

Dyversity 6

Gel Documentation and Analysis System

Quick Guide-Image Analysis

Analysis of non-2D gel images

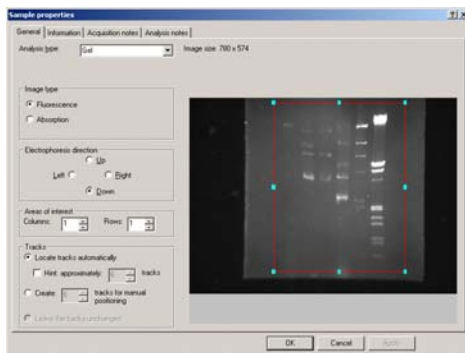
If you wish to continue making a full analysis of the gel now, click the Send to GeneTools icon within GeneSnap.



For Windows VISTA in order for this link to operate you need to perform a mouse right click on the GeneTools desktop icon and select Run as administrator. This only needs to be performed once and now all users can use this function.

If you have previously saved the image in the SGD format as outlined above the GeneTools window appears. However, if you have not saved the image yet the "Save image" dialogue box will appear and ask you to do so before allowing you to continue. Once saved, the GeneTools user name panel appears. This should already display your name since you logged onto the system when it first started.

With this completed, your image should now be displayed on screen in the "sample properties" box.



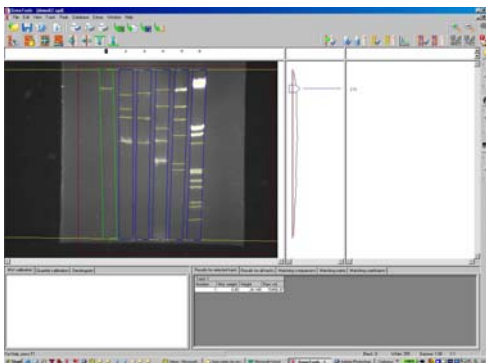
Dyversity is an advanced system with many automatic functions. One of these functions is the ability for the software to detect the type of gel it is about to analyse. Therefore, in the "sample properties" dialogue box you will see that the image type has been decided for you. The direction of electrophoresis can be confirmed at this point. Also in this box notice the document type has been set for "gel" but if you look at the drop down menu you could also analyse Spot blots (Elisa plates), colony counts and PCR.

Please note that 2D gel images need to be analysed in Dymension, not GeneTools.

Another feature is the ability to set multiple tiers in the gel. Set the number of gels in the image and the number of tiers required (you may need to size/position the areas of interest). If you select 'Locate Tracks Automatically' then the software assumes you wish it to automatically analyse the gel. If you prefer to perform a manual track location then select 'Create' and choose the number of tracks. Automatic track location takes about 8 seconds to complete.

When finished the single GeneTools window will show:-

- Image (with tracks and bands marked);
- Histogram (with peaks and edges);
- Results (place arrow cursor over the results table and click the right mouse button to bring up the list of results fields that can be displayed and make your selections);
- Calibration panel.



1) Analyse image

2) Start automatic analysis function

Calibration

To assign the values to a calibration marker simply point to and click on the first band of the marker. Next select the Assign MW/Quantity standard icon



and from the drop down menu library choose your marker (you can edit or enter your own preferred markers if you wish). Then assuming you have all the necessary bands shown, click the "Assign from standards" button. The track is immediately calibrated and all other bands on the gel have their MW determined. These are displayed in the Results table (if this field has been selected). Finally the calibration curve for the marker track is displayed.

Other functions

For other functions such as - Volume calibrations, Track profile and comparison, Report generation, Export to Excel - refer to the full manual or to the Help sections within GeneTools. To activate Help simply click the menu item at the head of the Window and make your selection from the drop down list. The Help section is very extensive with over 400 separate items covered.

GeneTools is capable of many other forms of analysis including Colony Counting, Band Quantitation, Spot Blot Analysis and Band Matching. For more information please refer to the manual or GeneTools Help.

Analysis of 2D gel images

See Dymension Getting Started User Guides.

3) Assign marker values

4) View/print report

5) Export results to Excel

6) Analysis of 2D gel images



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