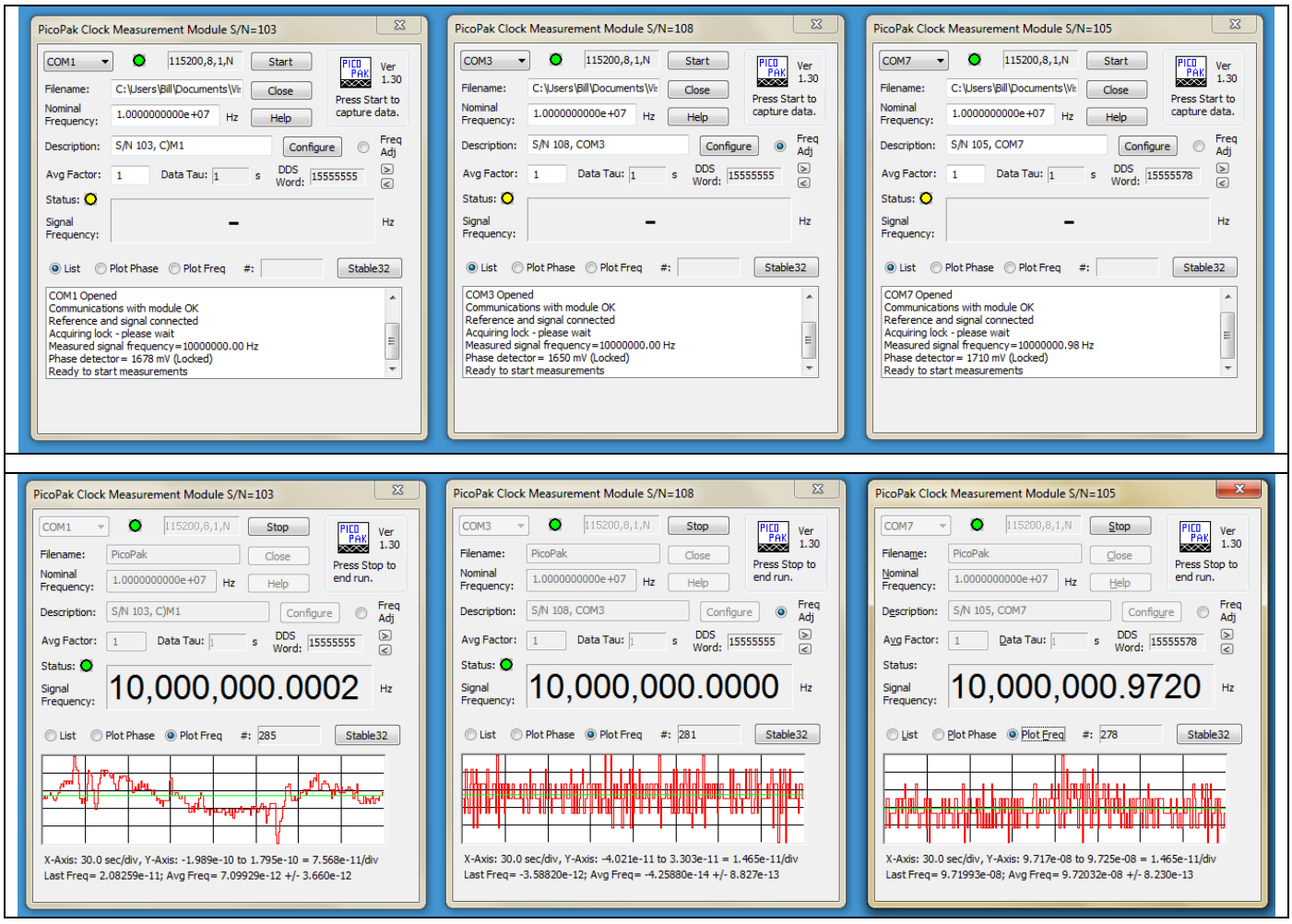
Multiple Instances of the PicoPak Clock Measurement Module and Windows User Interface Program

W.J. Riley
Hamilton Technical Services
Beaufort, SC 29907 USA

Multiple instances of the PicoPak Windows® user interface program can be launched from the same folder. This is satisfactory in most cases, but, because they share the same PicoPak.ini configuration file, there is some coupling between their settings. That can be avoided by creating multiple folders with separate copies of PicoPak.exe, PicoPak.chm and PicoPak.ini for launching multiple PicoPak instances. That can also help with organizing their data files.

The figures below shown three PicoPak modules ready to start and making measurements:



Multiple instances of the PicoPak user interface program require multiple copies of the PicoPak module hardware, of course, along with multiple COM port connections via their USB cables. They also require a USB hub that can supply enough power to operate them all.

Difficulties can be experienced with the way the Windows operating system handles COM port assignments [1], especially when multiple PicoPak modules are used. It seems to help to launch the PicoPak instances starting with the highest COM port number and proceeding toward lower numbers.

It is generally acceptable to connect the Reference input of several PicoPak modules in parallel, but the use of an RF power splitter or separate distribution amplifier channels is recommended to maintain proper impedance matching.

Connecting a pair of PicoPak Signal inputs to the same Reference and Signal source can be used for capturing phase data for a cross-correlation analysis [2, 3].

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1. W.J. Riley, The PicoPak Virtual Serial Port USB Interface, Hamilton Technical Services, September 2015.
2. W.J. Riley, PicoPak Cross-Correlation Test, Hamilton Technical Services, March 2015.
3. W.J. Riley, The PPConsole Program, Hamilton Technical Services, March 2015.