

## NIS-Elements: How to use Pixel Classifier to produce an Area Fraction study.

### Pixel Classifier

Pixel Classifier enables the user to group together and classify a range of similar pixels in an image. Up to 16 classifications (Phases) are allowed. This is useful for measuring area fractions of materials in a sample.

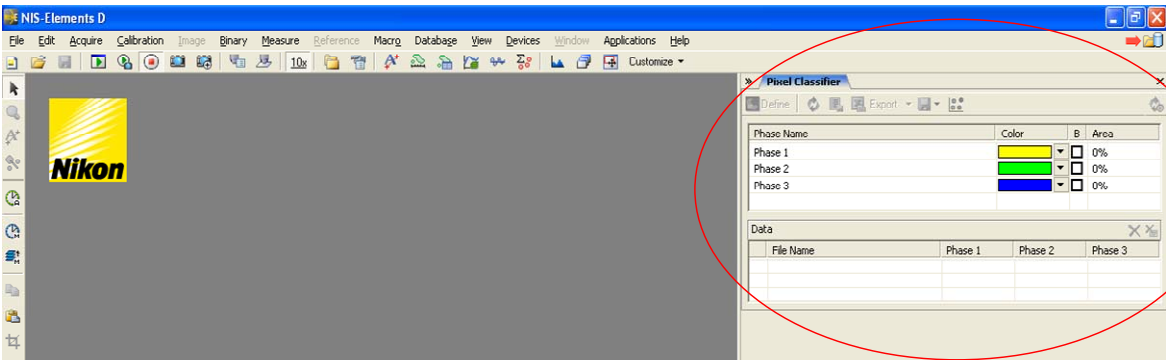
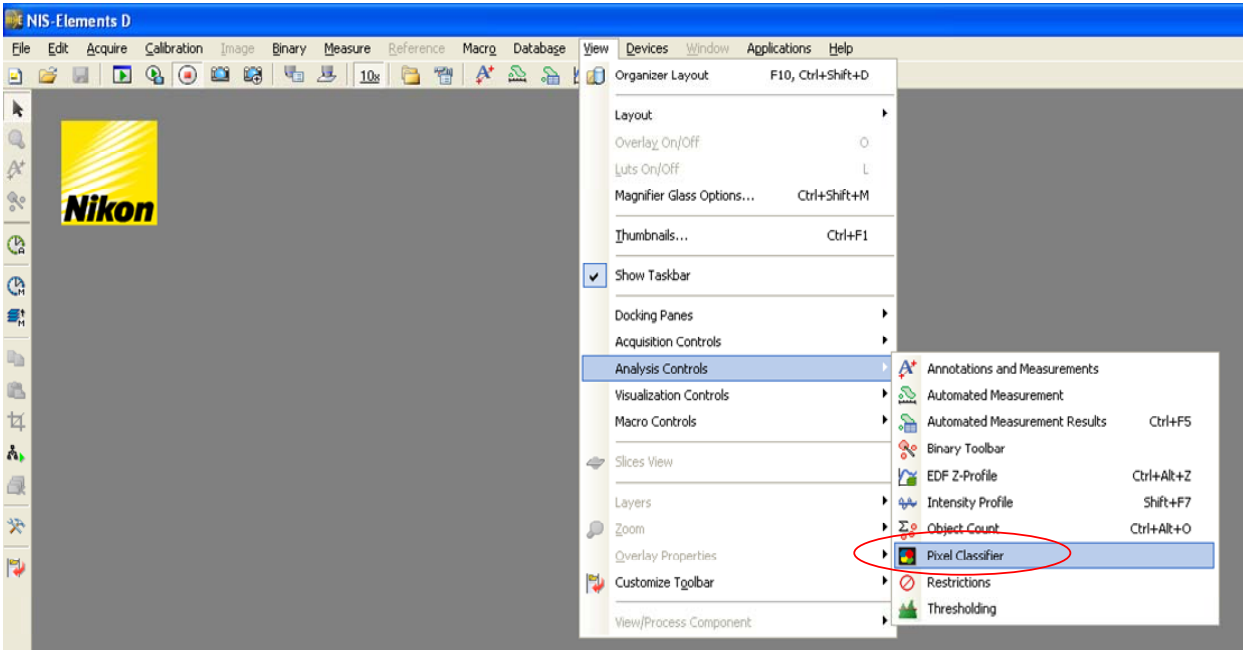
Note number: 0000

Date: 4/2009

Date Modified: 4/2009

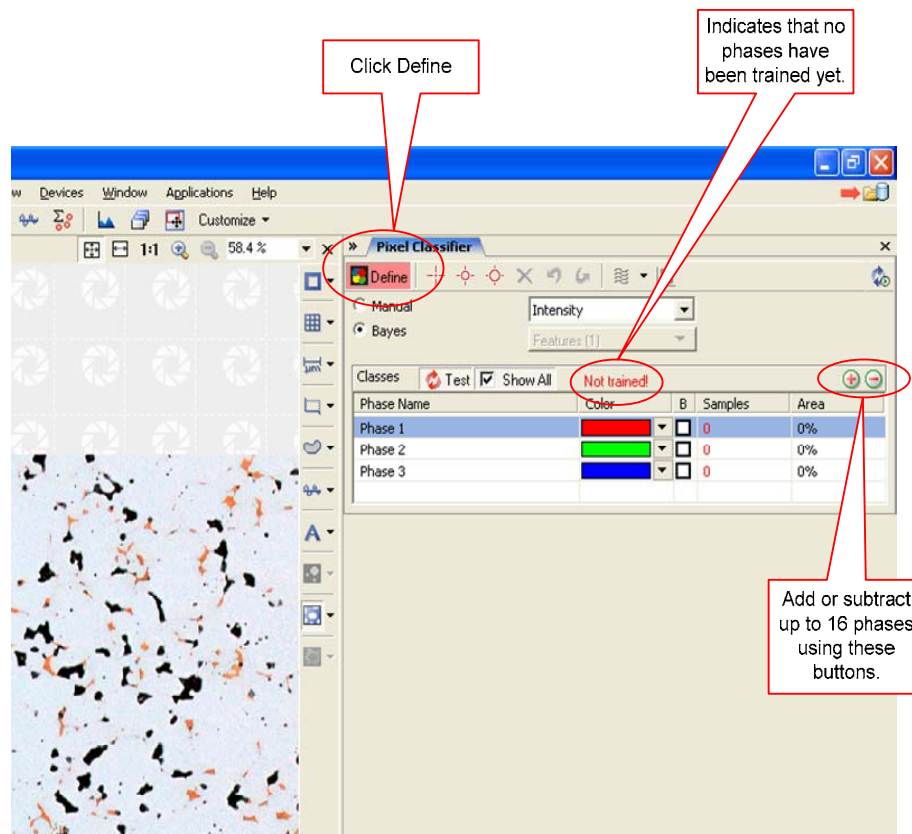
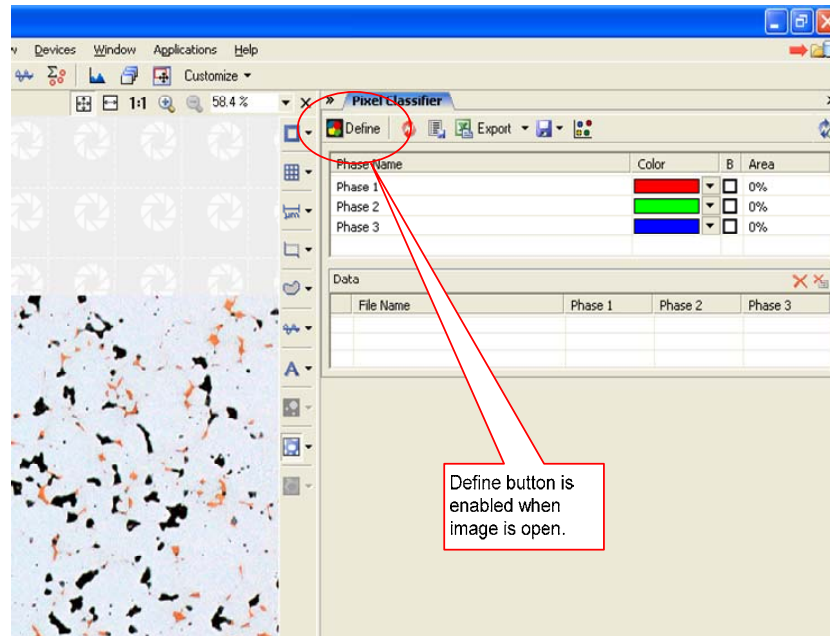
Software Version: 3.0

Package: D



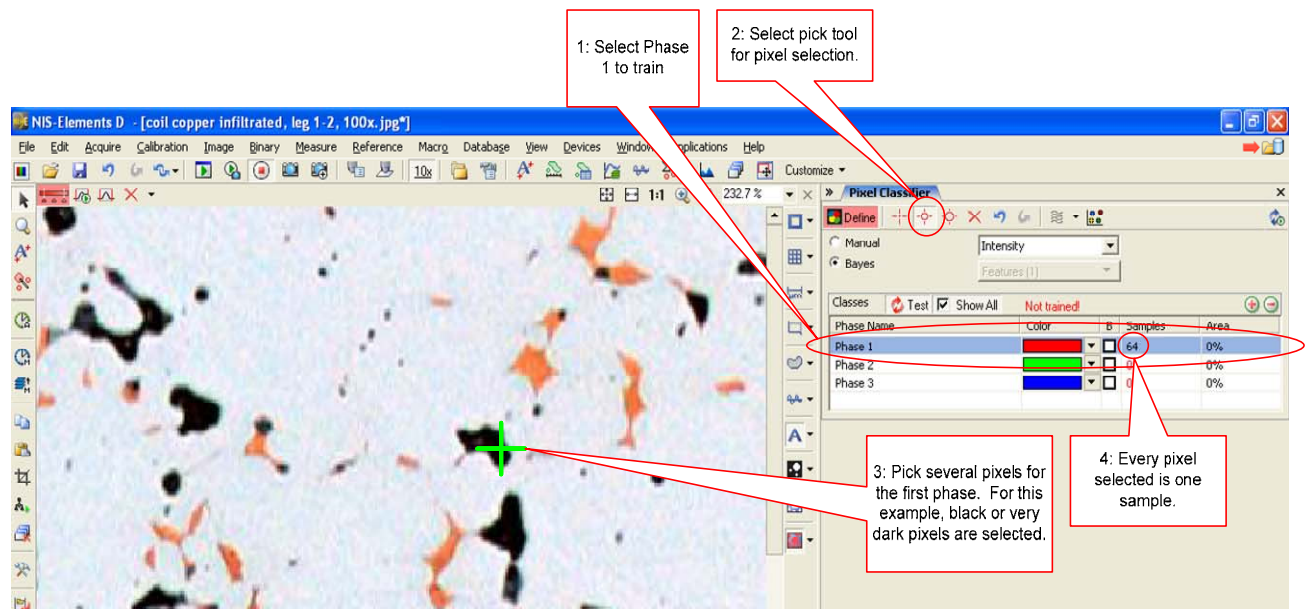
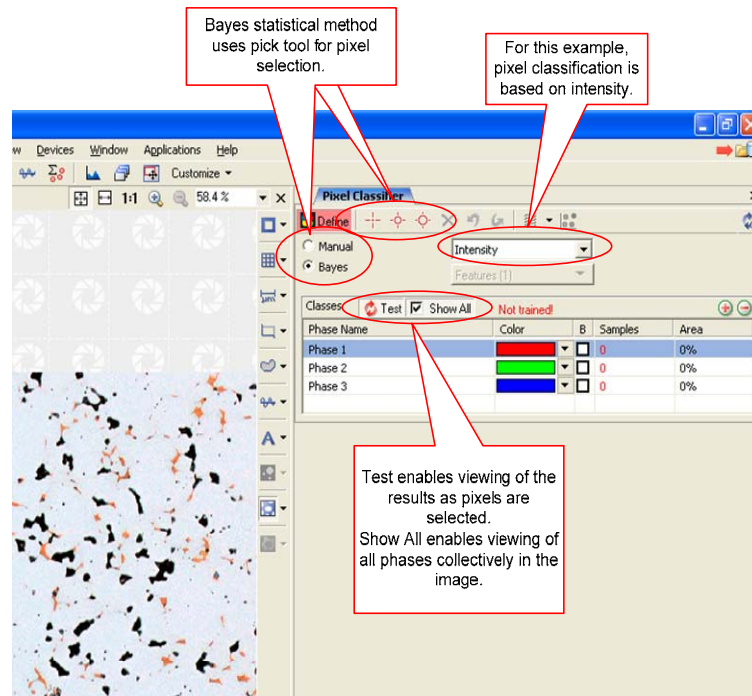
## Defining classes:

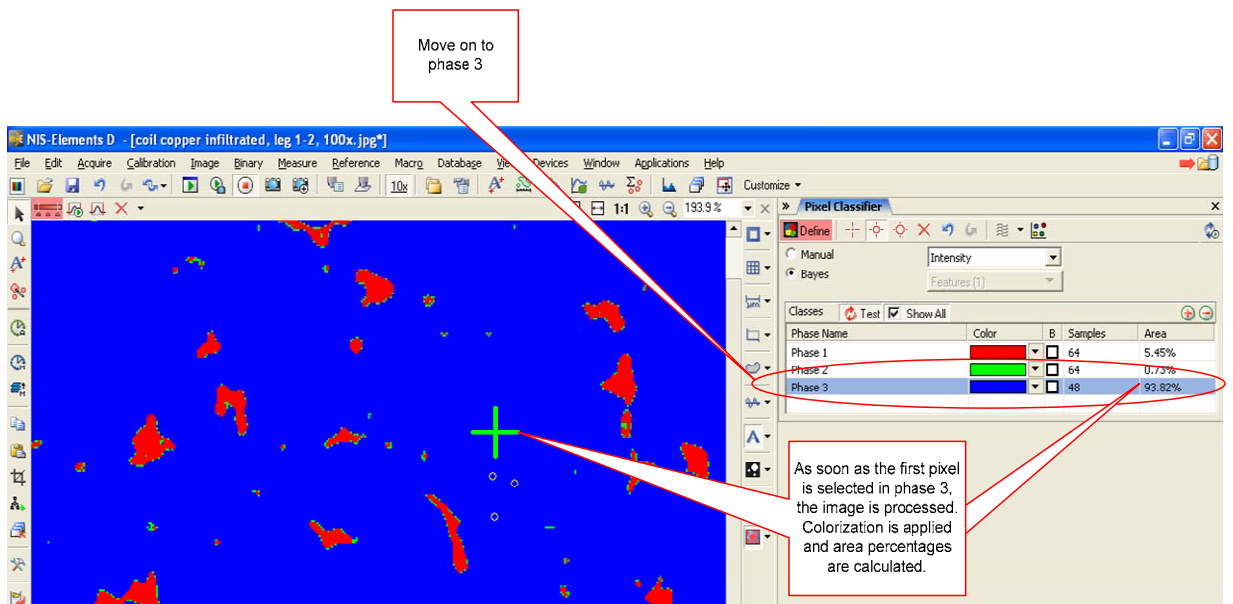
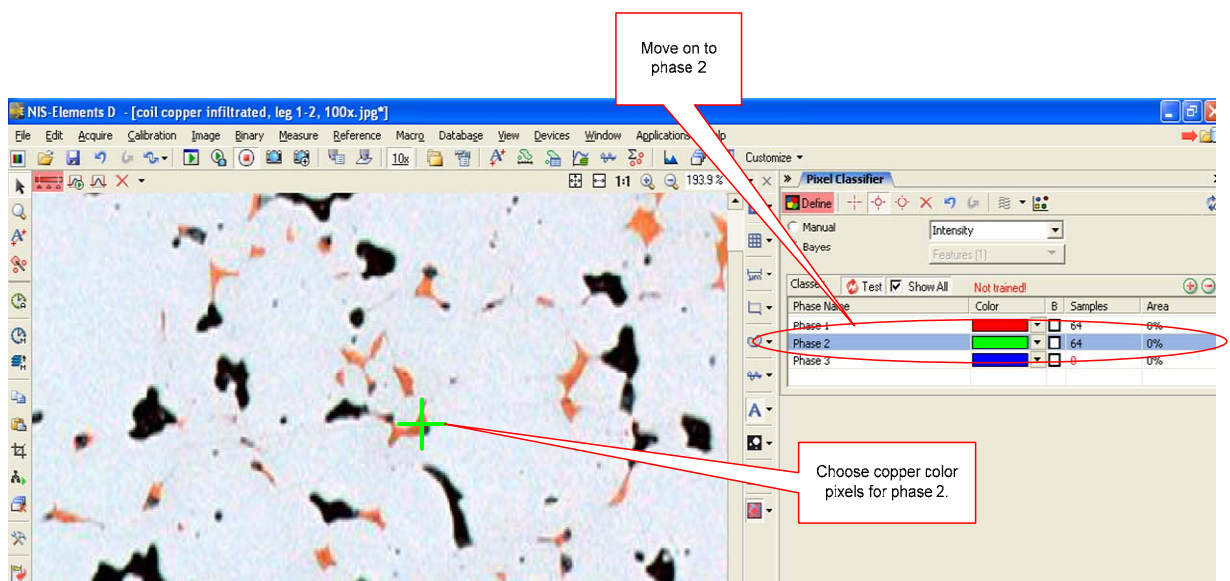
Open an image and define the groups of pixels to include in each phase.



Each phase must be defined before measurement can be made.

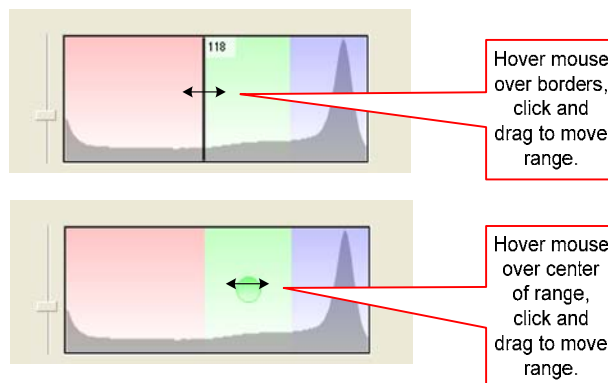
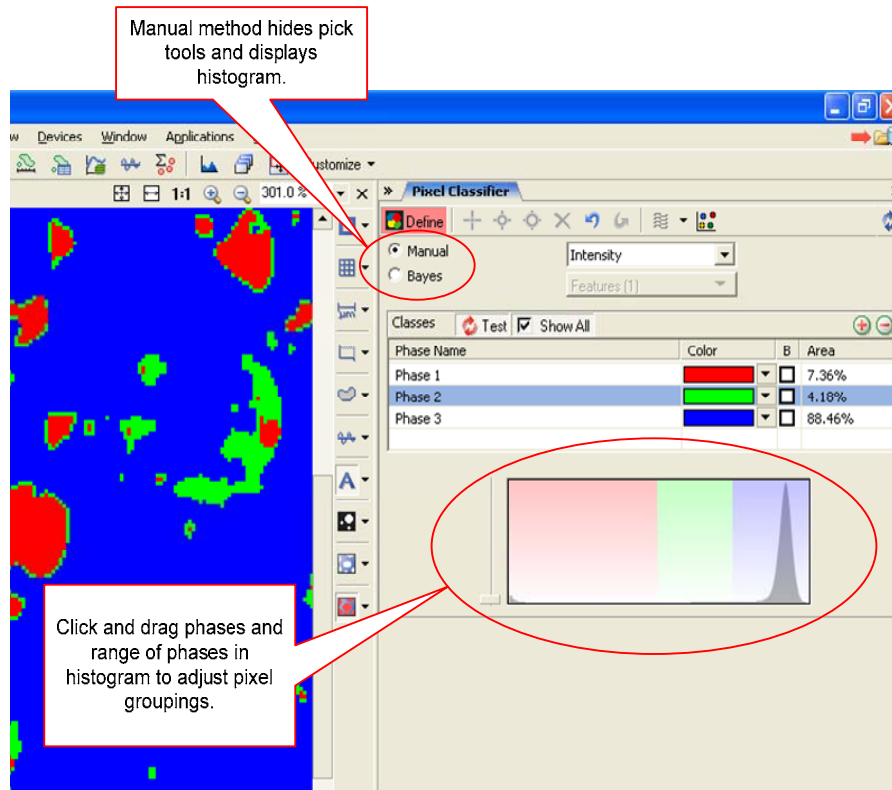
For Bayes method, select phase, choose pick tool, pick some pixels and move on to the next phase.

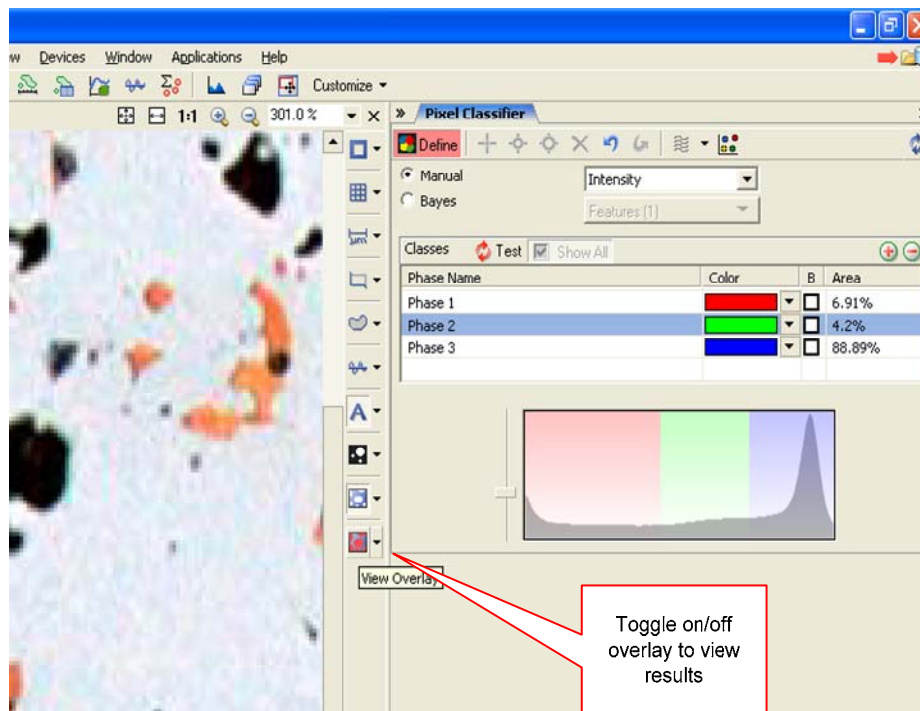
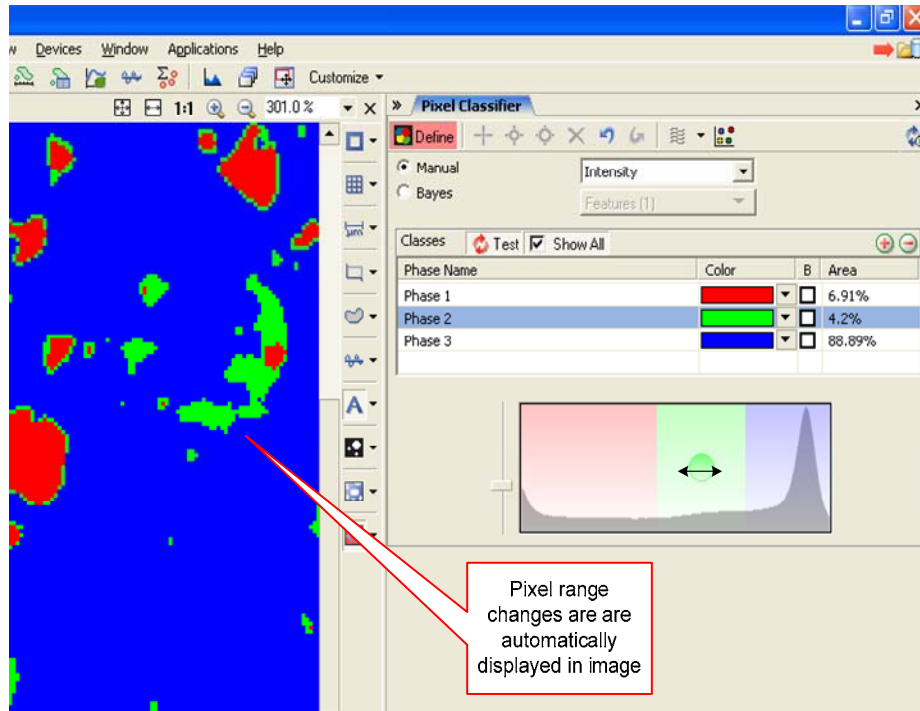


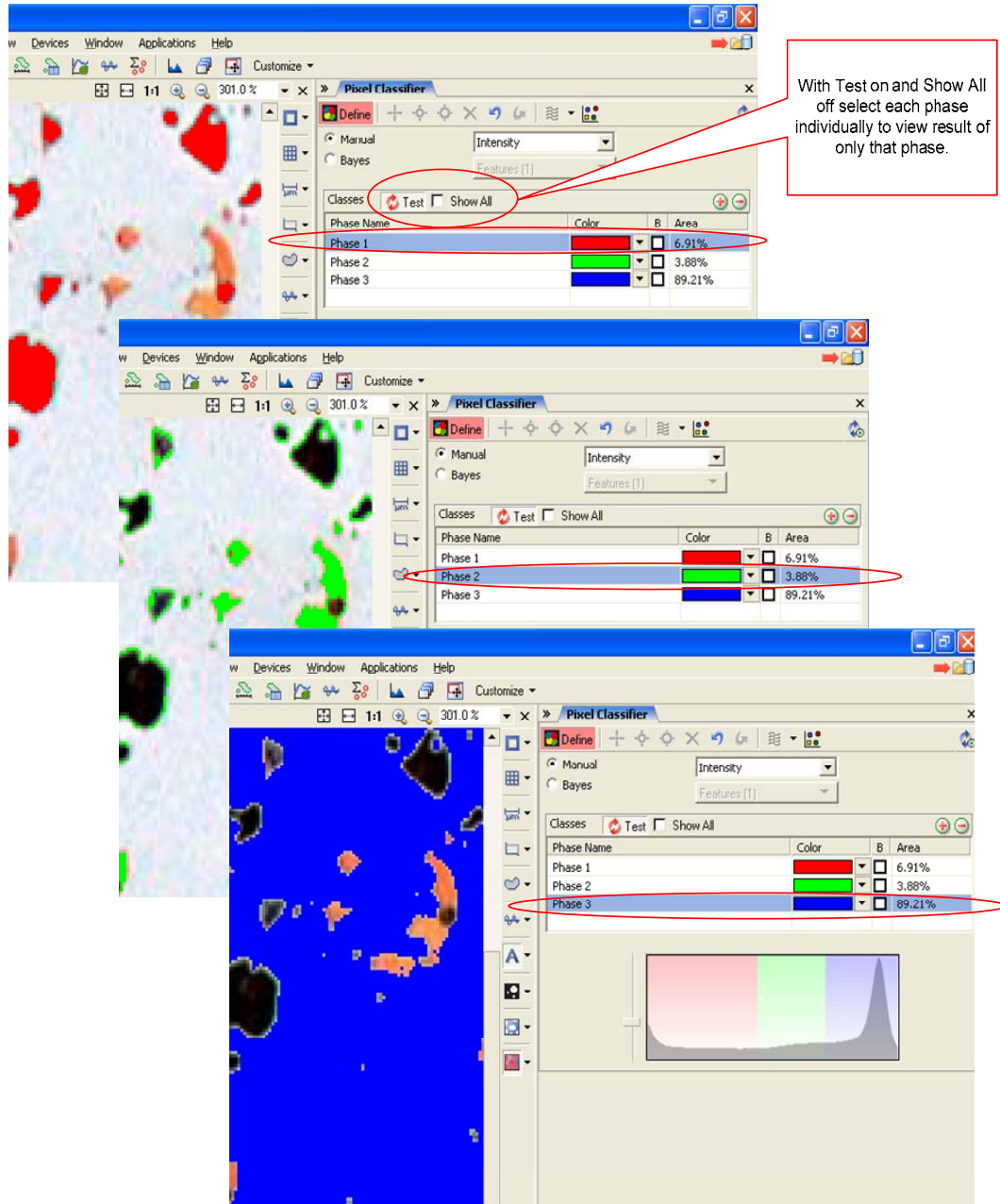


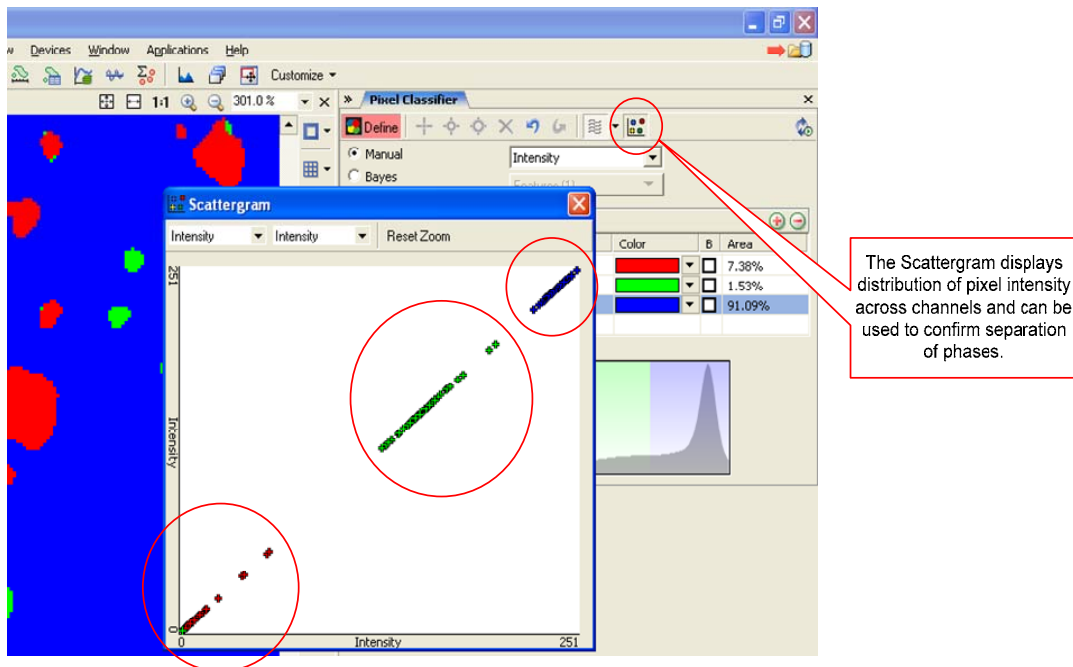
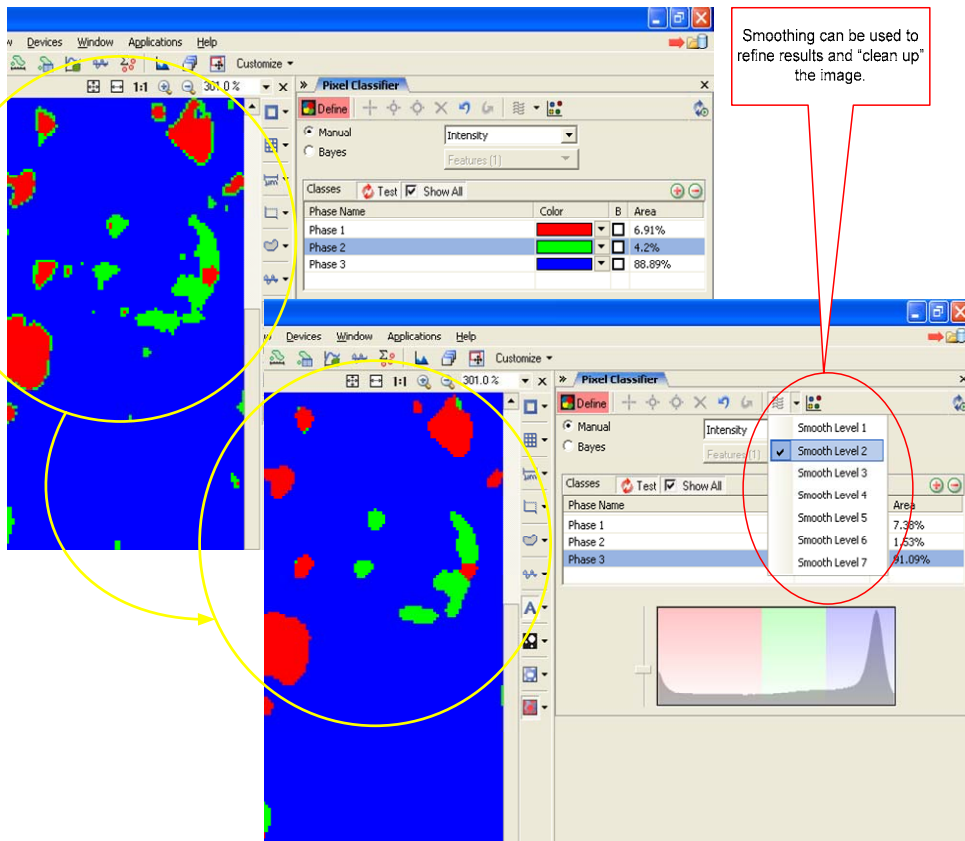


Manual method disables the pick tools and displays a histogram for adjusting phases. Choose the method appropriate for your sample.







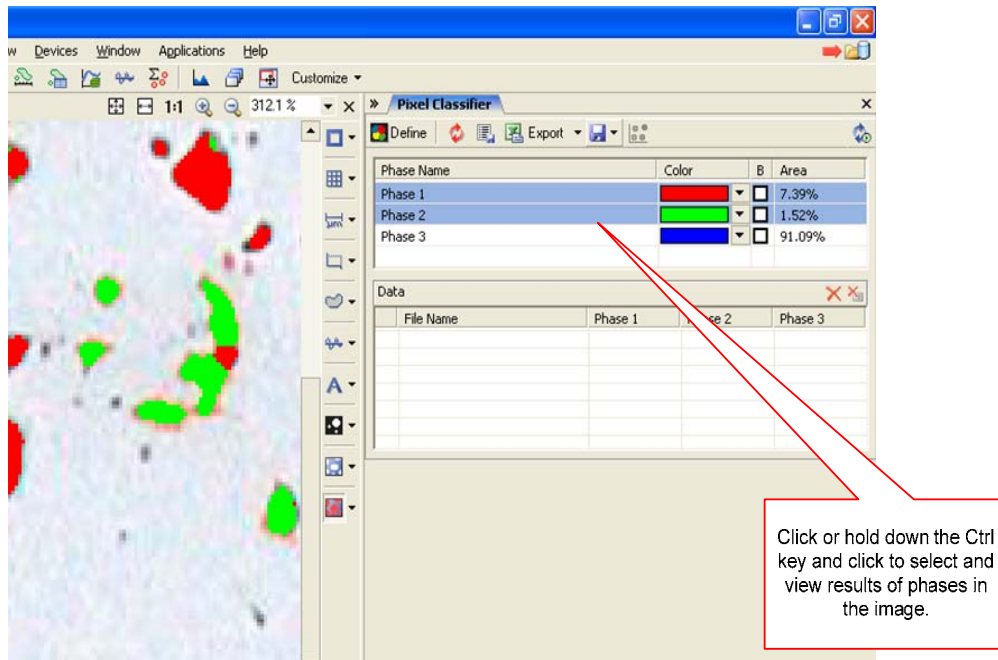




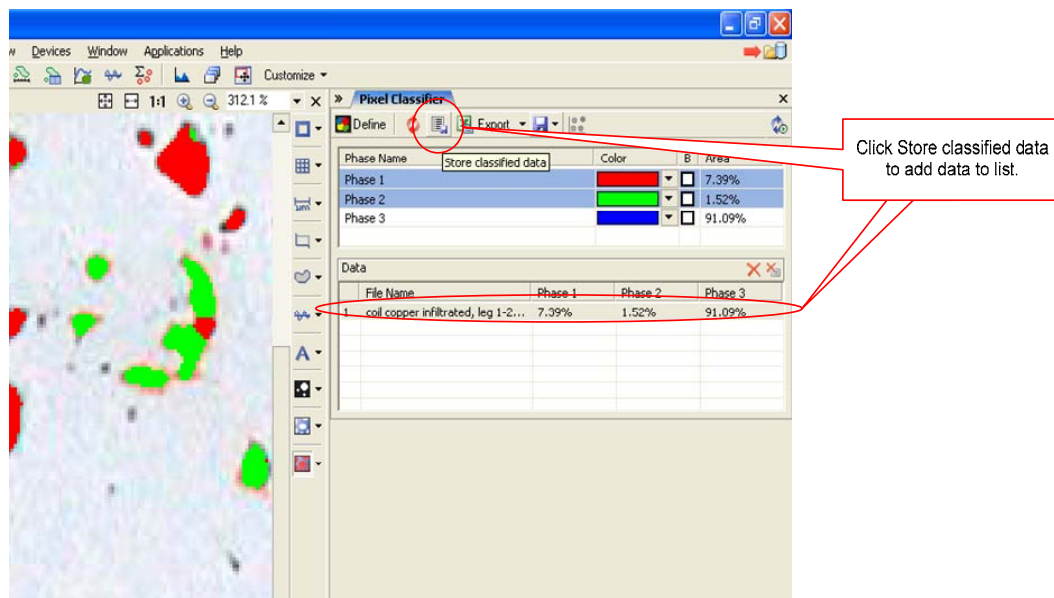
## Collecting the data:

When satisfied with the imaging and pixel classification result, click the Define button to return to data collection mode.

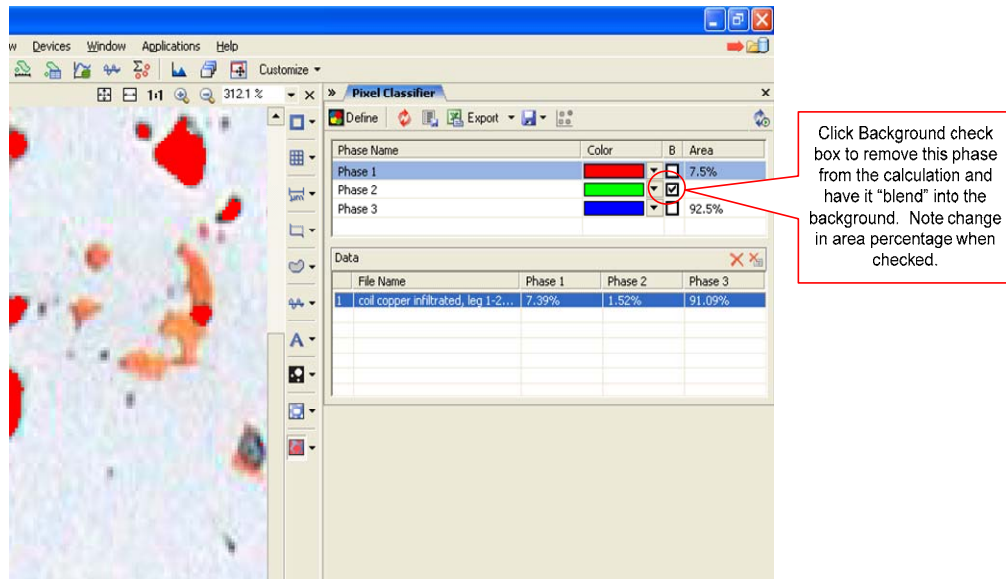
Phases can be viewed by clicking.



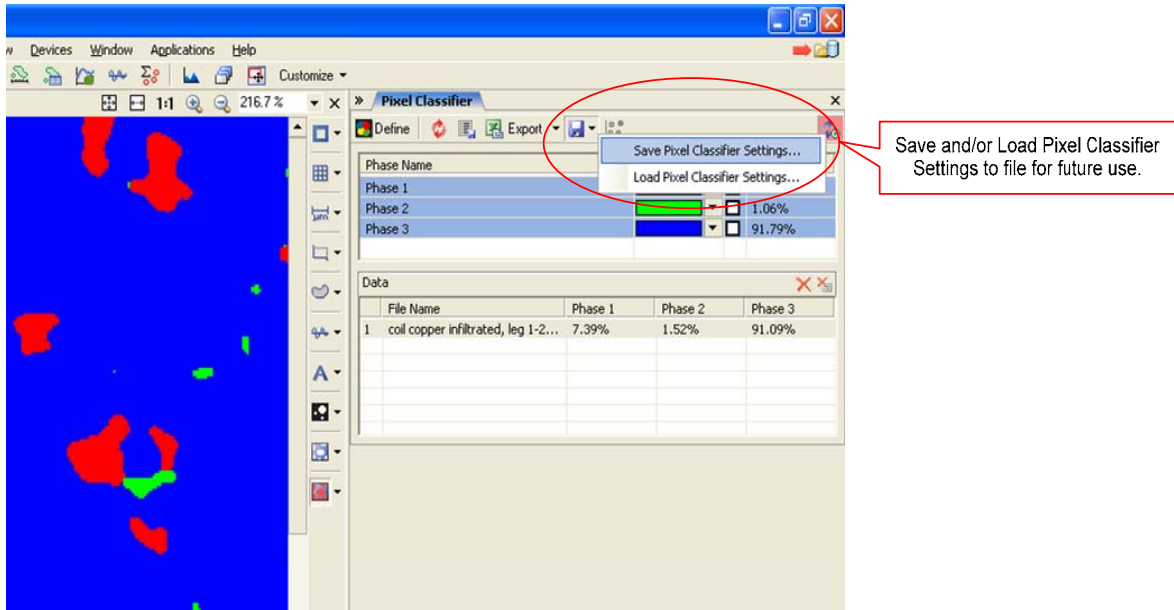
Data can be collected in a list for inclusion in the report.



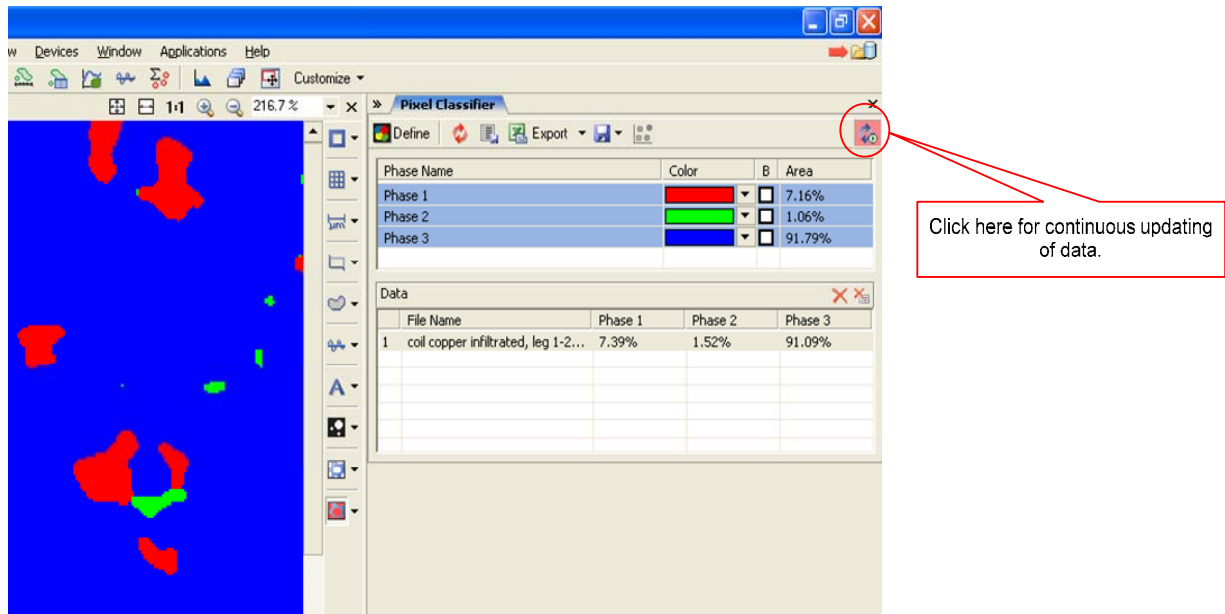
To exclude any number of phases from the calculation, use the Background check box for that phase.



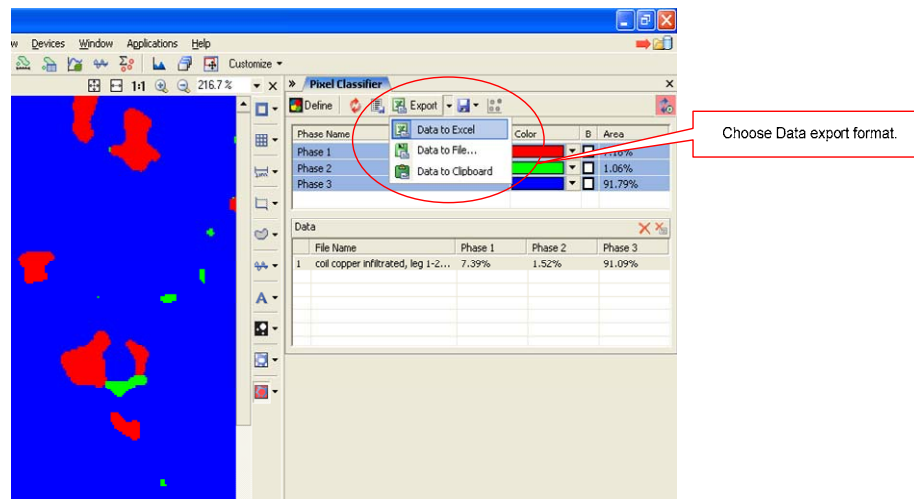
Pixel Classifier data may be stored to file and used later.

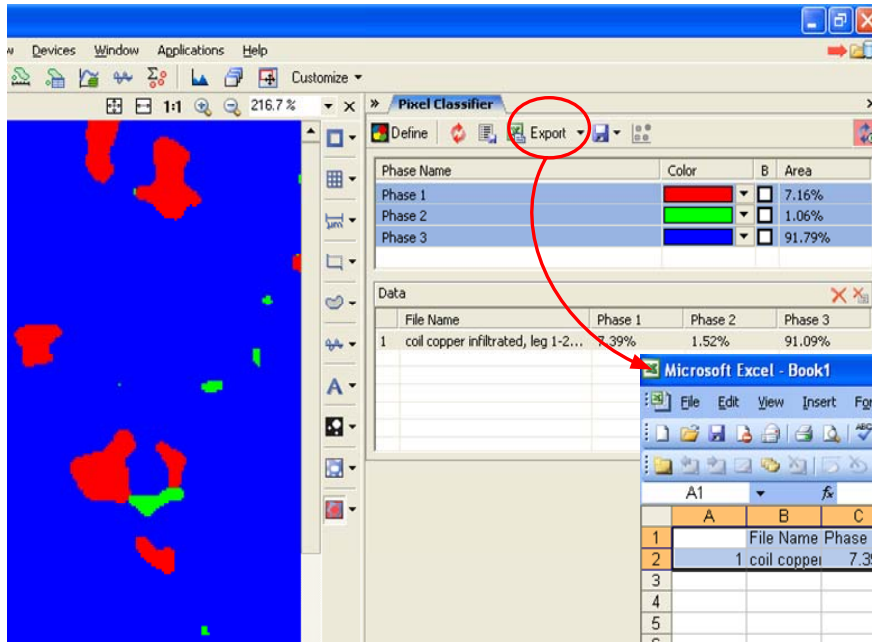


Continuously updating data is useful for Live Mode when the image is changing, e.g. navigating across the sample, or when the sample is being heated or cooled.



When the study is complete, choose an export type and export the data as usual.





Microsoft Excel - Book1

	A	B	C	D	E	F	G
1		File Name	Phase 1	Phase 2	Phase 3		
2		1 coil copper	7.39%	1.53%	91.09%		
3							
4							
5							
6							
7							
8							
9							
10							

