

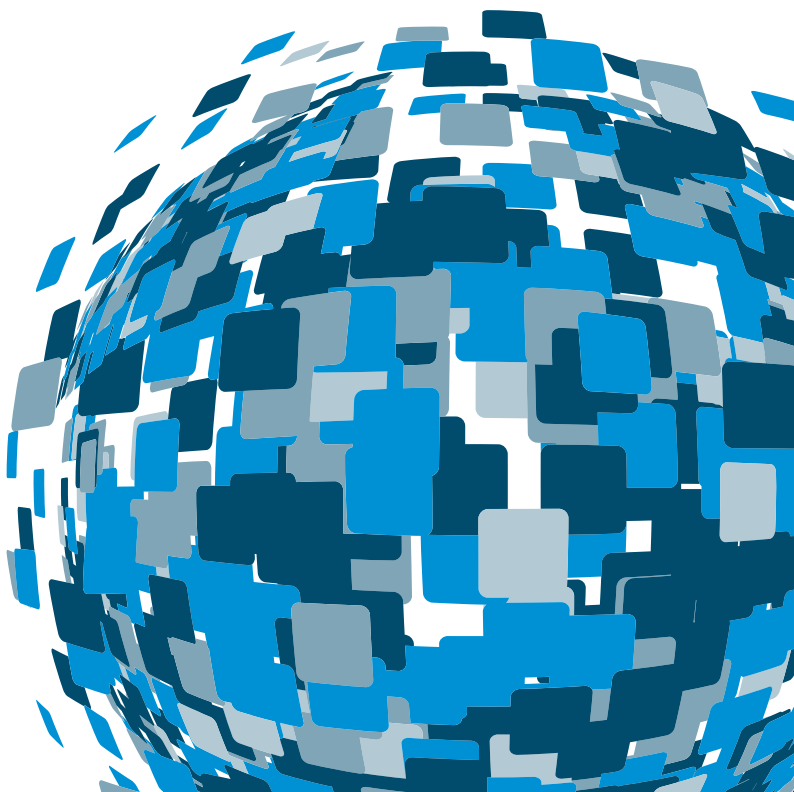
Definiens

Definiens XD 1.5.2

Release Notes

DEEPER INSIGHTS
FASTER RESULTS
BETTER DECISIONS

www.definiens.com



Definiens Documentation:

Definiens XD 1.5.2

Release Notes

Imprint

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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 for using Definiens software. We appreciate being of service to you with image intelligence solutions. At Definiens we constantly strive to improve our products. We therefore appreciate all comments and suggestions for improvements concerning our software, training, and documentation. Feel free to contact us via web form on the Definiens support website www.definiens.com/support

Thank you.

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1 Overview

Definiens XD is a comprehensive image analysis platform for multi-dimensional image analysis. It contains all the client and server software needed to extract intelligence from any digital image in a fully-automated or semi-automated way.

1.1 About Definiens XD 1.5.2

Definiens XD 1.5.2 is a maintenance update release that contains a range of useful bug fixes and patches that improve the general reliability and performance of the Definiens XD software. In addition there are several smaller improvements to the functionality of the Definiens XD software.

Customers using prior versions of Definiens XD are advised to review these release notes before deciding on an upgrade to XD 1.5.2. Definiens does recommend that you upgrade to this latest version.

Please note: The the last generally available release was XD 1.5.0. A version, XD 1.5.1 was supplied to selected customers who experienced specific issues. Customers with XD 1.5 or earlier may update directly to XD 1.5.2.

1.2 Key Features

Role-based Definiens XD clients for application developers and end users

- Definiens Developer XD
- Definiens Architect XD
- Definiens Viewer XD

Definiens Life Server® XD

- A scalable, server-based batch processing environment for multidimensional analysis.

Comprehensive multi-dimensional data import

- DICOM support

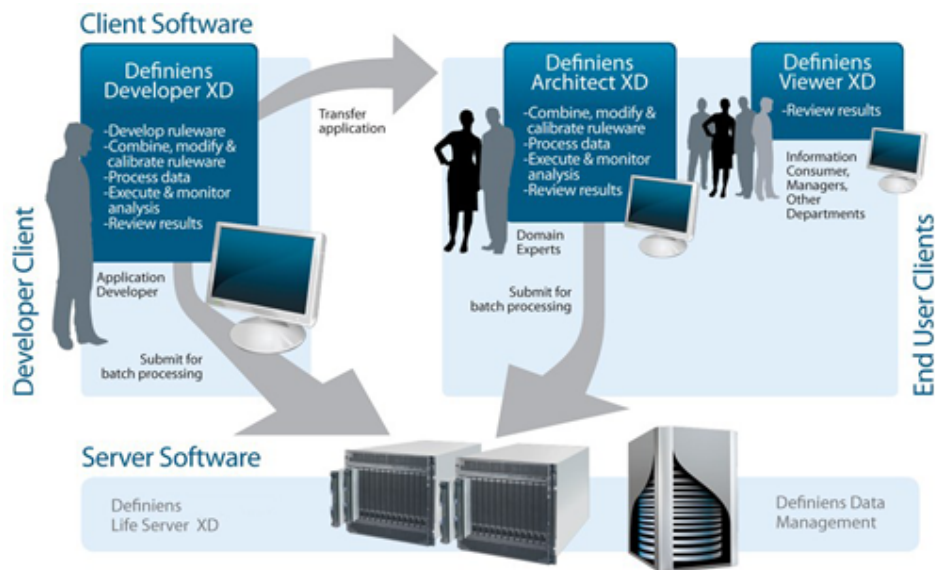


Figure 1.1. Definiens XD multi-dimensional image analysis software

- Generic import builder tool
- Multidimensional data model
- Support for many multidimensional image formats

High performance analysis of complex multidimensional data

- Definiens Cognition Network Technology® for XD
- Object-based pixel processing
- Multimap support and regions to support flexible analysis workflows including multi-magnification, registration and comparison workflows

Full multi-dimensional object model

- 3D features and algorithms
- Object linking for time series support

Multi-dimensional image viewing

- Multi-planar projections (XY, YZ, ZX)
- Animations of time series data
- Comparison views of multiple images side-by-side
- Linked object selection and picking
- Independent or synchronized views

Sophisticated 3D visualization

- Surface rendering of classified objects
- Rotation, zoom, class selection, transparency settings and export

- OpenGL hardware acceleration

Integrated image registration

- Rigid and elastic transformations
- Landmark and non-landmark based schemes
- Automated, semi-automated or manual landmark identification

Comprehensive SDK for integration of XD image analysis into existing workflows or applications

- Automation API
- Data IO API
- Engine API

1.3 Highlights

Definiens XD 1.5.2 is a maintenance update that improves the overall stability and reliability of Definiens XD products.

2 Issues, Bug Fixes and Errata

2.1 New Features

Table 2.1. New features in Definiens XD 1.5.2

Category	Reference	Description
Clients	16618	Configurable portal selection time value and extended default
Features	16433	New feature: Resolve Path to export fully resolved UNC file path
Import	16252	Create/modify project: add ability to load 2D TIFF as a layer into 3D scene whilst keeping the GeoInfo
Import	16293	New Import templates for Leica Matrix screener
Import	16302	Additional options to enforce fitting for customized import
Import	16596	OME TIFF import of xyz(t)resolution information
Import	16626	Raster driver configuration: Added switch for approximate statistics
Connectivity	16200	Import templates added for Leica Matrix Screener (Mosaic) v1
Job Scheduler	16617	User should confirm job cancellation before job is cancelled
Job Scheduler	16625	Add pause function for user jobs
SDK	16456	DIACmdClient: additional switch to get a non-blocking status
SDK	16587	DIAMkWksp needs to be able to create TS workspaces
SDK	16728	DIAMkWksp: New option to scan the content of a file repository
SDK	16345	Tissue Studio workspace: add option to add folders to workspace.

2.2 Bug Fixes

Table 2.2. Bugs Fixed in Definiens XD 1.5.1

Category	Reference	Description
Admin Console	16551	Typo in Admin Console regarding number of engines
Admin Console	16588	Admin Console link in the program group does not work
Algorithms	15646	Engine crash when calculating skeleton – this happens for image objects with polygons that touch themselves
Algorithms	16744	Different results for Distance Map algorithm (XD 1.3 > XD 1.5.2)
Algorithms	16746	Developer: rounding problem – linked object feature
Algorithms	16464	Delete Level algorithm can delete wrong levels
Algorithms	16598	Crash on Pixel-Based Shape Processing outer border filter
Algorithms	16310	Crash: copy map with rotation
Algorithms	16303	Subset Maps in 3D: Domain Current Image Object does not work
Algorithms	16331	Fast Haralick algorithm missing from Life Server package
Algorithms	16463	Algorithm Pixel Filter Sliding Window does not work for time series
Algorithms	16201	Fast threshold segmentation is crashing in special case
Analysis Builder	14979	Manual selection actions: change of class names leads to bad state
Analysis Builder	16367	Input mode was reset due to project unload/reload
Analysis Builder	16733	Update action from parameter set, changes parameter set
Clients	16144	Portal selection dialog may not always appear
Clients	16257	Scrolling performance for large 3D datasets can be slow
Clients	16300	Definiens Viewer contains About information from Definiens Developer XD
Clients	16313	Product configuration: Help menu entry missing in some portals
Clients	16315	Developer may crash with manual editing (split)

Continues...

Category	Reference	Description
Clients	16374	Crosshair is not always correctly set in MPR View
Clients	16383	Encrypted ruleset can be edited by Find and Replace function
Clients	16518	File > Update Data Path may not successfully map UNC path for all files
Connectivity	15198	Hamamatsu slides may cause memory/file handle leak and Developer crash.
Connectivity	16192	Connector: Analyze driver does not work with if time dimension is not defined
Connectivity	16245	Leica LIF crashes on opening certain image files
Connectivity	16298	Connector: Leica SCN does not work under Linux
Connectivity	16323	OME-TIFF driver shows distorted image
Connectivity	16359	Problem using the analyze connector to read the 16-bit unsigned CT image
Connectivity	16382	Aperio SVS slide with JP2K Compression option can give out-of-memory condition
Connectivity	16389	3D import may result in incorrect number of slices for DICOM data
Connectivity	16465	Evotec flex files import (1,200 images) takes a very long time and may error due to delayed file close
Connectivity	16594	Error message in Leica LIF import
Connectivity	16615	JPG2000 import causes endless read loop. The file has only one tile-part with length 0 (which is legal for the last tile part according to jp2 specs), but our codec does not process this case correctly and enters an infinite loop for the tile
Connectivity	16633	OME TIFF MPR View: main y and main x panels do not display correct images
Connectivity	16649	Leica SCN: image reading does not work under Linux when special characters ? and ! are used
Connectivity	16697	Corrupt display of copied map on Olympus slide
Developer	16260	Added a new parameter for each button Synchronize with Input Mode. If set to true, this flag ensures button's state is always synchronized with input mode which is set by the button

Continues...

Category	Reference	Description
Developer	16375	Waiting cursor not displayed when message box is active
Developer	16487	Developer can crash if user attempt synchronization from 3D subset map into the main map. Replace the crash with “3D/4D maps synchronization not supported” message.
DICOM	16392	DICOM series containing two volumes does not create two projects
DICOM	16559	DICOM Import problem. Issue with non filled “SliceLocation” tag in the metadata in DICOM images. In results, in places where series are sorted and analyzed, all images were recognized with incorrect locations and the result was unpredictable (series were ignored as incorrect)
DICOM	16563	DICOM series were not imported because there were coronal and sagittal, and we were not supporting them (only axial series were noted as acceptable). With fix – other orientations with non-filled “slicelocation” tag should be imported now.
Documentation	16500	SampleVDIPlugin is not building without third party libraries. Document the dependencies
Image Proxy Server	16336	Confusing Image Proxy Server different version error message removed
Processing	15364	Submitting job with large number of Evotec files may take a long time if the Job Scheduler is not on the localhost
Processing	16316	Potential engine crash caused when cache manager frees cached pages where some algorithms still referencing and using memory areas
Processing	16334	Engine crash may occur in Pixel-Based Object Resizing algorithm
Processing	16422	Developer error message “out of memory” when submitting large Cellenger jobs.
Processing	16602	Hanging engines can occur when processing Hamamatsu slides.
Processing	16754	DIAJobScheduler.exe – compact option not working
SDK	16430	DIAClient: command line parameters are not calling help
SDK	16492	SDK: class DMISample should not depend on dmi_map.h
SDK	16578	DIAClient command line parameters: check on suffix if workspace or project should be opened

Continues...

Category	Reference	Description
SDK	16732	DIACmdClient: crash after job is done when submitted with wait option
Tissue Studio	16198	Cell classification: exclusion does not work correctly for automatically saved solutions
Tissue Studio	16713	Tissue Studio error message: "System configuration file not found"
Workspaces	16592	Workspaces with TMA annotations are not processing if csv file name is a number

2.3 Known Issues and Limitations

None.

2.4 Errata

None

3 Additional Information

For additional information please contact support@definiens.com

3.1 Upgrading to Definiens XD 1.5.x from previous versions of XD

Upgrading Definiens Client Products

You may choose to install updated versions of the client software alongside previous versions. During installation, please name the folder and program menu to distinguish clearly between different versions. If you wish to install multiple XD 1.5.x clients please ensure you set the local server service to start manually. This will allow you, if you are using the local server, to control which version of the local server you are using.

Upgrading Your eCognition Server

You are recommended to update your GRID to XD 1.5.2 if you wish to take advantage of the new Job Scheduler features. Please note that previous installations should be removed as installing multiple versions of the GRID on the same computer will cause processing problems.

3.2 Further Information

For detailed information regarding the new capabilities of Definiens XD products, please refer to the respective user guides. These also contain difference between XD and the 2D product range to assist with planning upgrades.

The Definiens service team has built extensive experience planning migrations and upgrades for our customers. We recommend you consult with the Definiens service team before planning a migration, who will be happy to provide insight into the migration process.

Acknowledgments

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