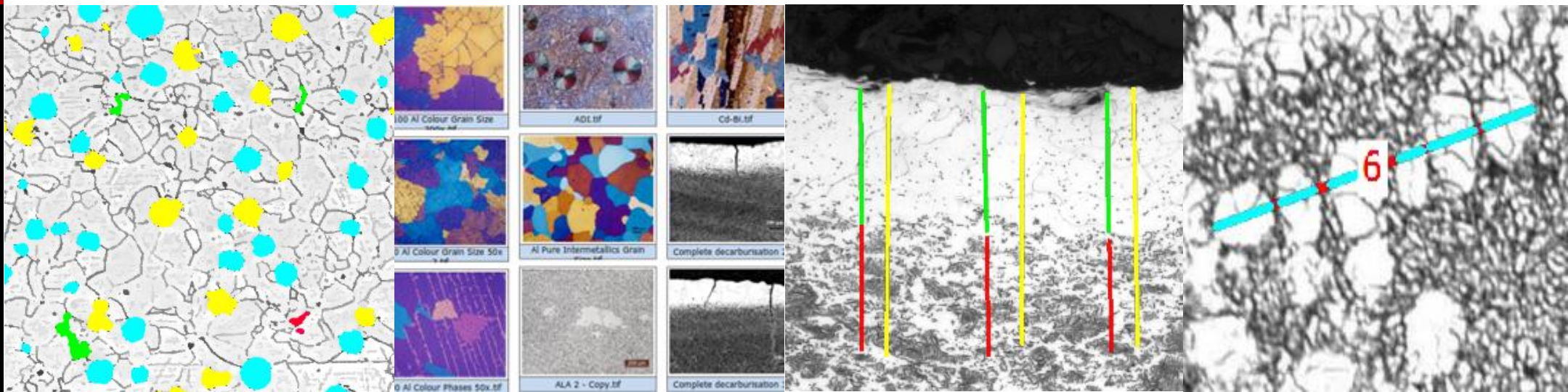


Living up to Life



Leica Materials Imaging Software Portfolio Overview



Materials Software Portfolio

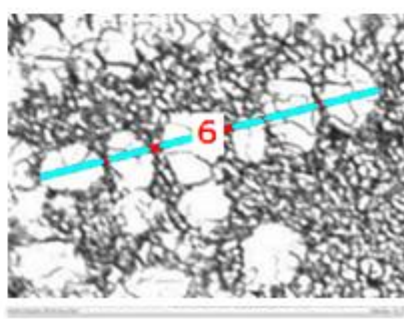
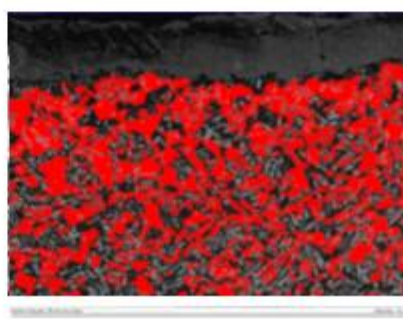
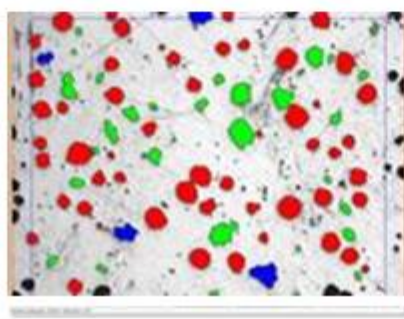
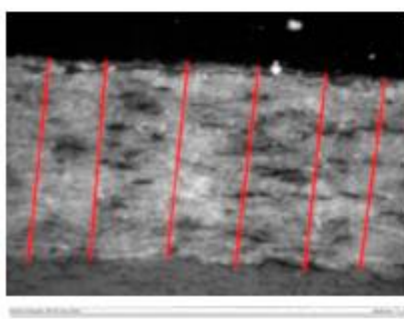
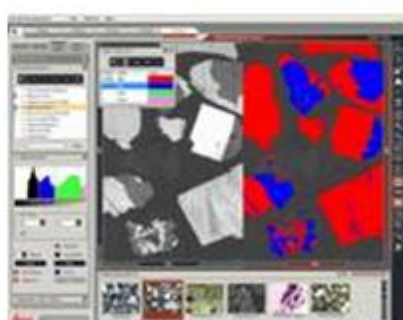
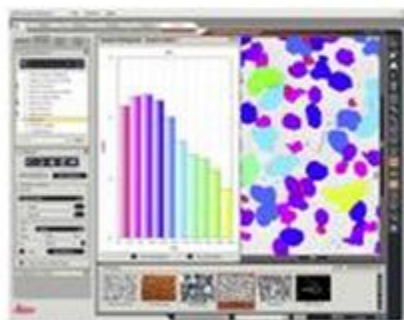
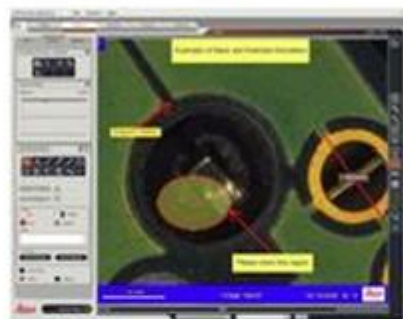
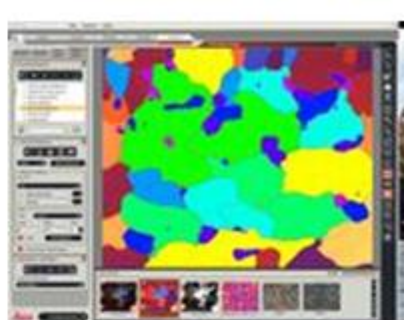
- A comprehensive range of applications
 - Using international standards
 - Adapting easily to lab requirements
- With the common look and feel of LAS

Materials Imaging Software Portfolio

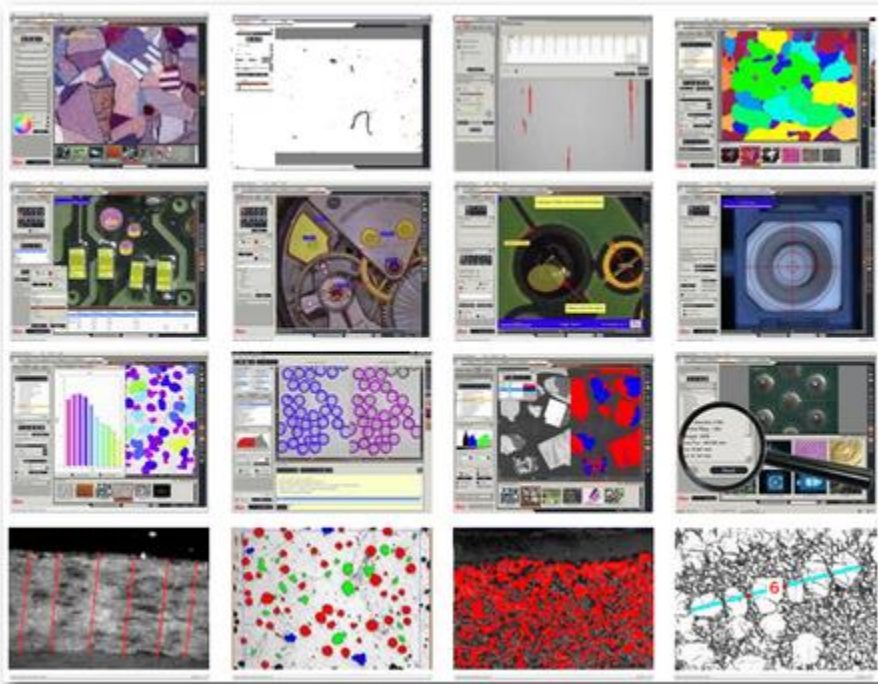


- Solutions are optimised for performance and utility
- Automatic or manual operation to suit sample type
- With a choice of options to match the available budget

Let's meet the portfolio!



Materials Imaging Software



- Too many to take in?
- Lets group them by the way they are used
 - Automatic
 - Semi-Auto
 - Live Manual

Automatic Operation

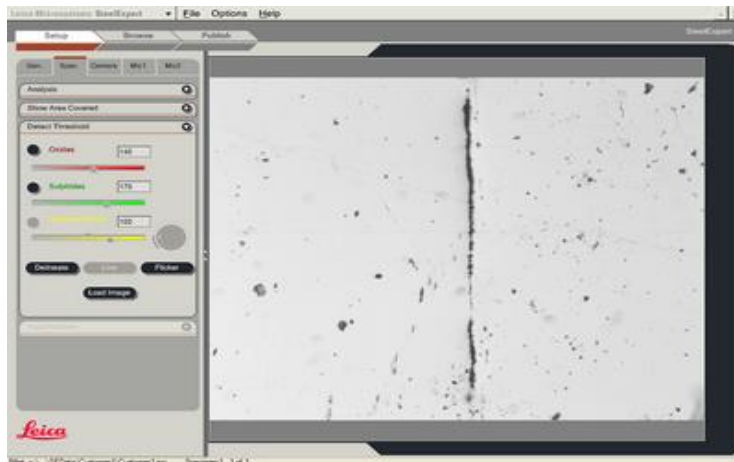


- 100s of images
- Use scanning stage
- Analysis 'on the fly'
- Review results on specimen
- Dedicated application tools
- International standards

Automatic Applications



- Leica Cleanliness Expert
 - classification of particles on filters



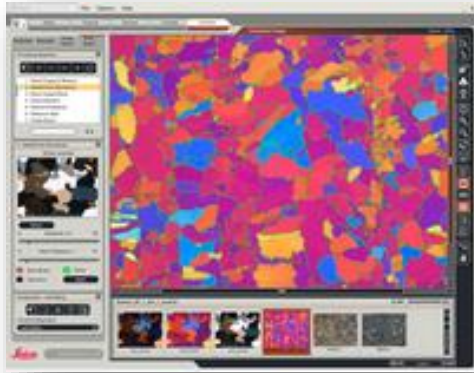
- Leica Steel Expert
 - automatic steel inclusion rating

Semi-Automatic Operation

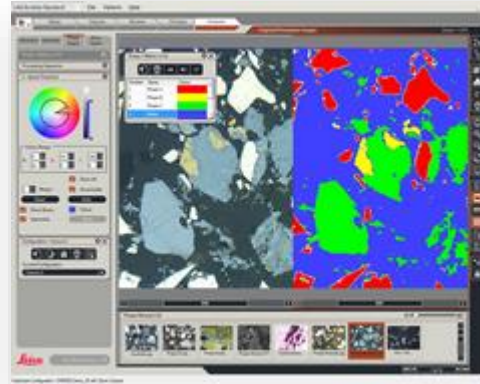


- 10s of images analysed
- 2 step operation
- Step 1
 - Acquire images using LAS
 - Manual or Multistep
- Step 2
 - Analyse images

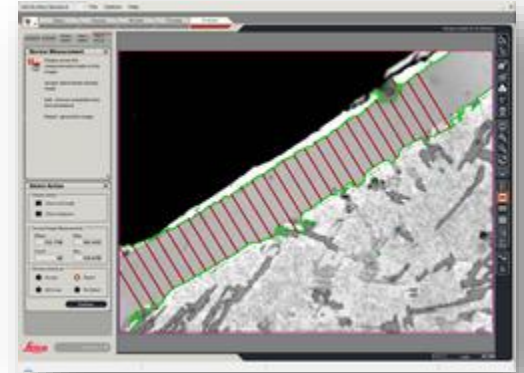
Semi-Automatic – Expert Modules



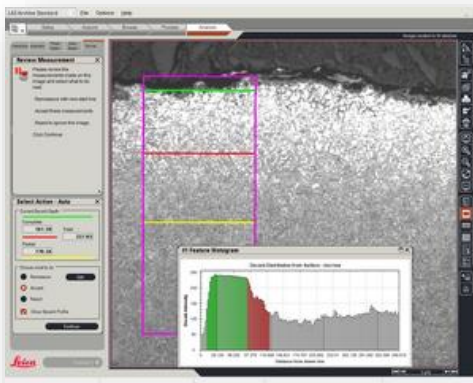
Leica Grain Expert
Grain size analysis



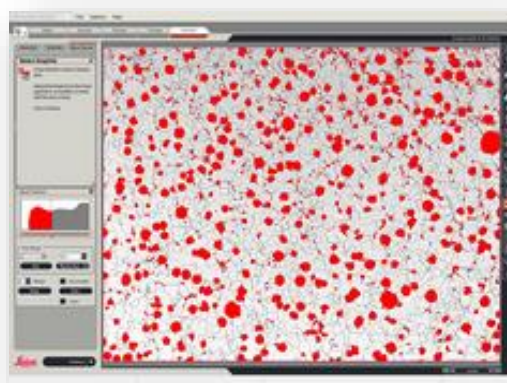
Leica Phase Expert
Analysis of multi-phase microstructures



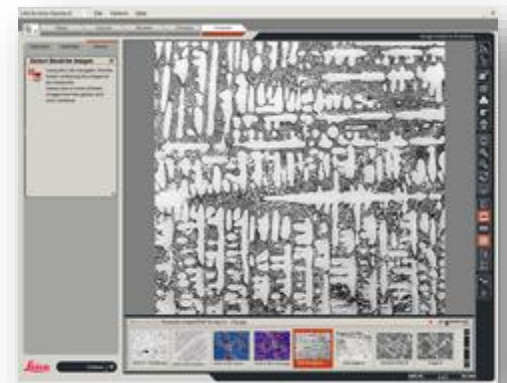
Leica Layer Thickness Expert
Measures at multiple positions



Leica Decarburisation Expert
Measures loss of carbon at surface of steel



Leica Cast Iron Expert
Graphite, Ferrite and Pearlite Analysis



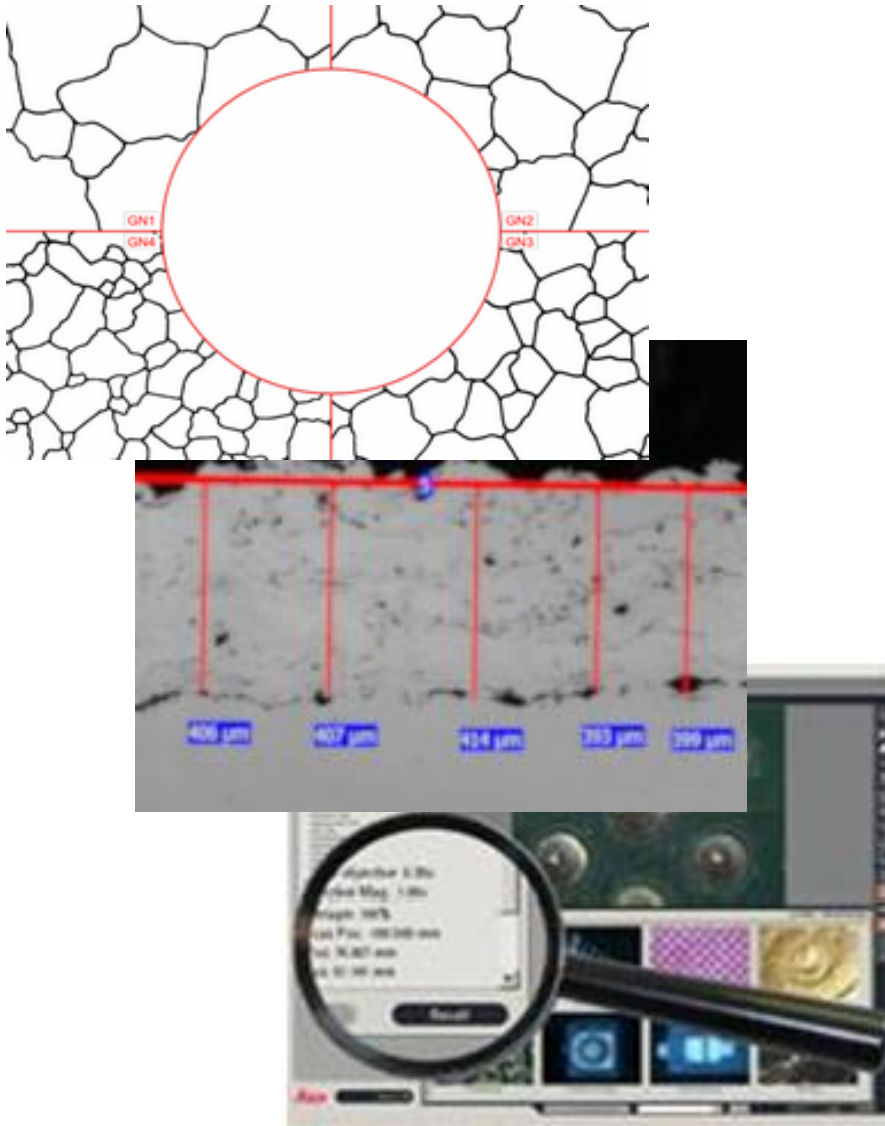
Leica Dendrite Expert
count and measure dendrite arms and gaps

Live Manual



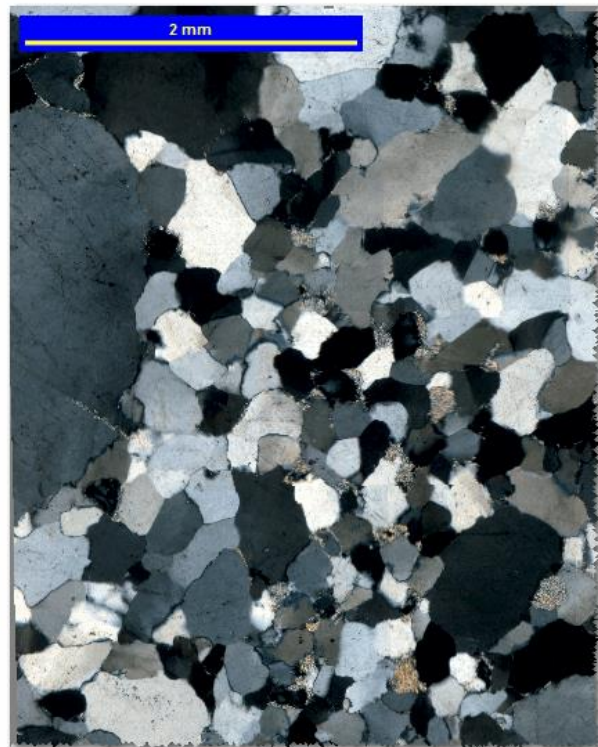
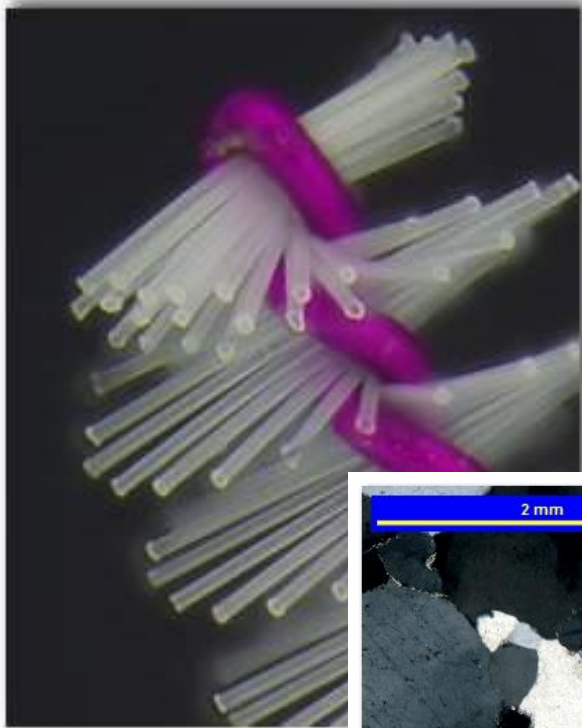
- Live image used
- Enhances microscopy experience
- Image capture for reports
- Immediate and informative

Live Manual - Modules



- LAS Reticule
 - visual grain sizing
 - visual inclusion rating
- LAS Live Measurements
 - length with snap to edge
 - area with autotrace
- LAS Store and Recall
 - reproducible microscopy

Live Manual – Image Builders



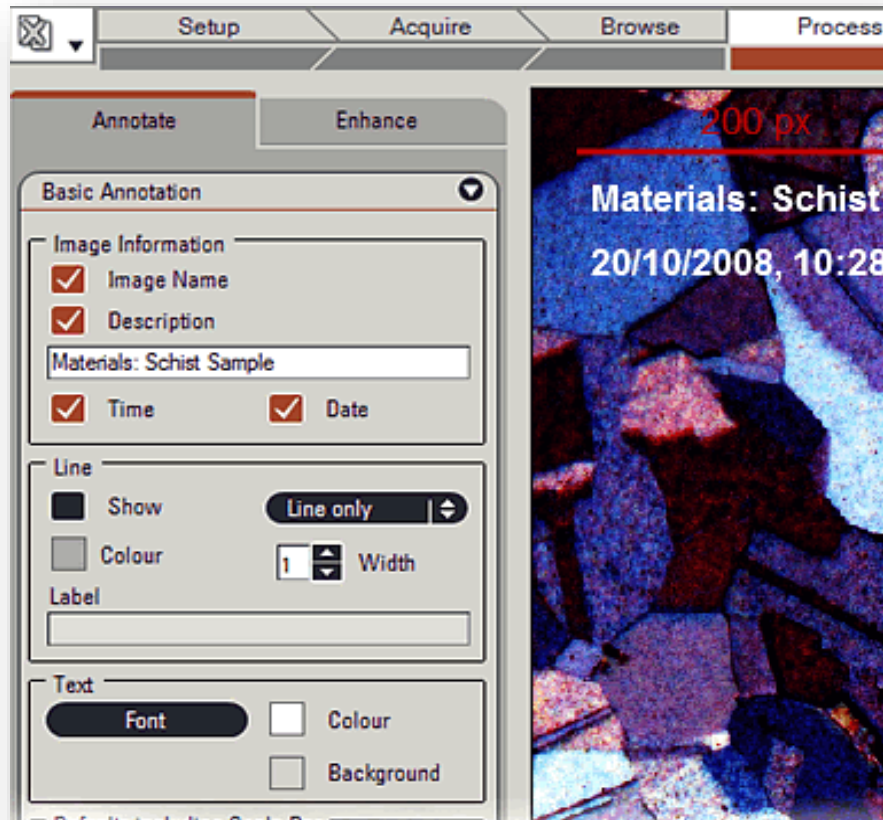
- Images extended dynamically from the Live image in XY and Z
- Uses economical manual XY stage and focus control
- Immediate operation saves time

Live Manual - Core



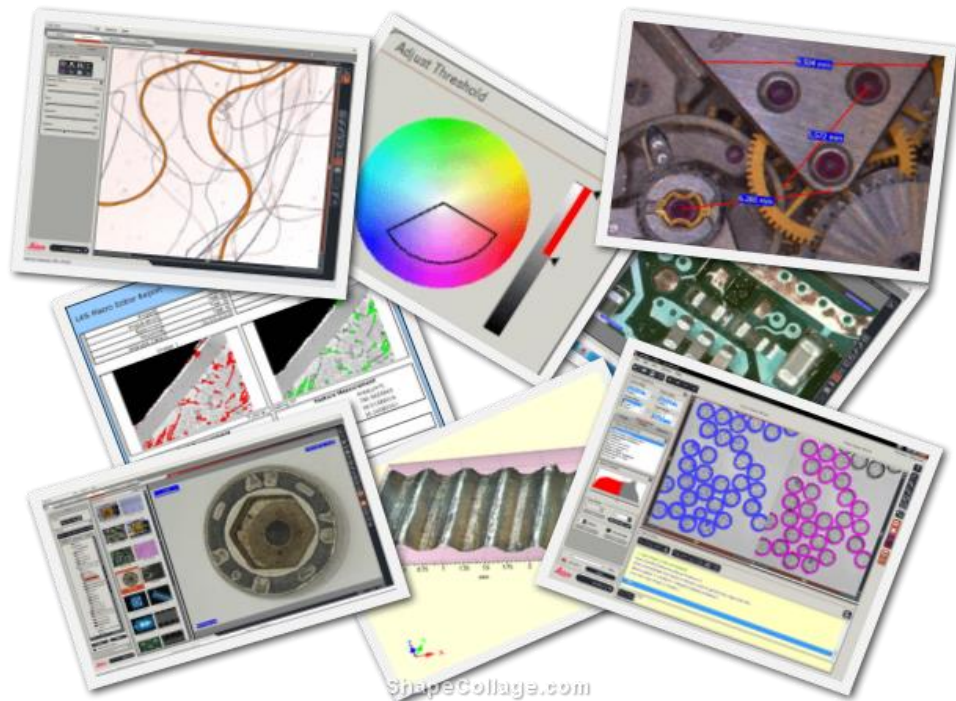
- Calibrated Image Prints
 - micrograph with annotation
- Stitching
 - wider image size
- Dual View
 - easy comparison of live with typical stored image

LAS Core Environment



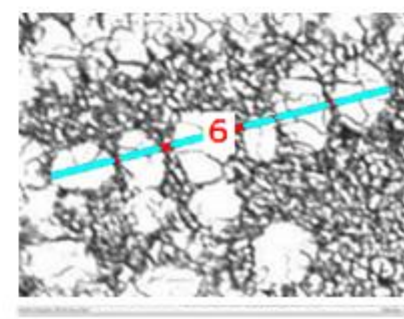
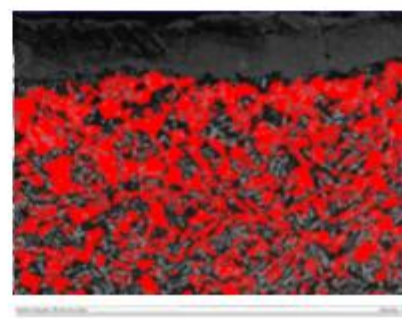
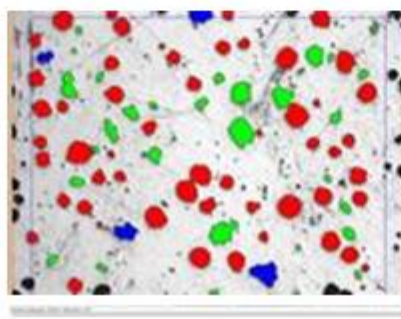
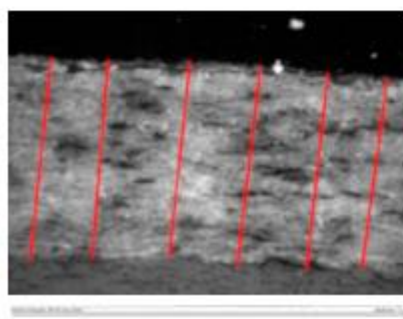
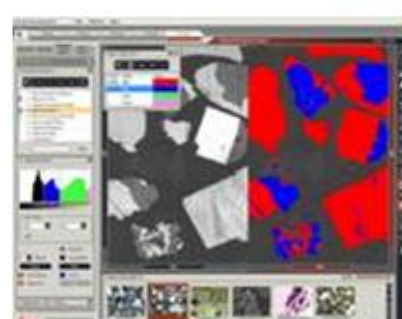
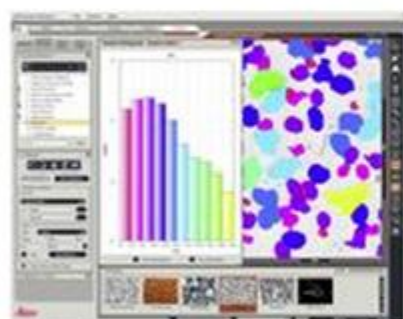
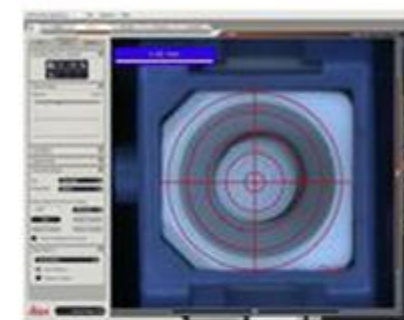
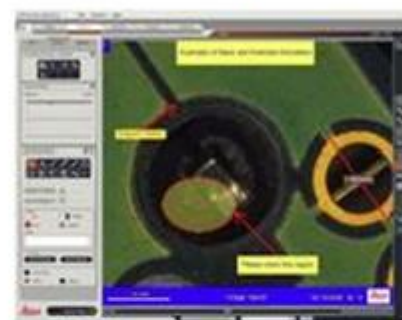
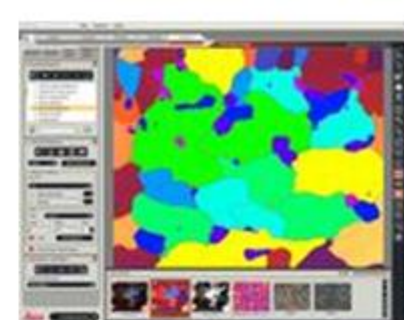
- Configures mics and cams for all applications
- Software control of motorised and coded components
- Automatic calibration of image and scale bar
- High dynamic range image capture
- Records mic and cam parameters
- Creates multi-image reports in PDF and Word format

LAS Extension Modules



- Measurement modules
 - Live, Interactive and Extended Annotation
- Image organisation
 - Archive for image and data management
- Extended depth of focus
 - Multifocus, Montage, 3D Viewer and Leica Map
- Mosaic and tiling
 - MultiStep, Power Mosaic
- Live Image Builder
 - Extends images in XY and Z from the live camera image

Let's meet the portfolio again!



- *Expert Applications*
 - *Complete solutions*
 - Leica Cleanliness Expert
 - Leica Steel Expert
 - Leica Grain Expert
 - Leica Phase Expert
 - Leica Cast Iron Expert
 - Leica Layer Thickness Expert
 - Leica Dendrite Expert
 - Leica Decarburisation Expert
- *LAS Core and Modules*
 - *For further versatility*
 - Image Analysis, Macro
 - particle size analysis
 - Live Modules
 - LAS LIB XY
 - LAS LIB Z
 - LAS LIB XYZ
 - LAS Reticule
 - LAS Live Measurements
 - LAS Store and Recall

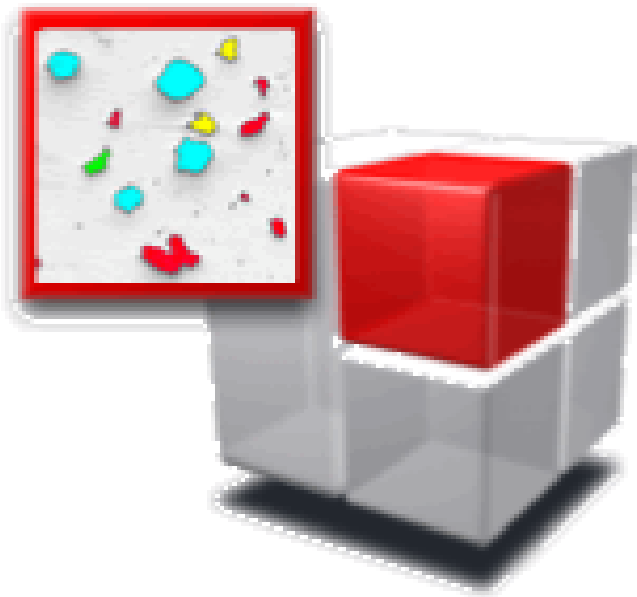


Portfolio Advantages

LAS for Materials Analysis

- Applications dedicated to the task
 - To get you up and running immediately
- Measurement software with high sample throughput
 - User remains in control to confirm results
- Analyze samples consistently
 - Without taxing operator endurance or objectivity
- Images are saved before analysis (not for auto)
 - Review your results even if specimen no longer available
- A common user interface with the Leica signature
 - Integrates hardware and applications for great utility

Materials Imaging Software



Thank You

The accuracy of the measurements and the compliance of the entire system to these standards strongly depends on a) the optical, electronic and mechanical components used, b) the working conditions and sample preparation process and c) the individual and specific interpretation of the results produced. These are the responsibility of the user of the equipment and Leica disclaims any liability in that context.