Exhibit AI

QSI MATERIALS INCORPORATED INTO JMRI SOFTWARE

**QSI Published Manual
dated 16 February 2005, page 101**
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Quantum DCC Reference Manual v.3.0   101   16 February 2005

**Jacobsen
Court Doc 237-31, Exhibit AD, page 15
October 2008**

You can also use the Scale Factor to increase the accuracy of its speed. If your engine actual scale miles per hour are running a little under the speed step settings, you can change the scale factor to slightly increase all speeds. This is also useful when trying to match engines in Consists when all are operating under speed control.

A Scale Factor less than 1.0 is useful when the top speed of the engine is much less than 126 smph. For example, suppose an engine has a top speed of 60 smph. With a Scale Factor of 1, all speed steps from 61 through 127 will result in a speed of 60 smph. If the Scale Factor is set to 0.5, then the top speed of 60 smph will correspond to speed steps 121 and above.

A Scale Factor greater than 1.0 is useful when the top speed of the engine is much greater than 126 smph. For example, suppose an engine has a top speed of 200 smph. With a Scale Factor of 1.0 the engine would only go up to 126 smph. If the Scale Factor were set to 2.0, then the top speed of 200 smph would be obtained at speed steps 101 and above.

The advantage of a Scale Factor of "1" for command stations with an LCD display is to easily know the engine's speed. If you do not have a visual readout, it's best to set the Scale Factor to provide the best throttle range.

5.8.3 CV 56.12 Chuff Interval Scale Factor 13 (PI = 12)

```
<ivariable label="Chuff Interval Scale Factor" Vname="56.12" CV="56" PI="12" default="32"
          comment="QSI _____"
   <indexedVal max="128"/> </ivariable>
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