



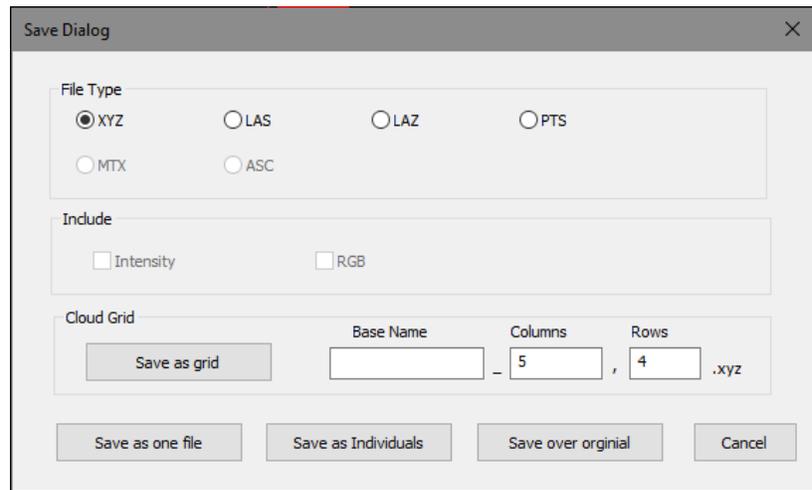
# HYPACK Cloud Improvements

BY KEN AIKEN

There are a handful of improvements to CLOUD in our 2022 Q1 update. We've changed the Save process a bit to make things easier by reducing the three Save options into one dialog. You can now display targets in 3D space in CLOUD instead of using them as 2D background charts. Finally, there is now a profile tool where you can cut a vertical slice using a set distance of line, then view and edit it.

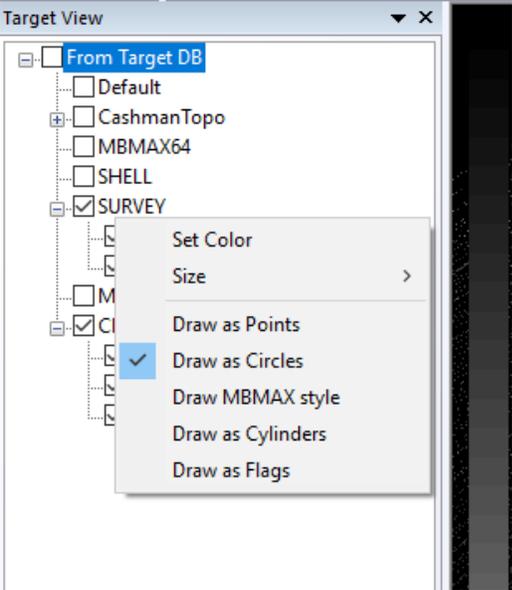
## NEW SAVE DIALOG

Previously, there were three buttons for saving in CLOUD: Save, Save As, and Save to XYZ. Then, each dialog had options crammed into the filter on the bottom such as different file types and XYZ formats. This new dialog collects all these options in one place, allowing you to easily see all your saving options front and center. In the dialog, you can select the file type and your options, then depending on the file type, save as a single file, save as individual files, or save with the original file's name.



If you want save your file as an XYZ, the dialog offers the options to include intensity and RGB coloring if those are present. Previously, if you used the CLOUD Grid Control to break your data into smaller sections and then clicked Save to XYZ, a window would pop up asking if you wished to save those individual sections, which was kind of a clumsy way to do it and not very obvious. This has also been brought into the new dialog, which saves the files as <base name>\_<column>,<row>.xyz.

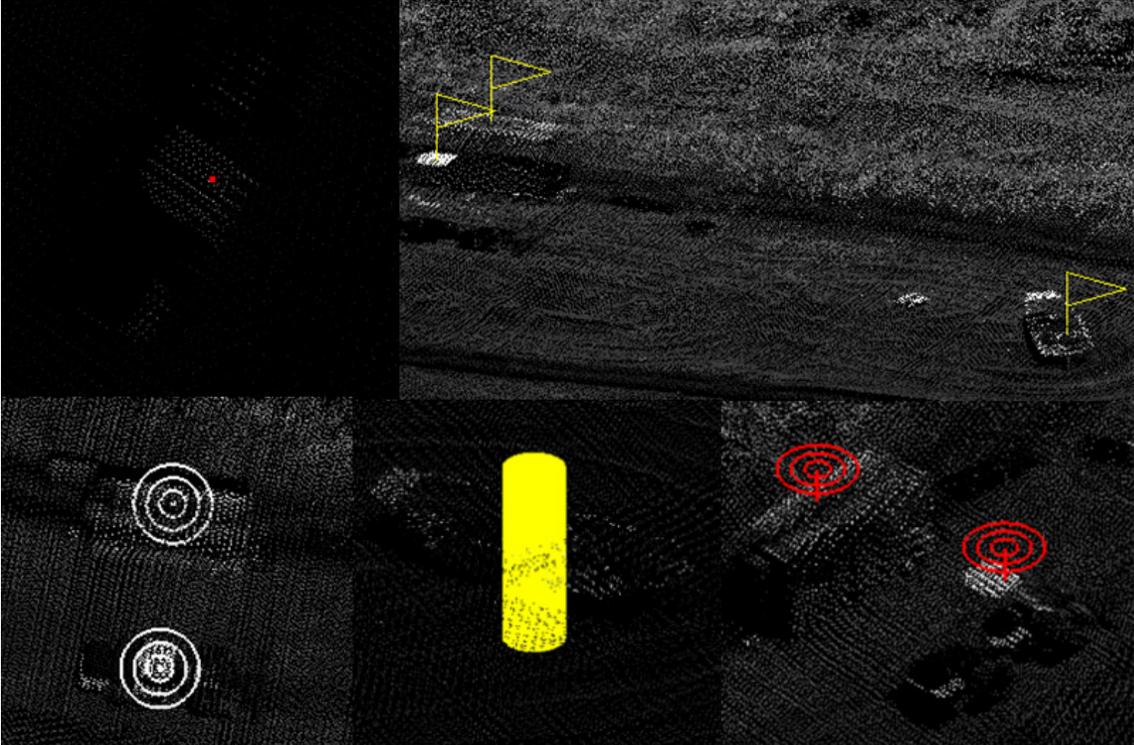
# TARGET DISPLAY



Another new feather in Cloud is the ability to display targets. Previously, when creating targets in CLOUD, you could create them but they didn't get displayed, which isn't particularly helpful sometimes. Now, you can enable and disable them on command. There's also a handful of features for their display. You can set their color and draw size along with how they are drawn.

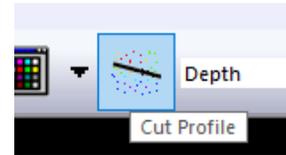
Here are a few examples of how the targets are drawn using some topo data colored by intensity.

FIGURE 1: Clockwise from top left: Points, Flags, MBMAX Style, Cylinders, Circle



## PROFILE DISPLAY

The final new feature in CLOUD is the ability to cut a slice and view a profile of your point cloud. Similar to the AB Tool in MBMAX, this is useful for clipping out things like sunbeams, trees, cars, or dock posts. All of the normal CLOUD editing tools work in this window as well to make editing as easy and smooth as possible. This tool is only supported in top down view, so when you click the Cut Profile icon, your display will remove any X-axis rotation and snap to a bird's eye view. You can then drag a line from two points on the point cloud, then the Profile View window will appear below with the profile displayed. Both the Profile View and Target View windows are dockable and detachable from the main CLOUD window.



You can set the draw style using points, lines, or points connected by lines. Either by right clicking in the Profile View window or navigating to **View --> Profile** in the main menu.

You can also adjust the width of the profile from the Settings dialog by going to **View --> Settings**. The default Profile Width is 20 meters or feet (dependent on project units).

In the following image, the point cloud is displayed in bird's eye view in the top window. The thin double rectangle in white is represents where the point cloud has been "sliced" by the Cut Profile tool. The profile is displayed in the window below.

