

SOFTWARE RELEASE NOTE # 20

September 05, 2014

To: All EMxpert End-Users

Re: Latest Software Release 5.0

EMSCAN is pleased to provide a free software upgrade to all the EMxpert units acquired on or after June 1, 2012.

All EMxpert and NexusPlusCompact units acquired prior to June 1, 2012 can obtain the software upgrade by purchasing a Customer Care Package (p/n 3000-1810). Please contact your local representative or contact us via our web site: <http://www.emscan.com/emscan/contactus.cfm>

You can install 5.0 in parallel with your current EMxpert 3.x or 4.x software application. Since the data file format of 5.0 is different from the data file format of 3.x and 4.x you need your older application to review past projects. In a future upgrade, 3.x and 4.x data files will be reformatted and made readable by 5.0.

EMxpert 5.0 release is a substantially redesigned EMxpert application, greatly improving the user's experience and efficiency.

1. V 5.0.1.10 versus 4.x

- a. The application will connect automatically to the scanner and supported analyzer
- b. You will enjoy the disappearance of annoying things like the Connect icon, the separate VirtualController program, the mandatory "Run as Administrator" first run, and the confusing Adaptor's IP address in Preferences
- c. A project file is an *.emx file and not a set of folder and sub-folders; no need to zip a folder to send data around for review
- d. You can open multiple projects and keep track of multiple scans with different settings in each project
- e. You can overlay a picture of the DUT in jpeg format in addition to the standard Gerber and HPGL format CAD files
 - You can control the transparency of the picture overlay with the wheel of your mouse in the Spatial Scan settings and while running Spatial Scan
- f. Overlays can be positioned precisely with the arrow keys
 - Size of the picture can also be modified with Ctrl+Arrow Key
- g. 3D Spatial Scan is easily manipulated with the mouse to look at it from any direction
 - Ctrl+Mouse Wheel will adjust the elevation of the overlay (Gerber, HPGL or picture) to precisely match the tip of the peak emissions to a feature on the DUT
 - 3D view is now available for any zoomed-in area of the 2D Spatial Scan
- h. Spectral Scan is displayed in linear or log scale; it can thus be easily compared to chamber results

- i. One of the most powerful functions of the EMxpert has always been the Spectral/Spatial; it provides a completely thorough analysis of a DUT but it was awkward to use. With 5.0 it is now the easiest thing in the world: Mark a frequency on Spectral Scan and see the related Spatial Scan; click anywhere on Spatial Scan and see the related Spectral Scan
- j. Selecting Interleaved Scan in the Spatial Scan settings will implement two Spatial Scans to reduce blind spots. Such function used to be the Blind Spot Reduction node in 4.x.
 - In Interleaved Scan, the DUT has to go up one row whereas in the Blind Sport Reduction node the DUT had to go down one row. This is to make 5.0 common for EHx and ERx+.
 - The Blind Spot Reduction Node is still available in 5.0 but it is reserved for the time when 5.0 can support 4.x and 3.x data files. It will be for review purposes only.
- k. Probe compensation can be applied to either all the data or any peaks above an user defined threshold
- l. Notes are no longer a separate node; you can write a fairly long text in the Description tab in the Settings for each scan and it will be inserted automatically in the report
- m. Display columns can be set to reflect various generations of scanners with either numbered or lettered scanner grid

2. V 5.0.1.10 missing functions compared to 4.x

- a. No Windows XP Support
- b. Only the following spectrum analyzers at the firmware level stated on our web site at http://emscan.com/emxpert/EMx_supportedSA.cfm are supported
 - Agilent FieldFox
 - Agilent CXA N9000A, EXA N9010A, MXA N9020A, MXE N9038A and PXA N9030A
 - Rohde & Schwarz FSL, FSQ and FSV
- c. Spectral/Spatial Scripting node
- d. Far-field Antenna node
- e. Copy/Paste function