

## Case Study: Digital & Multi-Channel XY Plotter



**Client:** TMD Technologies

**NI Products Used:** LabVIEW | USB DAQ Cards

**Application Area:** Sensor Calibration

### The Challenge

TMD Technologies were looking to upgrade their XY Plotters to avoid all the problems associated with it being a physical piece of kit. They wanted a low cost, flexible solution as an alternative to a traditional mechanical XY Plotter to carry out testing in their R&D Labs.

### The Solution

When we first engaged with TMD, we understood that there were issues with reliability and accurate data recording with their traditional manual XY Plotter's, which meant business needs were not being delivered. The Digital XY Plotter software is written in LabVIEW and allows the client to use any National Instruments hardware, which in turn enables the data to be presented in a way that the user can understand. By using LabVIEW, the Digital XY Plotter allows flexibility and puts the control in the hands of the client who can change the hardware to suit their needs without having to replace or upgrade the software. The Digital & Multi-Channel XY Plotter will measure voltage and current and is ideal for the following types of test:

- Flow & travel testing
- Flow & pressure testing
- Frequency response
- Hysteresis testing
- Linearity testing
- Repetition testing
- Mechanical actuation testing

This means that the Digital XY Plotter is fully scalable and functions seamlessly with any NI data acquisition card, from a low speed USB card to a high speed PXI system. By having scalable hardware, the client can choose the tools they require which fits within their requirements and budget. Some of the benefits of the Digital XY Plotter to TMD were that the software was available to download within minutes of purchasing, and our Engineer also helped them to source the hardware suitable for their project, which in this case was a USB DAQ card.

## The Result

The Digital XY Plotter was low cost, efficient, and easy to use, and had a lower environmental impact than a traditional XY Plotter due to being able to share files digitally and not require the use of paper to plot.

Maintenance costs were also abolished completely, and TMD found the portability of the software particularly useful, something not considered to be a requirement in the initial stages of the project but were an added bonus.

## Client Feedback

“Austin Consultants Digital XY Plotter has exceeded expectations in delivering an alternative and modern solution that offers increased reliability, flexibility and accuracy to meet our business needs. Their team stand out in their commitment to understanding our requirements from the outset enabling the data to be presented to meet our needs and provide familiarity. The support in providing training and on going customer service demonstrates their professionalism and attitude to ensuring customer satisfaction and developing long term relationships.”

Paul Houghton, TMD Technologies

