The UltraVIEW® VoX represents the next generation in 4D confocal imaging. The combination of the latest in spinning disk technology synchronised with high speed, high sensitivity detection, driven by intuitive software, produces image data of truly outstanding quality. Once acquired, the image data can be immediately visualized and analysed using a comprehensive suite of image analysis tools. The UltraVIEW VoX is a fully integrated 4D, high performance system for life science research, offering new and exciting solutions to the challenges of live cell imaging.

**High Speed Acquisition and Exceptional Image Quality**

With the UltraVIEW VoX you can have rapid image acquisition - essential for imaging living cells - and still capture high quality confocal images that show you exactly what you need to see. The system includes the CSU-X1 head from Yokogawa, which is both faster and twice as efficient as previous models. The system hardware is synchronised with the PerkinElmer ProSync™ unit to provide image data of exceptional quality.

**Powered by Volocity – Fully Integrated Control and Analysis**

The UltraVIEW VoX includes Volocity®, the advanced performance 4D imaging software from Improvision®. Volocity has an intuitive user interface that makes 2D, 3D and 4D multi-channel image acquisition quick and easy. Your data can be visualised and analysed using Volocity, so that your system need only include one software environment for speed and convenience.

- Yokogawa CSU-X1 spinning disk head – now faster and with higher optical efficiency – maximum sample protection with outstanding results.
- Volocity software for easy to use acquisition and analysis of 3D and 4D image data – from hardware control to data publication, all within one software environment.
- Solid-state lasers with AOTF or direct control – choose up to six lasers in a configurable unit that does not require dedicated cooling.
- Choose from a range of CCD and EMCCD cameras, selected for speed and sensitivity.
- Suitable for a wide variety of live cell applications, including 3D ratio imaging and 3D FRET, as well as FRAP using the optional PhotoKinesis™ Unit.
Live Cell Imaging at its Very Best

Spinning disk confocal imaging is widely accepted as the technique that provides the best results for imaging live cells. This is because of the high optical efficiency of the spinning disk head, which means that a lower level of illumination can be used, reducing photobleaching of fluorochromes and phototoxicity to cells.

The CSU-X1 has been engineered to provide twice the optical efficiency of the CSU 10 or 22, so that the required laser power is even lower than before, thereby ensuring even better sample protection. As a result, living cells are less affected by the imaging process and experiments are more true to life.

The combination of high performance hardware and powerful software means that the UltraVIEW VoX is a highly flexible system for the acquisition and analysis of experiments in a wide range of life science research areas, including:

- Developmental Biology
- Protein and Vesicle Trafficking
- Neurosciences
- Gene Expression
- Cell Cycle Studies
- Cell Signaling
- Infection and Immunity

Hardware Options

The UltraVIEW VoX is equipped with solid-state lasers in a configurable unit that does not need dedicated cooling, reducing the physical space required as well as energy costs for the system. Up to six lasers can be included in the unit and these can be chosen from a wide range of wavelengths for maximum flexibility. You could start with just one laser and build up to a full set of six as your science progresses. The lasers need minimal alignment for ease of use and have AOTF or direct control for faster switching, which is critical for high speed, multi-channel time lapse experiments.

Both cooled CCD and EMCCD cameras are supported and Volocity Acquisition provides the interface to all the acquisition hardware in the system, including the objective turret, light paths, focus drive and XY stage. This means that setting up the acquisition protocol is quick and easy, and protocols can be saved for repeated use. The UltraVIEW VoX is compatible with microscopes from all the major manufacturers, so you can choose the one you prefer or use your current microscope if appropriately configured.

To perform Fluorescence Recovery After Photobleaching (FRAP) experiments, simply add the optional FRAP PhotoKinesis Unit, which is fully integrated with the system and controlled by Volocity. Following acquisition, the results are analysed in Volocity and instantaneously displayed as a chart, which can be exported and published.

For more information about the UltraVIEW VoX, please visit: www.perkinelmer.com/vox

Or you can contact us on ultraviewvox@perkinelmer.com to discuss your requirements and arrange a demonstration.