

EddyVision 9.0 Release Notes

August 29, 2021

These release notes document all changes from Rev 8.1 to Rev 9.0.

Warning: Files created and/or modified with EddyVision 9.0 may not be readable with earlier versions.

EddyVision 9.0 runs on Windows 7 or Windows 10.

1. General

- 1.1. Added the following App Notes:
 - 1.1.1. CICAPP-0013 "RFT & NFT Analysis"
 - 1.1.2. CICAPP-0014 "Map Annotations"
 - 1.1.3. CICAPP-0015 "Eddyfi Data"
 - 1.1.4. CICAPP-0016 "Auto Cal"
 - 1.1.5. CICAPP-0017 "Creating Fixed Curves"
 - 1.1.6. CICAPP-0018 "Rev 9.0 IM-II and IM-III Robot"

2. Analysis

- 2.1. Added many features for RFT and NFT analysis. See *CICAPP-0013* for details. Use the **Edit** → **Configure For** → **RFT** menu option in the main analysis windows to setup the software for RFT or NFT. Use the online help to see exactly what this option does.
- 2.2. Added ability to read Eddyfi data (see TLIST below).
- 2.3. Added auto cal to rotate and set volts for all channels at once. **Left-click** on the **AUTO CAL** button in the button bar to bring up the dialog. **Right-click** on the **AUTO CAL** button to bring up a menu to choose a rule set. **Middle-click** on it to run the current auto cal. See *CICAPP-0016* for details.
- 2.4. Added a **View** → **Show Data** option to balance dialog to see the actual (X, Y) data values.

- 2.5. Added the **FIXED** curve type in the **CURVE** dialog. This allows adding RFT and NFT curves. Default curves have been created based on those invented by Carbon Steel Inspection (CSI). Users can create their own fixed curves. See *CICAPP-0017* for details.
- 2.6. The RFT and NFT curves create a number of subcurves. The user can select which curve to use by right-clicking in the curve window in the lissajous.
- 2.7. Measurement balls now use a square for the base of the vector and circle for the tip to more easily show the correlation with the expanded charts. You can also change their size (see below).
- 2.8. Added a **MAP** button to show the current component. This button can be hidden using the **View → Map Button** menu.
- 2.9. Added the coil mode (e.g. ABS or DIF) to the lissajous channel display.
- 2.10. In the **VOLTS** dialog, added the **This Group** option under **Which Chans**. This is useful for array probes. The auto cal will eventually replace the **VOLTS** button, but it was left in for this rev.
- 2.11. Fixed the voltage normalization for array data. This can also be done vial the auto cal. See *CICAPP-0016* for an example.
- 2.12. Fixed bug in RDTech data format that prevented files from being read.
- 2.13. If **Show Bal Point** is enabled in **OPTIONS**, the balance point now displays as a **+** instead of a circle to more clearly distinguish it from the measurement balls.
- 2.14. You can use the wheel in the lissajous to change span.
- 2.15. **Left** and **Right** arrow keys now go to previous and next tube instead of **Shift+Left** and **Shift+Right**.
- 2.16. Fixed a but in new Vpp which is selected in **OPTIONS** under Miscellaneous **Use New Vpp**. The new Vpp only applies to ABS and ARRAY channels and will always pick the first point in the lissajous. It then finds the farthest point as the second point. This should pick the correct leg even if the whole ABS signal is in the window.
- 2.17. Added **Vvb** (Volts **V**ert **B**ase) measurement type that is similar to **Vvm**. But instead of measuring the max - min voltage value, it measures the max - base value where the base is the first point in the expanded chart. This can be helpful when normalizing array data using auto cal. It is the same as the measurement done for the **Set Group Volts** menu item in the array window popup menu.

- 2.18. The curve label in the lissajous no longer turns red when valid. It now turns red when invalid to match the meaning of that color in the rest of the software.
- 2.19. Added ability to show user-defined lines in a lissajous. Use **Edit → Lissajous Options** to popup a dialog to create the lines.
- 2.20. Added a **View** menu to the main window to control the display of various buttons. This is a shortcut to the same options in the **OPTIONS** dialog. In the case of the **HISTORY** and **COMPARE** buttons, it must be enabled in both the layout and **OPTIONS**.

3. DBMS

- 3.1. Added **File → Print Section** menu to just print a given section. **File → Print Section → All** will print them all, one at a time.
- 3.2. Added **Ctrl+MB** to zoom to a given section of the map. This works in MakeComp as well.
- 3.3. There are three new system macros, **[PRINT SEC NUM]**, **[SEC NAME]** and **[PRINT SEC LABEL]**, that will be filled in with the info for the section being printed.
- 3.4. Added **File → Print Legend** to just print the legend.
- 3.5. Added **File → Print Visible** to just print what is shown in the window. Due to the paper and window having different aspect ratios, this is not be exact.
- 3.6. Added a **LEGEND** button to the button area. This will cause the legend and various fill buttons to appear in a separate dialog. This increases the area to display the map and also allow many more legend entries to be displayed.
- 3.7. Added options to the **File → Print Preview** to just show certain sections or the full map.
- 3.8. Modified **OPTIONS** dialog. All printing related options are now in the **Print** tab which includes items previously in the **Margins** tab. New options include:
 - 3.8.1. **Print Annotations** - Untoggle if you do not want to print annotations.
 - 3.8.2. **Open Stored Image** - Enable if you want images stored using the **File → Store** menu to be opened in the default application. This is useful if you want to copy the image into another application.

3.9. Added C++ style comments to queries:

- 3.9.1. All text from two slashes (i.e. `//`) to the end of a line is a comment.
- 3.9.2. For multiline comments, all text between `/*` and `*/` is ignored. Nested comments are supported.
- 3.9.3. Comments cannot be used for stored queries since Microsoft SQL does not support it. They will be automatically removed before being stored to the database.
- 3.9.4. In addition to documenting a query, this can be useful to experiment with different versions.
- 3.9.5. The **EXPAND** button will show the query with comments removed.

4. Acquisition

- 4.1. Added support for IP cameras with digest authentication. This greatly increases the number of off the shelf cameras that will work. It still must support MJPEG mode.
- 4.2. Many changes to the IM-II and new IM-III robot. See *CICAPP-0018* for details.
- 4.3. Increased TrackDrive-200 maximum speed from 100 in/sec to 120 in/sec.**

5. MakeComp

- 5.1. Added annotations for the component. See *CICAPP-0014*.
- 5.2. Updated **File** → **Print Preview** to have all the features of DBMS print preview.

6. TLIST Dialog

- 6.1. Under **Format** menu, added an **EddyFi** option. Since EddyFi has no fixed directory structure, the **CAL** button will show all directories under the one you choose using **Data** → **Choose Directory** that have *.magdata* files.
- 6.2. Improved the **Show Binary** dialog in the menu that appears when you right-click on a data file. The **Show Binary Swapped** has been removed. This is of no importance to most users.

6.3. Added EddyFi to the **Format** menu.

7. OPTIONS Dialog

7.1. Under **Config Change** added **Ignore Frequencies**. If enabled, frequency changes will not bring up the config change dialog. This is useful in RFT where such a change does not invalidate the setup. Instead, a message will be printed at the bottom of the screen to notify the user of such a change.

7.2. Under **New File** added **Goto Beginning of Tube**. If **Goto First Sig** is also selected, that will take precedence.

7.3. Under **Lissajous** added **Draw User-defined Lines**. If disabled, user-defined lines will not be drawn.

7.4. Under **Miscellaneous**:

7.4.1. Added **Auto Cal Hotkey** which enabled uses the A key to perform the current auto cal. This is disabled by default but will be automatically enabled via the configure for RFT or configure for NFT menu options.

7.4.2. Added **Continuous Meas** which causes the last measurement to be made as continuously as you scroll through data. This avoids the need to constantly click in the lissajous.

7.4.3. Added **Independent Meas** which causes the measurements to be done independently on each channel. This is useful for RFT and NFT.

7.4.4. Added **Balance When Scrolling**. If enabled, the data will be balanced when the **Up** and **Down** arrows are used to scroll and the data is too far out of balance.

7.4.5. Added **Enable Controller** to enable the EddyVision acquisition controller. Most users should leave this disabled.

7.5. Under **Display**:

7.5.1. Added **Meas Ball Radius**. This changes the size of the measurement balls in the lissajous and expanded charts.

7.5.2. Added **Highlight Percent**. If not **OFF**, then the percent label in the lissajous will turn red when the percent degradation is greater than or equal to this value. This is useful when **Continuous Meas** is enabled.

8. DEFECT LIST Dialog

- 8.1. Added a **HOT KEY** field. Click in this field to set the hot key to use to add that report entry.
 - 8.1.1. Middle-click in a field to clear it. Middle-click in the title to clear them all. You must select which channel to use in the **CHAN** field.
 - 8.1.2. The hot key can be used to add report entries in the main window. For example, if you set the hot key for a **DNT** to **D**, pressing **D** will add a **DNT** to the report.
 - 8.1.3. The list of hot keys can also be seen in the main window **Util → Report Hot Keys** menu.
- 8.2. Added **NXT TUB** field. If enabled, the next tube will be read after entering the report entry. This is true whether the entry is made via a hot key, lissajous button or percent button. This is commonly used for codes like **OBS**.
- 8.3. Removed the **POP MENU** field. All defects will now be shown in the lissajous defect code popup menu in cascading menus. The user should order them with the most used ones at the top of the list. Do that by left-click and drag up/down in the **LINE** field.

9. SETUP Dialog

- 9.1. Added **View → Filter → Log Scale** to view filter transfer functions on a logarithmic instead of linear scale.
- 9.2. Added **View → Filter → Meas** to show values of transfer function at the cursor in the plot window.