

Camera Training Center Breda The Netherlands

March 2016



grass valley

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 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.
- ♦ 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
 Setup.exe	17960 KB	28/02/14 00:00:00



First step is to **INSTALL** the
GV Scripter 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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The screenshot displays a file explorer window with a list of files and folders. A blue arrow points from the 'Load_Package_392240761901' file in the first window to the 'package_LDX9020_392240761901_25' folder in a second window.

Name	Date modified	Type	Size
392240760341_110_000_V00_31	25-9-14 10:57	EIN File	421 KB
392240760771_110_000_V01_13	6-6-13 15:34	EIN File	727 KB
392240761091_110_000_V23_00.hex	19-0-15 15:32	HEX File	6,122 KB
392240761911_110_000_V07_09.rbf	7 7 14 13:09	RBF File	2,072 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_ArmApp1Sw	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	20-0-12 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.cfm	4-12 14:19	NFM File	7 KB
Package_Form_Generic	25-11-10 08:45	TSC File	31 KB
Package_Form_Interface	28-8-12 15:33	ISC 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_RCD_Lib	17-0-12 11:32	TSC File	
PCB_392240656011_Sensor_Lib	22 8 12 15:33	TSC File	
PCB_DCR_Download_Cfg_Lib	0-0-13 11:51	TSC File	

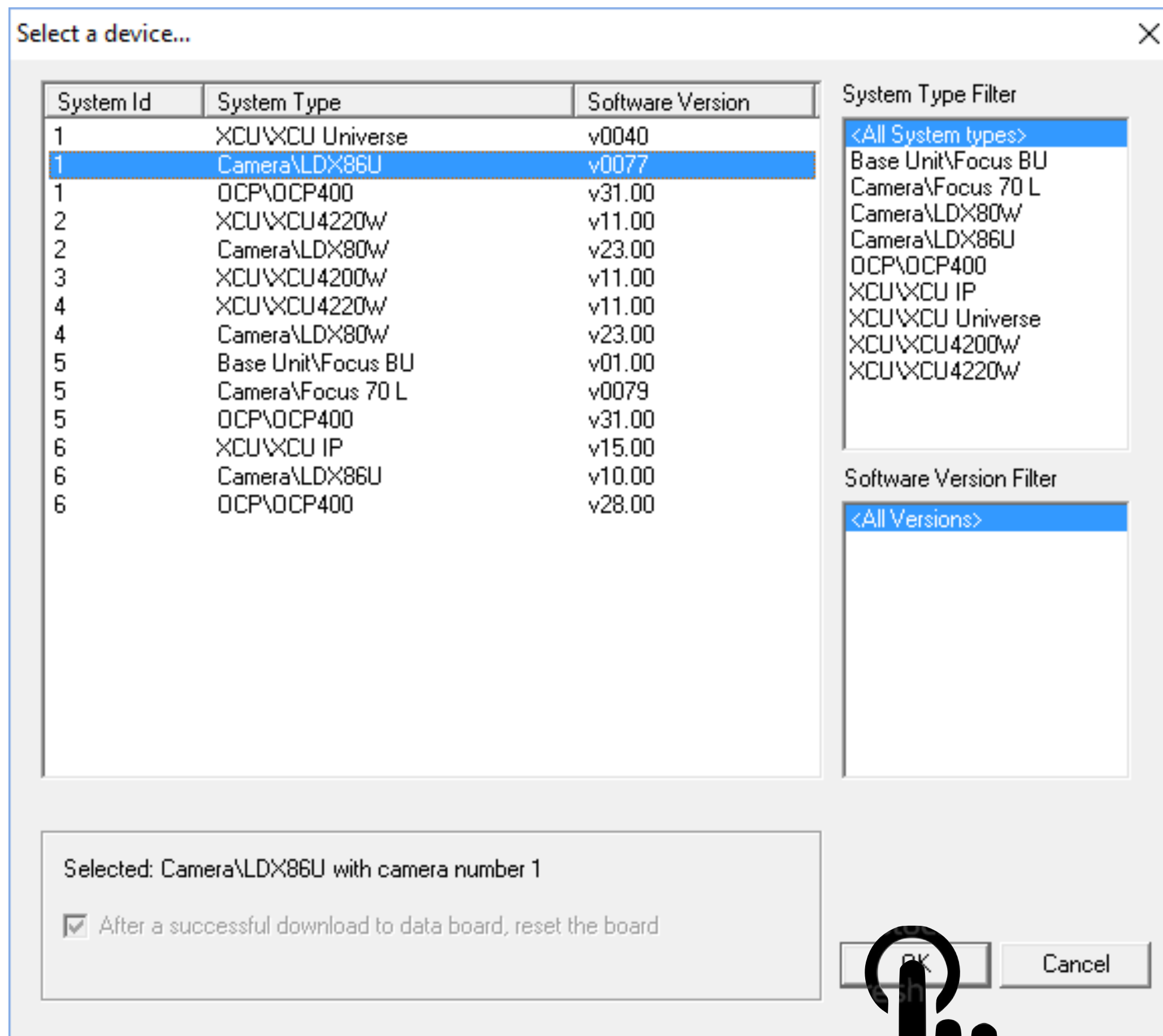
LDKScripter
LOAD TOOL
0.9.0.0

Name	Date modified	Type	Size
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

LDX Package Download

The Scripter

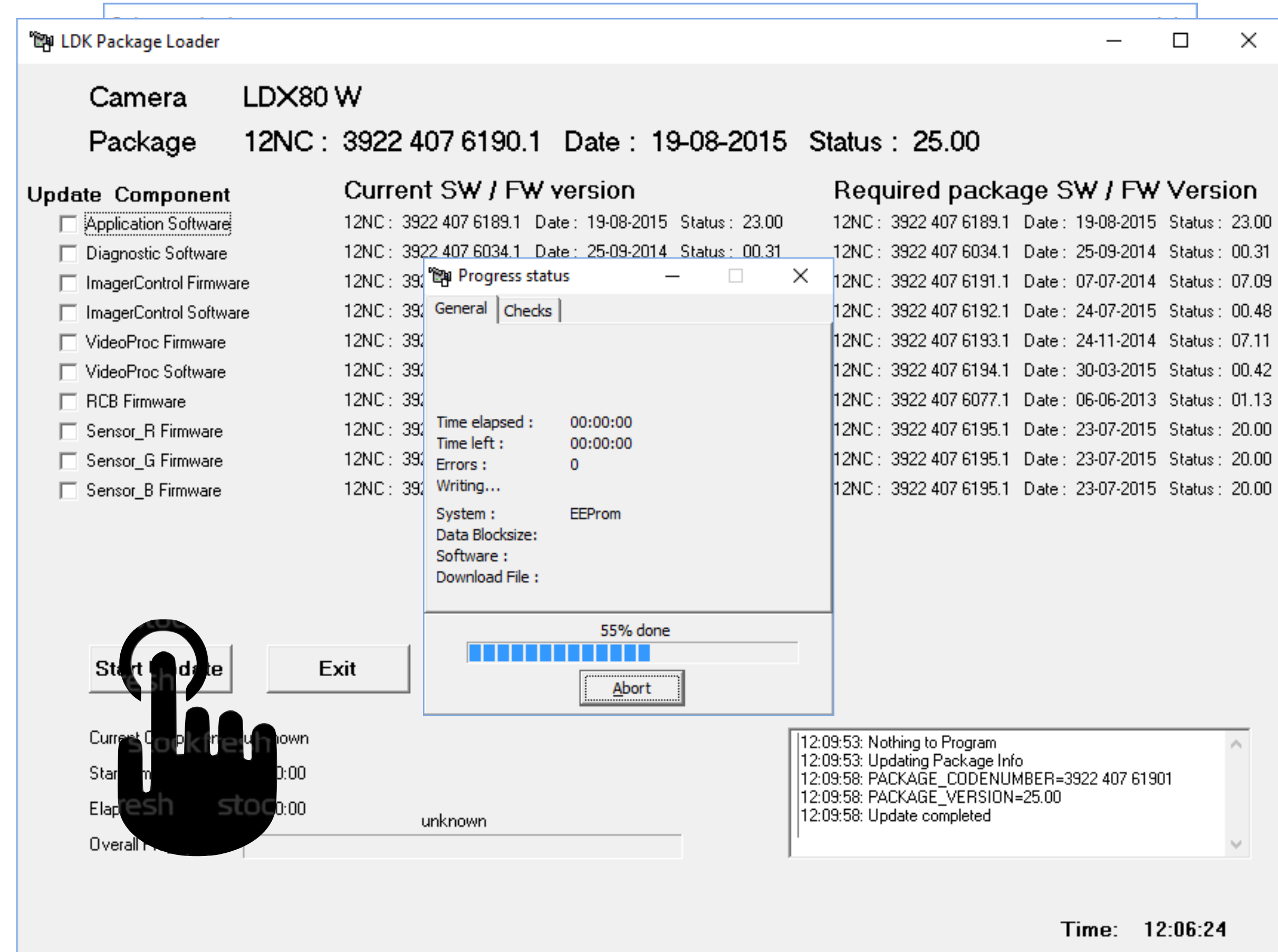
- ♦ The **Scripter** tool is used for downloading packages to the LDK/LDX products.
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LDX Package Download

The Scripter

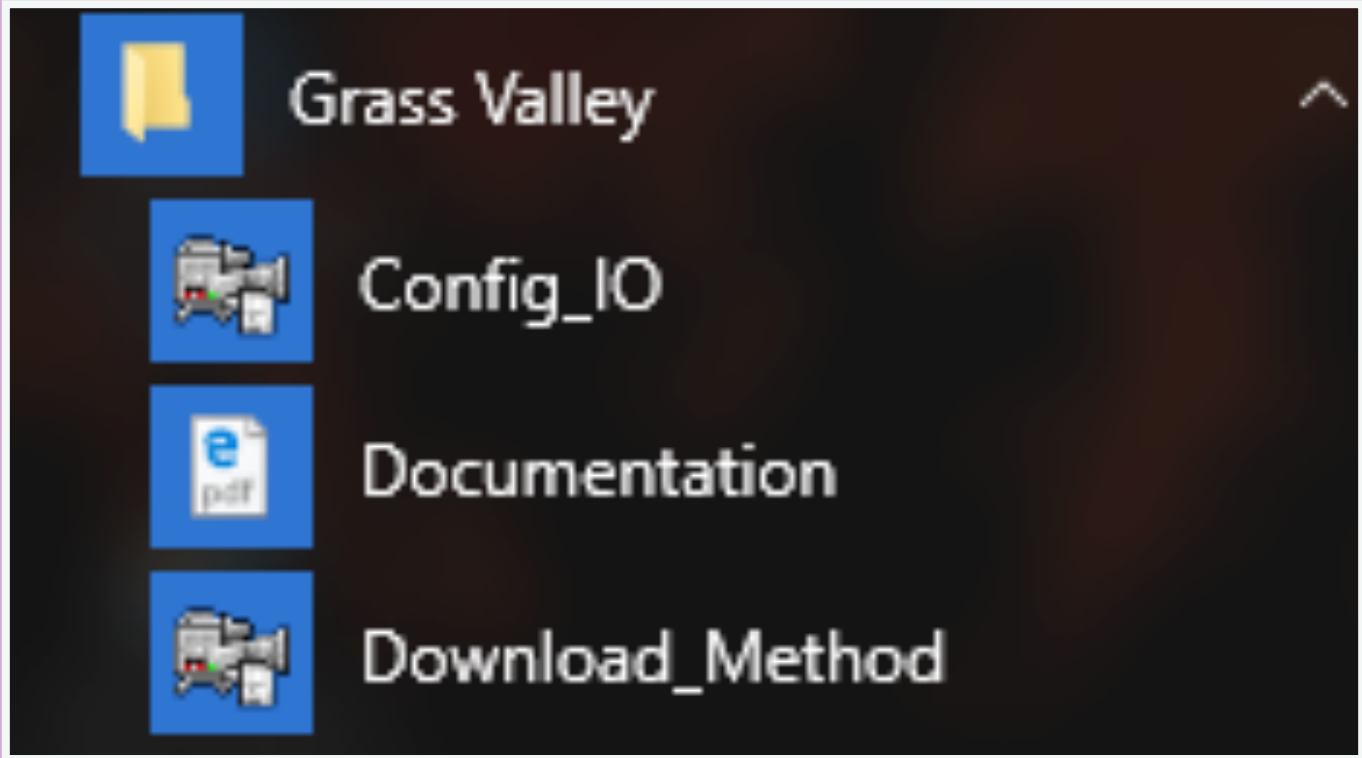
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LDX Package Download

The Scripter

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



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<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 1st 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/OC400/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

Download procedure

101010 101010 101010 101010 101010 101010
110011 110011 110011 110011 110011 110011
100011 100011 100011 100011 100011 100011
111000 111000 111000 111000 111000 111000



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 (V06)

For our service department LDX Inside

A tool to find problems in
your LDX system.

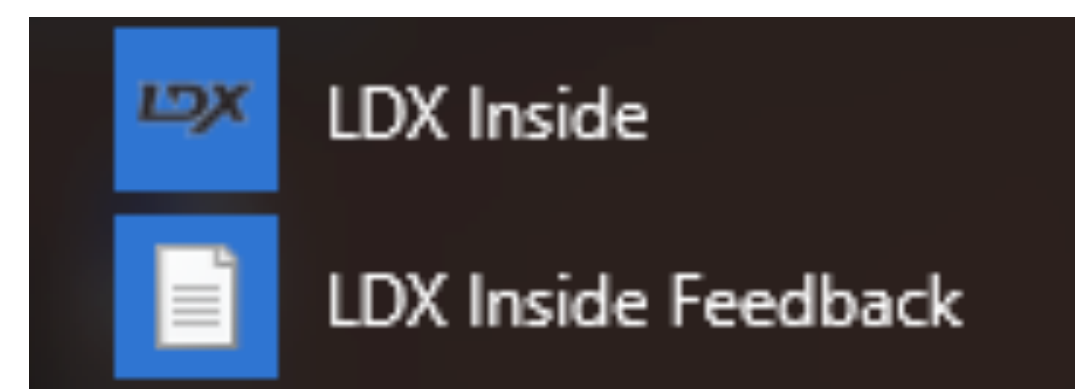
Ready for:

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

Name	Date modified	Type	Size
 LDX Inside Installer V 6.0	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

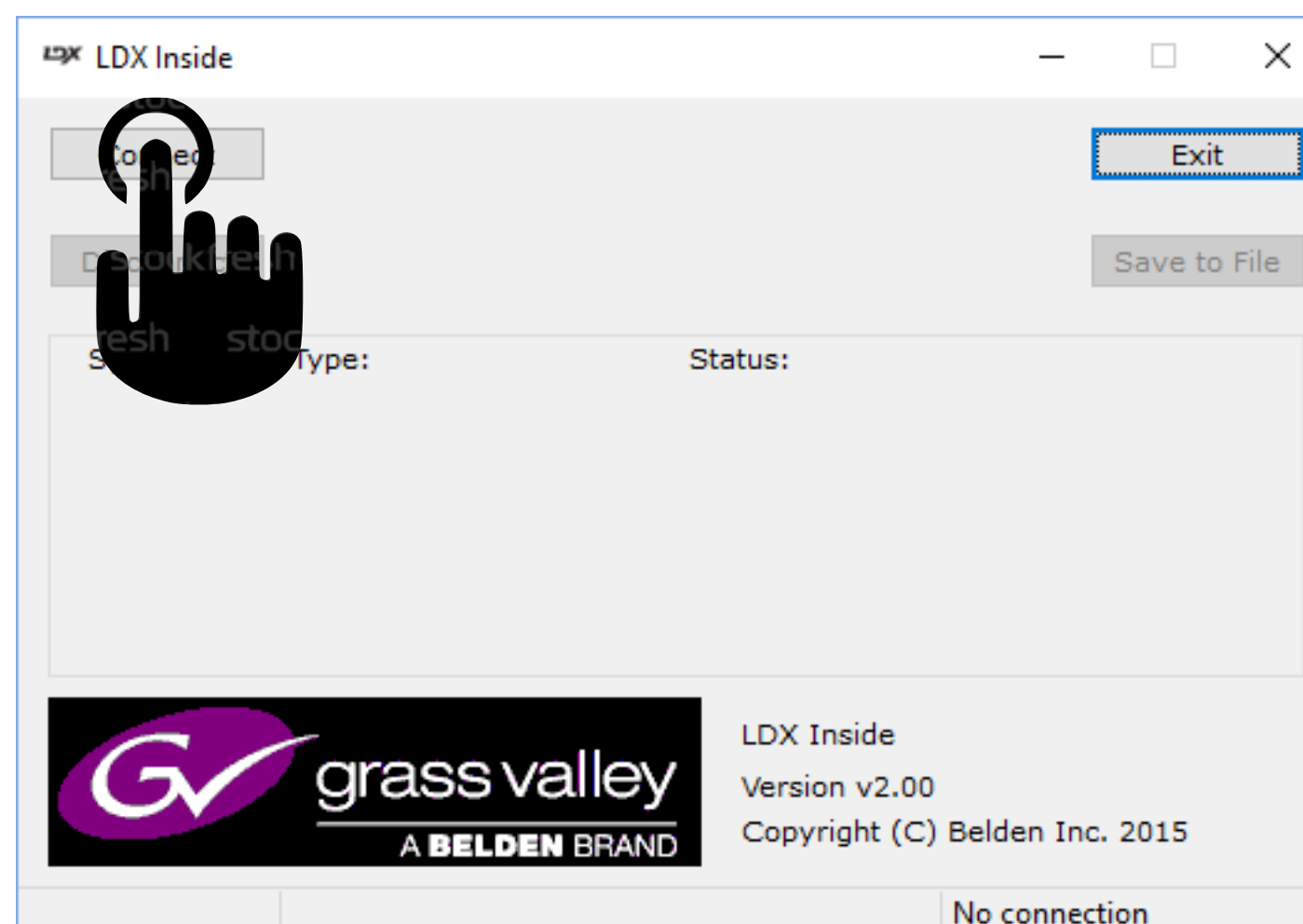
LDX Inside

For our service department LDX Inside

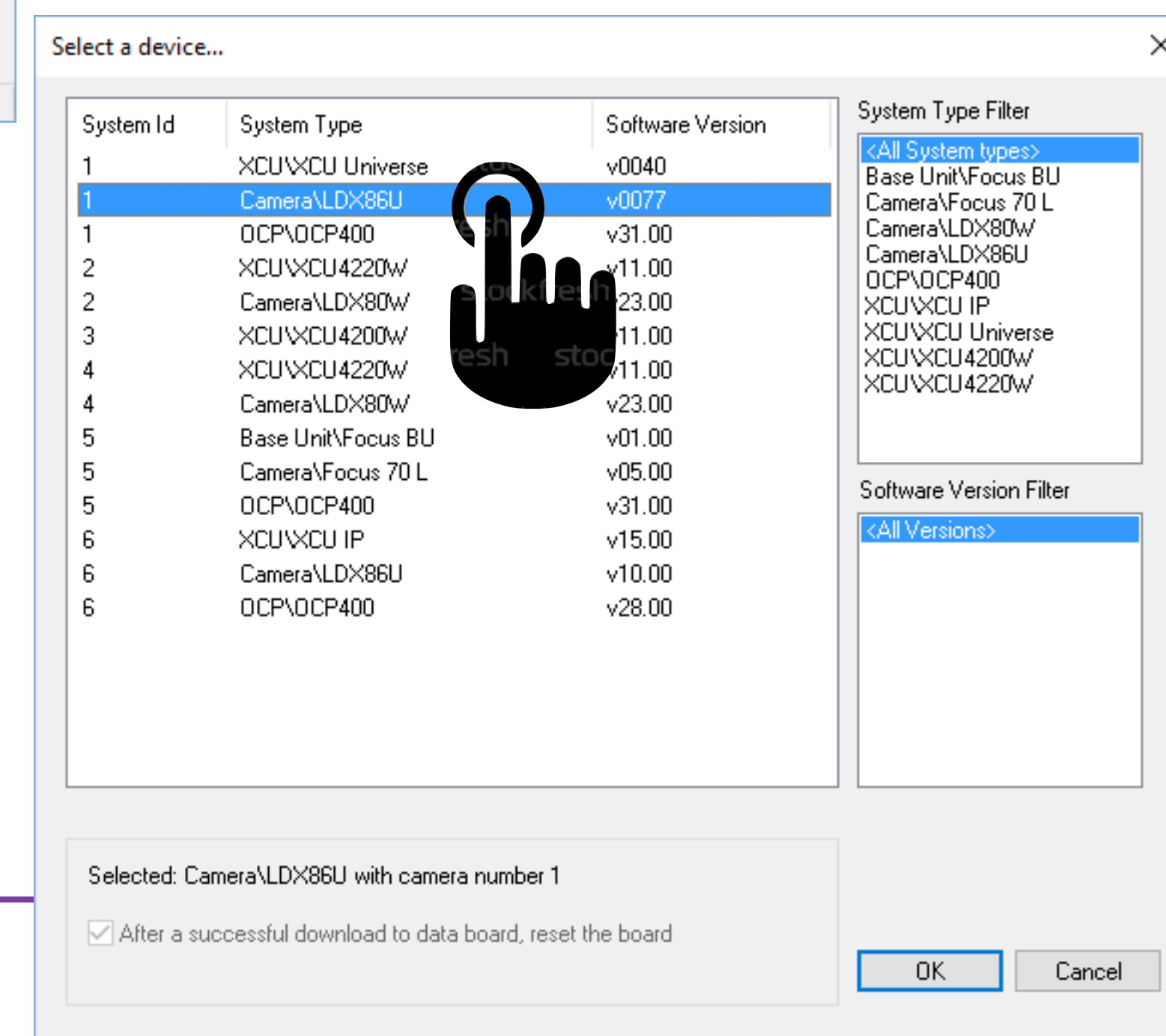
A tool to find problems in
your LDX system.

Ready for:

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



Select item
Camera or XCU or BaseUnit



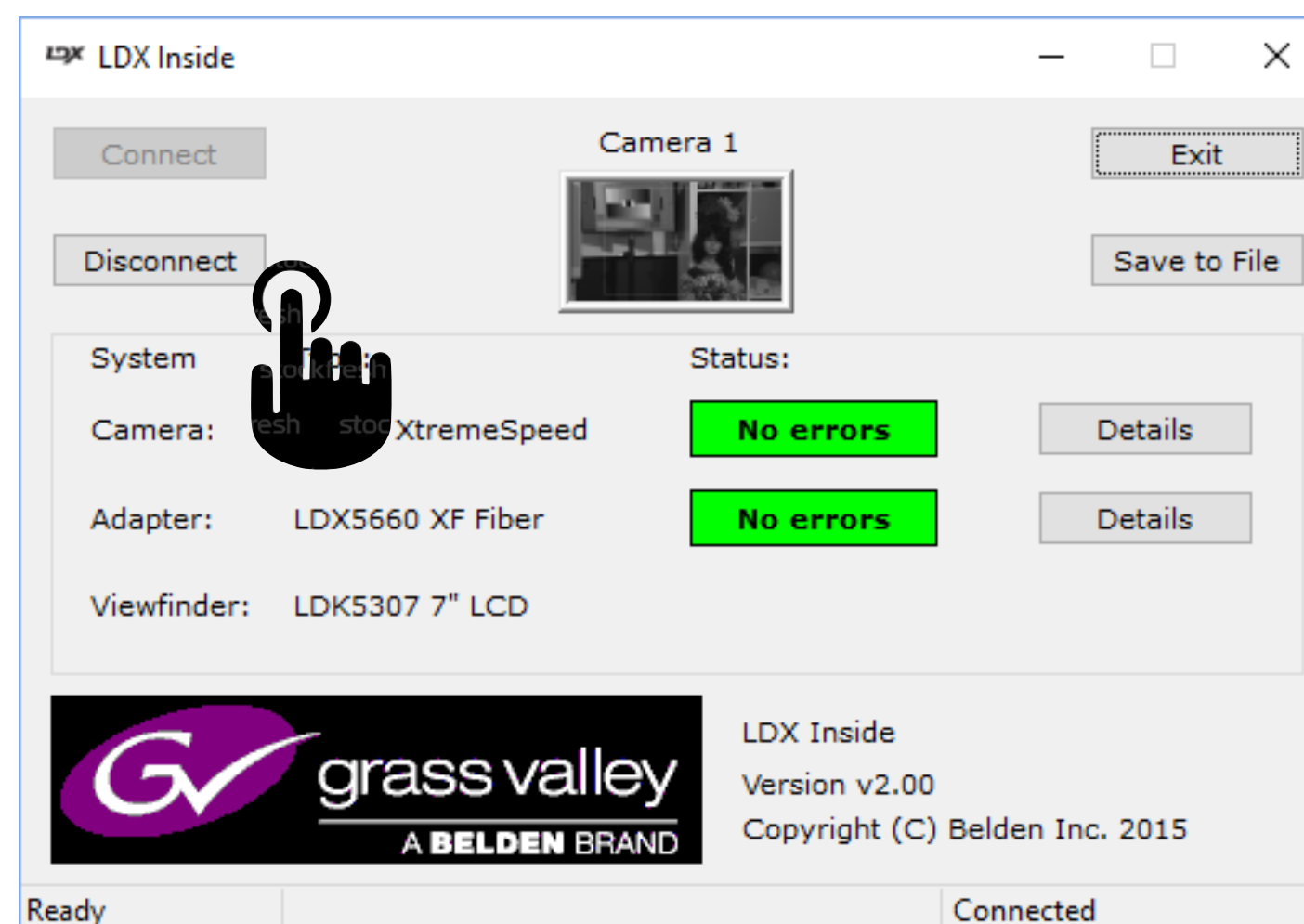
LDX Inside

For our service department LDX Inside

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your LDX system.

Ready for:

- ♦ LDX head / adaptor
- ♦ Focus 70 / adaptor
- ♦ BaseUnit
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- ♦ **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**

LDX Camera

Camera Info
Type: **LDX86 XtremeSpeed**
NC: **8926 906 00000**
PID: **037D6G**

Package
NC: **3922 407 64361**
Version: **v08.03**
OK Details

Diagnostic files
Create files: **Create**
Explore files: <ftp://169.254.231.107/>

Control connections
BS Connected: **Yes**
C2IP Panels: **2**
Camera Connect: **1**

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

LDX Adaptor

Adaptor Info
Type: **LDX5660 XF Fiber**
NC: **8926 566 00000**
PID: **037CCA**

Package
NC: **3922 407 64771**
Version: **v02.09**
OK Details

PCB
10G Transmission
Backpanel
Power board
ID board

Code number
3922 406 57221
3922 406 56911
3922 406 56901
3922 406 56031

Status
No errors
No errors
No errors
No errors

Details
Details
Details
Details

LDX Inside

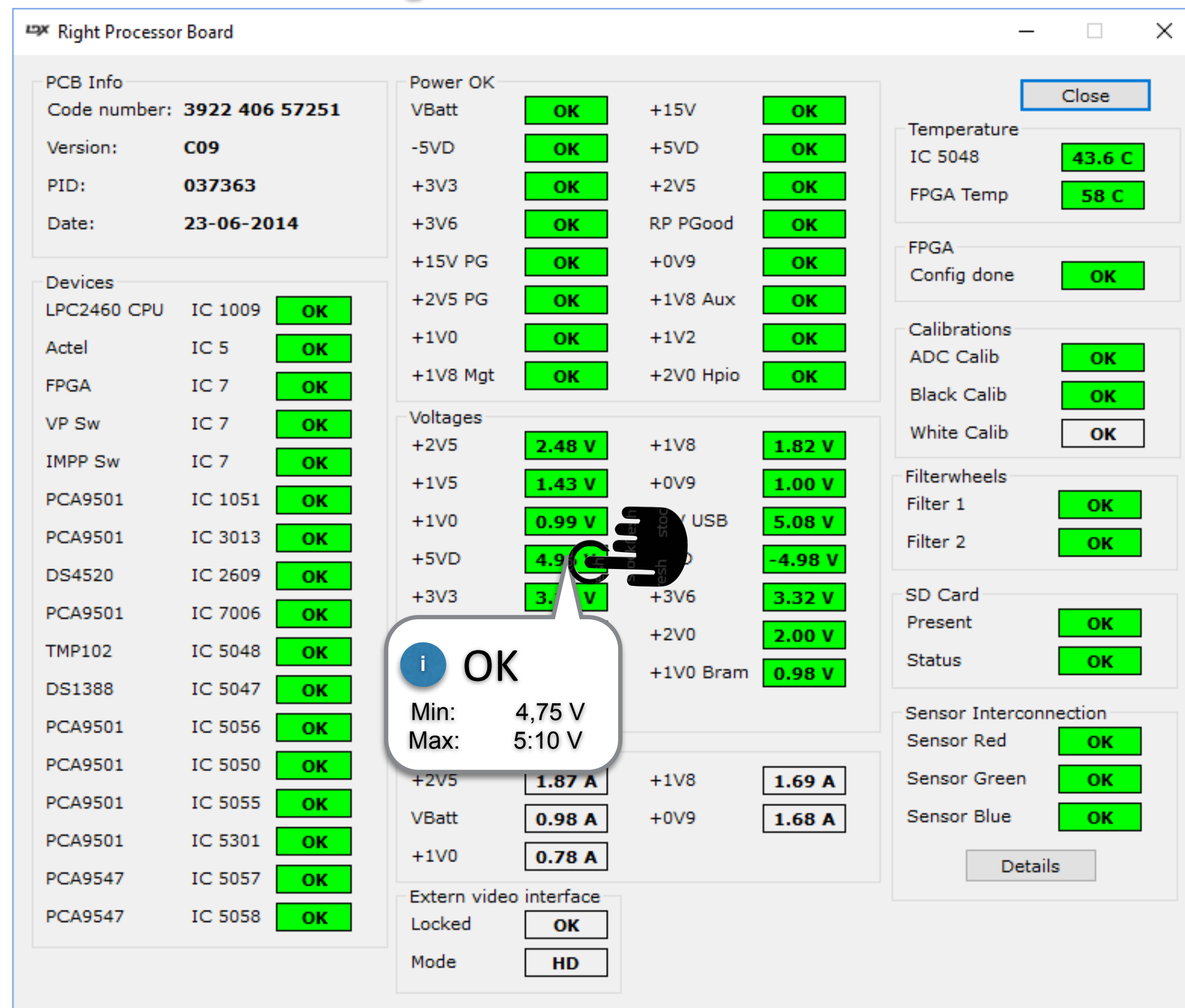
For our service department LDX Inside

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



LDX Inside

For our service department LDX Inside

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Ready for:

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

10G Transmission Board

LDX 10G Transmission

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

Close

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

The screenshot shows the 'Right Processor Board' window with the following data:

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
-5VD	OK
+3V3	OK
+3V6	OK
+15V PG	OK
+2V5 PG	OK
+1V0	OK
+1V8 Mgt	OK

Voltages	
+2V5	2.48 V
+1V5	1.52 V
+1V0	1.00 V
+5VD	4.97 V
+3V3	3.26 V
+1V2	1.19 V
+1V8 Mgt	1.79 V
+1V0 Mgt	0.96 V

Currents	
+2V5	1.85 A
VBatt	0.36 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

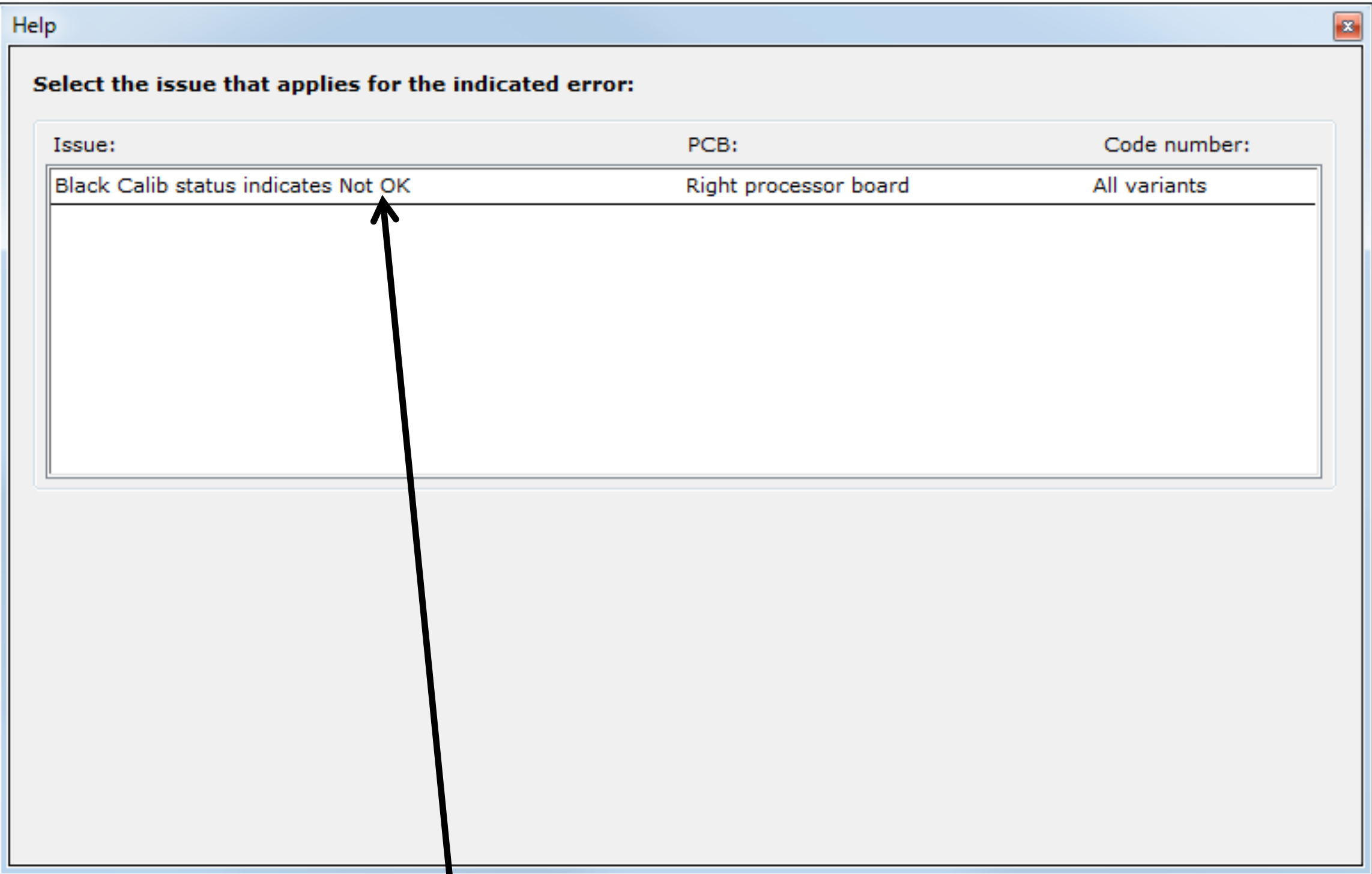
Sensor Interconnection	
Sensor Red	OK
Sensor Green	OK
Sensor Blue	OK

The Help window displays the following information:

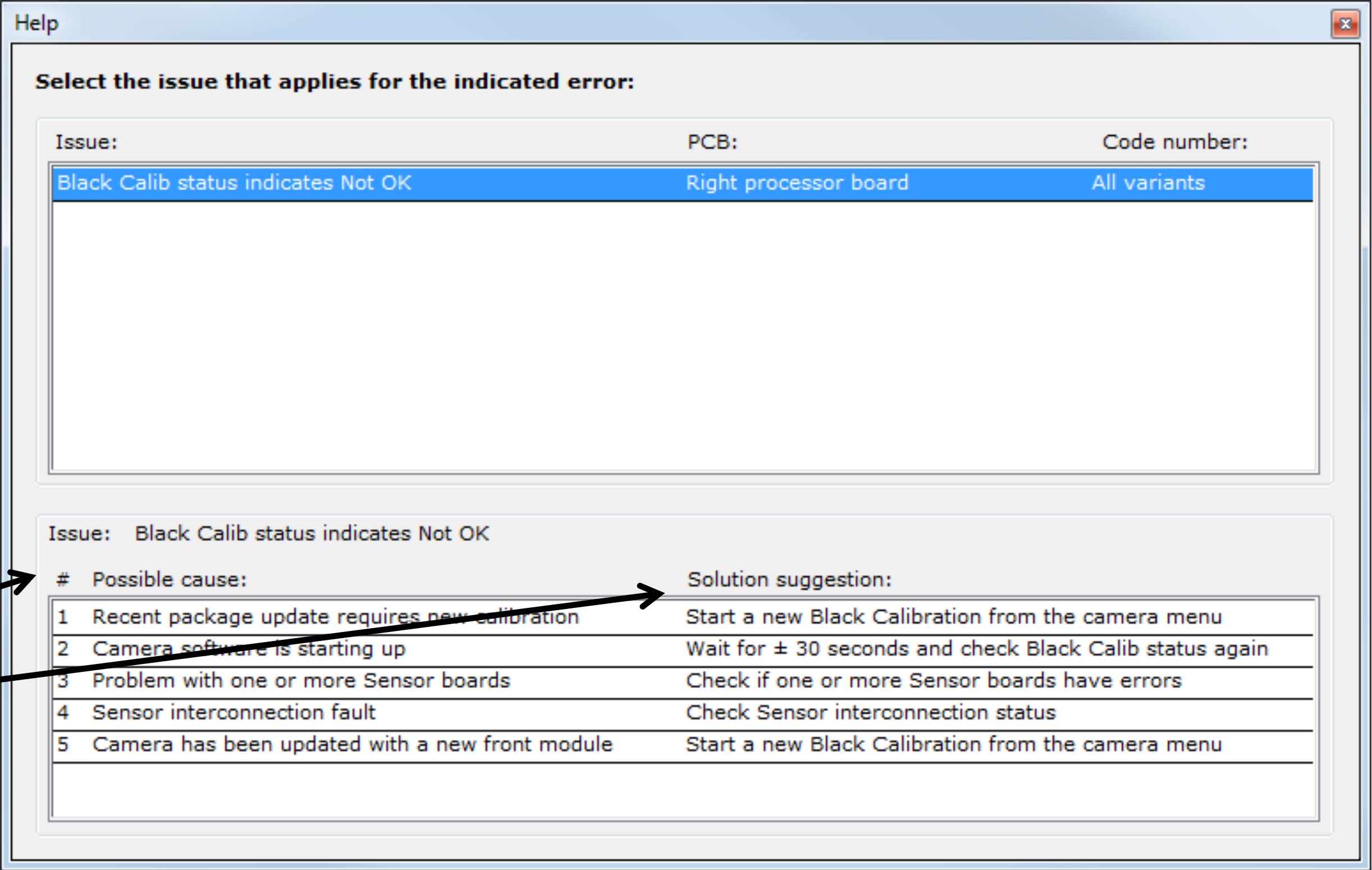
Issue:	PCB:	Code number:
Black Calib status indicates Not OK	Right processor board	All variants

LDX Inside

Possible causes and solution suggestions



Clicking on that will show you possible causes and solution suggestions



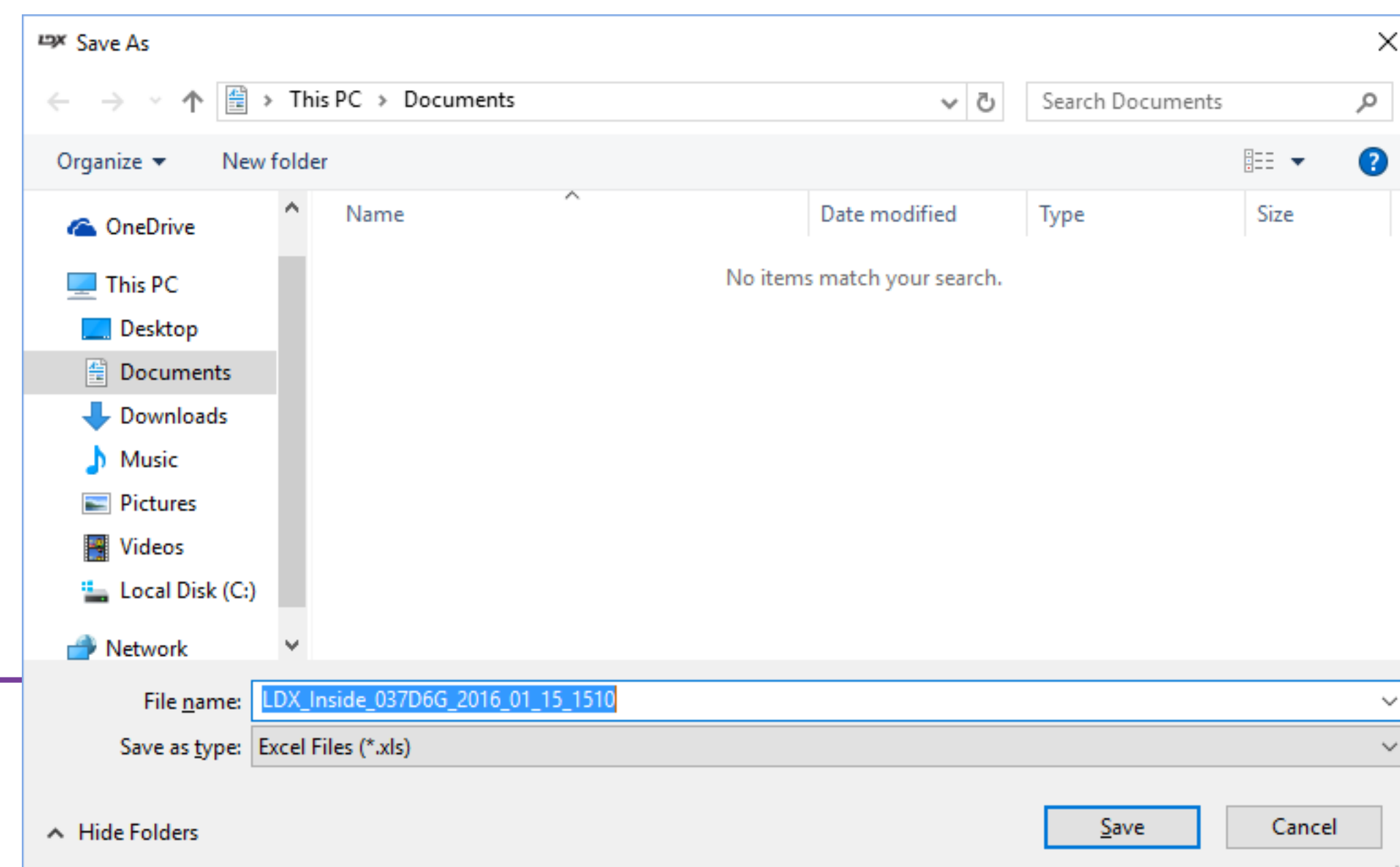
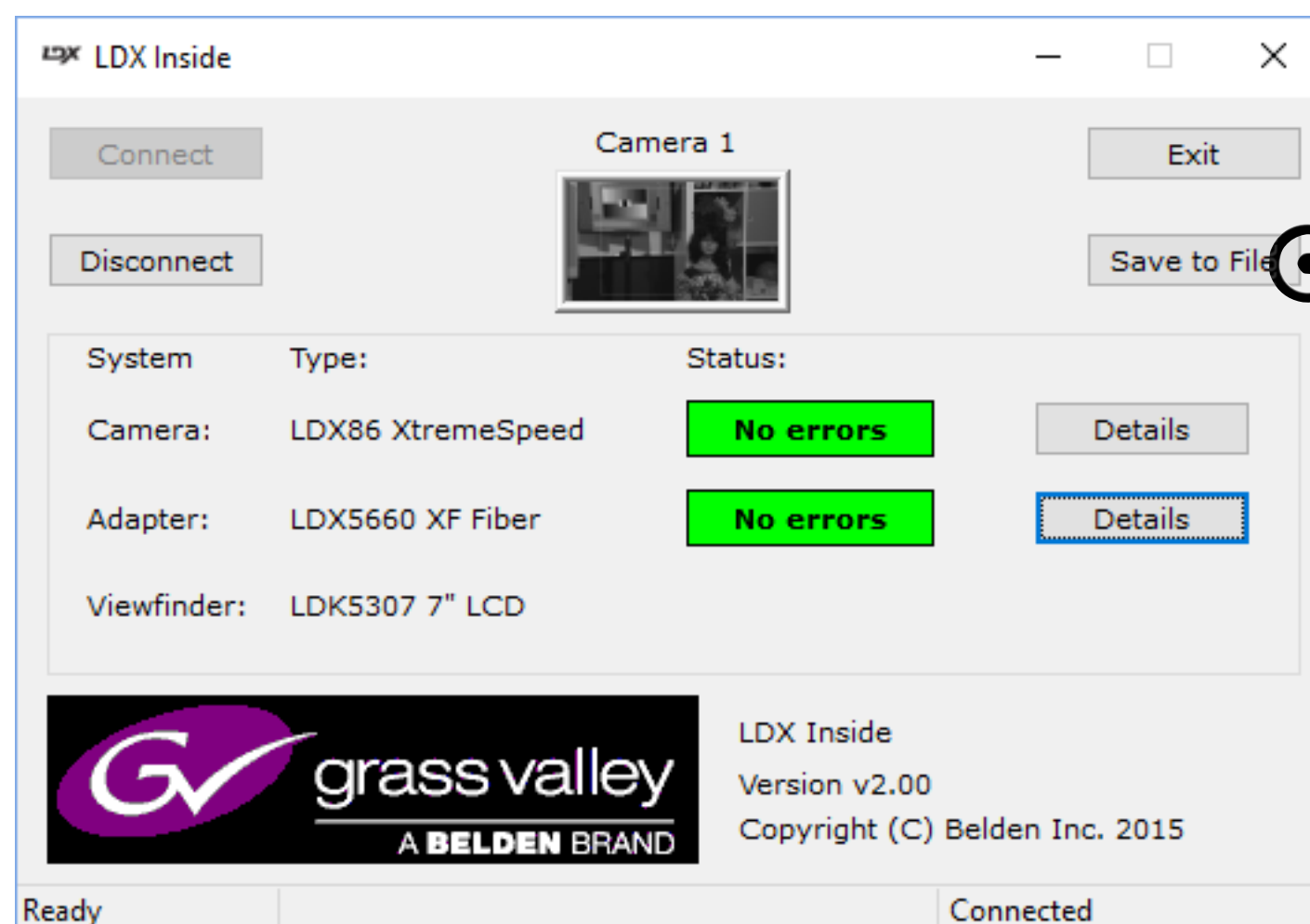
LDX Inside

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



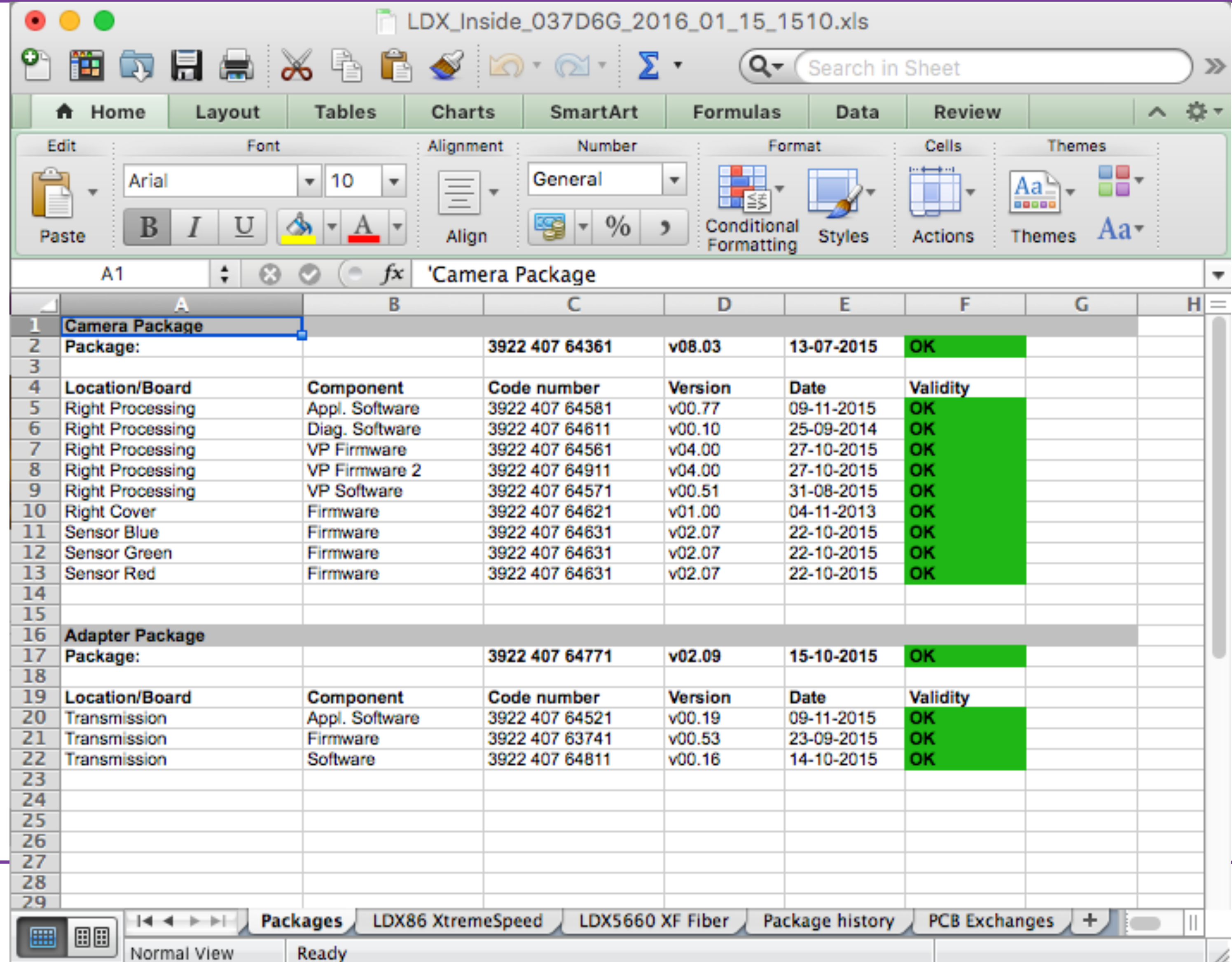
LDX Inside

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 titled "LDX_Inside_037D6G_2016_01_15_1510.xls". The spreadsheet is organized into two main sections: "Camera Package" and "Adapter Package". Each section has a header row with columns for Location/Board, Component, Code number, Version, Date, and Validity. The "Camera Package" section contains 13 rows of data, and the "Adapter Package" section contains 4 rows of data. The "Validity" column for all entries is marked "OK".

Location/Board	Component	Code number	Version	Date	Validity
Camera Package		3922 407 64361	v08.03	13-07-2015	OK
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
Adapter Package		3922 407 64771	v02.09	15-10-2015	OK
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