

Definiens

Tissue Studio[™] 2.1.1

Release Notes

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Definiens Documentation:

Definiens Tissue Studio™ 2.1.1

Release Notes

Imprint

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Published by:

Definiens AG, Trappentreustraße 1, 80339 München, Germany

Phone: +49 89 2311 800 • Fax: +49 89 2311 8090

Web: www.definiens.com

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Thank you.

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1 Overview

Definiens Tissue Studio™ is an image analysis workstation that provides functionality to support the pathologist in analyzing standard assays in histopathology. It enables non-technical users to configure, calibrate and execute versatile image analysis workflows. The software supports all major acquisition devices and users can analyze all kinds of tissue slides, tissue micro arrays and microscope images.

With the built-in Definiens Composer Technology™, regions of interest can be extracted from images by selecting samples and train the software how to find the regions of interest. Once the training is finished, Definiens Tissue Studio™ can extract the regions from an unlimited number of images.

A library of pre-defined image analysis solutions for typical every-day problems is provided that can be calibrated for the particular image data set, using Definiens Composer Technology™ and/or simple graphic sliders. These calibrated applications can be saved and submitted for batch execution.

Definiens Tissue Studio™ allows the user to quantify IHC, fluorescence and other histological assays on a cell-by-cell basis.

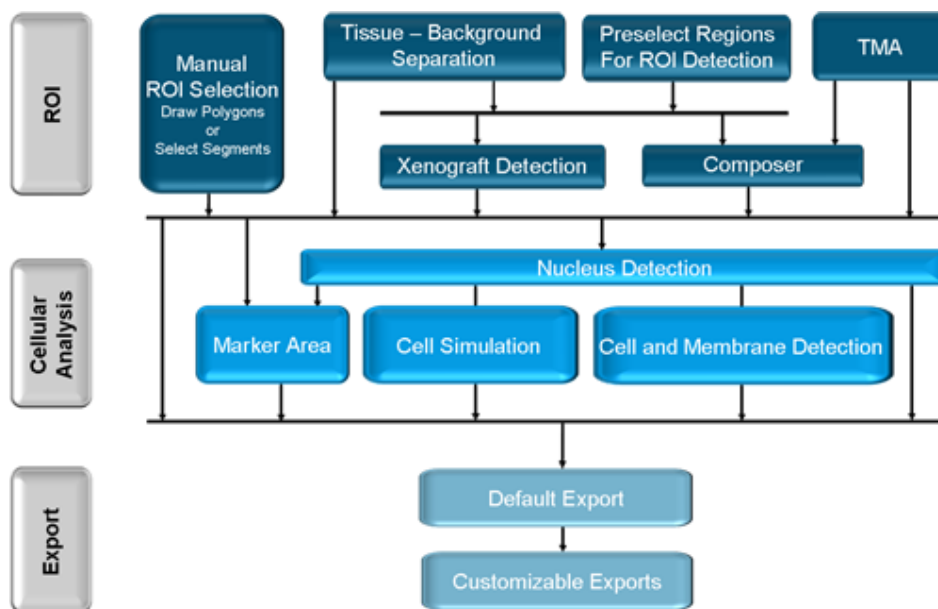


Figure 1.1. Definiens Tissue Studio image analysis capabilities

1.1 About Definiens Tissue Studio™ 2.1.1

Definiens Tissue Studio™ 2.1.1 is a maintenance release. It includes about 15 bugfixes to Definiens Tissue Studio™ 2.1 and is a recommended update for customers using any previous version of Tissue Studio.

2 Bug Fixes and Errata

2.1 Bug Fixes

See [table 2.1](#) on this page, *Bugs Fixed in Tissue Studio™ 2.1.1*.

Table 2.1. Bugs Fixed in Tissue Studio™ 2.1.1

Category	Reference	Description
Data I/O		
ROI Detection	14979,16317	Manual Selection Actions: Change of class names between selections leads to bad state
Cellular Analysis	16721,16729	Classification actions: Automatic calculation of suggested values falsely results in maximum values
Export	16705	Brightfield screenshots should be exported with equalization setting None instead of Linear
Export	16235	Merker Area Detection (IF): Export Mander's and Pearson's coefficients
Export	16434	Default Export (IF): Positive Index for nuclei
Export	16557	Default Export (IF): If Cell Simulation and Cell Classification is used, Average Cell Intensity for layers should be based on the cytoplasm (where present), not on the whole cell
User Interface	16345	Workspace: add folder and import files into folders via context menu
User Interface	16703	Features "Variation Hematoxylin/Brown/Optical Density" are undefined in image object information/table
User Interface	16467, 16491, 16521, 16348	Inserted missing warning messages
Processing	16730	TMA processing: Failed cores with error message "Cannot create map smaller than 4×4[x1×1]"

Continues...

Category	Reference	Description
Processing	16187	Marker Area Detection for multiple ROIs without Nucleus Detection analyzes first ROI only

2.2 Known Issues and Limitations

See [table 2.2](#) on the current page, *Known Issues and Limitations in Tissue Studio™ 2.1.1*.

Table 2.2. Known Issues and Limitations in Tissue Studio™ 2.1.1

Category	Reference	Description
Processing	N/A	Limitation: The ROI Detection algorithms work on the first six fluorescence channels only. Additional channels are ignored. Data export and visualization is possible for up to 12 channels.
Export	16179	Known issue: Average Membrane/Cytoplasm ratio may have insignificant value due to outliers with very high and or negative values. As a workaround, please export values per object by customizable export end exclude outliers before calculating the average value.
Processing	16650	Known issue: Olympus driver: Magnification is always set to 20x (default) for Olympus slides. In Initialize Cellular Analysis, please select a magnification relative to 20x. The resolution is read correctly.

2.3 Document Errata

None

3 Additional Information

3.1 Solution files from previous versions

It is not possible to reuse solution files (file type .dax) of previous versions of Definiens Tissue Studio in this version. Because the underlying algorithms have been improved, solutions are not compatible between versions.

3.2 Using manual selections from TissueMap in Tissue Studio

Definiens TissueMap and Definiens Tissue Studio are two different products. The workspace layout has been changed/ therefore, users of Definiens TissueMap cannot use the manually created regions in Tissue Studio automatically. However, the workspaces with manually created region selections can be converted for Definiens TissueMap versions 3.1 and above. Please contact Definiens product support at support@definiens.com to get the tool to convert workspaces.

3.3 Contact

If you have any additional questions, please contact your account manager or email support@definiens.com.

Acknowledgments

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