

Autodesk® AutoCAD® Civil 3D® 2016

Questions and answers

Improve project delivery, maintain more consistent data, respond faster to change.

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1. General product information

1.1 What is AutoCAD Civil 3D 2016?

Autodesk® AutoCAD® Civil 3D® software is a civil engineering design and documentation solution that supports Building Information Modeling (BIM) workflows with a variety of civil infrastructure project types, including roads and highways, land development, rail, airports, and water. Civil 3D helps civil infrastructure professionals improve project delivery, maintain more consistent data and processes, and respond faster to project changes, all within the familiar AutoCAD® environment. Civil 3D is also available in both the Premium and Ultimate editions of Autodesk® Infrastructure Design Suite.

For more information, and to view Civil 3D features, please visit the [web site](#).

1.2 How does Civil 3D 2016 fit into the Autodesk infrastructure solution?

Available in the both the Premium and Ultimate editions of Infrastructure Design Suite 2016, Civil 3D collaborates with other Autodesk infrastructure solutions within Infrastructure Design Suite, as outlined in the table below.

Infrastructure Design Suite 2016	Standard Edition	Premium Edition	Ultimate Edition
Included Software			
Autodesk® AutoCAD® 2016	✓	✓	✓
Autodesk® AutoCAD® Map 3D 2016	✓	✓	✓
Autodesk® AutoCAD® Raster Design 2016	✓	✓	✓
Autodesk® Storm and Sanitary Analysis 2016	✓	✓	✓
Autodesk® ReCap™ 2016	✓	✓	✓
Autodesk® Navisworks® Simulate 2016	✓	✓	
Autodesk® AutoCAD® Civil 3D® 2016		✓	✓
Autodesk® AutoCAD® Utility Design 2016		✓	✓
Autodesk® 3ds Max® 2016		✓	✓
Autodesk® Revit® Structure 2016		✓	✓
Autodesk® Bridge Module*		✓	✓
Autodesk® Geotechnical Module*		✓	✓
Autodesk® Rail Layout Module*		✓	✓
Autodesk® River and Flood Analysis Module*			✓
Autodesk® Navisworks® Manage 2016			✓
Autodesk® Robot™ Structural Analysis Professional 2016			✓
Autodesk® Revit® 2016			✓
Cloud services			
Autodesk® InfraWorks® 360 LT		✓	✓
A360 (25 GB capacity)	✓	✓	✓
Rendering in A360	✓	✓	✓
Autodesk® Remote™	✓	✓	✓
Autodesk® Green Building Studio®		✓	✓
Structural Analysis for Autodesk® Revit®*		✓	✓
Energy Analysis for Autodesk® Revit®*		✓	✓

* Included with Autodesk® Maintenance Subscription and Desktop Subscription.

1.3 What are my purchasing options for Civil 3D 2016?

Civil 3D 2016 is available worldwide. Civil 3D 2016 is available through [Autodesk Resellers](#), who are qualified to provide the highest level of customer service, including product training, implementation services, and support. Civil 3D 2016 is also available from the [Autodesk Store](#). You can license Civil 3D via pay-as-you-go plans (Desktop Subscription) as well as perpetual licenses. Pay-as-you-go enables you to license software on a short-term basis with monthly, quarterly or annual plans—a great choice for customers who have short-term project and staffing needs and want to ramp up their business quickly. A perpetual license is ideal for customers who need ongoing access to Autodesk software.

2. Technology

2.1 What are the key capabilities of Civil 3D 2016?

Civil 3D provides the intelligent 3D modeling tools to support Building Information Modeling (BIM) and help reduce the time it takes to design, analyze, and implement changes. With powerful features in the areas of civil design, drafting and documentation, GPS survey and data collection, visualization and analysis, and collaboration/data exchange, you can automate time-consuming tasks to help streamline project workflows. A complete list of key capabilities for Civil 3D is available [online](#).

2.2 What's new in the Civil 3D 2016 release?

Civil 3D 2016 contains new features and enhancements in the following areas:

AutoCAD 2016 Enhancements

- AutoCAD Civil 3D includes all of the new capabilities introduced in the AutoCAD 2016 release

User Experience

- Coordination Model – Autodesk® Navisworks® products & Autodesk® BIM 360™ Glue®
- Point cloud tool enhancements

Data Exchange

- Data Exchange between Autodesk® AutoCAD® Civil 3D® and Autodesk® InfraWorks® 360 software
- Import and Export AutoCAD Solids to Industry Foundation Class (IFC) files for use in other applications
- Improved export of MicroStation® DGN files applications

Project Management

- Data Shortcut Management Tools
- Project Organization Tools for Autodesk® Vault Professional 2016 software

Detailed Design

- Create Civil 3D Surfaces from Point Cloud Data
- Subassembly Loop Support (Subassembly Composer)
- Create AutoCAD Solids from Civil 3D Objects(Surfaces, Pipe Networks, and Pressure Networks)
- Exclusionary Catchments
- Target Corridor Alignments by Layer

Production Drafting

- Crossing Pipe Labels
- Control the Direction of Cross-Section Views

2.3 What are the system requirements for Civil 3D?

A complete list of system requirements for Civil 3D is available [online](#).

2.4 What are the Subscription extensions and modules available for Civil 3D 2016?

The following modules and Subscription extensions are available for Civil 3D 2016:

- **Bridge Module** – included with Infrastructure Design Suite Premium and Ultimate edition on Desktop and Maintenance Subscription.
- **Geotechnical Module** – included with Infrastructure Design Suite Premium and Ultimate edition on Desktop and Maintenance Subscription.
- **Rail Track Layout Module** – included with Desktop and Maintenance Subscription for Civil 3D software and Infrastructure Design Suite Premium and Ultimate edition.
- **River & Flood Analysis Module** – included with Infrastructure Design Suite Ultimate edition on Desktop and Maintenance Subscription.
- **Civil Engineering Data Translator** – available with Civil 3D on Desktop and Maintenance Subscription.

3. Installation, configuration, and licensing

3.1 What are the licensing options for Civil 3D?

It has never been easier to get the Autodesk software you want with a variety of purchase options to meet the unique needs of your business. You can license Civil 3D via pay-as-you-go plans (Desktop Subscription) as well as perpetual licenses. Pay-as-you-go enables you to license Civil 3D on a short-term basis with monthly, quarterly or annual plans—a great choice for customers who have short-term project and staffing needs and want to ramp up their business quickly. A perpetual license is ideal for customers who need ongoing access to Autodesk software.

3.2 What are my installation, deployment, and configuration options?

Information related to installation and configuration of Civil 3D can be found in the [Installation Help](#).

3.3 What if I have more than one computer? Can I use my software on multiple machines?

Autodesk recognizes that some users may need to operate the software when they are away from their usual work location. To accommodate this need, the product activation technology, and certain license types including Desktop

Subscription, enable an employee to install the software on a second computer owned by the employee's company, provided it is for use away from the employee's usual work location, the software is used only by that employee and no other, and only one of the two copies of the software is ever in use at any one time. Consult the Autodesk License and Services Agreement for details about using the software on a second computer.

4. Compatibility and Interoperability

4.1 How does Civil 3D communicate with other infrastructure software applications?

Autodesk Software

Vault Professional

When paired with Civil 3D, the collaboration and data management solutions offered by Vault Professional data management software, and Autodesk® Buzzsaw® software as a service, helps you easily create, organize, and share model, design, and project data. This allows you to coordinate better in real time.

InfraWorks 360

You can complete your conceptual design with InfraWorks 360 and then bring the InfraWorks 360 model into Civil 3D to complete the detailed design. When you want to refer to the updated design from within InfraWorks 360, you can link to the Civil 3D drawing as a data source. Alternatively, you can start your project in Civil 3D and then bring it into InfraWorks 360 when you want to create a design presentation.

You can bring InfraWorks 360 data into Civil 3D by referencing a local InfraWorks 360 model or an IMX file that was exported from InfraWorks 360. You can bring Civil 3D data into InfraWorks 360 by linking to a Civil 3D DWG file as a data source.

Navisworks

You can gain better predictability using Civil 3D with Navisworks project review software products. A coordination model is a Navisworks model used for virtual coordination of various trades through the pre-construction and construction phases of a project. Attach a coordination model, change the properties of an attached coordination model, and change the appearance of a coordination model.

BIM 360 Glue

With the BIM 360 add-in for AutoCAD, you can share the latest project models directly to your BIM 360 project without leaving the Civil 3D environment.

Revit

Close interaction of building design professionals and civil engineers is important when sharing data between Autodesk Revit and Civil 3D. There are a variety of options for moving Civil model information generated in Civil 3D into Autodesk Revit including AutoCAD solids that represent surfaces and corridor shapes, IFC and LandXML. Civil 3D users can leverage Revit model elements as imported solids or via IFC Import. Autodesk also includes various Subscription extensions including the Shared Reference extension, Autodesk Bridge Module, and the Revit® Structure that include more streamlined capabilities for sharing models.

3ds Max

Renderings and animations can be quickly generated within 3ds Max to help communicate and sell a project proposal. Civil 3D includes utilities to process the Civil 3D model for direct import using 3ds Max Civil View. Civil View can then automatically apply materials such as pavement and also make it easy to add vehicles, cameras and other project elements.

Bentley DGN and Model Data

You can create a MicroStation® DGN file directly from your Civil 3D production drawings using the Export Civil 3D Drawing utility. This program enables users to generate .DGN format files based on a number of user controls including layer-level mapping and more. Civil 3D also includes the ability to import or reference .DGN format files enabling easier access to legacy drawing files.

Industry Formats

GIS

Civil 3D enables you to connect directly to a GIS datastore and import GIS data, such as contours and point collections, without any intermediate data or file conversion.

IFC

Based on established, international standards for common objects in the building industry, the Industry Foundation Classes (IFC) file format provides an interoperability solution between different software applications. Using the IFC format, you can export drawings to other IFC-certified applications that could not otherwise open a DWG file. You can also import an IFC file to create and work in a DWG that was originally created in a format other than DWG.

When you import an IFC file, drawing files are created that correspond to each part of the IFC project structure. The files are xref'd together into a main host file that represents the entire IFC file. To export Civil 3D objects to IFC, they

must first be converted to 3D solids. You can convert TIN surfaces, corridors, pipe networks, and pressure networks to 3D solids using commands included in Civil 3D. After the objects are converted to solids, you can export the drawing to IFC using the option to export solids. For more detailed information about IFC, go to <http://www.buildingsmart.org/>.

LandXML

You can use Civil 3D LandXML import and export commands to import and export drawing data in LandXML format. You can also use LandXML to transfer data to another drawing or to another application that supports imported XML. Transforming AutoCAD Civil 3D drawing data to LandXML gives you increased capability to deliver data to customers and agencies in the required formats, archive data in a non-proprietary format, convert units, and translate and rotate coordinates to globally adjust data elevations.

The LandXML import and export functionality is based on the LandXML schema. AutoCAD Civil 3D supports the following LandXML schema versions: 1.0, 1.1, and 1.2. LandXML provides a non-proprietary data standard that is driven by an industry consortium of partners. For more information about the LandXML schema, go to www.landxml.org.

4.2 What cloud services are available to Civil 3D 2016 Subscription customers?

Civil Engineering Data Translator

You can use the Autodesk® Civil Engineering Data Translator cloud service to translate Civil 3D files to files that can be used in Bentley® GEOPAK® and Bentley® InRoads®, and to translate GEOPAK and InRoads files to files that can be used in Civil 3D. The commands for the Civil Engineering Data Translator are available in the Civil 3D Toolbox.

The Civil Engineering Data Translator requires an A 360 account and an Internet connection. If you do not have an A 360 account, you can create one when the A360 log in dialog box is displayed when you run a translation command, or you can go to www.autodesk.com/launch-a360 to create an account.

More information on the Civil Engineering Data Translator is available [online](#).

A360

A360 is an integrated, cloud-based service that provides a powerful and more secure set of tools to help improve the way users design, visualize, simulate, and share work, on-demand. Customers with Civil 3D on Subscription have access to A360, where progressively more cloud computing capability and capacity is available with each edition. For more information, visit <http://www.autodesk.com/360-cloud>

5. Consulting, training, and support

5.1 How do I obtain technical support?

Technical support is available from both Autodesk and Autodesk Resellers. Purchase of Autodesk Subscription includes web support from Autodesk technical experts for all your installation, configuration, and troubleshooting questions. Learn more about [Autodesk Subscription online](#), or contact your Autodesk Account Executive or your [Autodesk Reseller](#).

5.2 How can I get training and learn more about Civil 3D?

There are multiple ways you can get additional information and training on Civil 3D:

- Please visit the [Autodesk Knowledge Network](#) to access a broad range of knowledge to help you get the most out of your Autodesk products and services.
- Watch product overview and demonstration videos on the Autodesk Infrastructure [YouTube channel](#). Search using "AutoCAD Civil 3D" as the keyword.
- Visit the [Autodesk Community](#) to find answers, share expertise, and connect with your peers.
- Whether on-line or in-person, Autodesk University (AU) provides access to hundreds of classes on almost every Autodesk product, taught by peers and leading experts. Visit [AU Online](#) to take advantage of the learning that's just right for you.
- For additional information you can check out the product overview, learn about features, and watch demonstration videos on the [Civil 3D web site](#) or by contacting an [Autodesk Reseller](#).

5.3 Can I try Civil 3D before I buy a license to it?

Yes, you can try it by downloading a trial version of Civil 3D software. This fully functioning version is available as a free* 30-day trial. Simply [download](#) the trial version.

*Free Autodesk software licenses and/or cloud-based services are subject to acceptance of and compliance with the terms and conditions of the license agreement or terms of service, as applicable, that accompany such software or cloud-based services.

6. Subscription

Get access to the latest updates, one-on-one technical support, priority support in the forums, flexible licensing, and cloud services with Civil 3D on Desktop and Maintenance Subscription.

6.1 What is Autodesk Subscription?

Autodesk® Subscription offers the most convenient, modern, and flexible way to purchase and access the software and services that you need to help grow your business. With more purchasing options than ever before, you can choose the plan that best fits your current project needs and budget. Autodesk Subscription puts software, services, and support at your command to help accelerate your entire workflow.

6.2 What's new in Autodesk Subscription?

Autodesk Subscription puts software, services, and support at your command to help accelerate your entire workflow,. Autodesk Subscription is the umbrella brand for all of the Subscription offerings provided by Autodesk, including the following options:

Maintenance Subscription, previously referred to as the Autodesk Subscription program, helps subscribers to maximize their investment and maintain their perpetually licensed Autodesk software.

Desktop Subscription is what we previously referred to as rental plans. Why do we call it "desktop"? We call it "Desktop Subscription" to differentiate this option from software accessed from the cloud.

Cloud Service Subscription is the name of the program for customers who want to subscribe to the various cloud services that Autodesk provides.

6.3 Is Subscription available for purchase with Civil 3D?

Autodesk Maintenance Subscription and Desktop Subscription are available for purchase with Civil 3D. Learn more at www.autodesk.com/subscription.

6.4 What are the features and benefits of Maintenance Subscription?

Maintenance Subscription can be purchased with a traditional "perpetual license". It is the most cost-effective way to maintain and maximize the value of your technology investment. Maintenance Subscription is the smart choice for the best value. With Maintenance Subscription, you'll benefit from the following:

- Access to the latest software releases so you're up-to-date, giving you a competitive edge.
- Flexible licensing rights so you have the tools you need where you need them.
- Autodesk® 360 Cloud benefits to help you increase mobility, improve collaboration, and optimize designs.
- Technical support for quick resolution of issues so you stay productive.

For in-depth information on the features of Maintenance Subscription, please refer to www.autodesk.com/maintenance-subscription.

6.5 What are the features and benefits of Desktop Subscription?

Desktop Subscription offers customers with seasonal or changing business demands a flexible, pay-as-you-go option to license Autodesk software. Monthly, quarterly, and annual subscription options allow you to commit to a contract only for as long as you need it. Desktop Subscription is the flexible choice for ultimate freedom. With Desktop Subscription, you'll benefit from the following:

- Access to the latest software releases, certain A 360 Cloud services, and technical support.
- Lower cost of entry so you can manage costs without an up-front license investment or long-term commitment.
- It's easy to scale up and down as your short-term project and staffing needs change.
- Increased functionality with less risk.

For in-depth information on the features of Desktop Subscription, please refer to www.autodesk.com/desktop-subscription.

6.6 How can I access my Subscription benefits?

Once you have activated your account, you can use your User ID to access and manage all of your Subscription benefits, including A360 cloud services, software upgrades, flexible license rights, and technical support. Simply log in to the [Autodesk Account portal](#) to begin accessing your Subscription benefits.

Subscription benefits are subject to Autodesk Subscription terms and conditions. All Autodesk Subscription benefits and offerings may not be available for all products and/or in all languages. Access to cloud services requires an internet connection and is subject to any geographical restrictions set forth in the Terms of Service.

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<http://www.autodesk.com/products/autocad-civil-3d/overview>