Confocal Application Notes
Vol. 4 June 2006

Data Transfer Mode Tool in LAS AF
(From version 1.5.0 Build 767)

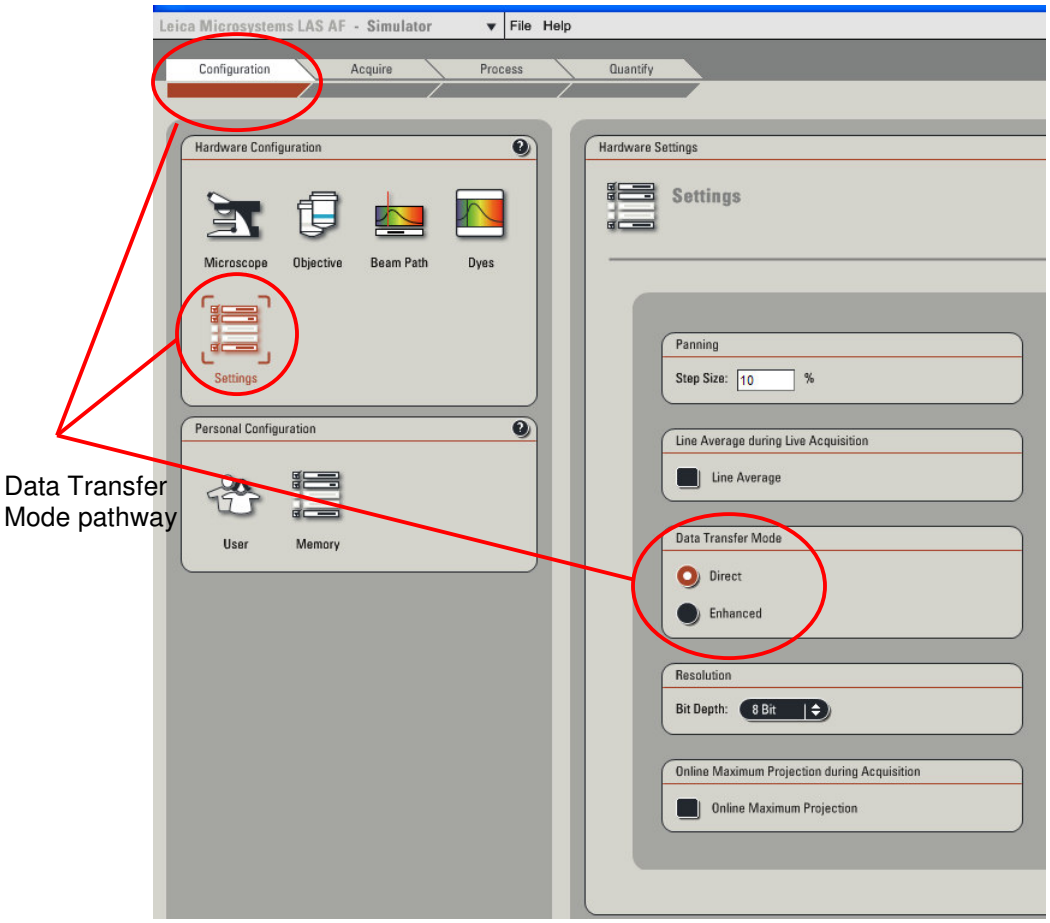
Prepared by Myriam Gastard, Ph.D.
Exton Support Group, Leica Microsystems, Inc.

If you ever have samples too dim, or too sensitive to photobleaching or phototoxicity to be scanned in the best conditions, then the **Enhanced Data Mode** will become very handy in your data collection.

By default, the Direct Mode is always on (see fig. 1). In order for you to scan in Enhanced Transfer Mode, it will need to be activated **before** to scan.

You can follow this pathway:

⇨Configuration ➔Settings ➔ Data Transfer Mode



Data Transfer Mode pathway

Leica Microsystems Inc.
410 Eagleview Blvd, Ste. 107
Exton, PA 19341

Telephone (610)-321-0460
Toll Free 866-830-0735
Fax (610)-321-0425
www.confocal-microscopy.com

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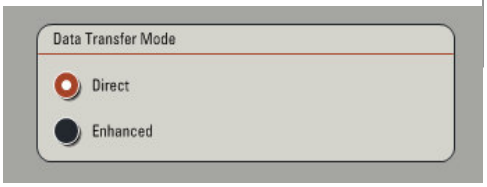
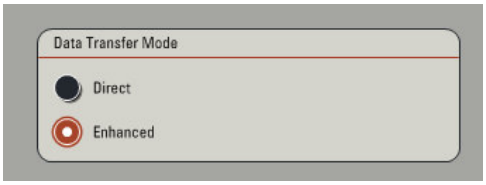
• In **Direct data transfer mode**, (Default mode) the displayed values are directly proportional to signal from the PMT. This is the mode that you want to use for reflected light and normal fluorescence.

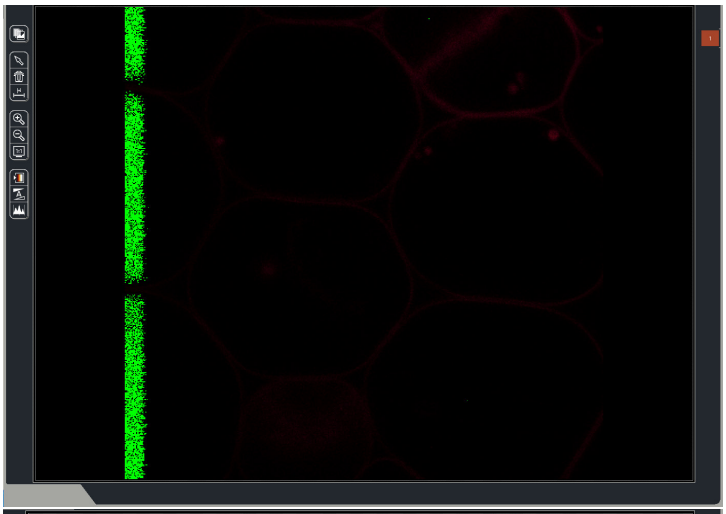


• In **Enhanced data transfer mode**, the detectors (PMTs) are electronically enhanced to detect very dim fluorescence. These values are real data with an enhanced signal. This is not a post-processing enhancement of the signal, but more of a real optimization of the PMT. This mode is optimal to display very low signals (or very sensitive sample) over the full range of gray values.

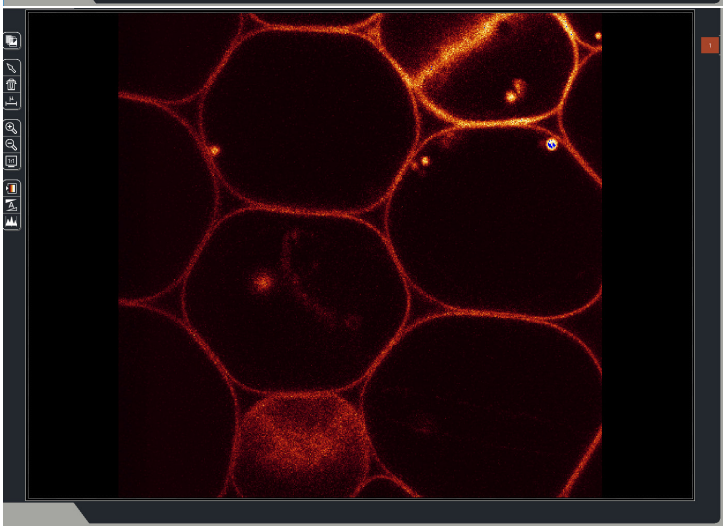


Example:

This image (QLUT view) was taken using our *Convallaria* slide in **direct mode**. The 488 nm laser line was used at 20%, gain was at 500 V and offset at –0.1%



The same sample was then scanned using the **enhanced mode**. Laser power, gain and offset were the same as above.



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