

Civil Site Design



Design - Analyse - Visualise - Deliver

About Data Share

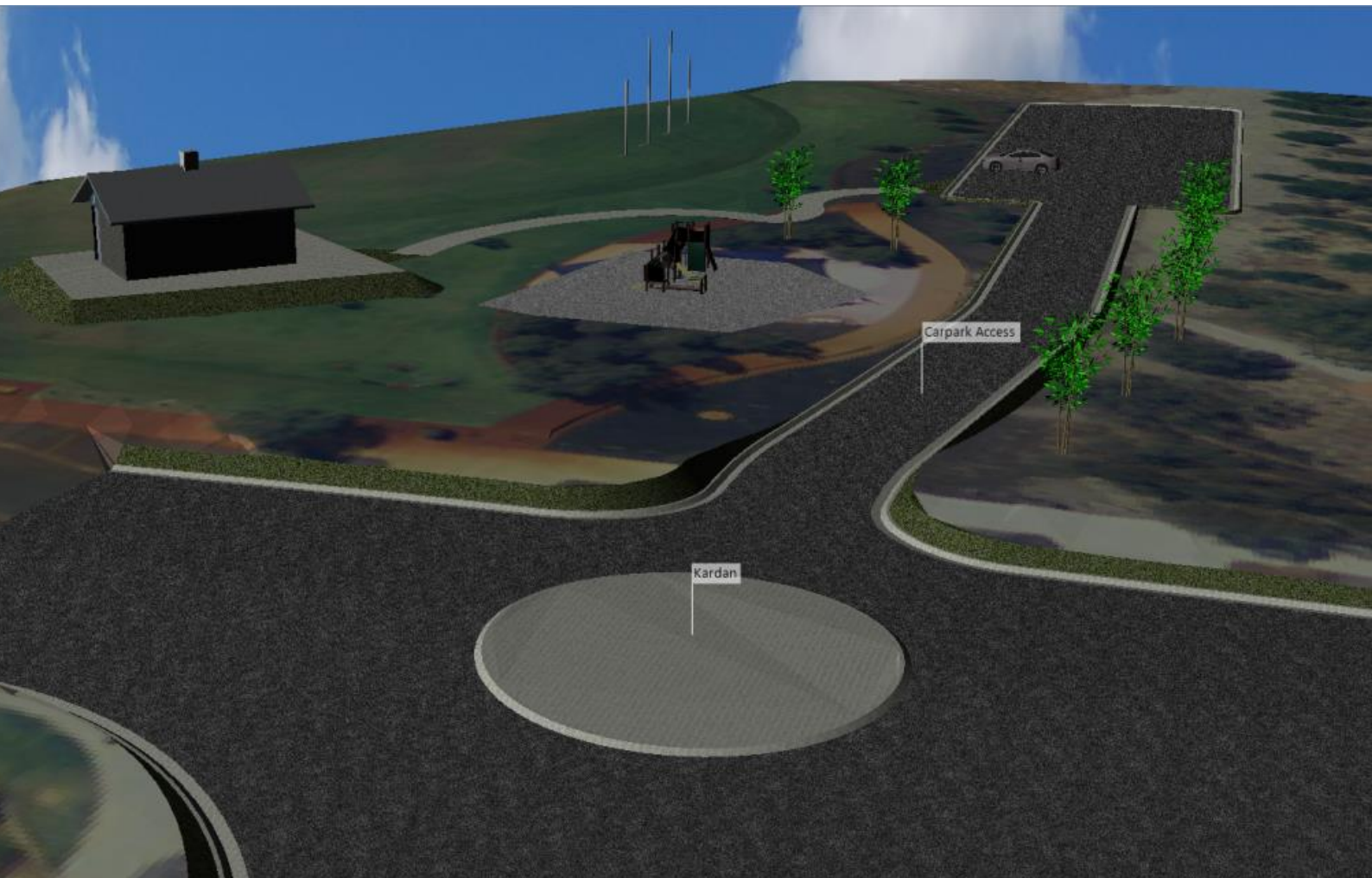


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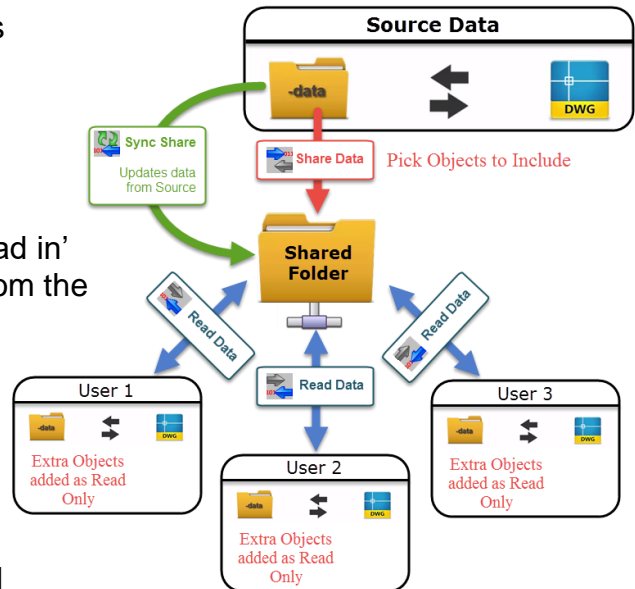
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Data Sharing – Share Everything ARD

With the new Data Sharing tools you can now do more for data collaboration, based on spatial location (eg: Stage 1, Stage 2) and by industry (eg: Surface creation from surveyors, lot regrading and general earthworks, road designs, drainage and sewer).

Main new features:

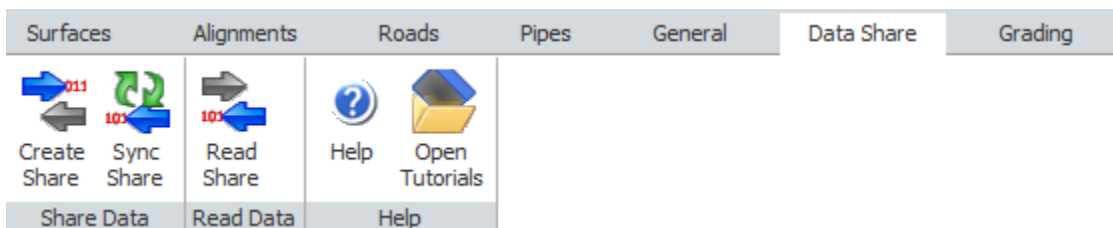
- Share more. You can share all objects
 - Surfaces
 - Gradings
 - Alignments
 - Strings/Roads
 - Pipe networks
- Choose what to share, and what to 'read in'
- Data share to a centralised folder or from the source data directory.
- Read in data to obtain full object control (minus editing) in a read only format.
- Click button synchronisation
- Store Civil 3D surfaces and alignments into your Data Share
 - No barrier between Civil 3D and AutoCAD/BricsCAD design teams sharing essential data



Data Sharing Interface

Data sharing enables multi-user project input. This can be divided up based on industry and/or spatial location. Data can be centralised to folders and other users can 'read' data created by others.

Ribbon Interface



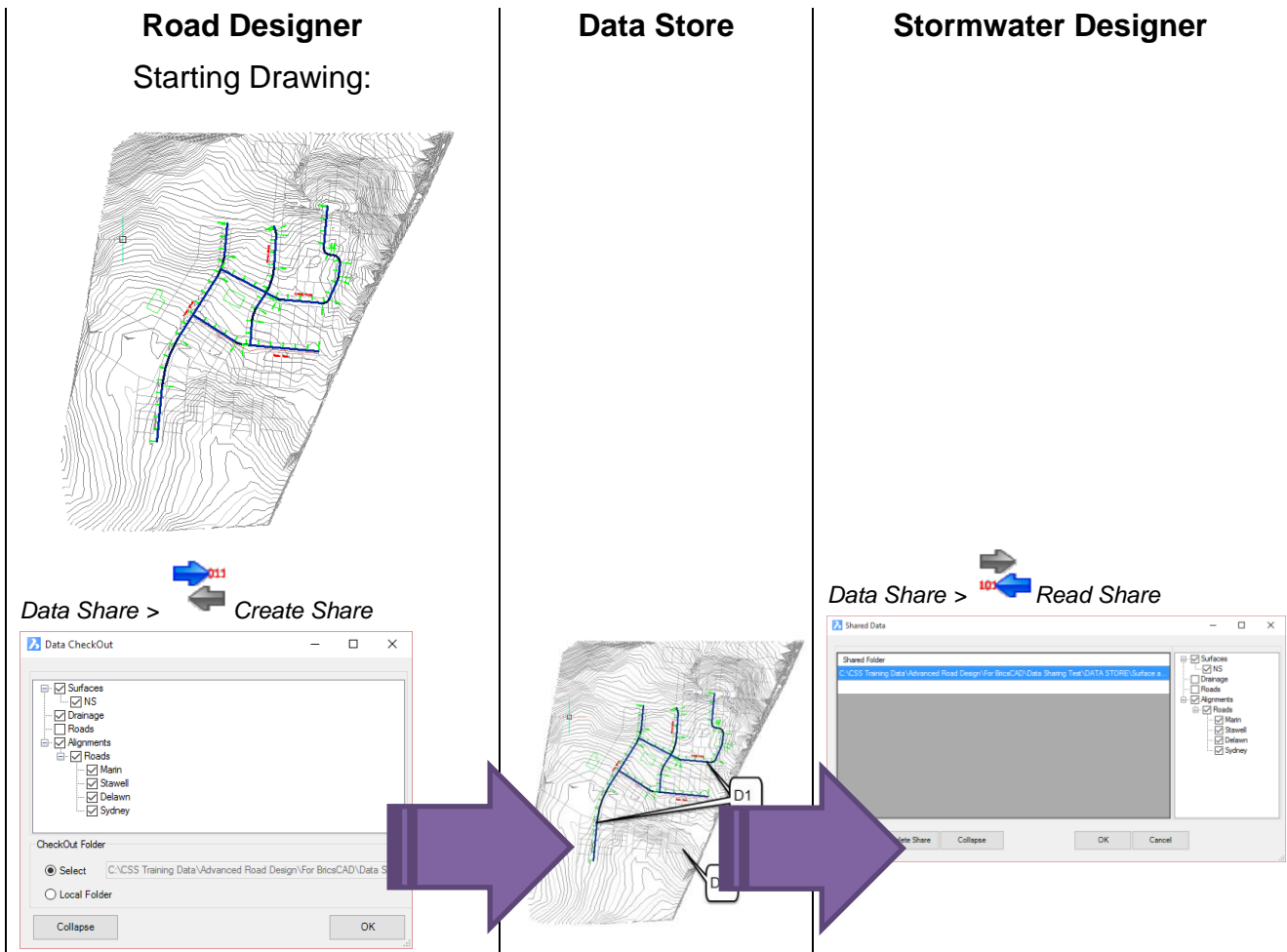
Example Process

Let's take the traditional design data set and share it between users, at different design stages.

In this setup, we are starting with Marin Street, Delawn Street, Sydney Street and Stawell Street alignments created, as well as a surface built. This data is residing inside Civil 3D and is being managed by the Road Designer (D1).

The Road Designer is working with the Stormwater Designer (D2).

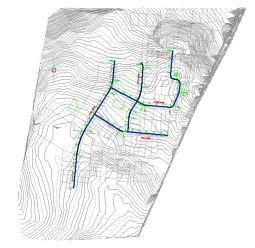
Here is a data share scenario, with data being shared between separate data sources via a centralised share folder.



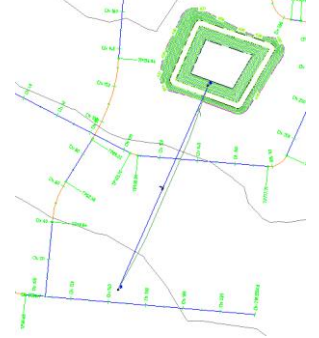
Road Designer

Data Store

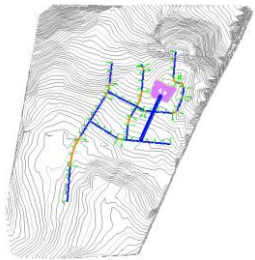
Stormwater Designer




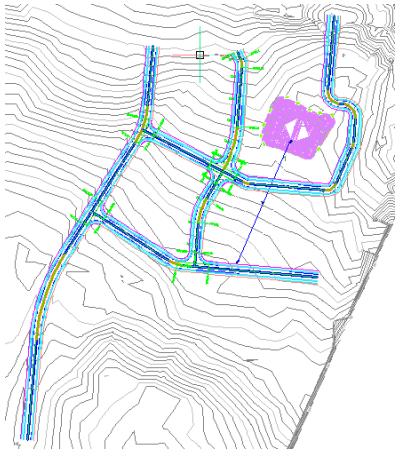
Surface + Alignments Read Only.
Design Grading and Pipes



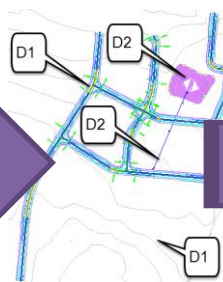
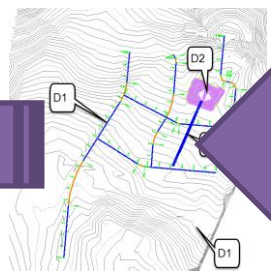
Data Share >  Create Share



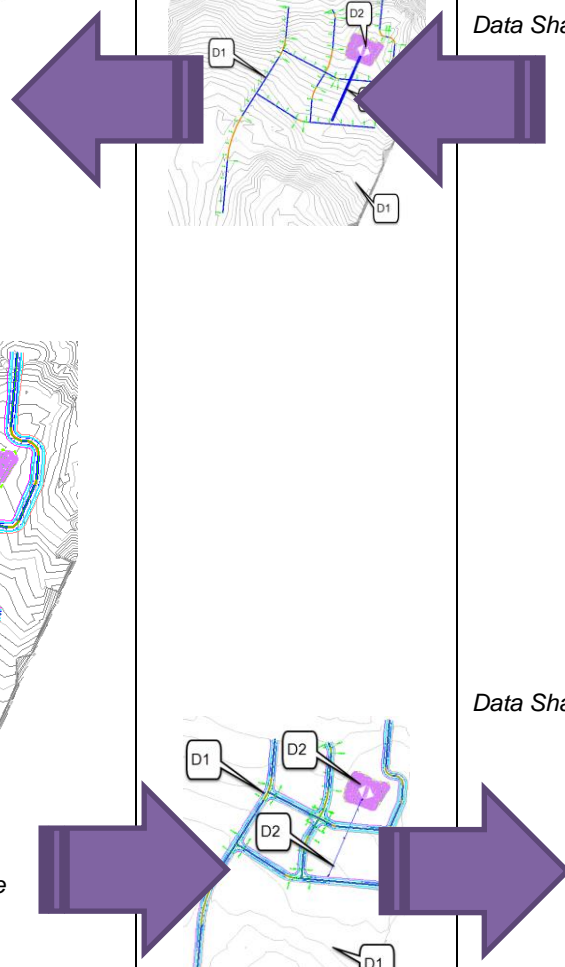
Data Share >  Read Share
Design Roads



Data Share >  Create Share



Data Share >  Read Share



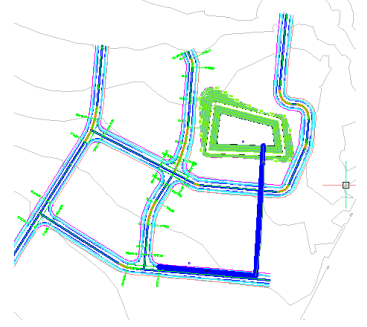
Road Designer

Data Store

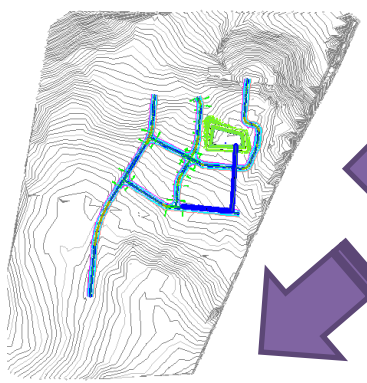
Stormwater Designer




Surface + Alignments Read Only.
EDIT DESIGN



Data Share >  Sync Share



Edit Design of Roads, Alignments or Surface

Data Share >  Sync Share

Edit Design of Roads, Alignments or Surface

Help System Command Information

Create Share



Menu: Data Share > Create Share

Ribbon: General Tab > Share Data Panel > Create Share

Introduction

This command supersedes the [Share Data](#) command.

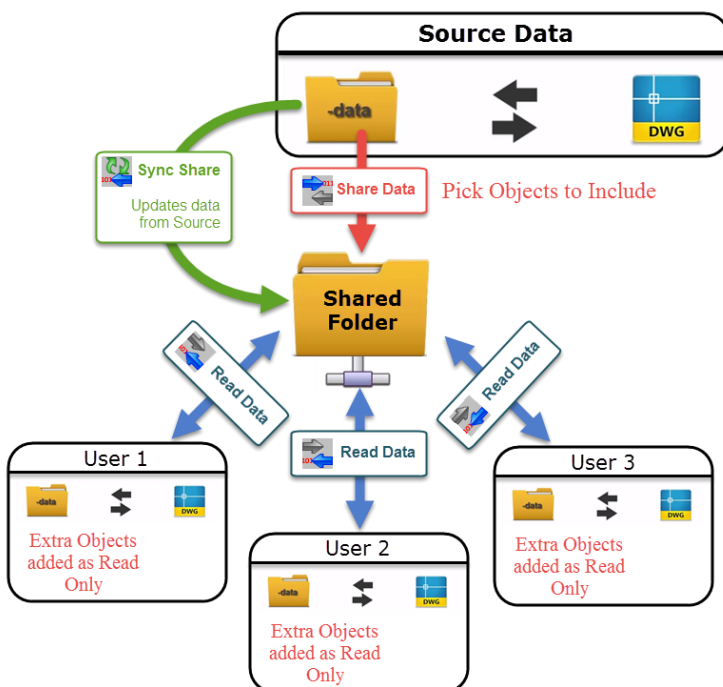
This command facilitates multi user design and data collaboration between projects.

With Create Share, designers establish which design objects (surfaces, alignments, strings, pipe networks) are to be 'shareable' to other designers. Designers on other projects can then 'read in' the shared data and make use of it in further downstream design processes or for plotting.

The ability to edit/delete the data is maintained within the drawing/s that are linked to the source data folder. The recipient of the shared data (receiving drawing and project) is unable to edit the data.

The data read from a shared folder is set as Read Only.

The [Read Share](#) command is used to make a connection and access data that has been Shared to a folder.



The above image describes the commands to share data, read data and update the data share for the situation where the data is shared to a 'network' folder.

If data is shared to an external 'share' folder, use the [Sync Share](#) command to update the share folder.

Data Sharing Methods

When a Share is created, it can be stored/shared as follows:

- To a specific 'Share' folder separate to the original data (as per image, above). In this way, the originator of the data (the data owner) can decide when to update the 'Share' folder with changes to the data. The original data folder (source data) and the 'Share' folder are separated.
- Directly to the current data folder (so, items in the current data folder are set to be shareable, and the recipient needs to link to this folder location). The shared data is updated dynamically - as changes are made in the source data folder, the recipients linked to the shared data will automatically be updated. This type of Share is known as a Local Folder share.

A variation on the Local Folder method is available - designers can set a fixed path to the data, instead of it being relative to the drawing location (achieved using the [Set Data Path](#) command). Setting the data path to a network location will facilitate network storage of the data, as well as providing automatic updates of shared data as it is edited in the source.

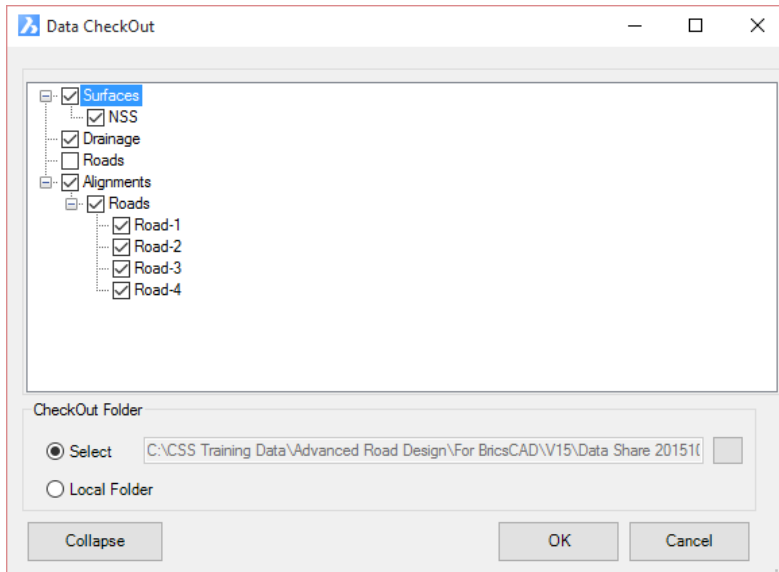
In all cases, the [Read Share](#) command is used to 'link' to the source data that has been shared.

Important Information

- Plan your drawings and how you want to manage data sharing, before starting a project, especially if there are several designers working on the job
- It is recommended to use T intersections, and not Crossing Road intersections, at locations where road data is being shared. This prevents conflicts on the priority road being assigned
- The software allows total control over what is exported and what is imported. If new data is shared to a folder, then it is not automatically added to any recipient who has previously established a data read - the recipient designer needs to select to include the new data.
- When creating a Share, be careful of sharing the data if it stored on the local (C:/) drive. As this is not a uniquely named (mapped) drive, another designer (on a different workstation to the creator) will be unable to read the shared data as it will look on the current designer's C:/ drive for the source data.
- Duplicate names (for any objects: surfaces, strings, alignments, pipe networks) are not allowed. It is strongly advised that only one workstation 'shares' the TotalModel surface, as this is the common name given to the surface created using the 'Auto Model' command.
- Strings should not/cannot be shared without the accompanying Alignments
- Surfaces originating from Grading strings may also result in the transfer of the grading alignment and string from which the surface is created
- It is strongly recommended that the whole project is carefully shared out to designers based on industry/location/stage and names are agreed on, prior to commencing design.
- Data can be shared based on a combination of:
 - The Type of the data/industry (eg: surface from surveyor, alignments from master planners, strings from road designers, pipe networks from drainage designers)
 - Location (eg: Stage 1, Stage 2)

Details

Upon selecting the command the following form is displayed:



Share List

This tree view lists all objects that can be shared, grouped as follows:

- Surfaces
- Strings
- Alignments
- Pipe Networks

Tick on/off the items to include/exclude from the share.

Check out Folder	Sets where the Share Data will be stored. Radio button options:
Select	Use the pick box, right to select/create a folder to store the data. It is recommended that this folder is not used by any other data share
Local Folder	Creates Share links to the data, where the data is currently stored.
Collapse	Collapse back to display only the object groups that can be shared.
OK	Apply and exit.
Cancel	Exit without change.

Read Share



Icon:

Menu: Data Share > Read Share

Ribbon: Data Share Tab > Read Data Panel > Read Share

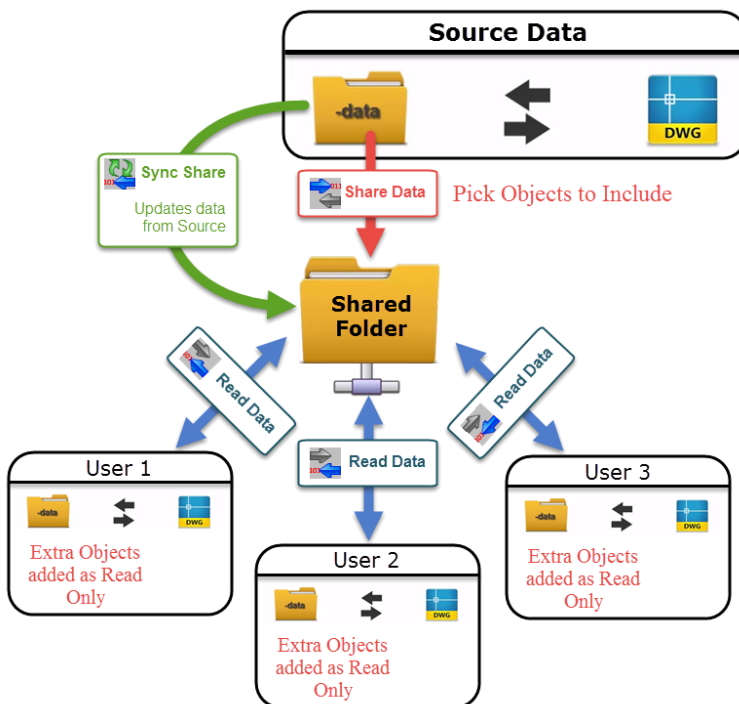
Introduction

This command supersedes the [Read Data](#) command.

This command should be used after the [Create Share](#) command has been used.

This command will enable the inclusion of additional design data which originates from another project. Although the data will be Read Only, it can be used for further design processes.

This command can be used multiple times to extract shared information from multiple projects.



The above image describes the commands to share data, read data and update the data share for the situation where the data is shared to a 'network' folder.

After a share has been established, the read-only data will update immediately following update of the share data folder by the originating designer. Synchronisation will be automatic.

About Data Share Folders

When reading a data share, it is important to open the correct folder. The correct folder will differ depending on how the data share was created.

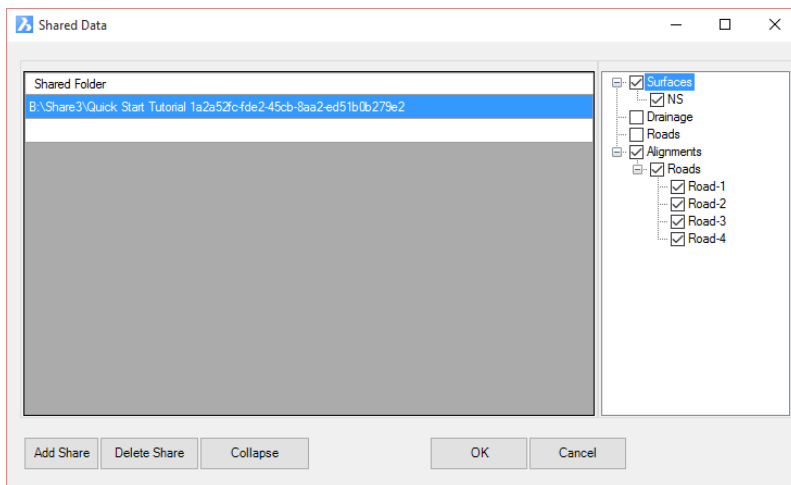
- Data Share to a a specific 'Share' folder - point the path to the share folder directly
- Local Folder - point the path to the AdvRoads-10 folder located inside the -Data folder of the source project.

Important Information

- Duplicate names (for any objects: surfaces, strings, alignments, pipe networks) are not allowed. It is strongly advised that only one workstation 'shares' the TotalModel surface, as this is the common name given to the surface created using the 'Auto Model' command.
- Surfaces originating from Grading strings may also result in the transfer of the grading alignment and string from which the surface is created
- If the original shared data is lost, a dummy surface will be created. This surface will have default extents and elevations set to 100. It is highly recommended to reinstate the shared surface as soon as possible - at that time the software will revert to the original surface data
- Unexpected results for strings may occur if access to the alignment geometry is lost.
- It is strongly recommended that the whole project is carefully shared out to designers based on industry/location/stage and names are agreed on, prior to commencing design.

Details

Upon selecting the command the following form is displayed:



Shared Folder Listing	Lists each share path for the drawing. Shared objects can be extracted from these paths.
Shared Folder List	List of paths to shared folders
Data List	Displays data contained in the shared folder
Add Share	Opens a folder selection form. Select the folder containing the shared data and click OK to add the Share.
Delete Share	Deletes the highlighted share path

Collapse	Collapse back to display only the object groups.
OK	Link to the selected share paths and create read-only data of the items ticked on in the Data List.
Cancel	Exit the form without applying changes.

Sync Share



Menu: *Data Share > Sync Share*

Ribbon: *Data Share Tab > Sync Data Panel > Sync Share*

Introduction

Normally, any project that is linked to a shared data folder will automatically be updated whenever the share folder is updated and a command is run. No user refresh or update is normally required.

If data is shared to the local folder (where the originating data resides) then the share will normally update automatically whenever a design change is made.

In the case where the designer has shared data to a specified folder (such as a defined network folder) then this command should be used to update the shared folder.

If in doubt as to the current status of the share folders, this command can be run.

The receiver of data can synchronise their data with the data share folder using this command.

Details

Upon selecting the command the software:

- Silently updates the share folder (Create Share command) for the drawing. No user input is required.
- Silents runs the Read Share command to update for any changes to source data.

A message may display if the data has not been shared.