

Getting Started with RPC Creator Pro



Thank you for using software from ArchVision. RPC Creator Pro is an easy-to-use tool that gives you the power to quickly create your own RPC objects. This document contains valuable information to help introduce you to the product.

Background: This program will allow you to create 2D, 2.5D, 3D, and 3.5D RPC content. The number of RGB images and corresponding Alpha images will vary depending on the type of RPC you are creating.

2D RPCs consist of one RGB image and one Alpha image. The same image will be rendered regardless of the camera position.

2.5D RPCs contain an RGB image sequence of a moving object, and the corresponding Alpha images. For each frame in an animated scene, a new image is rendered. Regardless of the camera view, the RPCs will always face the camera.

3D RPCs consist of images from different views around the object, thus it is necessary to have RGB images from evenly spaced positions around the z-axis as well as matching Alphas. Each view corresponds to a view of the object from a different angle. When rendered, the image corresponding to the view will be loaded based on the position of the camera.

3.5D RPCs contain images representing both viewing directions and time. Thus, it is necessary to have images from views around the object, and each of those views must have images representing time. This means that many images are required for creating 3.5D content. For a 3.5D object that has 90 views (a view every 4 degrees), and 1 second of motion (30 frames) it is necessary to generate 5400 images (2700 RGB and 2700 Alpha).

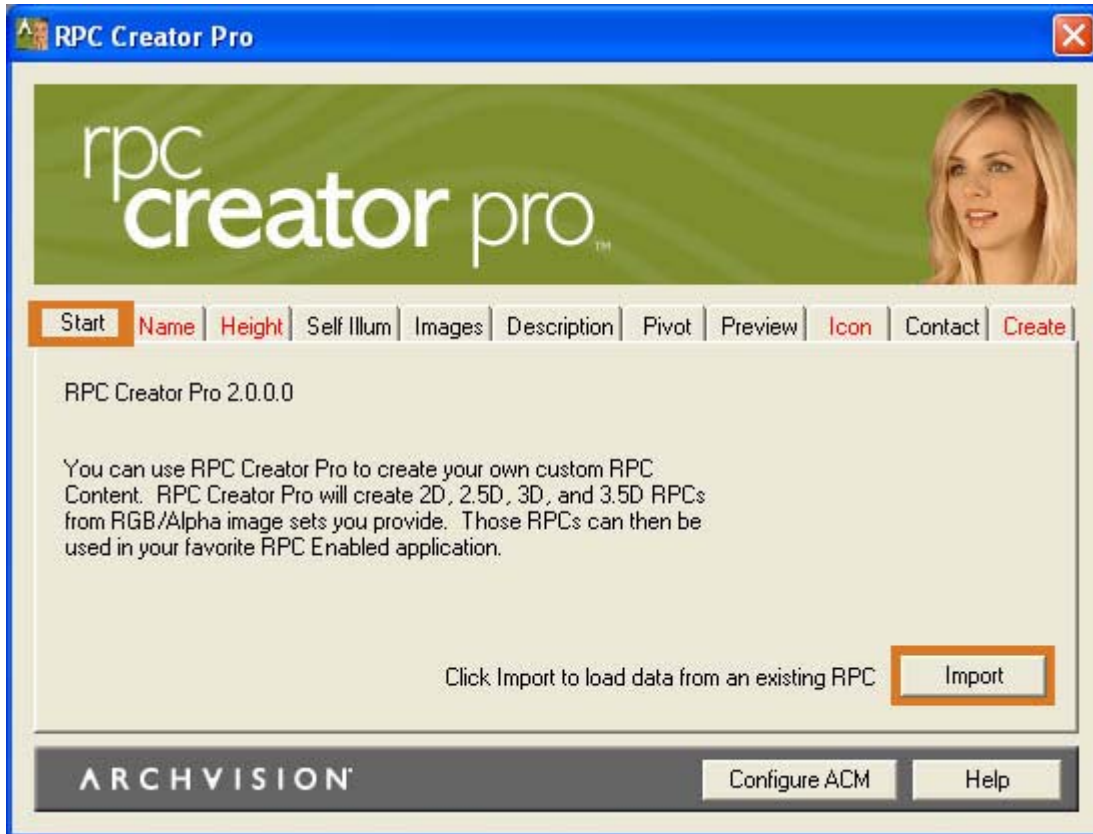
Obtaining a License:

To activate RPC Creator Pro, you will need to import a license via the ArchVision Content Manager (ACM). Without a license, RPC Creator Pro will not function. Once a license for this product has been assigned to your ACM you can import it via the License tab on the ACM. Please visit ACM Central (acm.archvision.com) for more information about use of the ACM.

Once you have successfully imported a license, you will need to connect RPC Creator Pro to your ACM. While this is normally done by the installation program, you can manually connect to an ACM by clicking the Configure ACM button. If your ACM is located on your machine, select Local and browse to C:\ProgramFiles\ArchVision\ArchVision Content Manager and select rpcACMapp.exe. If the ACM is located on another computer select Network and key in the UNC name of the location, an IP address or select Scan for the RPC Creator to automatically detect available ACMs on the network.

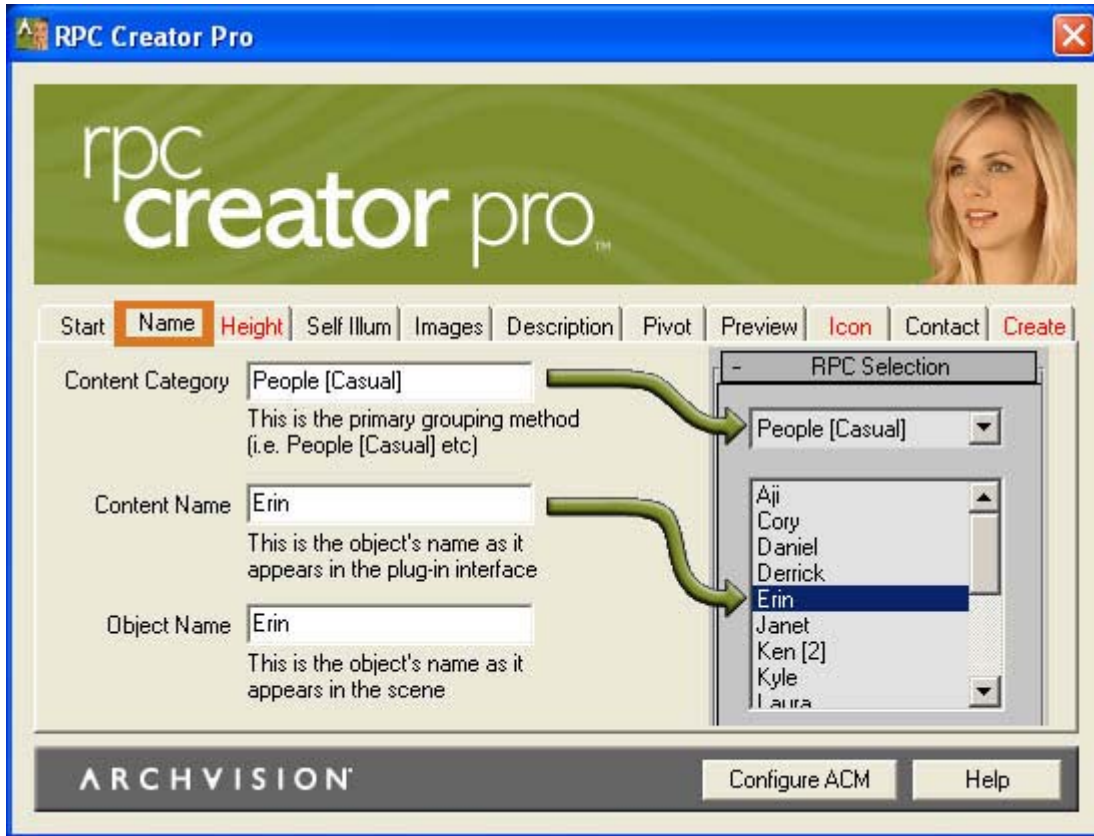
Using RPC Creator Pro:

Start Tab: The first screen that appears when the RPC Creator Pro opens provides an option to Import. This option provides users with the ability to edit their existing RPCs. This option will not work for RPC Content created by ArchVision. If you are creating a new RPC, select the Name tab to begin the RPC Creation process.



Name Tab: There are three naming fields for RPC content. Content Category allows you to select the grouping for your RPC. You are welcome to use one of the types already created by ArchVision such as People [Casual] or create your own.

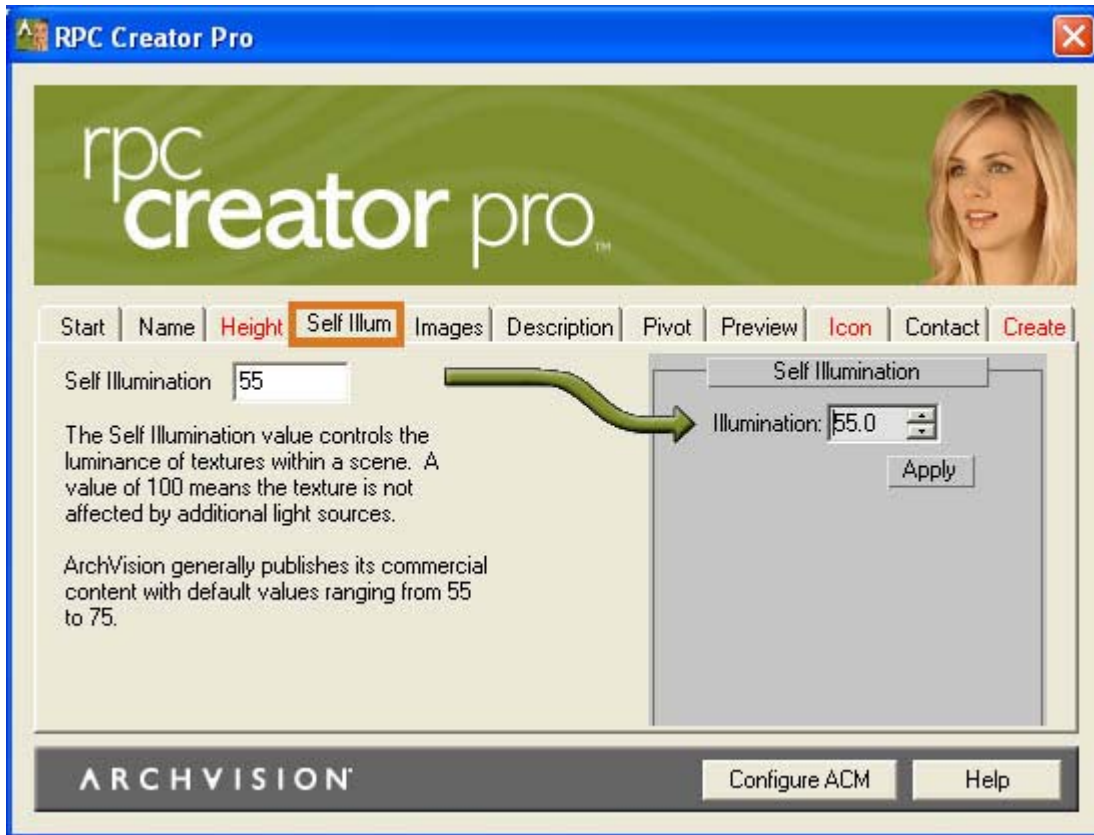
Content Name refers to the name of the RPC itself. We suggest keeping the Content Name and the Object Name identical for continuity and ease of finding the RPC in the scene.



Height Tab: Default Height is the height of the RPC object in inches. Keep in mind that the Height refers to the overall image height and not just the subject. To make your height value more accurate, limit the amount of dead space at the top and bottom of your images. Random Height Min and Random Height Max allow you to set recommended ranges for Randomize Height settings in RPC Mass Edit.



Self Illum Tab: The self-illumination setting of the RPCs refers to the default brightness of the object. We suggest that you use a setting of 55 for Indoor objects and a setting of 75 for Outdoor objects.



Images Tab: Begin by selecting the type of RPC Content to be created in the RPC Type box. Next, open your RGB image file(s) by clicking the Add button and then selecting the image(s). Once the file has been selected, a preview of the first image will be displayed. Next load the Alpha image file(s) in the same manner.

For 2.5D content, the first image needs to be time 0 of the action sequence. For 3D content, the first image should be the back of the object. For 3.5D content, the first image should be the back of the object at time 0. The order in which images are named should reflect a counter-clockwise rotation around the RPC if creating 3D or 3.5D content.



If the RPC was Imported into Creator Pro, an option to **Use Imported** will be available in the RGB Filename and Alpha Filename dialog boxes. It is also possible to add new images and their corresponding alpha images to the imported images by clicking the **Add** button.

For 3.5D content, it is required that your content be named in the following format:

<base><view><separator><time>.jpg

In this naming construction, Base can be any alphabetic naming structure as long as it does not end in a number. View should be a number that increments as you move clockwise around the object. The Separator is simply to divide the View and the Time numbers into distinctive portions of the file name. The separator must be a dash, a period or an underscore. Time is the order in which the frames should be played. The frame rate for the time sequence should be 30 frames per second (fps).

Example names are:
image0000-0000.jpg
image0000-0001.jpg
image0000-0002.jpg

Description Tab: This step allows you to enter in information about the RPC as a Meta tag. These descriptions should be separated by a comma. You have the option of leaving the field blank.

This tab also contains an entry box for Gait, which is only available when creating 3.5D objects. The Gait value defines how quickly a 3.5D object moves along its spline. Gait is expressed as inches per 1/30th of a second.



Pivot Tab: Pivot Offset allows you to adjust the center of the RPC. This allows you to compensate for the fact that often times the center of the image is not the center of the subject. This figure can be found by opening the file in Adobe Photoshop or a similar program and determining what percentage of shift in pixel is needed to the right of left of center to find the center of the subject. Normally this figure does not need to be adjusted for trees.

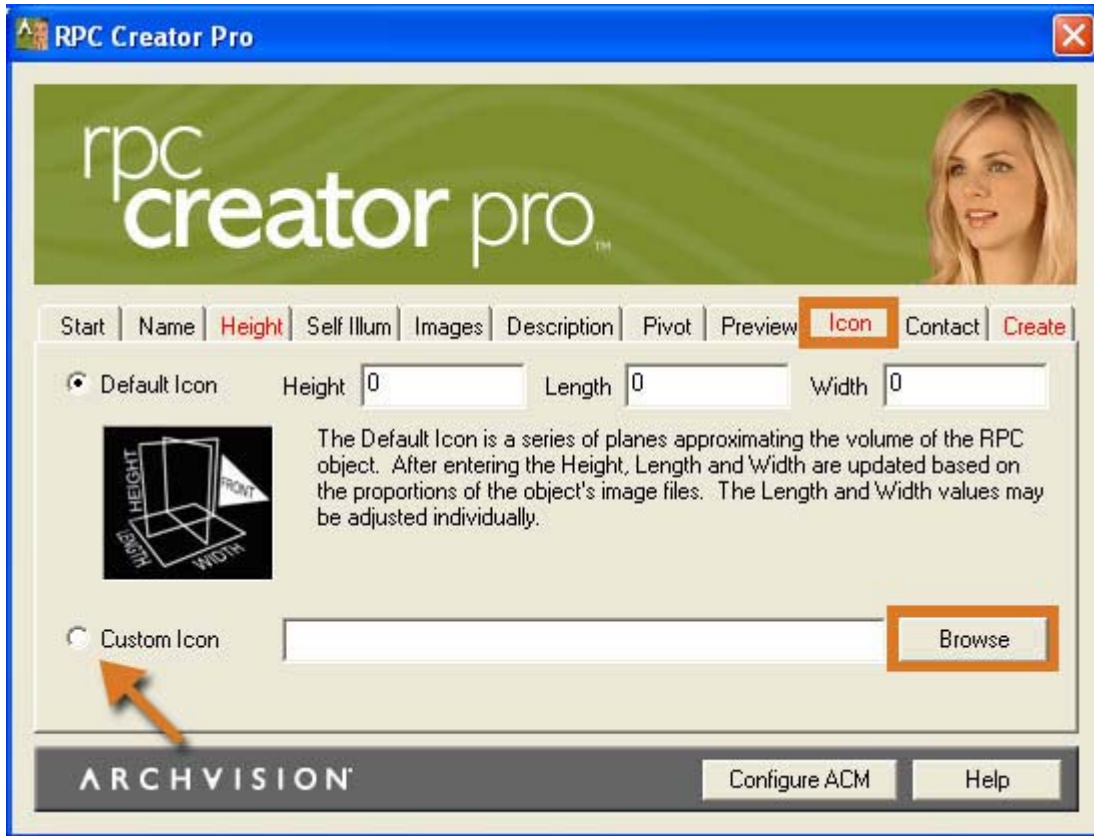


Preview Tab: As discussed in RPC Creation Tips: The Basics, a Preview File is used to represent the RPC in the RPC Interface. Locate it on your machine by clicking the **Browse** button and then selecting the appropriate bitmap file or use the default image. If you choose to create your own, make sure that it is 124 x 98 pixels and saved as an RGB (24-bit) .bmp file.

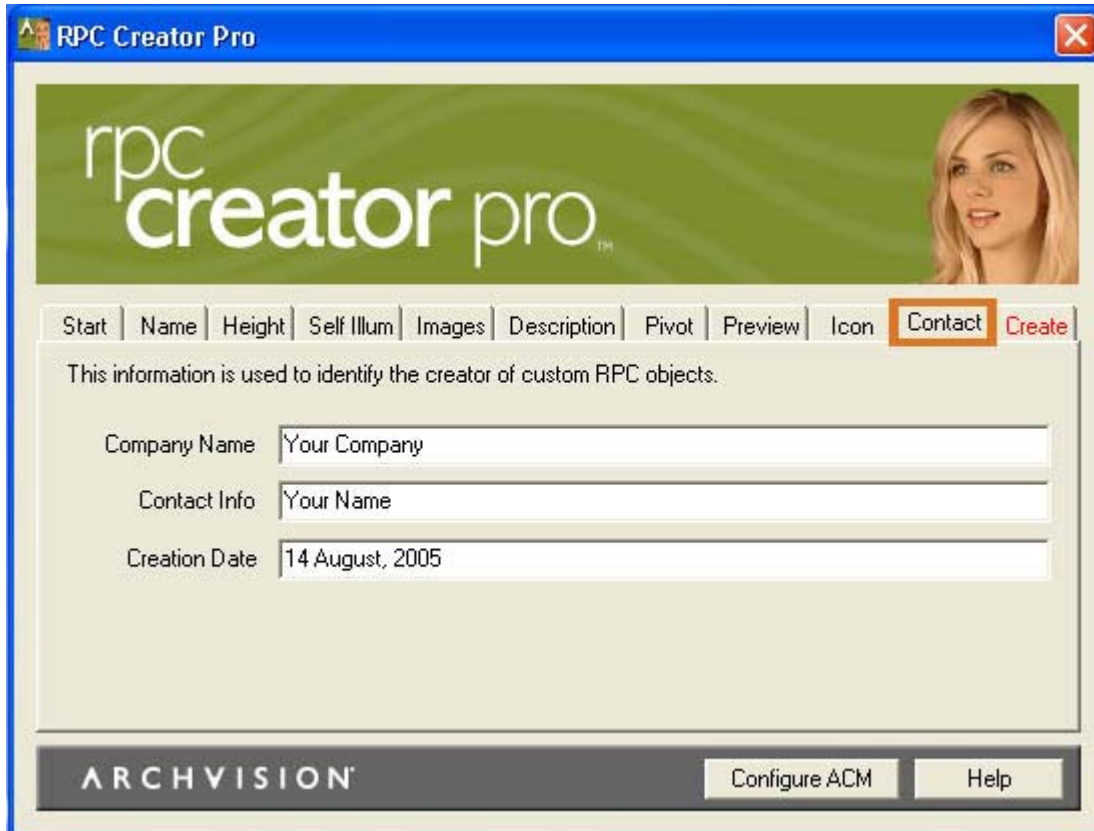


Icon Tab: Next, select to use either the default Icon, which appears as crossed planes in your 3D application, or to use a Custom Icon. Custom Icons can be created from DXF, OBJ, or MSH file formats. MSH is the file format generated by the RPC Icon Exporter.

RPC Icon Exporter for Max and Viz can be downloaded from <http://www.archvision.com/RPCIcons>



Contact Tab: The fields provided on this screen allow you to enter in specific information about the creator of the RPC content.



The screenshot shows the 'RPC Creator Pro' application window. The title bar reads 'RPC Creator Pro' with a close button on the right. The main area features a green header with the 'rpc creator pro' logo and a woman's portrait. Below the header is a tabbed interface with the following tabs: Start, Name, Height, Self Illum, Images, Description, Pivot, Preview, Icon, Contact (highlighted with an orange border), and Create. The 'Contact' tab is active, displaying the text: 'This information is used to identify the creator of custom RPC objects.' Below this text are three input fields: 'Company Name' with the value 'Your Company', 'Contact Info' with the value 'Your Name', and 'Creation Date' with the value '14 August, 2005'. At the bottom of the window, there is a dark grey bar with the 'ARCHVISION' logo on the left and two buttons, 'Configure ACM' and 'Help', on the right.

