*March 2020 – for immediate release Further information: Chris Pockett, +44 1453 524133*

**Automated mixture identification using Renishaw’s new Spectrum Search software module**

Renishaw has introduced its new Spectrum Search software module, designed to automate the process of identifying components within a mixture.

Raman spectroscopy is commonly used to identify unknown materials from their unique Raman spectral fingerprints, typically using libraries of known spectra; this is an ideal method for pure materials. However, distinguishing components within a mixture has historically been very difficult and time consuming; requiring the user to manually re-search the residual spectrum after subtracting the first match. Renishaw’s Spectrum Search module, part of the company’s WiRE™ software package, has been developed using custom search algorithms to help users automate this process.

## **How it works**

The software module is easy to use – simply define the maximum number of components that may be in the mixture. The Spectrum Search module will scan multiple spectral libraries at the same time to provide all the possible compositions of a sample as well as scoring each match on quality and goodness-of-fit. As multiple libraries are searched at the same time, analysis only needs to be done once.

Tim Smith, Applications Manager at Renishaw said, “The Spectrum Search module’s powerful algorithms save time and minimise user interpretation. Using multiple spectral libraries, it enables the user to rapidly and accurately identify pure components and mixtures within the sample under analysis.”

The Spectrum Search software module is available as part of Renishaw’s WiRE 5.3 software and can be used with the inVia™ confocal Raman microscope, the Virsa™ Raman Analyser and Renishaw RA800 series.

**-ENDS-**

**Notes to editors**

UK-based Renishaw is a world leading engineering technologies company, supplying products used for applications as diverse as jet engine and wind turbine manufacture, through to dentistry and brain surgery. It has over 4,500 employees located in the 36 countries where it has wholly owned subsidiary operations.

For the year ended June 2019 Renishaw recorded sales of £574 million of which 94% was due to exports. The company’s largest markets are the USA, China, Japan and Germany.

Throughout its history Renishaw has made a significant commitment to research and development, with historically between 13 and 18% of annual sales invested in R&D and engineering. The majority of this R&D and manufacturing of the company’s products is carried out in the UK.

The Company’s success has been recognised with numerous international awards, including eighteen Queen’s Awards recognising achievements in technology, export and innovation.

Further information at [www.renishaw.com](https://renishawplc-my.sharepoint.com/personal/lp138190_renishaw_com/Documents/www.renishaw.com)