

AS501165

## **AutoCAD: Are You Collaborating and Comparing Yet?**

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### **Learning Objectives**

- Learn how to work with Share Drawing and Shared Views in AutoCAD.
- Learn how to use the AutoCAD web app to share design information.
- Compare iterations of DWG files with the DWG Compare function.
- Compare iterations of external reference files (xrefs) with the xref Compare function.

### **Description**

AutoCAD software turned 40 this year, and has certainly moved along since those MS-DOS days! You can now collaborate quickly and effectively with the superb tools that AutoCAD provides, and compare DWG™ technology and xrefs to monitor any project changes. Attend this course and benefit from the expertise of Shaun Bryant (CadJedi), a LinkedIn Learning [in]structor with more than 33 years of AutoCAD experience. Learn how to collaborate quickly and effectively, sharing drawings and views, and work with the new trace technology available in the AutoCAD 2023 desktop app. Find out how to compare DWG files with DWG Compare, and how to maximize your external reference files using the xref Compare function, to make sure you're using the correct iteration of your design. So, as Shaun says ... are you collaborating and comparing yet?

### **Speaker(s)**

Shaun Bryant is an Autodesk Certified Instructor in both AutoCAD and Revit with over 34 years of industry experience. Shaun has worked as a consultant, trainer, CAD manager, and user, with the earlier years of his CAD career in sales, pre-sales, and business development. Shaun is a world-class LinkedIn Learning author of numerous AutoCAD and Revit online learning courses. He is also the owner and author of the reputable CAD blog, Not Just CAD! He has been a director on the board of Autodesk User Group International (now known as AUGI), and is a seasoned Autodesk University (AU) speaker, and AU Speaker Mentor. Shaun was the AutoCAD expert at the inaugural Autodesk University London in June 2017, and is also an Autodesk Expert Elite and an AutoCAD Influencer. He is also the author of the Wiley title, 'Tinkercad For Dummies'. He is also known to dabble in a bit of rock 'n' roll as an established singer/songwriter. Shaun lives in East Yorkshire in the UK where he is the owner and director of CADFMconsultants Limited.

## Shaun 'CADJedi' Bryant – who is this guy anyway?

- **Owner/lead consultant:** CADFMconsultants
- **Blog:** Not Just CAD! | **LinkedIn newsletter:** Not Just CAD!
- **Writer:** AUGIWorld (Inside Track), AEC Magazine, Cadalyst, Redshift
- **Content Author:** LinkedIn Learning (previously Lynda.com)
- Autodesk Expert Elite
- Autodesk Certified Instructor (ACI)
- Autodesk Certified Professional (ACP) – AutoCAD & Revit
- **Subject Matter Expert (SME):** Autodesk, Dell, AMD, Certiport, and 3Dconnexion
- Veteran Autodesk University (AU) speaker (since AU 2006)
- AU Speaker Mentor
- **34+** years of AutoCAD experience
- **13+** years of Revit experience
- **Singer/songwriter:** Music on iTunes & other outlets
- 2nd album 'under construction' for many years ;-)
- Known to sound like the **Geico Gecko**
- **Ricky Gervais** - stunt double



## A bit of background....

I write (and own) the well-known blog, ***Not Just CAD!***

The blog is a brand of my training and consulting company, ***CADFMconsultants***, and I often blog about all things CAD and sometimes other stuff.

You may remember, back in March 2019, I wrote a series of One AutoCAD blogs, the first one being all about the original concept of the One AutoCAD release.

That blog talked about there being (originally) ten elements of the One AutoCAD, which include the AutoCAD web and mobile apps mentioned in this class.

AutoCAD web and AutoCAD mobile are now one offering called **AutoCAD Web**.

The One AutoCAD is now officially known as **One AutoCAD with SEVEN specialized toolsets**.

The original blog series that started out in 2019, that first mentioned AutoCAD web and AutoCAD mobile can be found here: -

<https://cadfmconsult.com/autocad-2019-there-can-be-only-one>



## Objective 1

### Learn how to work with Share Drawing and Shared Views in AutoCAD

AutoCAD has recently turned forty years old. Apart from highlighting my age (I have been using AutoCAD for thirty-four years this year), the AutoCAD application has certainly moved along since then, taking advantage of the internet, and more especially the cloud. The cloud allows you to utilize Share Drawing and Shared Views effectively, and collaborate quickly and easily via the cloud with other team members and stakeholders.

#### Share Drawing (SHARE)

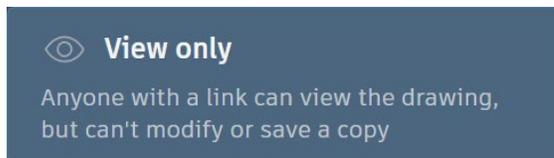


Share Drawing is found on the Collaborate tab in AutoCAD. It is also found on the Quick Access Toolbar (QAT). It is represented by a little paper plane icon, which brings to mind throwing the folded up drawing as a plane to another colleague across the office, only in this case you are using the internet and the cloud to 'throw' the drawing.

Any drawings shared this way are made available in the AutoCAD web app, which is now part of the AutoCAD Web offering from Autodesk.

There are two ways to share your drawing: -

#### View Only



Sharing a drawing using View Only allows you to share the DWG file without any editing capability. This is perfect for sharing DWG files with non-AutoCAD users, who simply need to see the drawing/design, but not make any changes to the file. Your design intent is communicated effectively, without any need for any work on the drawing. The View Only option works well for audit control of drawing revisions and design iterations, by way of allowing the originator to publish their updated drawings at the latest revision/iteration.

## Edit and save a copy



### Edit and save a copy

Anyone with a link can edit and save a new version of the drawing

Using this option, you can easily share a DWG file that can subsequently be edited and updated. This option is ideal for working with other team members at various stages of the design process of the DWG file. Using AutoCAD web, the shared DWG can be saved as a new version of the file, which in turn can be accessed by both the drawing originator and the other team members. A great option for a CAD team to collaborate with, and utilize the cloud for easy DWG mobility.

Both of the options – View only/Edit and save a copy – provide a URL link that when opened in a web browser automatically open the shared file in the AutoCAD web application, which is now part of the AutoCAD Web offering from Autodesk. An Autodesk account will be required to access AutoCAD web, and the associated files stored in the cloud; either in the AutoCAD Web & Mobile folders, or other proprietary cloud-based storage providers, such as OneDrive, Google Drive, Dropbox, and Box. Files can also be accessed from Autodesk Docs and Autodesk Drive. All shared links are valid for seven days.

The options provide above full browser-based collaboration of your DWG files, along with full mobility of your drawings, using the latest mobile technology, using devices such as tablets and smartphones, utilizing AutoCAD mobile which part of the AutoCAD Web package.

## Shared Views (SHAREDVIEWS)

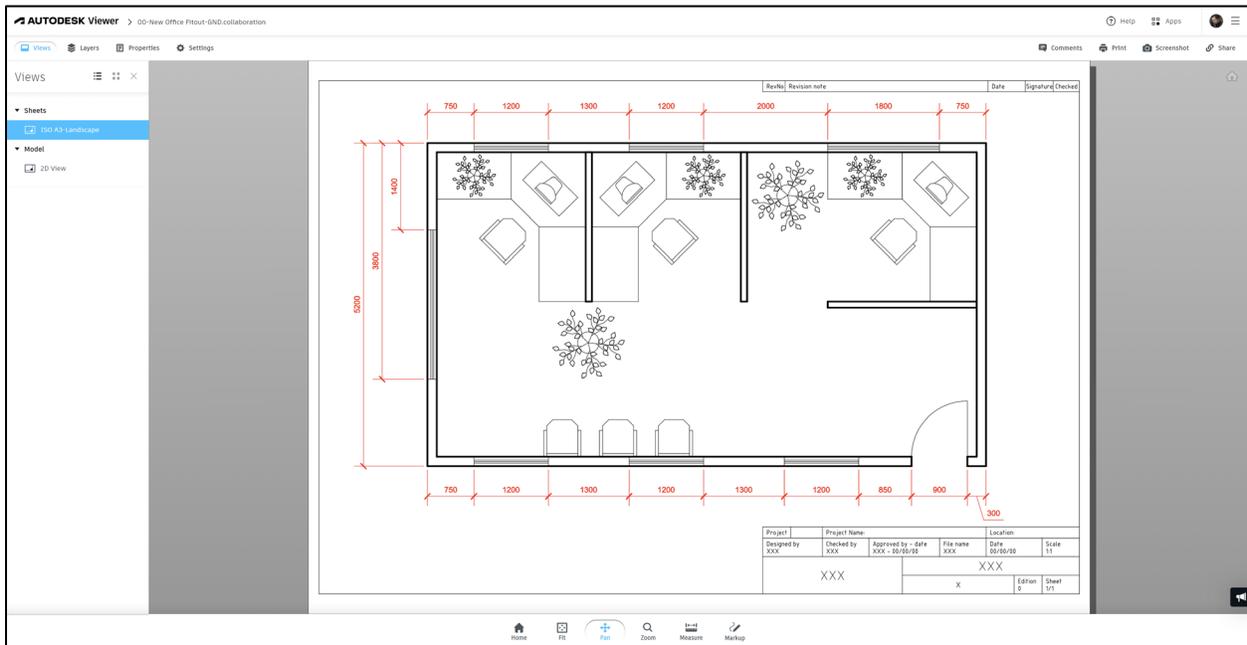


Shared Views is also found on the Collaborate tab. It is, however, a very different workflow to Share Drawing. 2D and 3D views are shared from the AutoCAD desktop, along with options to share the current view in the DWG, or the view in the Model or Layout tab(s). When sharing views, the Shared Views palette is used in AutoCAD, which lists the various views shared, along with the originator, date and time.

The views are shared in a browser using the Autodesk Viewer, where all views can be accessed – 2D, 3D, Model, and Layout(s). These views can be viewed easily in the Viewer. Also, if you sign into the Viewer using an Autodesk account, markups and comments can be applied to the views. A great way to collaborate using a browser on the internet, which can include all team members with access to a browser and their Autodesk account.

Shared Views have the added benefit that their sharable URL links are valid for thirty days. This period can also be extended, if extra time is required for the design that is being shared.

Shared Views have a valid use in the collaboration workflow, as they give direct access to specific views from not just AutoCAD DWG files, but also from many other Autodesk products, such as Revit and Inventor. This allows for collaboration on multi-platform projects, where more than one Autodesk application might be used.



A typical floor plan from AutoCAD, displayed in the Autodesk Viewer

## Objective 2

### Learn how to use AutoCAD Web to share design information

AutoCAD Web is the new DWG mobility offering from Autodesk. Comprising of the AutoCAD web application which can be used via a browser, and the AutoCAD mobile application, that can be used on mobile technology such as a tablet or smartphone.

So, why would you use AutoCAD Web for collaboration? Well, for one, it comes with your AutoCAD subscription, regardless of whether you are using full AutoCAD or AutoCAD LT. AutoCAD Web is available for both, democratizing the mobile use of the DWG file for all AutoCAD users.

You can find the AutoCAD web application at: <https://web.autocad.com>.

#### DWG mobility

When working in the AutoCAD desktop application, you can save DWG files to the cloud. AutoCAD is now a subscription-only application, so you will already be signed into your Autodesk account.

Through AutoCAD, this gives you easy access to the AutoCAD Web & Mobile folders through the SAVETOWEBMOBILE and OPENFROMWEBMOBILE commands which can be found on the Quick Access Toolbar (QAT). Files can then be saved to the cloud in these folders, which can then be accessed by the AutoCAD web application. Other cloud-based storage solutions can also be used in conjunction with AutoCAD web including OneDrive, Google Drive, Dropbox, and Box. Autodesk Drive and Autodesk Docs can also be used for cloud-based storage and collaboration.

As of AutoCAD 2022, the new Trace functionality allowed for mobile markups in either the AutoCAD web application or the AutoCAD mobile application, allowing for easy collaboration using cloud-based DWG files. These traces could then be viewed in the Traces palette in the AutoCAD desktop application.

In the most recent version of AutoCAD, AutoCAD 2023, the Traces functionality was enhanced, allowing for traces to be added to cloud-based drawings directly from the AutoCAD desktop application in the Traces palette, giving bi-directional trace collaboration, thus making for even more efficient collaboration when utilizing the AutoCAD Web offering from Autodesk.

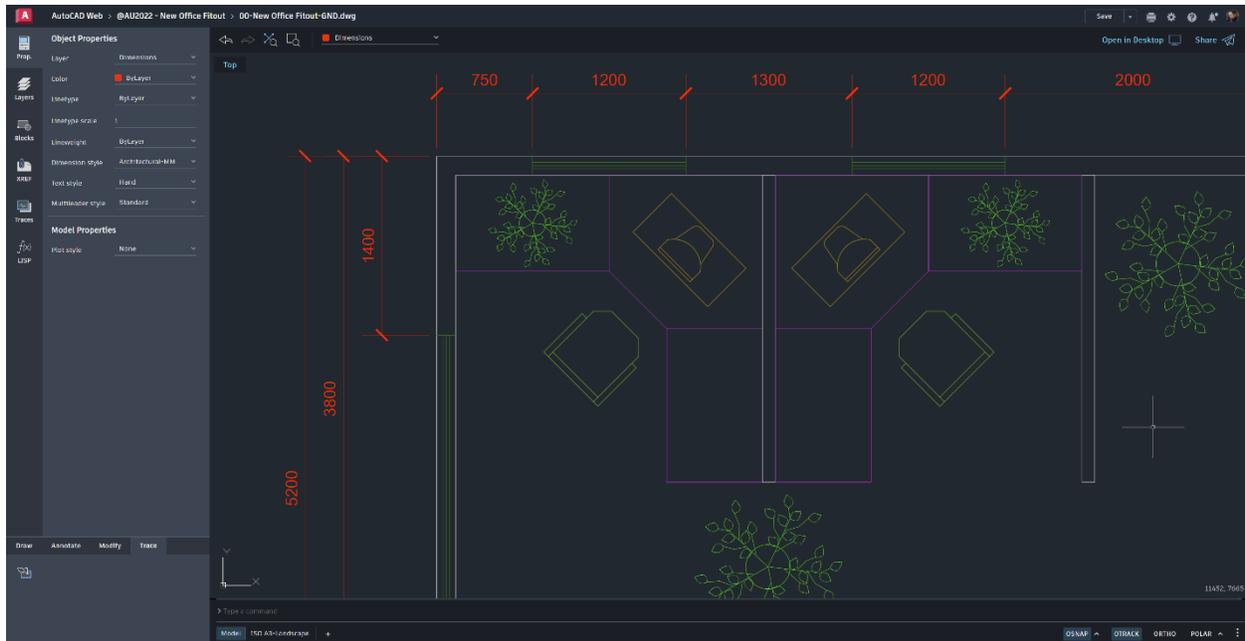
#### The cloud?

Why use the cloud for your collaboration when using your DWG files? There are numerous benefits: -

- Offsite storage – freeing up local hard drives and client servers
- Seamless collaboration – CAD teams all using the same version of the DWG file
- Mobility – the DWG file goes mobile, allowing for use across global CAD teams, on the construction site, or on the factory floor

There are many other benefits, some of which are covered in my AU class, so please check out the class presentation document, and the associated recorded video that will be hosted on the Autodesk University website.

Should you wish to check out the new AutoCAD Web offering from Autodesk, a 30-day trial is available, and be aware that AutoCAD Web is available with all AutoCAD and AutoCAD LT subscriptions. As usual, an Autodesk account will be required for access.



AutoCAD web in use with a typical DWG file

### Objective 3

#### Compare iterations of DWG files with the DWG Compare function

AutoCAD has the capability to compare similar versions of the same drawings, utilizing the DWG Compare (COMPARE) command. This means that different revisions/iterations of the same DWG file can be compared quickly and easily, with the differences highlighted clearly using colors and revision clouds.

#### DWG comparison

The main benefit of DWG comparison is that it works closely with the collaborative team. Different revisions/iterations of the same design can be compared by the team using the DWG Compare (COMPARE) command, ensuring continuity of the DWG lifecycle, and making sure that no errors are transferred. Text and hatching filters can also be included.

Settings can be altered to suit, with comparison highlight colors easily changed and revision cloud shapes being quickly altered to suit the drawing geometry.

#### Saving comparisons

Sometimes, you will need to save the DWG comparison for various reasons; project management, project archiving, and perhaps for later comparison. The Export Snapshot option when in the DWG Compare command allows for a separate comparison DWG to be created and subsequently saved. The saved DWG file can also be used for recording specific revisions/design iterations. It is also a great way to archive design changes using individual DWG files.

There will always be a need to record and archive design information. DWG Compare and the Export Snapshot option can be utilized highly effectively to record and file design changes that may need to be referred to at a later date, perhaps for legal or contractual reasons.



A DWG file in DWG Compare with the Settings displayed

## Objective 4

### Compare iterations of external reference files (XREFs) with the XREF Compare function

External reference files (XREFs) are used for collaboration with your DWG files. An XREF is attached to the host drawing, and can be worked upon separately to the host drawing, with changes being notified when the XREF is revised. Being able to compare changes in versions of the same XREF allows for seamless collaboration with the appropriate version of the XREF being used.

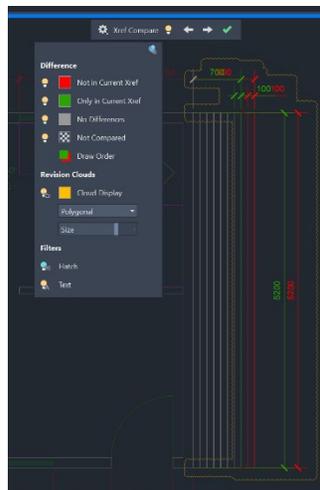
#### XREF comparison

The XREF Compare (`_XCOMPARE`) command runs from within the External References palette where you can compare another version of an XREF to the XREF attached to the host drawing. This means that different revisions/iterations of the XREF can be highlighted, including text and hatching. This is very similar to the workflow in the DWG Compare command. And just like DWG Compare, revision clouds are used to highlight the comparisons between the compared XREFs.

#### Settings

The settings in the XREF Compare command are incredibly similar to the ones used in the DWG Compare command using colors to highlight the comparisons and revision clouds to show the locations of the differences in the compared XREFs.

XREF Compare is a superb method by which changes in XREFs can be monitored, thus ensuring seamless collaboration, and maintaining accuracy in the DWG files used on a project.



The XREF Compare command in use with Settings displayed

## **In conclusion**

The ability to share your drawings in AutoCAD, utilizing **Share Drawing** and **Shared Views**, allows for seamless collaboration within the design process.

Using mobile technology, combined with **AutoCAD Web** (including the AutoCAD mobile app), gives you incredible mobility, utilizing core AutoCAD technology.

The comparison tools in AutoCAD provide huge productivity gains when comparing revisions/iterations. **DWG Compare** and **XREF Compare** are invaluable in the workflow.

These fundamental AutoCAD tools provide you with seamless workflows and processes when collaborating with not just your CAD team, but with stakeholders and clients as well.

**AutoCAD** provides you with a more-than-capable toolkit to work effectively with your designs, both in the office and in the field.

**Are you collaborating and comparing yet?**

## Stay in touch (even after AU)

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