

# Quality Grading Software

For Customized Grading of Wire, Rod or Bar

The screenshot shows a software window titled "Current Dataset" with a menu bar containing "Settings" and "Help". On the left side, there is a vertical toolbar with buttons for "Report", "Config", "Browse", "Cancel Coil", "Coil ID", and "Print". The main area is a data table with the following columns: Coil ID, Len. ft, Grade, SD, MD, LD, SF, MF, and LF. The rows are color-coded: red for Grade 'E', green for Grade '+', and yellow for Grade 'B'.

| Coil ID | Len. ft  | Grade | SD | MD | LD | SF | MF | LF |
|---------|----------|-------|----|----|----|----|----|----|
| 14339   | 2853276  | E     | 0  | 0  | 1  | 0  | 2  | 2  |
| 14338   | 41104.0  | +     | 3  | 0  | 0  | 0  | 0  | 0  |
| 14337   | 24662.6  | +     | 0  | 0  | 0  | 0  | 0  | 0  |
| 14336   | 24666.6  | E     | 0  | 1  | 4  | 0  | 0  | 0  |
| 14335   | 24666.6  | +     | 1  | 0  | 0  | 0  | 0  | 0  |
| 14334   | 24537.3  | +     | 0  | 0  | 0  | 0  | 0  | 0  |
| 14333   | 24366.6  | +     | 0  | 0  | 0  | 0  | 0  | 0  |
| 14332   | 24150.6  | +     | 1  | 0  | 0  | 0  | 0  | 0  |
| 14331   | 24026.6  | B     | 2  | 1  | 2  | 0  | 0  | 0  |
| 14330   | 24838.6  | E     | 15 | 8  | 2  | 0  | 0  | 0  |
| 14329   | 578425.3 | +     | 0  | 0  | 0  | 0  | 0  | 0  |
| 14328   | 578425.3 | E     | 53 | 70 | 97 | 1  | 0  | 0  |
| 14329   | 2056.00  | +     | 0  | 0  | 0  | 0  | 0  | 0  |
| 14328   | 144760   | +     | 0  | 0  | 0  | 0  | 0  | 0  |

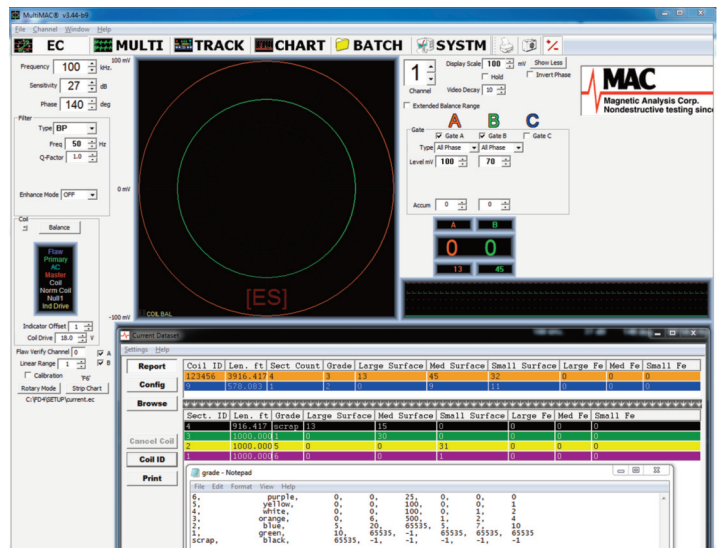
*A typical screen shows grading of continuous cast copper rod, using a MultiMac® SM eddy current instrument.*

# User Configured Grading of Rod & Wire Segments or Coils During Production

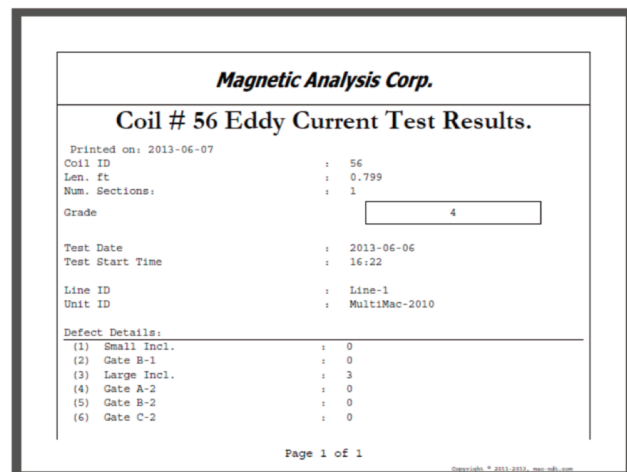
MAC's Grading Software option provides a convenient, efficient means of automatically categorizing the quality level of individual segments and entire coils of metal wire, rod and bar during production. Using the Multimac® or Minimac® 55 eddy current instrument,

the customer can customize the defect types, each based on a specific threshold gate, specify the maximum number of defects for each grade level, and configure reports. Surface defects as well as inclusions are detected and categorized.

- ❑ Use with Multimac® or Minimac® 55 eddy current testers.
- ❑ Characterize the product based on the number and type of surface defects and inclusions in a given segment or coil.
- ❑ Customer specifies the maximum number, type of defect signals, and a color code for each grade level.
- ❑ Each type of defect is detected by a specific gate in the instrument, and is counted in a separate counter (up to 24).
- ❑ At the end of a shift or day, the grade data for each coil tested can be reported.
- ❑ Each coil can be tagged with a unique coil ID and grade.
- ❑ Section length can be defined in metric or english mode.
- ❑ Reports including coil ID, grade, date, time, production line, test instrument, and total defect count for each designated type are provided in a CSV file, easily interfaced with customer databases. Multilingual support is available.
- ❑ Automatically print a simple Coil Report Label after completion of each coil test.
- ❑ Manually print customer selected data, such as coils tested during the current shift, configuration, number, grade and type of defects found.



First two rows in the screen at lower right shows results for a full coil. The next 3 rows show results for individual sections. The table at the bottom shows the criteria for the different color codes.



Reports for a section, entire coil, or several coils can be generated.

