Eddyfi Magnifi® 5.4R13 Release Notes

Release date: March 18th, 2025

Cloud-based Licensing System

Magnifi® 5.x is now activated through a cloud-based licensing system.

For clients under a valid maintenance plan, access to version 5.4 is included. Simply type your current Magnifi key code in the *Manage License-> License code* field.

If you are not under a valid maintenance plan, please contact your Eddyfi Technologies sales representative.

Resolved Issues

Generic

- Corrected a bug in the waveform detection zones to prevent error messages and missed detections.

Surface Applications

- Fixed issues with the calibration of the Advanced Liftoff Compensation C-scan process.
- Refinements to the calculations of the Sharck User Material calibration.

Tubing Applications

- Fixed issues occurring when using Magnifi for data acquisition with the Ectane instrument without an active cloud license:
    - Magnifi can now connect to the Ectane-I (IRIS only) model.
    - Button to connect to the instrument for acquisition is now always available when no Magnifi license is active.

Eddyfi Technologies
Beyond current

Artificial Intelligence Module

Technology: Eddy current testing (ECT) for tubing bobbin data

Version: 4.0

Performance

- >98% probability of detecting significant indications[1,2]
- >98% probability of detecting tubesheets and support plates properly[2]

[1]Significant indications in the test database correspond to a vertical signal amplitude at 50% of the calibration hole signal or a vertical signal amplitude between 25% and 49% of the calibration hole signal combined with a depth of 40%.

[2]90% confidence level.

Known Issues, Limitations, Restrictions

- Cannot detect more than 1,000 indications per tube.
- No detection under tubesheets.
- ECT-BBFS saturation, ECT-BBST flexible, DefHi, and ECT-BBAC air conditioning probes are not supported.
- Tubes with external fins, ID and/ OD mechanically enhanced tubes.
- Indications with lengths greater than 1,000 samples are not detected. For a typical sampling rate of 2 samples/mm, this represents a length of approximately 50 cm (19.7 in).
- Any signals on the AA-DIF_F2 channel that are shorter than 5 samples and have a vertical size (amplitude) less than 0.09 Volt won't be analyzed by the detection engine. The AA-DIF_F2 channel is set up for artificial intelligence detection and is calibrated at 1V and 40° for a 100% through-wall hole using peak-to-peak phase measurement.

Minimum System Requirements

- Processor: Core i5 (or equivalent).
- Operating systems:
  - Edition: Windows 10 version 1607 (Anniversary Update) or Windows 11
  - System type: 64-bit operating system
  - Note: The software is tested and optimized for most major language packs available on the Windows suite.
- Memory: 8 GB.
- Graphics card: GPU with DirectX 11 support.
- Disk space: 20 GB.
- Network: Built-in network card.
- Display:
  - Screen size: 13 in
  - Resolution: 1366 × 768 pixels
  - Display scale: 100% (Windows preferences setting).
- Administrator rights: User must have local administrator permissions on the computer to install and use Magnifi.

Eddyfi Technologies
Beyond current

Recommended System Requirements

- Processor: Core i7 (or equivalent).
- Operating systems:
    - Edition: Windows 10 (latest version)
    - System type: 64-bit operating system
    - Note: The software is tested and optimized for most major language packs available on the Windows suite.
- Memory: 16 GB.
- Graphics card: Dedicated GPU with DirectX 11 support.
- Disk space: 100 GB.
- Network: Built-in network card.
- Display:
    - Screen size: 15 in
    - Resolution: 1920 x 1080 pixels
    - External monitor: 22 in or larger, with a minimum resolution of 1920 × 1080 pixels (for extensive analysis purposes)
    - Display scale: 100% (Windows preferences setting).
- Administrator rights: User must have Administrator permissions on the computer to install and use Magnifi.

Firmware

Included in this release of Magnifi are the following packages:

Ectane 3
- Version: 1.0R7

Ectane 2
- Version: 2.1R15

Ectane
- Version: 1.8R5.1 (same version as for Magnifi 3.5R15)