

VERIFICATION	APPROVAL
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Owandy network, VSM

1 SUBJECT

This document summarizes evolutions of the DSPU Firmware after the validation of the product.

2 REVISION HISTORY OF BOOT LOADER

Date	Development Version	Released Version	Change
21/10/2008	1.7	1.7	Version used for system validation
17/11/2008	2.0	2.0	Few boards were manufactured with a boot loader limiting the bus frequency to 60 MHz. This restriction increases the time for image processing but lets the image acquisition functional. This release was used to bypass a bug appeared with a batch of component. Every boards with bootloader V2.0 have to be sent back to Owandy to be update. The only firmware version working with this boot loader is 1.04.
5/12/2008	2.1	2.1	This version uses the max bus frequency (80 MHz). It corrects the access time of Flash device.

3 REVISION HISTORY OF FIRMWARE IMAGE

Date	Development Version	Released Version	Change
17/11/2008	1.04	1.04	Few boards were manufactured working with a bus frequency of 60 MHz. This restriction increases the image processing time but lets the image acquisition functional. Every boards with Firmware V1.04 have to be sent back to Owandy to be update (bootloader + Firmware) This firmware works only with boot loader V2.0.
24/11/2008	1.05	--	Corrects the transmission of the READY / BUSY Led state to the virtual keyboard in the VSM keyboard configuration. This version is not in production
1/12/2008	1.07	1.07	Corrects a bug in the POW file recording which makes the POW file invisible in QuickVision.
23/12	1.09	--	Test version during the development of the "Special Key" function. This version is not in production.
28/1/2009	1.11	1.11	Include the Special Key feature (pressing on the "M" / "A") on the top right of the screen. "Special" Key followed by the "Test" goes in X Test mode. Special Key followed by the "Mode" goes in recording new default parameters. Corrects a bug producing sometimes the loss of first columns of the image after a centring image acquisition.
01/04/2009	1.13		Add traces on CAN bus and traces on Yellow LED state Adjust the TimeOut value in TCP dialog survey with a different value between TMJ and other exams (concern Issue #1 of VSM mail 2009-03-05) Modify production tool (service): <ul style="list-style-type: none"> - Add automatic test in SPI link of the ADC - Add direct access to FRAM autotest - Add TCP Address activation in programming menu
24/04/2009	1.15		When one of the cassette presence is detected, but with communication errors (often due to interface connectors), the LED drawn at the bottom left of the LCD screen becomes RED. Clean the trace generation. Date of trace are now given from the instant of reception of the CAN " message CMD_DATE"
05/10/2009	1.17	1.17	Process CAN messages for implant exams, with 4 new bitmaps referring to implant exams. Use CAN address filtering on reception. Answer when the CPU reads CAN error counters.
09/07/2010	1.19	1.19	Correct the bug with blinking of LEDs of keyboard. Add the 4 new CAN Codes / Bitmap for 3D exam (Rimini need).
26/04/2012	1.27 (Beta-tests)		<ul style="list-style-type: none"> - Add new exam : "Bitewing Right", "Bitewing Left", "Bitewing Right and Left" - Add 2 new button on set-up menu for Ceph calibration - Manage new CAN messages informing the DSPU of an exam with 3D sensor.

30/08/2012 (beta) 25/01/2013 (prod)	1.31	1.31	Cut condyle bug solved
08/04/2013	1.33	1.33	<ul style="list-style-type: none"> - Modify the "presence cassette" test : some cassette were not detected - Add 4 new exam (new trajectories) : "Pano EVO", "Emi Pano Left EVO", "Emi Pano Right EVO", "Low Dose EVO"
10/12/2014	1.35	1.35	DAP coefficients sent by CPU are sent do OSP
18/02/2015	1.37	--	Dark signal problem in the bottom of the images solved
27/08/2015	2.01	2.01	<ul style="list-style-type: none"> - Management of maxillar and mandibular volumes - Management of machines without VDSIB and HUB boards; with this configuration, the flatpanel temperature is managed by DSPU. - Management of mA values within R20 series
03/02/2016	2.03	2.03	<ul style="list-style-type: none"> - Debug prints removed from the CAN driver; it caused "freezing" issues. - Management of SuperHD maxillar and mandibular volumes

Dead branch issued from version 1.19

08/07/2010	1.21	NOT FOR CUSTOMERS	2D and 3D machines: <ul style="list-style-type: none"> - New CAN driver with statistics recording (fully rewritten). - Add supports in the POW file (only on USB pen drive). Records the CAN statistics and the last traces emitted by the system. Can be visualised with the new release of POW_Report. - Manage new CAN messages informing the DSPU of an exam with 3D sensor.
30/08/2010	1.23	NOT FOR CUSTOMERS	2D and 3D machines: <ul style="list-style-type: none"> - Correct a bug in communication between Virtual Keyboard and DSPU due to the CAN driver modification.
4/11/2010	1.25	NOT FOR CUSTOMERS	Bug Correction : random software failure, mainly when touching the touch screen
15/12/2011	1.29	NOT FOR CUSTOMERS	Add new exam : "Bitewing Right", "Bitewing Left", "Bitewing Right and Left" Add 2 new button on set-up menu for Ceph calibration Driver CAN from Owandy development A retester pour le bug d'adresse IP de dBUG

Note:

- All the ODD firmware indices work with 80 MHz bootloader version.
- EVEN firmware indices are reserved for 60 MHz booloader (version 2.04).

End of document