

# SmartCapture

# X

Power assisted microscopy

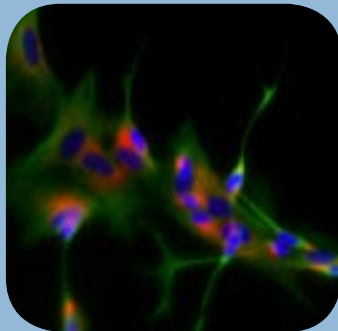


Already world renowned for image quality and ease of use, the latest version of Digital Scientific's SmartCapture FISH system is compatible with a new generation of fully automated microscopes and scientific grade cameras to deliver a wealth of all-round performance improvements. What's more, SmartCapture X comes with a host of new features designed to make routine tasks quicker, simpler and more effective.



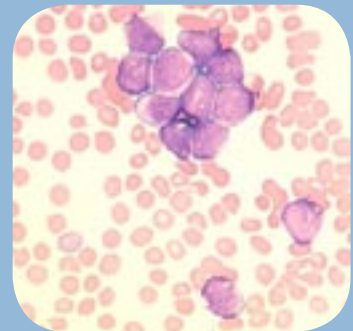
## Simplicity

SmartCapture X is packed with sophisticated algorithms designed to make image acquisition and presentation as simple as possible whilst maintaining our commitment to quality. Our auto-exposure, background correction and DAPI banding functions give first class images literally at the push of a button.



## Sophistication

Our team of developers are dedicated to providing SmartCapture users with immediate access to new groundbreaking technology. Continuously updated support for the latest cameras, computer processors and fully automated microscopes ensures that SmartCapture is always at the forefront of FISH imaging.



## Flexibility

SmartCapture systems are tailor-made according to individual customer's exact specifications. Precise hardware configurations are designed to suit each laboratory's needs and budget. Competitive upgrading of old systems and bespoke software solutions are just 2 examples of our commitment to flexibility.

- Immutable raw data
- Autoexposure
- Autofocus
- Intuitive data management
- Comprehensive image processing and measuring
- Automated capture
- Multi-plane focusing
- Z-sections
- Colour/B&W Karyotyping
- Time lapse capture
- TIFF/JPEG/HTML export
- Colour brightfield capturing
- Unlimited undo/redo
- Automatic recording of slide co-ordinates
- High quality live preview with "stage-drag" facility
- Automatic calibration
- Motorised objective control
- Q-FISH analysis
- Full access to archived Mac image files (PSI, QUIPS Pathvysion™)
- Bespoke software solutions

# Features of SmartCapture X

**SmartCapture X provides all the facilities needed for acquisition and analysis of high-resolution multi-plane images from fluorescence and brightfield microscopy. It is the product of 15 years of continuous development and is the system of choice for geneticists, pathologists and others working in the field of fluorescence imaging.**

## Added functionality

The latest version of SmartCapture offers all the impressive features our users have come to expect, but with many expanded functions. Particular improvements have been made to the automation, image export and analysis functions, while more support has been added for a range of motorised stages and high-resolution firewire cameras.

## Increased sensitivity

The last few years have seen a quantum leap in camera technology. The deep-cooled firewire cameras now supported by SmartCapture offer a sensitivity that is an order of magnitude greater than their recent predecessors. This is of particular benefit when analysing those hard-to-image hybridisations where expected signal size is small (eg p53 gene probe or in-house BAC clones) or when experimental conditions are sub-optimal.

## Power assistance

SmartCapture's interface with motorised stage technology is now so advanced that previously captured cells can be re-located at the push of a button even after completely disassembling the system! The practical benefits of this increased precision are manifold. Not only are the co-ordinates of each cell automatically stored for future reference, but automated capture facilities allow whole slide imaging, or capture of multiple user-defined features with little or no user intervention. SmartCapture even corrects X/Y and Z co-ordinates automatically when switching objectives!



## Fluorescence and brightfield karyotyping

SmartType is Digital Scientific's fully equipped karyotyping program and comes as standard as part of the SmartCapture suite. With FISH and MFISH capabilities, together with G, R, Q and Dapi-band classifiers, SmartType provides everything you need from a modern karyotyping station.

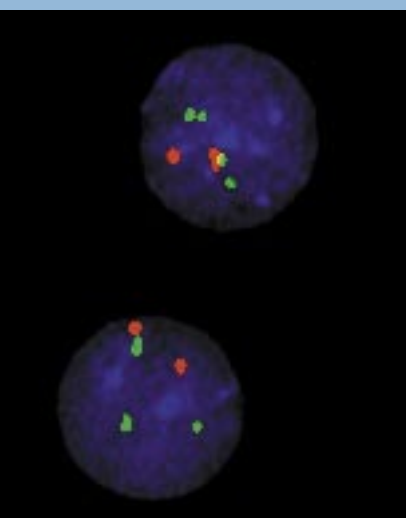
## Analysis and handling

SmartCapture has a range of intuitive image processing tools to aid presentation and analysis. All processed images are saved automatically without altering the raw data and there is unlimited potential for undo/redo. Comprehensive automated measurement and quantification options are also available for Q-FISH or morphological analysis.

Images can be exported individually or in batches as TIFF, JPEG or HTML files to a location of choice. Bespoke database development and automatic back-up options are also available.

## Recycle existing hardware

Our flexible range of upgrades allow customers to put new technology where it matters while retaining viable elements of their old FISH system. For example, X/Y automation, deep-cooled firewire camera technology and the power of SmartCaptureX with the latest processor can all be added to an existing microscope and filter wheel at a fraction of the cost of a new system.



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## Applications

- Molecular cytogenetics
- Molecular pathology
- Oncology
- Cytology
- Histopathology
- Immunohistochemistry
- Virology