

Information about ZEN 2009 Service Pack 2

Build 5.5.0.443, SMT 5.5.3.1

The Service Pack 2 is a full installation for ZEN 2009 and ZEN 2009 SP1. It is required that ZEN 2009 is available on the system before the service pack is installed. This ensures that mandatory files (licenses, manuals) for ZEN 2009 are available on the system. The Help files will be updated during installation.

ZEN 2009 SP2 can not be used as a direct upgrade for ZEN2008 and older versions.

A master DVD is available. Internet download is available for the full version (not LE). The contents of the hot fixes for ZEN 2009 and ZEN 2010B are incorporated.

1. Part numbers

000000 1486 520 Basic Software for LSM 700
000000 1536 346 Basic Software for LSM 710
000000 1536 933 ZEN 2009 for ConfoCor 3 on LSM 710
000000 1536 932 Basic Software for LSM 7 LIVE

000000 1697 066 Software ZEN 2009, additional license

000000 1769 134 Upgrade ZEN 2009 from ZEN 2008 32-bit
000000 1769 135 Upgrade ZEN 2009 from ZEN 2008 64-bit

000000 1693 426 Topography ZEN 2009
000000 1693 427 3D for LSM ZEN 2009
000000 1693 428 Stitch Art plus for ZEN 2009
000000 1693 429 Image VisArt for ZEN 2009
000000 1693 430 Physiologie for ZEN 2009
000000 1693 431 Deconvolution for ZEN 2009
000000 1693 432 Macro Edit for ZEN 2009
000000 1693 433 Multiple TimeSeries for ZEN 2009
000000 1693 434 Visual Macro Editor for ZEN 2009
000000 1693 436 FRET for ZEN 2009
000000 1693 435 FRAP for ZEN 2009
000000 1693 437 RICS for ZEN 2009
000000 1764 201 FCS software module Diffusion/Fitting
000000 1764 200 FCS softwaremodul PCH

With ZEN 2009 SP2 the LSM 700 can be used also under Windows 7- 64bit.

The Esprimo P7936 user PC with Win7 – 64bit can now be used with ZEN 2009 SP2 as an computer upgrade.

2. Approved instruments and accessories

In short: the current MIB-J product line.

Upgrades for MIB-J systems from release 2.8 on with some exceptions

Computers	Zeiss 30 A (R 640) Zeiss 30 C (W 350) Zeiss 35 A (R 650) Zeiss 35 C (W 360) Zeiss 40C (Esprimo P7935) Zeiss 45C (Esprimo P7936) Zeiss 45A (Z800)
Operating systems	Microsoft Windows XP Professional SP2 on R 640, W 350, Esprimo P7935 Microsoft Windows Vista Ultimate SP1 32-bit and 64-bit on R 650 und W 360 Microsoft Windows Vista Ultimate SP1 32-bit and 64-bit on Esprimo P7935 Windows 7 Ultimate 64-bit on Z800 Windows 7 Ultimate 64-bit on Eprimo P7936
Basic instruments	LSM 700 LSM 710 (2-PMT, 3-PMT, 32+2-channel PMT) LSM 7 MP LSM 7 LIVE LSM 7 DUO LSM 7 LIVE DuoScan LSM 710 mit ConfoCor 3 LSM 510 from Release 2.8 on LSM 5 PASCAL from Release 2.8 on LSM 5 EXCITER LSM 5 LIVE LSM 5 LIVE DuoScan LSM 5 DUO LSM 510 with ConfoCor 2 LSM 510 with ConfoCor 3 Not approved: ConfoCor 2 stand alone (without LSM), LSM 5 MP, LSM 510 DuoScan

Continued approved instruments and accessories

Stands	<p>AxioObserver AxioImager AxioExaminer AxioSkop 2 FS AxioSkop 2 MOT AxioVert 200 M AxioScope</p> <p>Not approved: Axiovert 100, Axiotron 2, Axioplan 2, Axioplan 2 imaging, Axioplan 2 ie</p>
Accessories	<p>All motorised scanning stages of the MIB-J systems family since release 2.8</p> <p>All T-PMT and NDD- and GaAsP NDD detectors of the MIB-J systems family since release 2.8</p> <p>Lamps HBO 50/100, HAL 100, X-Cite 120,</p> <p>Lasers InTune, Chameleon, Mai Tai</p> <p>Piezo objective frive PI, Z-Piezo stage insert PiezoSystem Jena, Z-Piezo stage attachment Prior Definite Focus</p> <p>AxioCam HRm/HRc Rev. 1.4, 2.0 und 3.0 MRm/MRc Rev. 3.0 MRc 5</p> <p>New EZ-PC as a spare part for LSM 5 release 3.5 HW RT-PC_2010_ENTRY INR: 000000-0514-836 000000-1778-188 RT-PC_2010_LIVE INR: 000000-0514-837 000000-1778-190 RT-PC_2010_PREMIUM INR: 000000-0514-838 000000-1778-189 RT-PC_2010_DUO INR: 000000-0514-839 000000-1778-191</p> <p>New AOTF interface 000000-1778-740</p> <p>Not approved: AxioCam HSm/HSc Rev. 1.1, AxioCam MRm/MRc Rev. 2.0</p> <p>Not approved: 000000-1092-126 HRZ 200, 000000-1220-027 Piezo objektive drive PiezoSystem Jena</p> <p>Not approved: Lasers: Enterprise UV 351/364nm</p>

3. Installed components with different version numbers

The comments relate to the programs with MIB-J authorship.

The automatic build creates the version numbers for the compiled files. For VBA macros, these differ from the version number of the other files. The version number for VBA macros is a 6-digit number, where the two highest numbers include the release number, and the 4 lowest digits are the build number. All VBA Macros thus have the version number 550443.

File name	description	Version
CZCanSrv.exe	CAN Communication Server	7.19.0.0
CanCheck	CanCheck	5.34
System_Maintenance_Tool.exe	System Maintainace Tool	5.5.3.1
Configuration Tool 2010.exe	System Configuration Tool 2010	6.0.2.3

The installation files, due to the type of these files, have no version resource. An identification can be made by the file modification date. Date and Time represent the time point when the files were obtained from the automatic build from Source Safe database.

4. Functional improvements

General:

It includes all functional enhancements that have been done so far under the ZEN 2010 release. The list below gives some examples of these improvements. This list however is not complete.

(1)	Improved Deconvolution Module
(2)	Support of 64 Bit operating systems for LSM 700
(3)	Piezofocus und Piezo stages available for LSM 700
(4)	Dual-layer measurements (Topography/MAT, if Topography license available)
(5)	Content of project Brinell (Topography/MAT, if Topography license available)

5. Macros

The name of the MultiTime macro changes from „MultitimeZEN2008.lvb“ in release ZEN 2009, or „MultitimeZen2009B_SP1.lvb“ for ZEN 2009 SP1, in „MultitimeZen2009_2010.lvb“ for ZEN 2009 SP2.

6. Manuals

The operating manuals for „ZEN 2009 SP 2“ were not changed, the existing files from ZEN 2009 are valid. The help files will be automatically updated to the current status.

Fixed Bugs

	Improvement of... (bug description)
Shading correction	Errors in shading correction
Performance	memory leaks, ROI with large files
FCS	(1) in FCS mode, the count rate window shows sporadically just a zero. Then no measurement is possible, after reopening the window measurement is possible again (2) ConfoCor3 shutter opens too slowly. The shutter for the APDs in ConfoCor3 take about 50ms to open. This usually only occurs when first switching to FCS mode from LSM mode. (3) When using NLO –Laser for FCS, the Main Shutter NLO does not open (4) xyz-scan does not work; often results in no graph; when using a Z-scan it isn't possible to change Z-position
Saving of Lambda Stacks	Slow Saving of Lambda Stacks greater than 4GB. > 1hr
Crash in Mean ROI by Apply to Brightn. and Contrast to tables and diagram	ZEN is crashing when Ratio mode in time series is used (both Online Fingerprint mode and Channel mode). When drawing a ROI to see the trace in time series and/or change "Brightness" scaling within "Display", ZEN immediately crashes.
Autofocus bug	(1) Offset and test work, but with actual scan errors in the offset, finds wrong focus plane (2) Problem: When using the Autofocus Reflexion mode an error occurs. (LSM700) (3) When pressing the Autofocus FL mode, it is searching in a different area as the focus is.
Stage doesn't Stopp	With long travels (e.g. Multiwell positions)
Smart setup	Best Compromise mode doesn't give the best selection of tracks
Bleach with same IR wavelength	When using the same IR wavelength for imaging and bleach, the the wavelength is shown multiple times in the bleach menu
Timing bleach	Deviations in timing when working with 2 scanner pairs.
Zen doesn't open RL shutter	Zen doesn't open RL shutter, when switching to "Ocular". The problem is created by the manual filter revolver on the Examiner. Changing the filter revolver in the ConfigTool from "5x Reflector turret manual" to "5x Reflector turret motorized" solves this; even though the configuration is wrong, but this has no negative effect.
Online Fingerprinting	(1) If we re-use an Online Fingerprint Image, the Software switched to Lambda Mode and not to Online fingerprinting mode (2) It was not possible to re-use Ratio mode
Camera	(1) LIVE Button was greyed out (2) mostly the AutoExposure doesn't work correct
Bleaching	Acquisition '-Bleaching' '-stop when intensity drops to --%' does not work. (LSM700 ZEN2009b SP1) –happens, when the bleach event is short
Z-scan with Piezo	Image error with Z scan and piezo and the following configuration: linewise Multitracking with 3 tracks in bidi mode
Trigger signal is missing sometimes	Trigger sometimes doesn't function, depends on scan speed und selected laser lines
Colocalization	Coloc: if all channels are deactivated in the display, the coloc image is only displayed half. As soon as one channel is activated, it works again.
T-PMT and time stamp	Wrong time stamp when using the T-PMT
Ratio	ZEN has stopped working ... Line mode and ratio channel with 1st Image and lineselect
Hot Fixes	Integration of the Hot Fixes of ZEN 2010