

# SOFTWARE THAT WON'T HOLD YOU BACK

Productivity depends not only on having a high-performance camera, but also on having efficient software and the latest algorithms for data collection and image processing. At Direct Electron, our research and development extends beyond our renowned direct detectors to the software tools that are necessary to generate high-impact results.

## MISSION CONTROL SOFTWARE + DIMENSION MODULE

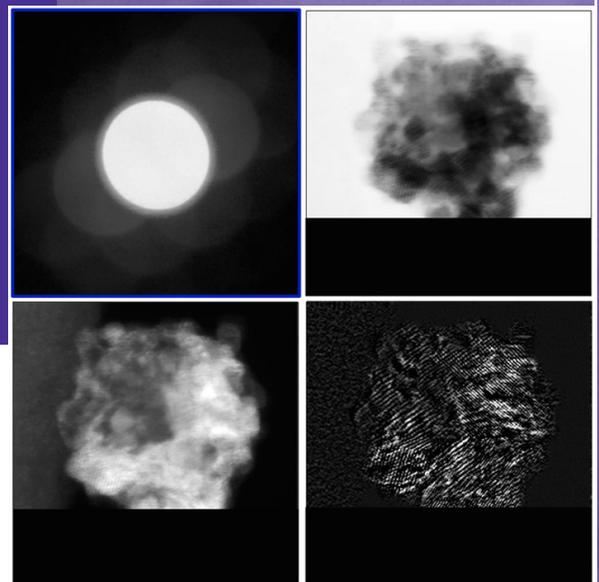
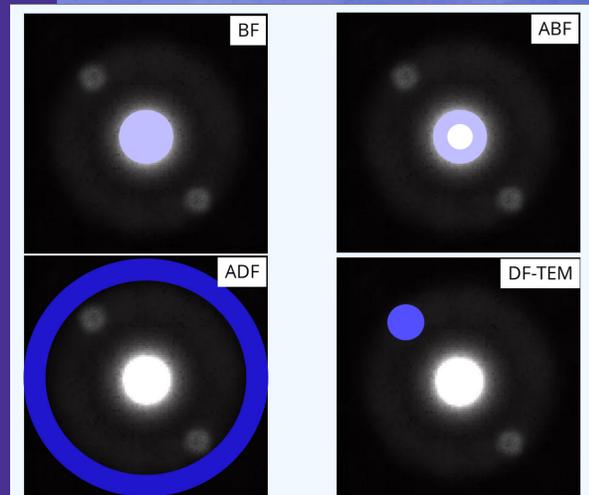
### POWERFUL & INTUITIVE USER INTERFACE

Direct Electron's cameras switch easily between full-frame TEM imaging, and smaller readout areas for *insitu* work or 4D-STEM. Mission Control uses presets to allow rapid changes in camera setup. A tab-based layout guides users through the tasks of setting up the beam and acquiring data.

### ACQUISITION SOFTWARE FOR HIGH-RESOLUTION IMAGES AND VIDEOS

Mission Control allows users to acquire images or high-frame rate videos from their TEM specimen. With real-time viewing of frames and Fourier transforms during data acquisition, Mission Control enables standard TEM imaging applications and *insitu* TEM. For challenging samples, automatic drift-correction is built-in. Frame summing allows real-time viewing of specimens in counting mode.

**FINALLY**  
4D STEM IS EASY,  
UNLIMITED & INTUITIVE!



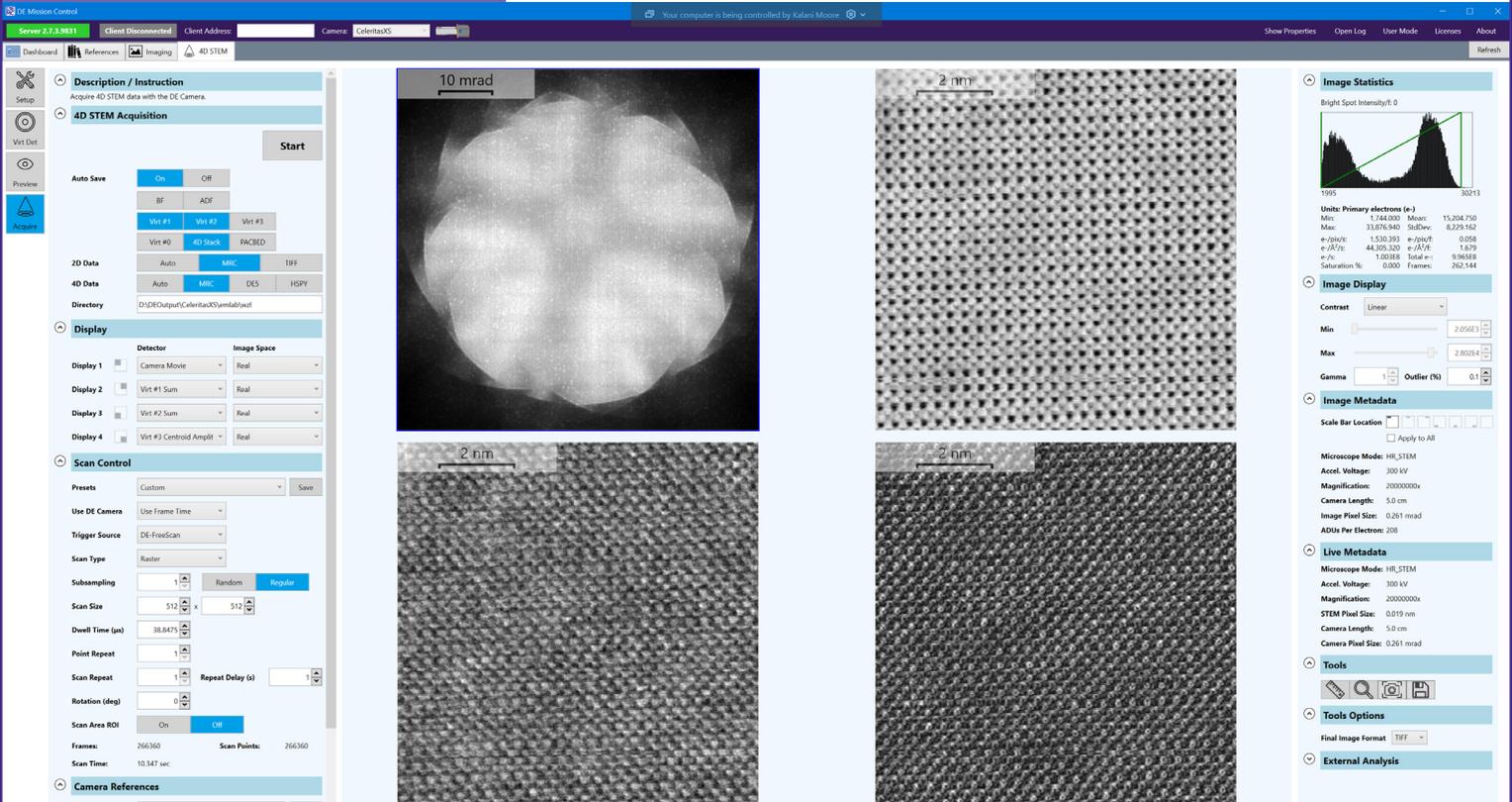
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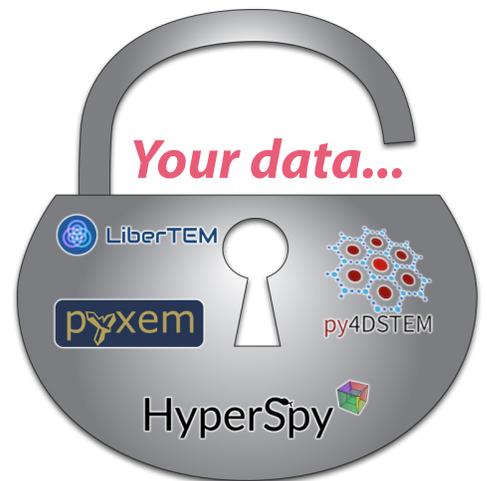
## LIVE 4D STEM IMAGING

The ability to view live processed data is critical for optimizing imaging conditions, and can offer important information about the local structure of a specimen. Mission Control offers the ability to simultaneously display a live-view of the camera frame with a diffraction pattern, a virtual image of the specimen, the fast Fourier transform (FFT) of the virtual image and a center of mass (CoM) image.



## OPEN DATA FORMATS & COMPATIBLE THIRD-PARTY SOFTWARE

At Direct Electron, we believe only you should control your data, so we avoid placing unnecessary restrictions on how our customers use and analyze images acquired with our cameras. Mission Control therefore supports the use of open, commonly used electron microscopy file formats such as .tif, .mrc and .hdf5 so that users have complete freedom to import data to their choice of software, whether using open-source packages like Fiji, LiberTEM, py4DSTEM, custom scripts, or third-party proprietary software.



**Fully unlocked!**

**Direct Electron**  
INNOVATION PROPELLING DISCOVERY