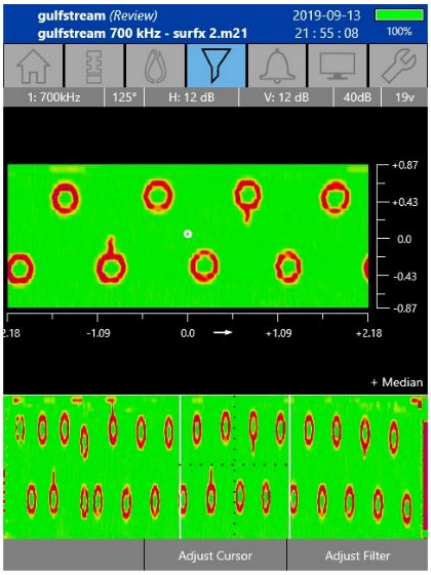
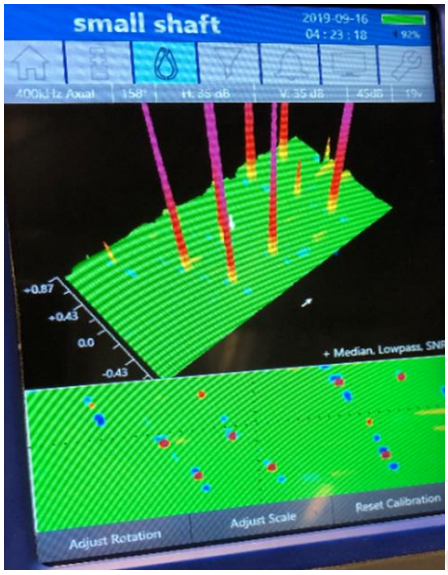
MIZ-21C SOFTWARE 1.2.0

Product Bulletin





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May 18th, 2020

MIZ-21C Software 1.2.0 Product Bulletin

Zetec just released *MIZ-21C Software 1.2.0*. This software version can be used on any MIZ-21C instrument that has operating system and drivers Full Flash Update (FFU) 1.1.1 or newer. Please contact Zetec Customer Service at CustomerService@zetec.com if you have FFU 1.0.9 or earlier. This product bulletin presents an overview of the new features and changes in this software version.

MIZ-21C Software 1.2.0 has three application modes depending on the MIZ-21C model:

- **MIZ-21C-SF Models**: Conductivity and Coating Thickness, Sub-Surface, and Surface Cracks.
- **MIZ-21C-DF Models**: Includes Bolt Holes.
- **MIZ-21C-ARRAY Models**: Includes Bolt Holes and Surface Array.

Purpose of MIZ-21C Software 1.2.0

MIZ-21C Software 1.2.0 is the standard upgrade for users of previous versions of MIZ-21C software. This software release includes several new features and improvements.

Zetec's hardware and software development process is performed according to a quality system that is certified ISO 9001-2015. With this certified software development process, Zetec guarantees that changes between earlier MIZ-21C Software releases and MIZ-21C Software 1.2.0 have no consequences on the sensitivity and the accuracy of the recorded data or results processed by the software.

New Features in MIZ-21C Software 1.2.0

The following are the new features in *MIZ-21C Software 1.2.0*:

Remote Display Reconnect Improvement

If the connection to remote display drops, it can be difficult to re-establish connection. The remote display connection has been improved to make it reliably re-establish connection. Note that if the connection is lost, it takes 90 seconds for the system to assess the need and automatically re-establish the connection.

Change the Distance Measurement Display in 3D C-Scan

Previously in the 3D C-Scan, the distance was measured from the center of this display and increasing positively and negatively from there. The distance marker now starts at the beginning of the data file for axial orientation and at coil #1 for transverse orientation.

Distinguish +Point Coils for Surf-X Weld

Previously, the data from the two +Point channels were combined in a single impedance display which made it difficult to distinguish between the two channels. The two channels now have their own impedance displays.

Added Grid Type Display Options

The number of grid divisions displayed can be adjusted by the "Grid Options" which can be accessed from the Tools menu. The options for the grid display are:

- Off: No grid is displayed
- 10 x 10 – Fixed 10 grid divisions horizontally and vertically. There will be unused space on the sides of the screen for some displays.
- Fine – Fixed 10 grid divisions vertically. The number of horizontal grid divisions will vary so that the whole screen is used, regardless of what display is being shown.
- Coarse – Half the number of divisions than Fine. Note: When divisions are used as a unit of measure (such as the SNR filter and C-scan Shading Thresholds), the measurement is still based upon the Fine grid. For example, if the C-scan Shading Outer Threshold is set to 1 division, this is shown as 0.5 divisions when in Coarse mode.

Surf-X Data Hiders for C-Scan

There are exams where collecting data across the full width of the array probe is not required. The user can reduce both sides of the coverage area through the “Adjust Coil Mask” function which can be accessed from the Probe Information tab as shown below:

When Adjust Coil Mask is highlighted, the arrow keys can be used to adjust the coverage areas on either side of the probe. The areas in gray are “masked” and are essentially blind to the instrument.

True Screenshot

- Screenshots now can be taken on any screen and will only capture the information on the screen at the time.
- To take a screenshot, press and hold the Start/Stop acquire button until an audible beep is heard.
- To capture sections with scrolling information, it is necessary to take multiple screenshots to capture all the data.

Bolt Hole Allows for 60 Seconds of Data

- The instrument now has the capability to capture a minimum of 60 seconds of impedance plane trace data (x/y versus time) for subsequent review or download to a computer.
- Performance improvements have been implemented for techniques which place a high load to the system such as bolt hole techniques with high sample rates.
- These performance improvements also benefit array data, including live calibration.

Added Display Modes

- For Bolt Holes there are two new acquisition display options: Sweep-Impedance full screen display and Sweep-Stripchart full screen display.
- The displays are not active by default but can be activated in the new 'Acquisition Displays' section of the technique.
- In Acquisition Displays there is a picture of each display mode that can be used with the current technique based on probe type, merge active, number of frequencies, etc. These can be enabled or disabled as desired.
- Each main class of technique (array, weld, rotating scanner, conductivity, surface/subsurface) has one required display that cannot be turned off.
- Note that regardless if a display used during real-time calibrations is turned off or on, this display will still be shown for real-time calibration.
- Surface/subsurface application techniques also now have a new Impedance only option that is disabled by default.

Dynamic Bolt Hole Scanner Mode

- Display options now include showing only the current sweep (y versus t) while automatically erasing the previous sweep information.

RA-2000 Scanner Interface

The MIZ-21C now allows for an option to use the RA-2000 Rotating Scanner.

Analog Output

The instrument has analog outputs to allow for horizontal and vertical component test signal monitoring through a new adapter. The adapter is ZES-ADP-MIZ-21C_26_PIN_TO_ANALOG_OUTPUT_1FT (177A801-00) and has a cable to the 26-pin connector. The adapter has two BNC connectors for the H & V analog outputs.

New Surf-X Tape Probes

Slewing and merging parameters for the new Surf-X Tape probes have been updated. These parameters make the merge channel and other aspects of the c-scan displays more accurate.

Downloading and Installing MIZ-21C Software 1.2.0

For this or other MIZ-21C Software versions, please visit MIZ-21C Download at www.zetec.com

To upgrade the MIZ-21C software from **1.0.9 or earlier** to the new 1.2.0 version, the MIZ-21C must be returned to Zetec. Please contact Zetec Customer Service at CustomerService@zetec.com for a return authorization number.

Instructions (choose the option applicable to you):

(OPTION 1) To upgrade the MIZ-21C Gen2 sealed hardware to the new 1.2.0 version:

- On a USB drive create a folder "MIZ-21C" with subfolder "Updates": \MIZ-21C\Updates\
- Copy the downloaded zip files (MIZ-21C.Application.1.2.0.43.install and MIZ-21C.System.1.2.0.43.install) into the "Updates" folder on the USB drive
- Insert the USB drive into the MIZ-21C and go to Tools > System Updates and click Update Software and Firmware
- Select from the list: MIZ-21C.System.1.2.0.43.install and click OK, then wait for shutdown
- The 'Gears' phase will begin, then wait for shutdown
- From Version Manager, select 'Install' and select from the list: MIZ-21C.Application.1.2.0.43.install
- Select 'Install' and after 15 seconds it will complete with the 'Install succeeded' message
- Select 'Open MIZ-21C' and the Applications menu will open (Note: if the black Zetec logo persists for more than 2 minutes, then reboot the instrument)

(OPTION 2) To upgrade the MIZ-21C Gen1 non-sealed hardware to the new 1.2.0 version:

- On a USB drive create a folder "MIZ-21C" with subfolder "Updates": \MIZ-21C\Updates\
- Copy the downloaded zip files (MIZ-21C.Application.1.2.0.43.install and MIZ-21C.System.1.2.0.43.install) into the "Updates" folder on the USB drive
- Insert the USB drive into the MIZ-21C and go to Tools > System Updates and click Update Software and Firmware
- Select from the list: MIZ-21C.System.1.2.0.43.install and click OK, then wait for shutdown (verify by noting that the fans are off)
- Press the Power Button to turn the instrument back on
- The 'Gears' phase will begin, then wait for shutdown (verify by noting that the fans are off)
- Press the Power Button to turn the instrument back on
- Wait for a few minutes, then one of two things will happen on restart:
- – The application will boot to the normal Applications menu, WAIT 5 seconds for the screen to change to the Version Manager
- – OR during the boot cycle the user will have a 5 second window to select between 'Launch' or 'Manage Versions', click Manage Versions to go to the Version Manager
- From Version Manager, select 'Install' and select from the list: MIZ-21C.Application.1.2.0.43.install
- Select 'Install' and after 15 seconds it will complete with the 'Install succeeded' message
- Select 'Open MIZ-21C' and the Applications menu will open (Note: if the black Zetec logo persists for more than 2 minutes, then reboot the instrument)