What's New in Autodesk[®] Constructware[®] - September Release

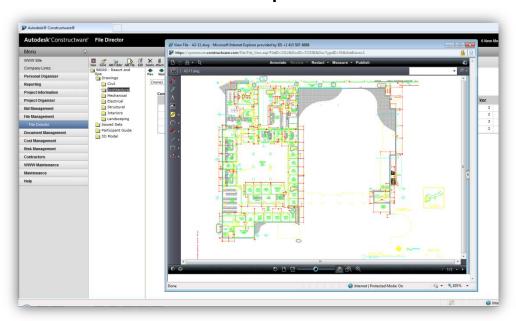


Figure 1. Autodesk® Constructware® 2012

Autodesk[®] Constructware[®] web-based project management software enables construction firms and owners to standardize and optimize business processes in order to deliver projects more efficiently.

Constructware connects people, information, and processes to help streamline operations, manage change, and optimize execution in the field. Greater project transparency and accountability improve insight across projects of all sizes.

Gain more accurate near time cost visibility with the ability to exchange project data with accounting systems. And the configurable web-based software as a service (SaaS) platform can help to reduce costs associated with implementing and managing an IT infrastructure.

File Director Improvements

With the September release, the File Director feature in Constructware has received the following improvements:

- Folder Ownership Management to allow multiple individuals and groups to "own" a folder, for ease of administration
- WebDAV API (application programming interface) to enable integration between desktop, mobile, or server-based file systems and Constructware

Folder Ownership Management

Prior to this release, the Owner of a folder in File Director was a single individual user. This user, then, could not grant co-ownership to other users, nor could ownership easily be pushed down the folder

structure to other users.

With this release, Owner is a permission level to a folder. Users that have Owner permission to a folder have full rights within that folder, as well as the ability to administer permissions and autonotifications to that folder, and to push changes down to subfolders within that structure. Further, Groups on the project may be granted Owner permission to a folder, easing administration of ownership.

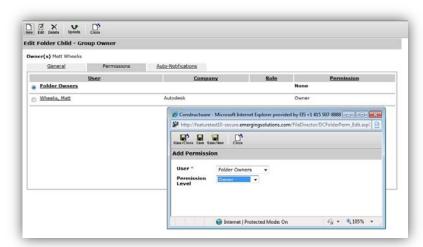


Figure 2. Folder Ownership Management

All existing Folder Owners have been granted Owner permission to the respective folders. To update Folder Owner permission:

- Click on a Folder in File Director. Select Edit on the button bar.
- In the Edit screen, select the Permissions Folder
- Click New to add a new User or Group, or Edit to modify an existing one.
- Grant the User or Group the "Owner" permission level. Click Save.
- Use the Update button to "push down" ownership to sub-folders.

WebDAV API

With the September release, you can now access and update Constructware File Director content through <u>WebDAV</u>, to enable easier uploading and downloading of multiple files and folders, synchronization with local or server content, or access from mobile software programs that support WebDAV.

Examples of WebDAV clients available commercially or as freeware include:

- WebDrive
- GoodSync
- Allway Sync
- IT-Hit

Using the WebDAV API

In the WebDAV client, you will need to specify a URL for accessing Constructware. The WebDAV URL is different from the normal https://secure.constructware.com URL you use to log in to the user interface. Instead, use the following URL:

URL (root): https://webdav.constructware.com/yoursitename, where "yoursitename" is replaced by the login company name you use to access Constructware.

User Name: yoursitename\yourusername

Note: Unlike the web user interface, WebDAV login requires the site name (login company name) to be included before a backslash in the User Name.

Password: yourpassword

A folder in Constructware File Director is now defined by this formula:

https://webdav.constructware.com/yoursitename/projectname/filedirectorroot/foldernames

where your content is substituted for everything after Constructware.com.

Because WebDAV is mapping Constructware data to Windows data, you cannot use illegal Windows folder and file characters in Constructware, or errors will result using WebDAV (characters like < / \ |). See Microsoft guidance here.

General Troubleshooting

- Did you specify your site name (login company name) in the URL?
- Did you include your site name (login company name) in your User Name?
- Do you have <u>illegal</u> (in Windows) folder or file name characters in your Constructware project names or File Director paths?

General Constructware WebDAV Functions

Folder Actions

- Create: Create not allowed to destination containing same Folder name
- Copy: Permissions and Notifications inherit from destination folder; Copy not allowed to destination containing same Folder name
- Move: Move not allowed to destination containing same Folder name

File Actions

- Move: Move not allowed to destination containing same File name
- Check In: Overwrite not supported: create new version only; Keep Checked Out not supported
- Lock: Shared and Exclusive lock are not distinguished, they're both Exclusive locks.
- UnLock: Unlocks a file and checks it in if checked out
- Undo check-out: Functionality not yet implemented
- Edit Properties: Currently properties cannot be edited via WebDAV. In order to maintain proper mini-director functionality, however, Constructware does not return an error. Instead, for certain clients the file will be checked out and checked in, and thus a new version will be created if this is attempted.

Known WebDAV Client Issues

All WebDAV client software implements functions slightly differently, and therefore each has its own nuances. The below are known issues from select WebDAV clients' interactions with Constructware.

IT-Hit:

- Continue on disallowed action: when certain client violations are encountered client does not report an issue, and seems to continue; however, action is not allowed. This affects:
 - Folder Move when moving to destination containing same folder name
 - o Folder Copy when copying to destination containing same folder name
- Permission errors: on returning an "Access Denied" WebDAV Response, IT-Hit Client immediately follows with an unhandled exception. This affects:
 - Folder Create
- Checkout/Lock a file, download, edit the file, upload. Do not perform a Check-In.
 Double click the file to view it. It attempts to open the new file, not the original.
 This can hang the open process. Solution: first Check In then double click.
- Edit Properties: Properties are not updated via WebDAV, but new revision is still created. See "Edit Properties" under Constructware WebDAV functions above.
 - Note: Microsoft .Net Framework is required to run IT Hit successfully. Without this installation the following error may be encountered: "Could not load the file or assembly 'System.Web.Extensions, Version=1.0.61025.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35"

DAVExplorer:

- Conflict Error: seems to come from incorrect or un-refreshed properties on the client, such as when checking in immediately after checking out, or when checking in file that was not checked out. Affects: Check In
- Edit Properties: Properties are not updated via WebDAV, but new revision is still created. See "Edit Properties" under Constructware WebDAV functions above.

Open API Documentation

Note: Constructware API documentation is stored here for your reference:

- https://secure.constructware.com/web/help/ConstructwareAPI.htm
- https://secure.constructware.com/web/help/Errors.htm

It will be updated as additional interfaces are added.

Brava! 7 Upgrade

With this release, the Brava! viewer is upgraded to Version 7. This release of Brava! includes:

- Full Windows 7 support
- Easier administrative deployment
- Multi-user support on single PC
- Colors and interface that coordinate with Constructware

- Support for multi-bound PDFs
- Support for Citrix deployment.

When you first view a file with Brava! after the release, you will be asked to install the Brava! ActiveX control again.

If you see a yellow banner at the top of the page, click it, and choose "Run Add On".



Figure 3. Windows warning

Once you have accepted the control, you will see the new Brava! interface.

Administrators: if you or your business partners need to deploy the control centrally, this can be accomplished using the information below:

- InstallNotes
- ClientInstallScript
- Brava7_MSI



Figure 4. Brava! viewer

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