

Questions and Answers

The Autodesk® LandXplorer™ 3D city model software family can help you create, analyze, and visualize digital city models.

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General Product Information

What is the Autodesk LandXplorer software family?

Autodesk sees urban design on a citywide scale as the next great design challenge. Cities, utilities, property developers, and the public are all looking for a better way to experience, understand, and collaborate on infrastructure projects and urban design. With the Autodesk LandXplorer software family, stakeholders from the public, city government, construction, and business communities can work together to visualize infrastructure projects before they're built. Being able to experience the future of a city before it is real helps all involved to understand how policy and proposals can impact the urban environment.

The Autodesk LandXplorer software family can help organizations

- Realize additional return on investment (ROI) on existing data and software.
- Reduce the cost of the urban design process.
- Enable urban design stakeholders to explore and interact with 3D city models.

What products make up the Autodesk LandXplorer software family?

The Autodesk LandXplorer software family consists of five products

- Autodesk® LandXplorer™ Studio Professional
- Autodesk® LandXplorer™ Server
- Autodesk® LandXplorer™ Xpress Viewer
- Autodesk® LandXplorer™ Publisher
- Autodesk® LandXplorer™ CityGML Viewer

What do the individual products do?

Autodesk LandXplorer Studio Professional

Autodesk LandXplorer Studio Professional software is an advanced toolset for creating and distributing digital city models, helping city leaders and other urban design stakeholders to visualize, simulate, and analyze design projects before they are built. With Autodesk LandXplorer Studio Professional, organizations can

- Aggregate geospatial, building, and land information to create more accurate, visually compelling 3D city models.
- Build representationally precise, visually compelling city models from imagery, terrain, and geospatial data more rapidly
- Visualize, experience, and analyze infrastructure projects in a digital city model.
- Produce images, videos, and plots of digital city models for presentations.
- Share visualizations of city models with internal and external stakeholders, such as developers, engineering and construction firms, and citizens, with a free* downloadable viewer.

Autodesk LandXplorer Server

Autodesk LandXplorer Server 2010 software provides powerful, server-side hosting and rendering of large scale 3D city models and urban designs created with Autodesk LandXplorer Studio Professional software. City data is processed and published to a server, where it can then be more securely shared via the web, helping provide project

reviewers, stakeholders, and citizens the ability to view, analyze, and gather information about proposed city and urban plans.

With Autodesk LandXplorer Server, organizations can

- Share navigable visualizations of city models created in Autodesk LandXplorer Studio Professional 2009 software, with internal and external stakeholders over the Internet.
- Explore urban environments using a generic web browser.
- Help support the decision-making process for projects by enabling a wider audience to access the model.

Autodesk LandXplorer Xpress Viewer

Autodesk LandXplorer Xpress Viewer software is a free* downloadable program that helps urban design professionals distribute their Autodesk LandXplorer city models to stakeholders more rapidly and cost-effectively.

With Autodesk LandXplorer Xpress Viewer, organizations can

- Visualize and explore published digital city models.
- Search for specific elements of the model, such as points of interest.
- Incorporate additional customization, such as branded splash screens, hyperlinking to external resources, and simple output generation into the project.

Autodesk LandXplorer Publisher

Autodesk LandXplorer Publisher software is a free* downloadable program that helps urban design professionals more rapidly disseminate visualizations to key stakeholders, including the general public, urban commercial firms, and other city agencies, by publishing digital city models to KML format for use in the Google Earth™ or Microsoft® Virtual Earth™ applications. With Autodesk LandXplorer Publisher, organizations can

- Publish digital city models, created in Autodesk LandXplorer Studio Professional software, to Google Earth or Microsoft Virtual Earth.
- Create KML-based representations of 3D city models.
- Incorporate encryption mechanisms to better protect data.

Autodesk LandXplorer CityGML Viewer

Autodesk LandXplorer CityGML Viewer software is a free* downloadable program for viewing CityGML data sets.

Autodesk LandXplorer CityGML Viewer software is available for download from www.citygml.org

** Free products subject to the terms and conditions of the end-user license agreement that accompanies download of the software*

What does a digital city model consist of?

A Digital City is a collaborative, composite digital model or set of models, built by aggregating engineering, infrastructure and geospatial design data to help capture the past, future, and proposed states of a complex urban environment. City modeling technology is evolving so that users can visualize, simulate, and analyze events and states of the city as it changes through time. Building a Digital City requires more than a single technology or product. A Digital City is built and sustained with a suite of products supplemented by API-based workflow implementation, open technologies, related industry tools, and a community of users and service providers.

Digital Cities will eventually be created from many different types of data and the ability to create, aggregate and access accurate and updated data about the city will be critical for the Digital Cities implementation.

Types of data used to construct Digital Cities may include

- Geographic vector data – CAD drawings, GIS, survey, GPS, and terrain data.

- Models of city furniture and buildings – BIM-type models, shell models of buildings and fixed assets, models of representational city movable assets.
- Imagery data – Orthophotography, and image textures.
- Attribute data – Text and numerical attributes of city assets, buildings, and geographic features.
- Utility data
- Geology data
- Transportation data

The range of data that is ultimately put in use by the Digital City will depend on the degree to which the Digital City is integrated into the local enterprise information environment.

What data stores can I access with Autodesk LandXplorer Studio Professional?

Autodesk LandXplorer Studio Professional can utilize the most commonly accessed data types used in the creation of a digital city model, including

City Block Building Models:

- CityGML (*.gml, *.xml)
- Extensible 3D (*.X3D)
- Open-Source Feature Data Objects (FDO) Technology:
 - Oracle[®] Spatial
 - Microsoft[®] SQL Server™
 - OGR
 - MySQL[®]
 - WFS
 - ESRI[®] SHP
 - SDF

3D Model Objects:

- 3ds Max (*.3ds)
- Alias Wavefront (*.obj)
- Collada XML Scene Import (*.dae)
- STL Binary File (*.stl, *.stb)

Vector Data:

- ESRI SHP file format (*.shp)
- Open-source FDO technology

What raster formats can I access with Autodesk LandXplorer Studio Professional?

The following raster formats can be used to create Autodesk LandXplorer terrain models

- Arc/Info[®] ASCII Grid (*.asc)
- Arc/Info Grid Export (*.e00)
- ERDAS IMAGINE (*.img)

- ECW (*.ecw)
- Extensible 3D (*.X3D)
- JPEG (*.jpeg, *.jpg)
- Portable Network Graphics (*.png)
- LDX / VRS Binary Format (*.ldx, *.vrs)
- Microsoft® Windows® Bitmap (*.bmp)

The following raster formats can be used to create Autodesk LandXplorer texture files which can be draped on the terrain model

- GeoTIFF (*.tif)
- ERDAS IMAGINE (*.img)
- ECW (*.ecw)
- JPEG (*.jpg)
- MrSID® (*.sid)
- Portable Network Graphics (*.png)

Are created city models and the data used to create them, secure?

Since none of the original data is published, Autodesk LandXplorer Xpress Viewer, Autodesk LandXplorer Publisher or Autodesk LandXplorer Server help enable more secure sharing of city models

Can I create, edit and export data with Autodesk LandXplorer Studio Professional?

Autodesk LandXplorer Studio Professional software provides limited data creation, editing, and exporting capabilities. Building model attributes, such as height, or the building name can be edited. Building models can also be exported to CityGML, KMZ or ESRI SHP file format and vector layers can be exported as ESRI SHP files. To create, edit, and export CAD and GIS data for use in Autodesk LandXplorer Studio Professional, AutoCAD® Map 3D software is recommended.

What is CityGML?

CityGML is a common information model used to represent 3D urban objects. It defines the classes and relations for the most relevant topographic objects in cities and regional models with respect to their geometrical, topological, semantically and appearance properties. Included are generalization hierarchies between thematic classes, aggregations, relations between objects, and spatial properties.

CityGML is an open data model and XML-based format for the storage and exchange of virtual 3D city models. It is implemented as an application schema for the [Geography Markup Language 3 \(GML\)](#), the extendible international standard for spatial data exchange issued by the [Open Geospatial Consortium \(OGC\)](#) and the [ISO TC211](#).

Purchase Information

Where can I purchase the Autodesk LandXplorer software family of products?

Please visit www.autodesk.com/landexplorer for more information.

Can I try Autodesk LandXplorer software before I buy?

Yes, you can try out the software by requesting the Autodesk LandXplorer Studio Professional software trial version. This fully functioning version of Autodesk LandXplorer Studio Professional is available as a free* 30-day trial. You can download a trial version online at www.autodesk.com/landxplorer. A trial version of Autodesk LandXplorer Server software is not available.

Do I have to purchase subscription with my Autodesk LandXplorer software?

No, you do not have to purchase Autodesk LandXplorer software with Subscription. However, only current Subscription members receive product upgrades of the software, if these are released during their Subscription term. There are several Subscription pricing options, including single and multiyear contracts, to best meet your needs. Contact your reseller for more information about Autodesk Subscription.

Is network licensing available for Autodesk LandXplorer software?

No, Autodesk LandXplorer software is only available with standalone licensing.

Compatibility

What system resources do I need to run the Autodesk LandXplorer software family?

For Autodesk LandXplorer Studio Professional 2010

- Microsoft® Windows Vista® Business, Ultimate, and Enterprise 32-bit or 64-bit (SP1)
- Microsoft® Windows® XP Professional (SP2 or SP3)
- Intel® Pentium® 4 or later, AMD Athlon® 64 or later
- 2 GB RAM on Windows Vista minimum, 2 GB RAM or greater recommended
- 1 GB RAM on Windows XP minimum, 2 GB RAM recommended
- 1 GB free disk space for installation
- Graphics card with 256 MB dedicated video memory or more (NVIDIA GeForce® FX 6xxx or better, NVIDIA GeForce Quadro FX 570 or better, ATI Radeon® X600 or better)
- Graphics hardware driver with support for OpenGL 2.1 (use recent drivers)
- Microsoft® Internet Explorer® 6.0 (SP1 or higher) through 7
- DVD drive

For Autodesk LandXplorer Server 2010 Software

- Windows Server® 2003 Standard or Enterprise Edition (SP2 recommended)
- Windows Server® 2008 Standard or Enterprise Edition (32-bit or 64-bit)
- Intel Pentium 4 or later
- Intel® Xeon® (Netburst) or later
- AMD Athlon 64 or later
- AMD Opteron® (K8) or later
- 1 GB RAM minimum. 2 GB RAM recommended
- 1 GB free disk space for installation

- NVIDIA GeForce Quadro FX graphics card with 512 MB dedicated video memory or more (NVIDIA GeForce Quadro FX 1700 or better)
- Graphics hardware driver with support for OpenGL 2.1 (use recent drivers)

To find the latest systems requirements for Autodesk LandXplorer software, visit www.autodesk.com/landexplorer.

Is a native 64 bit version of Autodesk LandXplorer Studio Professional available?

No. Support for 64-bit operating systems is not currently available for Autodesk LandXplorer Studio Professional.

Training and Support

How do I obtain technical support for the Autodesk LandXplorer software family?

Both Autodesk Subscription and Autodesk Subscription with Gold Support are offered for Autodesk LandXplorer Studio Professional. Support will be made available through standard Autodesk procedures, as defined by Subscription program terms and conditions.

What training is available for the Autodesk LandXplorer software family?

Please contact your local Autodesk office for details on available classroom and web based training.

What languages is the Autodesk LandXplorer software family available in?

The Autodesk LandXplorer software family is available in English, German and French

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