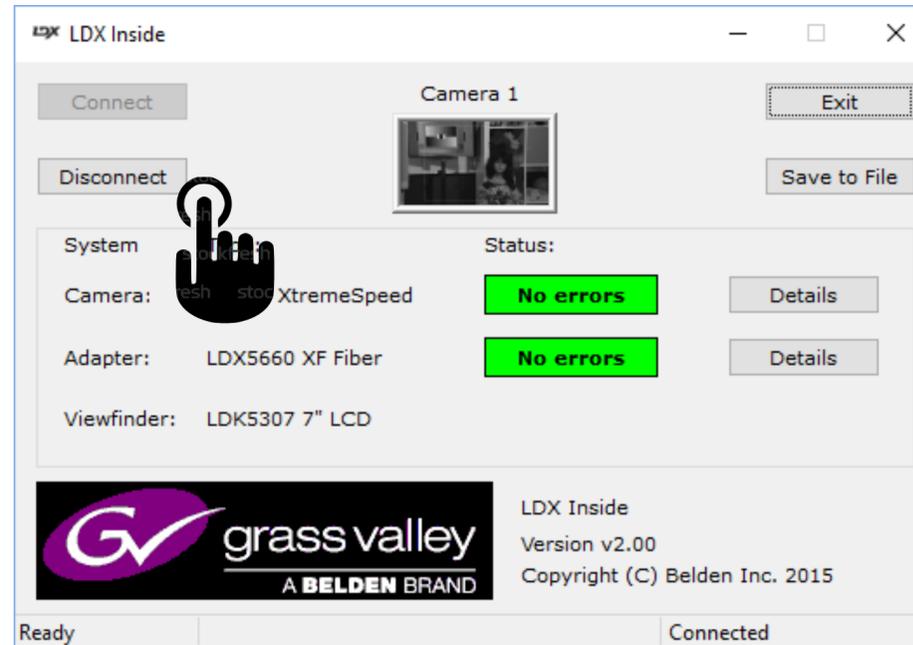
# LDX Inside

## For our service department LDX Inside

A tool to find problems in  
your LDX system.

### Ready for:

- ◆ LDX head / adaptor
- ◆ Focus 70 / adaptor
- ◆ BaseUnit
- ◆ XCU
- ◆ **NOT for LDK**



# LDX Inside

## For our service department LDX Inside

A tool to find problems in  
your LDX system.

Ready for:

- ◆ LDX head / adaptor
- ◆ Focus 70 / adaptor
- ◆ BaseUnit
- ◆ XCU
- ◆ **NOT for LDK**

The screenshot shows the 'Camera' software window. It contains several sections: 'Camera Info' with fields for Type (LDX86 XtremeSpeed), NC (8926 906 00000), and PID (037D6G); 'Package' with NC (3922 407 64361) and Version (v08.03); 'Diagnostic files' with a 'Create' button and an 'Explore files' link; and 'Control connections' with 'BS Connected' (Yes), '# C2IP Panels' (2), and '# Camera Connect' (1). Below these is a table of PCB components with columns for PCB name, Code number, Status, and a 'Details' button. A hand cursor is pointing at the 'Details' button for the 'Right Processor Board'.

PCB	Code number	Status	
Right Processor Board	3922 406 57251	No errors	Details
Right Cover Board	3922 406 57271	No errors	Details
Interconn. Power Board	3922 406 56001	No errors	Details
Red Sensor Board	3922 406 57261	No errors	Details
Green Sensor Board	3922 406 57261	No errors	Details
Blue Sensor Board	3922 406 57261	No errors	Details
Front Switch Panel	3922 406 55981	No errors	Details
Left Switch Panel	3922 406 55991	No errors	Details
Left Switch Rotary Panel	3922 406 56141	No errors	Details
Handgrip IF board	3922 406 56021	No errors	Details
HDMI/Mic board	3922 406 57401	No errors	Details
ID board	3922 406 56031	No errors	Details

### Camera details

See example from Right Processor board  
on next page

Adaptor details  
See example from 10G Transmission board  
on next next page

The screenshot shows the 'Adaptor' software window. It contains several sections: 'Adaptor Info' with fields for Type (LDX5660 XF Fiber), NC (8926 566 00000), and PID (037CCA); 'Package' with NC (3922 407 64771) and Version (v02.09); and a table of PCB components with columns for PCB name, Code number, Status, and a 'Details' button. A hand cursor is pointing at the 'Details' button for the '10G Transmission' board.

PCB	Code number	Status	
10G Transmission	3922 406 57221	No errors	Details
Backpanel	3922 406 56911	No errors	Details
Power board	3922 406 56901	No errors	Details
ID board	3922 406 56031	No errors	Details

# LDX Inside

## For our service department LDX Inside

A tool to find problems in  
your LDX system.

Ready for:

- ◆ LDX head / adaptor
- ◆ Focus 70 / adaptor
- ◆ BaseUnit
- ◆ XCU
- ◆ **NOT for LDK**

## Right Processor Board

**PCB Info**  
Code number: 3922 406 57251  
Version: C09  
PID: 037363  
Date: 23-06-2014

**Power OK**  
VBatt: OK  
-5VD: OK  
+3V3: OK  
+3V6: OK  
+15V PG: OK  
+2V5 PG: OK  
+1V0: OK  
+1V8 Mgt: OK  
+15V: OK  
+5VD: OK  
+2V5: OK  
RP PGood: OK  
+0V9: OK  
+1V8 Aux: OK  
+1V2: OK  
+2V0 Hpio: OK

**Voltages**  
+2V5: 2.48 V  
+1V5: 1.43 V  
+1V0: 0.99 V  
+5VD: 4.98 V  
+3V3: 3.32 V  
+1V8: 1.82 V  
+0V9: 1.00 V  
+5V USB: 5.08 V  
-4.98 V  
+3V6: 3.32 V  
+2V0: 2.00 V  
+1V0 Bram: 0.98 V  
+2V5: 1.87 A  
VBatt: 0.98 A  
+1V0: 0.78 A  
+1V8: 1.69 A  
+0V9: 1.68 A

**Devices**  
LPC2460 CPU IC 1009 OK  
Actel IC 5 OK  
FPGA IC 7 OK  
VP Sw IC 7 OK  
IMPP Sw IC 7 OK  
PCA9501 IC 1051 OK  
PCA9501 IC 3013 OK  
DS4520 IC 2609 OK  
PCA9501 IC 7006 OK  
TMP102 IC 5048 OK  
DS1388 IC 5047 OK  
PCA9501 IC 5056 OK  
PCA9501 IC 5050 OK  
PCA9501 IC 5055 OK  
PCA9501 IC 5301 OK  
PCA9547 IC 5057 OK  
PCA9547 IC 5058 OK

**Temperature**  
IC 5048: 43.6 C  
FPGA Temp: 58 C

**FPGA**  
Config done: OK

**Calibrations**  
ADC Calib: OK  
Black Calib: OK  
White Calib: OK

**Filterwheels**  
Filter 1: OK  
Filter 2: OK

**SD Card**  
Present: OK  
Status: OK

**Sensor Interconnection**  
Sensor Red: OK  
Sensor Green: OK  
Sensor Blue: OK

**Extern video interface**  
Locked: OK  
Mode: HD

**Tooltip:**  
i OK  
Min: 4,75 V  
Max: 5:10 V

# LDX Inside

## 10G Transmission Board

For our service department  
**LDX Inside**

A tool to find problems in  
your LDX system.

Ready for:

- ◆ LDX head / adaptor
- ◆ Focus 70 / adaptor
- ◆ BaseUnit
- ◆ XCU
- ◆ **NOT for LDK**

**PCB Info**  
Code number: 3922 406 57221  
Version: A05  
PID: 03762F  
Date: 16-10-2014

**Power OK**  
15V: OK, 3V3: OK, 2V5: OK, 1V8: OK, 1V5: OK, 1V0: OK, All: OK

**Devices**  
PCA9501 IC 309: OK  
LPC2460 CPU IC 100: OK  
DS4520 IC 313: OK  
FPGA IC 7: OK  
PCA9547 IC 307: OK  
PCA9501 IC 301: OK  
PCA9501 IC 302: OK  
ADT7411 IC 303: OK  
ADT7411 IC 304: OK

**Voltages**  
+1V0: 0.99 V, +1V5: 1.46 V, +1V8: 1.76 V, +2V5: 2.44 V, +3V3: 3.16 V, +1V0 LDO: 1.01 V, +1V2 LDO: 1.17 V, +2V5 REF: 2.46 V, +2V0: 1.96 V, DDR VTT: 0.74 V, H-Lock: 1.19 V

**Currents**  
15V: 1.08 A, 1V0: 2.60 A

**Locking**  
Locked: Yes, Reference: XCU

**Video signals**  
VF Locked: OK, Main1 Locked: OK, VF CRC Errors: OK, Main1 CRC: OK, VF Signal: HD, Main1 Signal: HD, Main2 Locked: Not OK, Main3 Locked: Not OK, Main2 CRC: Not OK, Main3 CRC: Not OK, Main2 Signal: HD, Main3 Signal: HD

**SFP Module**  
Signal: Yes, Module: EOLP-1396, Rx Power: -4 dBm, Tx Power: -3 dBm, Temp.: 55 C, Voltage: 3.24 V

**FPGA**  
Config done: OK

**Clocks**  
27 Mhz: OK, 148.37 Mhz: Not OK, 148.50 Mhz: OK, 156.25 Mhz: OK

**Temperature**  
FPGA: 48 C, IC303: 39 C

**Extern HD-SDI Input**  
ExtIn Locked: Not OK, ExtIn CRC: Not OK, ExtIn Signal: 3G

**Ethernet tunnel**  
MDIO: OK, SGMII: OK, Link: No, Active: No

**Eye scan**  
Horizontal: 27, Vertical: 20

# Tips and hints

# LDX Inside

- When error message pops up, where possible a blue “?” will appear

Clicking on that a window will appear with the issue

Right Processor Board

PCB Info  
Code number: 3922 406 57251  
Version: C13  
PID: 039US2  
Date: 11-03-2015

Devices

LPC2460 CPU	IC 1009	OK
Actel	IC 5	OK
FPGA	IC 7	OK
VP Sw	IC 7	OK
IMPP Sw	IC 7	OK
PCA9501	IC 1051	OK
PCA9501	IC 3013	OK
DS4520	IC 2609	OK
PCA9501	IC 7006	OK
TMP102	IC 5048	OK
DS1388	IC 5047	OK
PCA9501	IC 5056	OK
PCA9501	IC 5050	OK
PCA9501	IC 5055	OK
PCA9501	IC 5301	OK
PCA9547	IC 5057	OK
PCA9547	IC 5058	OK

Power OK

VBatt	OK	+15V	OK
-5VD	OK	+5VD	OK
+3V3	OK	+2V5	OK
+3V6	OK	RP PGood	OK
+15V PG	OK	+0V9	OK
+2V5 PG	OK	+1V8 Aux	OK
+1V0	OK	+1V2	OK
+1V8 Mgt	OK	+2V0 Hpio	OK

Voltages

+2V5	2.48 V	+1V8	1.82 V
+1V5	1.52 V	+0V9	1.00 V
+1V0	1.00 V	+5V USB	5.12 V
+5VD	4.97 V	-5VD	-5.06 V
+3V3	3.26 V	+3V6	3.47 V
+1V2	1.19 V	+2V0	2.00 V
+1V8 Mgt	1.79 V	+1V0 Bram	0.98 V
+1V0 Mgt	0.96 V		

Currents

+2V5	1.85 A	+1V8	1.67 A
VBatt	0.36 A	+0V9	1.43 A
+1V0	0.78 A		

Extern video interface

Locked	OK
Mode	HD

Temperature

IC 5048	48.1 C
FPGA Temp	62 C

FPGA

Config done	OK
-------------	----

Calibrations

ADC Calib	OK
Black Calib	Not OK ?
White Calib	OK

Filterwheels

Filter 1	OK
Filter 2	OK

SD Card

Present	OK
Status	OK

Sensor Interconnection

Sensor Red	OK
Sensor Green	OK
Sensor Blue	OK

Close

Help

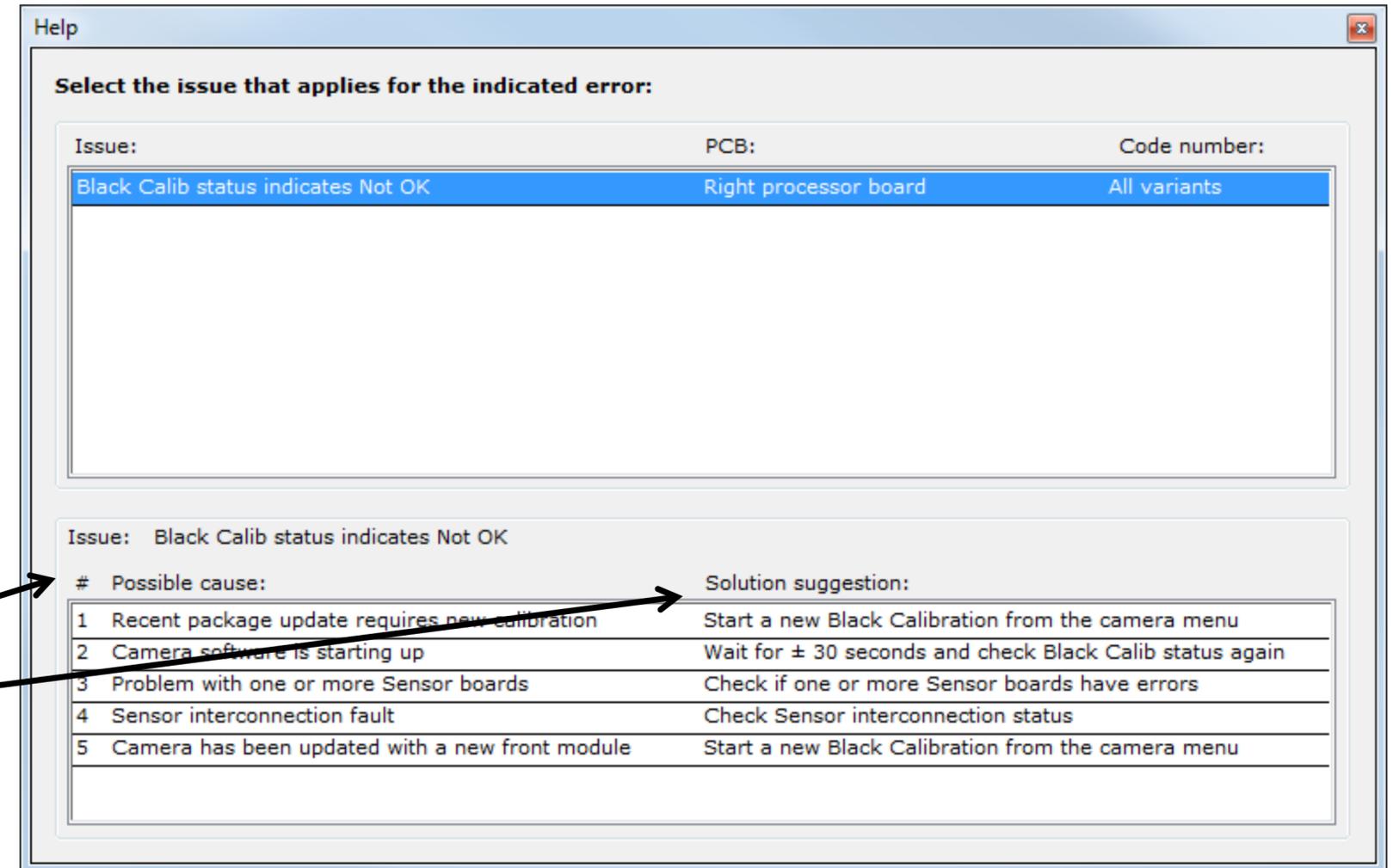
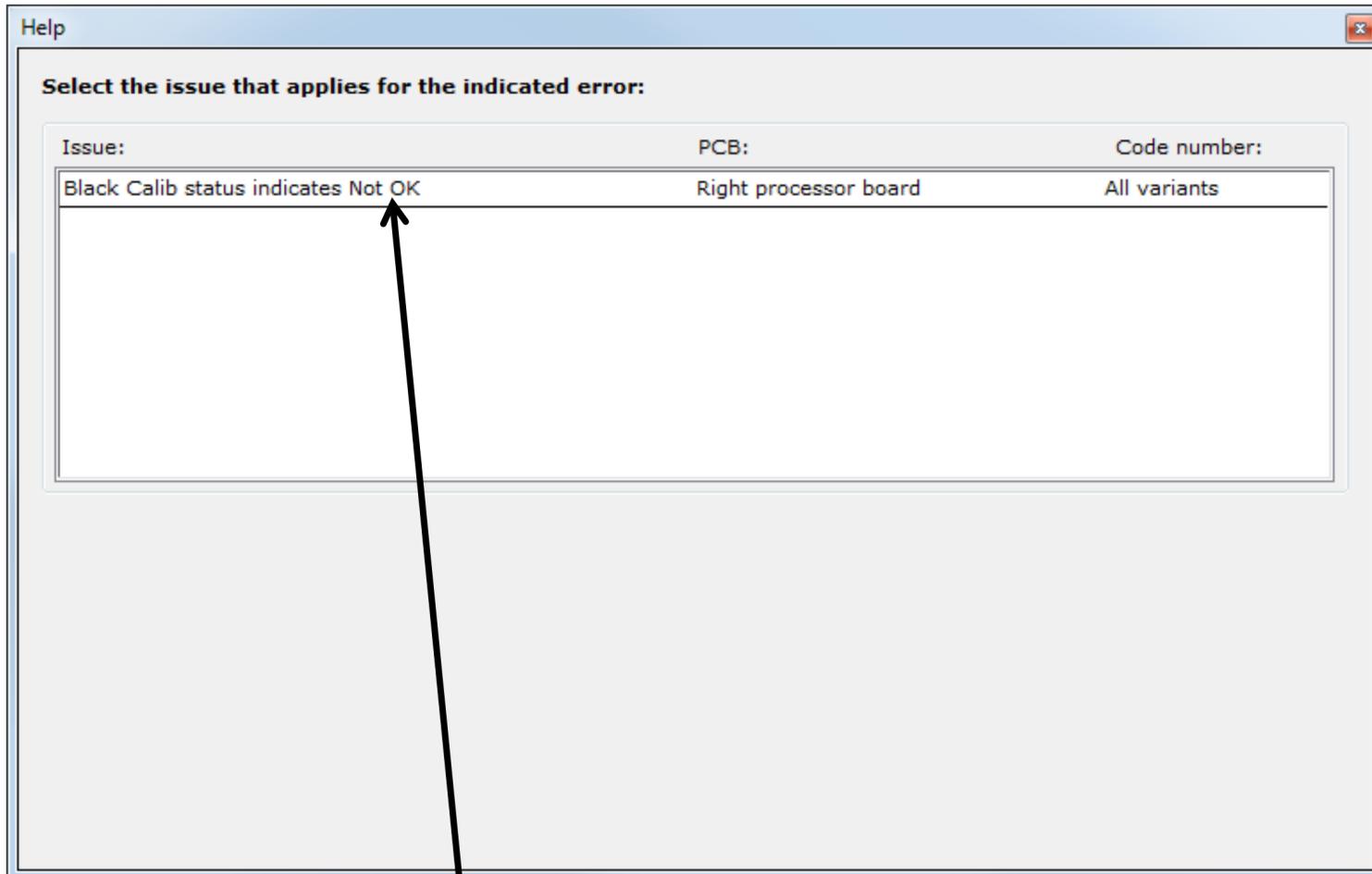
Select the issue that applies for the indicated error:

Issue:	PCB:	Code number:
Black Calib status indicates Not OK	Right processor board	All variants

Details

# LDX Inside

## Possible causes and solution suggestions



Clicking on that will show you possible causes and solution suggestions

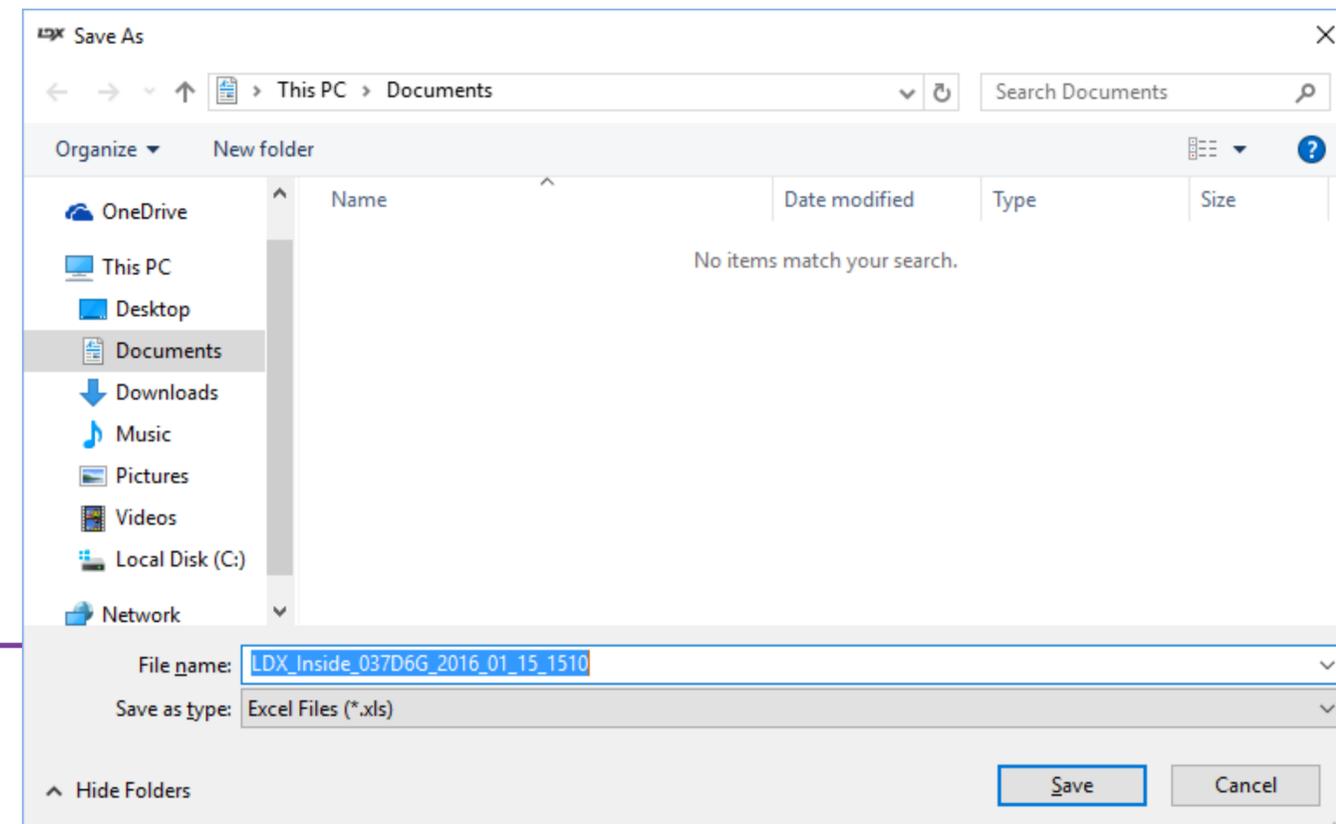
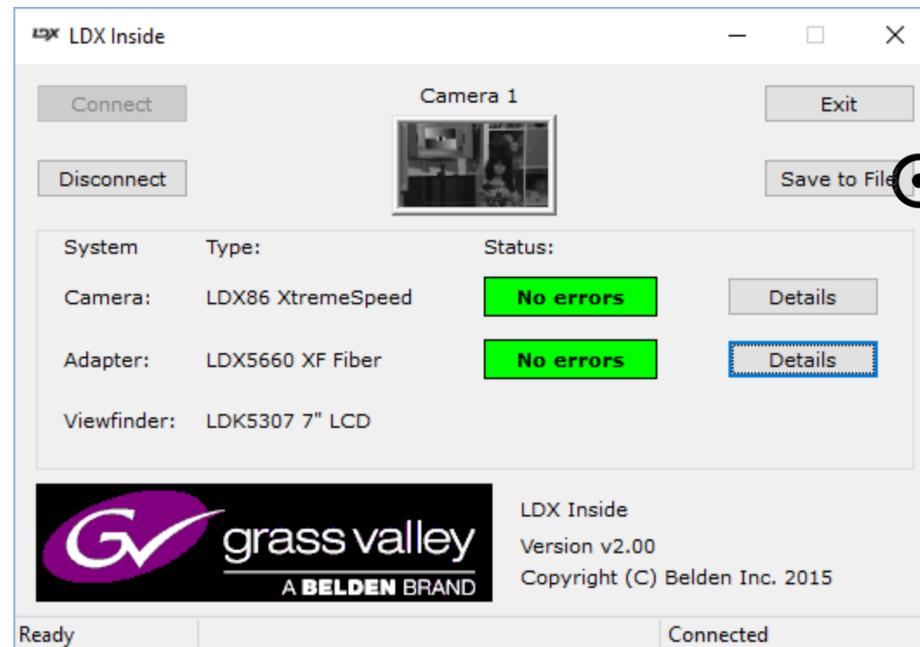
# LDX Inside

## For our service department LDX Inside

A tool to find problems in  
your LDX system.

To send all details in one  
file to the Service channel.  
You can use:

**Save to file**



# LDX Inside

## For our service department LDX Inside

A tool to find problems in  
your LDX system.

To send all details in one  
file to the Service channel.  
You can use:

Save to file  
This creates a EXCEL file  
where all data is stored

The screenshot shows an Excel spreadsheet with the following data:

Location/Board	Component	Code number	Version	Date	Validity
<b>Camera Package</b>					
Package:		3922 407 64361	v08.03	13-07-2015	OK
Location/Board	Component	Code number	Version	Date	Validity
Right Processing	Appl. Software	3922 407 64581	v00.77	09-11-2015	OK
Right Processing	Diag. Software	3922 407 64611	v00.10	25-09-2014	OK
Right Processing	VP Firmware	3922 407 64561	v04.00	27-10-2015	OK
Right Processing	VP Firmware 2	3922 407 64911	v04.00	27-10-2015	OK
Right Processing	VP Software	3922 407 64571	v00.51	31-08-2015	OK
Right Cover	Firmware	3922 407 64621	v01.00	04-11-2013	OK
Sensor Blue	Firmware	3922 407 64631	v02.07	22-10-2015	OK
Sensor Green	Firmware	3922 407 64631	v02.07	22-10-2015	OK
Sensor Red	Firmware	3922 407 64631	v02.07	22-10-2015	OK
<b>Adapter Package</b>					
Package:		3922 407 64771	v02.09	15-10-2015	OK
Location/Board	Component	Code number	Version	Date	Validity
Transmission	Appl. Software	3922 407 64521	v00.19	09-11-2015	OK
Transmission	Firmware	3922 407 63741	v00.53	23-09-2015	OK
Transmission	Software	3922 407 64811	v00.16	14-10-2015	OK