

PACK MODE

A comprehensive guide to operating Pack Mode featured in Civil
Site Design v21.10



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Civil Site Design | v21.10 Data Folder Management

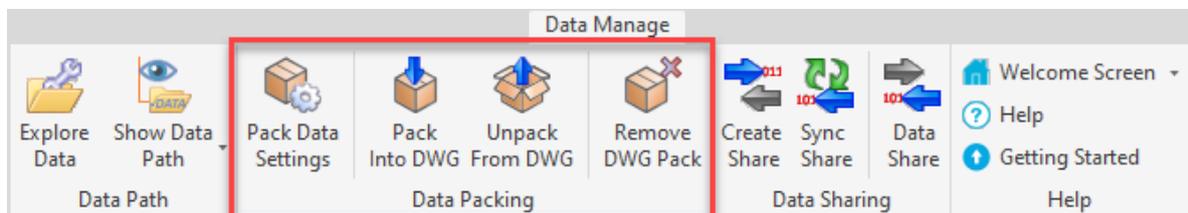
Introduction

Civil Site Design v21.10 has a new option for storing Civil Site Design Data.

This new mode of storage allows users to pack the entire Civil Site Design Data Folder **inside** the drawing, offering significant benefits for portability of your design, simplifying version control and facilitating seamless sharing with document management systems.

This new system is called **Pack Mode**.

In all CAD platforms, the data packing commands are found on the Ribbon under the new Data Manage Tab (formerly Data Share):



Why should I use Pack Mode?

When 'Pack Mode' is enabled, the act of saving the drawing will automatically copy a snapshot of your Civil Site Design Data inside the drawing. The copy is compressed meaning your combined drawing and data folder file size will be less.

Users can operate with the same traditional tools and functions whilst working in the project.

Whenever the drawing is saved a snapshot of the data folder is taken, compressed and stored within the drawing, making it entirely portable.

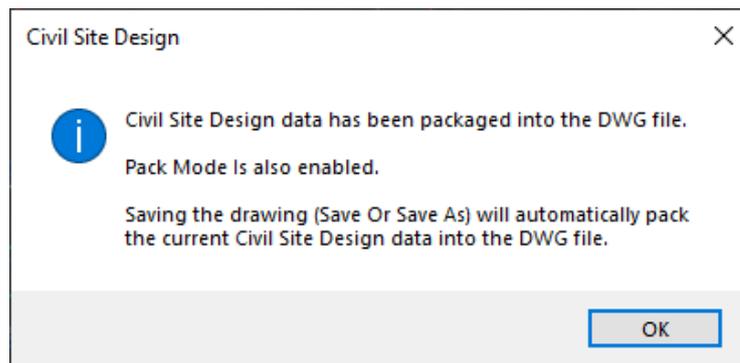
Opening Packed drawings will unpack the data folder to a user defined location, traditionally the same folder as the drawing, allowing drawing editing directly from document management or cloud-based systems.

 **Pack Into DWG**

How do I start using Pack Mode?

1. Its recommended you start on a project copy or a trial project to understand how it operates.
2. Open a drawing and start a design, with the Civil Site Design data being stored solely in the traditional -Data folder located next to the drawing.
3. Click on  **Pack Into DWG**

A message will display that the data is added to the drawing



This action packs a snapshot of the Civil Site Design Data Folder inside the drawing & ensures Pack Mode is enabled.

Now, whenever you operate the following functions in the drawing, the Civil Site Design Data Folder is zipped (compressed in size) and included in the drawing file.

- Open the drawing
- Save the drawing
- Close the drawing
- Save-as the drawing

What happens to the original Data Folder?

Civil Site Design is unable to operate with the Data Folder from within the drawing, so, when the drawing is opened & edited, the data is unpacked next to the drawing for editing and functions in the traditional manner.

Remember, when you have your drawing open for editing you still operate the Civil Site Design Data Folder being stored externally to the drawing.

How does the drawing behave?

- **Opening a Packed Drawing**

The software may prompt you to extract the stored Civil Site Design Data from the drawing.

The Data Folder is extracted from inside the drawing and copied to the local Civil Site Design Data Folder location (by default, this folder is called '<DrawingName>-Data' and located next to the drawing).

- **Editing a Packed Drawing**

Every Civil Site Design command uses the **external** Civil Site Design Data folder. Do not delete this data folder or rename it while you are editing.

- **Saving a Packed Drawing**

When the drawing is saved, the Civil Site Design Data Folder is zipped up (compressed) and embedded (packed) in the drawing.

All drafting and the Civil Site Design data is saved in the single drawing (.dwg) file. The data folder used during editing will still remain next to the drawing.

- **Closing a Packed Drawing**

When the drawing is closed you may be prompted to pack the data into the drawing, followed by the usual drawing save prompt from your CAD system:

- Choosing **Yes** will result in the Civil Site Design Data Folder being zipped up and embedded (packed) in the drawing.
- Choosing **No** will close the drawing and maintain the previously packed data in the drawing.

Internally the system flags that the drawing is closed.

- **Save-as a Packed Drawing**

As part of saving the drawing with a different name/location, the software will:

- Copy (Pack) the Civil Site Design Data Folder into the drawing.
- Rename & Relocate the drawing as per the save-as instructions.
- Unpack the saved data from inside the drawing to the new Civil Site Design Data Folder location.



Pack Data Settings

This command allows user to manage the packing/unpacking of the data for the current drawing.

- **Current Data Folder**

This shows where the external Civil Site Design Data Folder is be stored for the drawing.

- **Supress pack/unpack messaging**

To stop receiving messages about packing/unpacking, you can toggle this option on/off.

When ticked on, opening the drawing will automatically unpack the Civil Site Design Data folder. Every save or save-as action will automatically pack the Civil Site Design Data folder into the drawing, **without** displaying a message.

- **Store CSD Data in Temp Folder location**

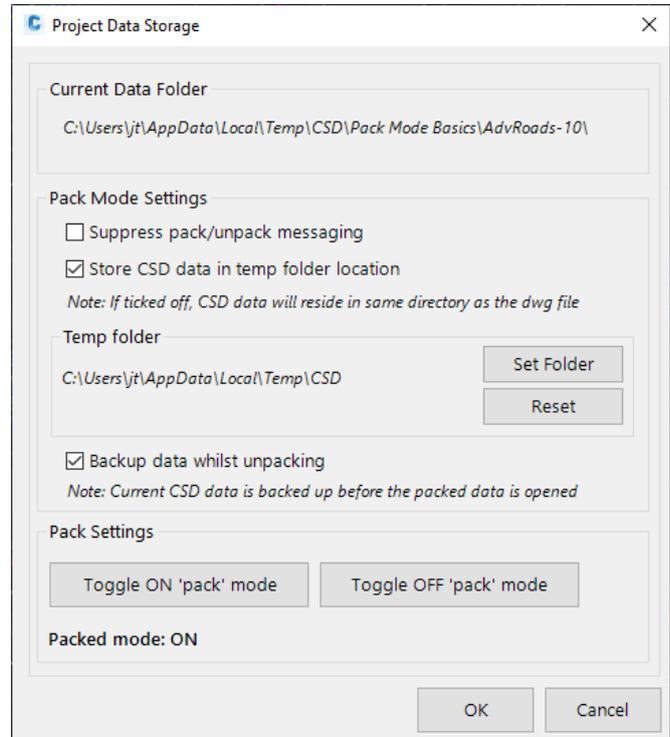
Traditionally, when you start a Civil Site Design command on a new drawing, a copy of the Common Folder Settings is taken and used to create your new Data Folder.

This command will enable users to set a custom location for the Data Folder. This is useful if there is a set folder on each user's computer or a network location for the local data edit folder.

By default, Civil Site Design will offer users a default folder location:

*C:\Users*NAME*\AppData\Local\Temp\CSD*

Users can change the folder by clicking on the **Set Folder** button. **Reset** will revert back to the current user's temp folder.



- **Working Document Management Systems**

For applications such as **BIM360®**, where the drawing is edited directly in the 'cloud storage' location, it is recommended to adjust the local data store location. Otherwise, the Data folder would also get backed up in the cloud storage folder (slowing the system down with updating files during editing).

Using the Temp folder location above enables the Civil Site Design Data Folder to be unpacked during editing, whilst the drawing is still located on the document management system. When the drawing is saved or closed, the data folder is packed back into the drawing without the need to be stored externally.

- **Backup Data Whilst Unpacking**

This will create a .zip backup file of the existing external data folder (if it exists), whenever the drawing is unpacked (this occurs when you open the drawing or the **Unpack from DWG** command is run).

The backup .zip file contains the local Civil Site Design Data Folder from the most recent time the data was packed into the drawing. It is replaced whenever the drawing is unpacked and is placed in the same location as the drawing.

This is useful as a backup in case a packing/unpacking error was to occur.

See the Appendix for more information about using the backup file.

- **Toggle ON 'pack' mode**

This executes similarly to the **Pack Into DWG** command, except you can opt to not copy the Civil Site Design Data Folder into the drawing.

See the Drawing Template section below to see how this works.

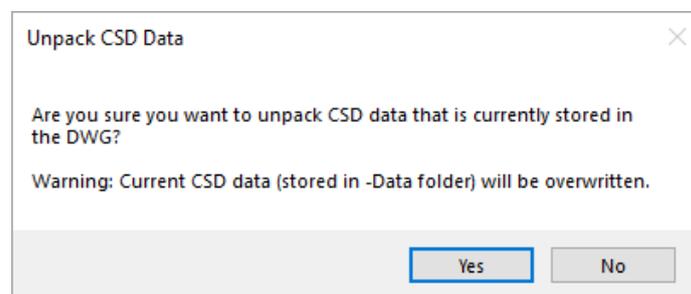
- **Toggle OFF 'pack' mode**

This matches the **Remove DWG Pack** command and removes the Civil Site Design data from the drawing and relies solely on the local / networked Civil Site Design Data Folder for all saving and editing.

 **Unpack from DWG**

The Unpack command allows users to extract the Civil Site Design data from inside the drawing and replace the current active data folder. This could be useful if you want to roll back design changes made since your last drawing save.

Caution! If you have been editing a project and have not packed the data back into the drawing, do **NOT** click this button unless you want to roll back your edits.

 **Remove DWG Pack**

To remove the data from the drawing and return to the previous mode of Civil Site Design data management, click on **Remove DWG Pack**.

After you do this and save, the data inside the drawing is removed and the only source of data is the external Civil Site Design Data Folder, replicating traditional functionality.

Pack Mode | Drawing Templates

Users may decide to operate with the data packing as the default. Each time a project is started with a Drawing Template (.dwt), Pack Mode can be setup & enabled.

Users have two options in the way Pack Mode can be added to a Drawing Template (.dwt).

Option 1: Drawing template with Pack Settings enabled / no data folder

Why would I do this?

Traditionally, when you start a Civil Site Design command on a new drawing, a copy of the Common Folder Settings is taken and used to create your new data folder.

With this option, each time a user starts a drawing using the drawing template, a new data folder is created from the Common Folder, with the Pack Mode Settings enabled.

When you start a new project, the Pack Mode Settings will be used & a new data folder will be created immediately, inheriting the current Common Folder settings.

How do I do this?

1. File -> New and select your Drawing Template (.dwt)
2. Save the file as a .dwt file to a location of your choosing.

3. Run the command  **Pack Data Settings**

4. Toggle the following settings on/off:
 - Suppress pack/unpack messaging
 - Store Civil Site Design data in temp folder location
 - Backup the data folder during Packing

5. Click **Toggle ON 'pack' mode**.

When prompted whether to pack in the data folder, select **NO*** (the template is intended to be a clean drawing with no Civil Site Design Data Folder included, but with Pack Mode on)

6. Click **OK** to exit the form.
7. File -> Save the drawing template. At the prompt to pack into the drawing, select **NO***.
8. File -> Close the drawing template.

* By choosing **NO**, a data folder will **not** be packed into the drawing.

Option 2: Drawing template with Pack Settings enabled / data folder embedded

Why would I do this?

If you have to work with multiple Civil Site Design settings (for different organisations), it could be of benefit to embed the Civil Site Design settings files inside the drawing.

With this option, each time a user starts a drawing using the drawing template, the Pack Mode Settings are enabled with a data folder already created inside the drawing. No Common Folder Settings are inherited.

How do I do this?

1. File -> New and select your Drawing Template (.dwt)
2. Save the file as a .dwt file to a location of your choosing.

3. Run the command  **Pack Data Settings**

4. Toggle the following settings on/off:
 - Suppress pack/unpack messaging
 - Store Civil Site Design data in temp folder location
 - Backup the data folder during Packing

5. Click **Toggle ON 'pack' mode**.

When prompted whether to pack in the data folder, select **YES*** (the template will have a Civil Site Design Data Folder included)

6. Click **OK** to exit the form.
7. File -> Save the drawing template. At the prompt to pack into the drawing, select **YES***.
8. File -> Close the drawing template.

* By choosing **YES**, the data folder will be packed into the drawing.

Appendix

1. File Sizes

If the zipped size is excessive (>60mb) the packing process will be halted. The bigger the drawing, the slower the open, save or close.

2. Autosave

Users CAD platform 'autosave' function does not trigger Civil Site Design to copy the data into the drawing.

3. Civil Site Design Backup tool with Pack Mode

Its recommended users **turn off** the backup options (Active Drawing Settings > Miscellaneous tab) to prevent bloating the size of the drawing, and remove the Backup folder from the Civil Site Design Data Folder

4. Deleting the Data Folder

When a Packed drawing has been closed, the working Data Folder may still be present next to the drawing or residing in the Temp folder location.

The data folder will have been packed into the drawing; however, the software will **NOT** delete the working data folder when the drawing is closed.

Users working on older version of Civil Site Design require the data folder to be residing in the same folder as the drawing. If the folder is not deleted, the data can still be accessed in the traditional manner.

Users can still choose to delete the working data folder if they know the packing has completed successfully and unpack the data when the drawing is next opened. This process could be useful when operating with the Temp folder location to clean out historical data folders and reduce the amount of space being used.

5. Drawing Closure without Saving

If your session closes unexpectedly and you don't get the opportunity to save, the data packed into the drawing may be older than the data stored externally. The software checks that the drawing was 'closed' by the user and will flag with a message that the external data may be more current than the data saved in the drawing.

If this occurs then do the following:

- When asked whether or not to unpack, click on **No**. The drawing will then simply refer to the external data folder location for the design information.
- Save the drawing. When you save, the drawing will copy in the latest data from the external Civil Site Design Data Folder.

6. Problems packing/unpacking the data

The Backup data option will copy a backup of the -Data, in the unlikely event that a corruption/error occurs during packing of the data inside the drawing.

If ticked on, when the software Unpacks the data from the drawing (which happens on drawing open or on demand using the **Unpack from DWG** command) the locally stored Civil Site Design data folder is zipped up as a backup and a new Civil Site Design data folder created from what is inside the drawing.

If the data is all wrong, then you should operate with the drawing open. Here is what you should do:

1. Look for the file '<DrawingName>_CSDDataBackup.zip'
2. Unzip that file and copy the contents to the save location of the data (Civil Site Design Data Folder)
3. Run the following command from the Ribbon: *General Tab > Utilities > Stop Software*
4. Run the command **Pack into DWG**.
 - The Civil Site Design Data folder containing the previous design data you had will be packed into the drawing.

Note: Renaming the backup zip file will stop it from being copied over (in case you want to test everything before removing this backup).