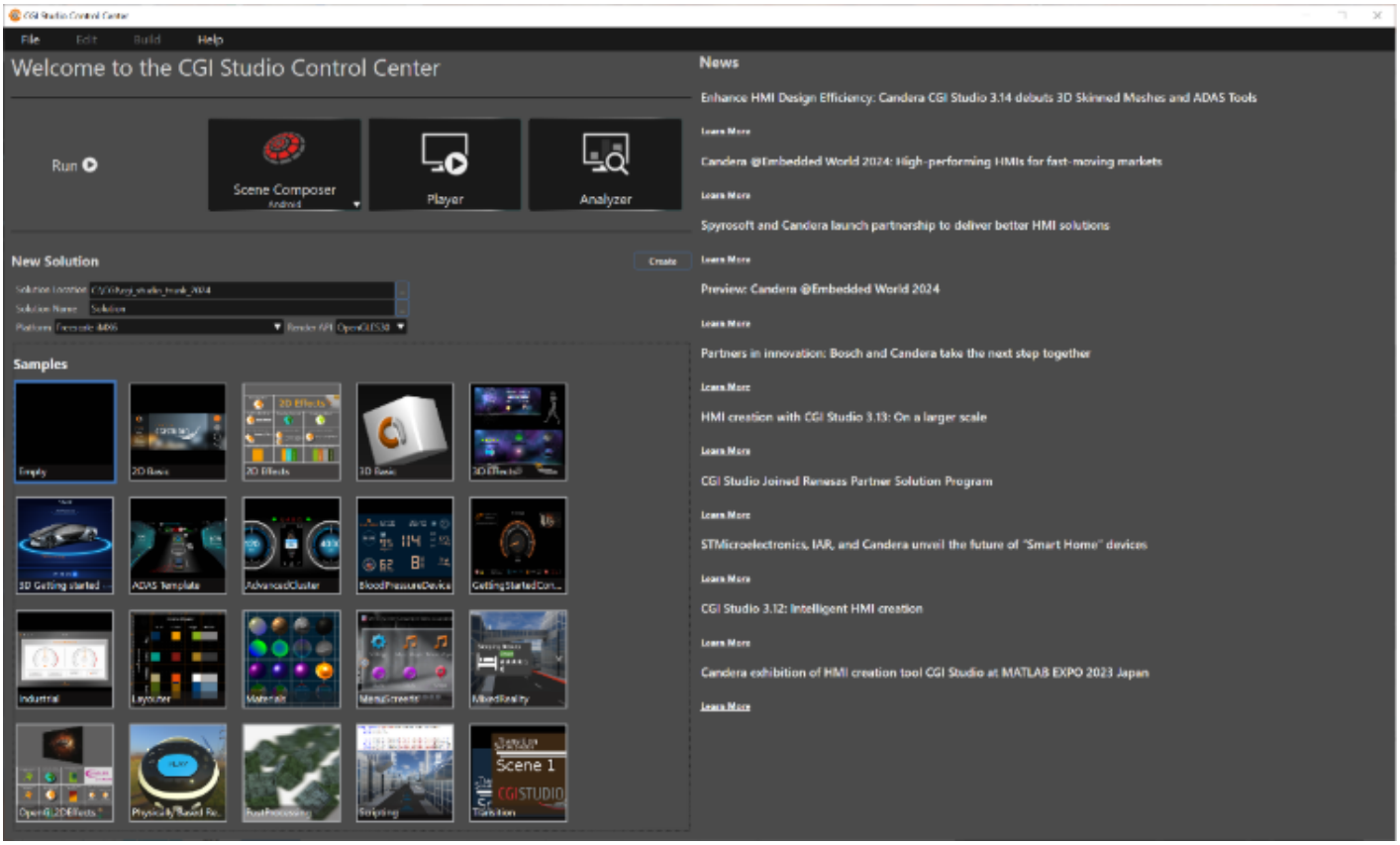
Control Center

CGI Studio Control Center integrates all the tools of the CGI Studio product chain. For new users it provides a dashboard from which to start Scene Composer, the Player, and the Analyzer, as well as from which to build SCHost/the application with the click of a button.
For advanced users it is also possible to edit and build CGI Panel, as well as adjust data bindings and Courier definitions. For clients with complex processes, Control Center allows for the changing and customizing of scripts used in the above operations in response to the client's needs.
All this information is stored in a Control Center solution that is specific to a certain application/SceneComposer solution, making it easy to share between multiple users.

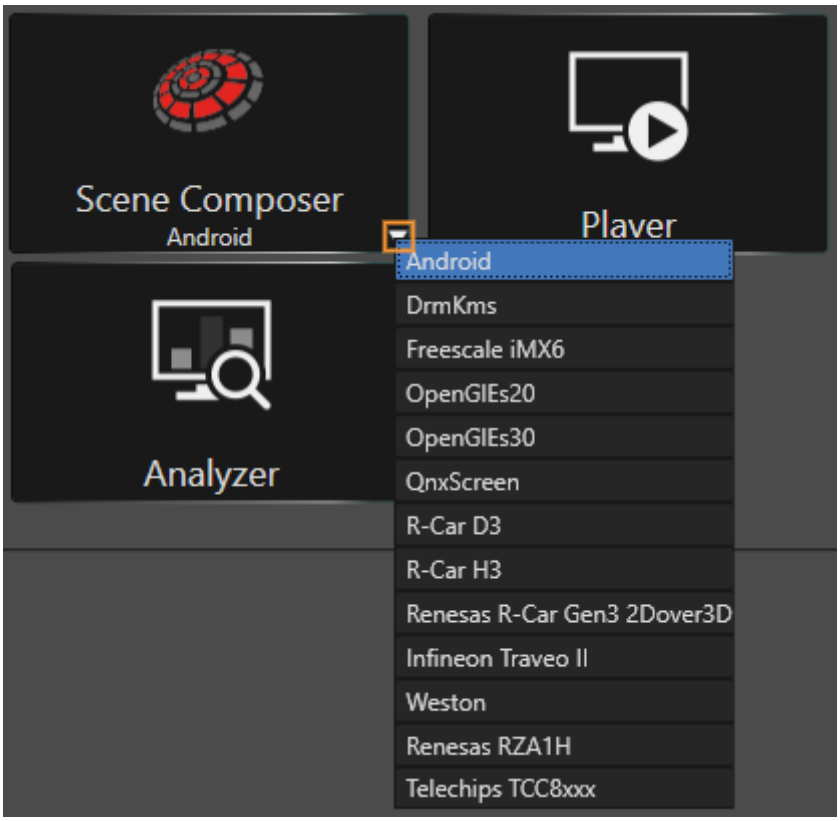
- Control Center Welcome Screen
- Control Center Menu
- Control Center - General Settings
  - Dashboard
  - General & CGI Studio
  - Scene Composer
- Control Center - Advanced Settings
  - Overview
  - Custom
  - Applications & Modules
  - Control Center Scripts
  - Builds
  - Build (Global)
  - Enviroment Variables

Control Center Welcome Screen

To open the CGI Studio Control Center double-click "ControlCenter.exe", which can be found in the "ControlCenter" folder in the bin directory.

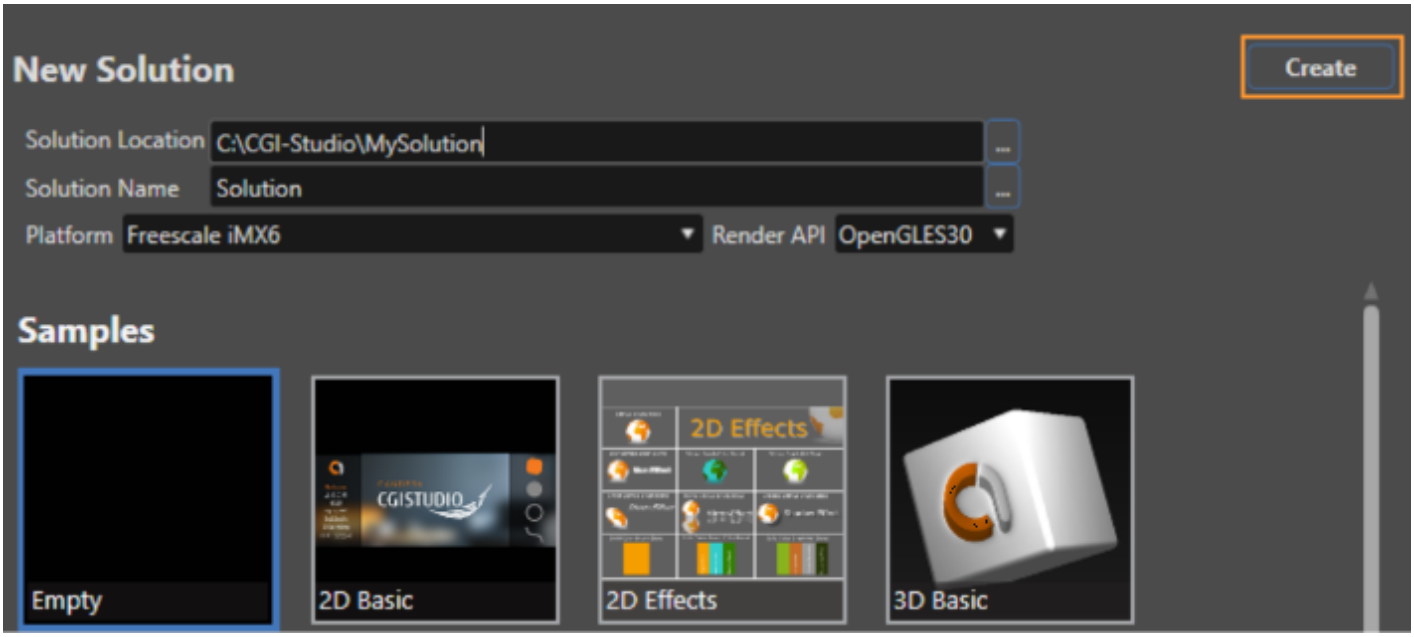


In the top left section, the Welcome page offers the possibilities to run Scene Composer, the Player (CGI Panel) or the CGI Studio Analyzer.
Before clicking the "Scene Composer" button to open Scene Composer, please choose your preferred platform. To do this, open the drop-down menu with the little arrow on the bottom right of the button (marked in orange in the image below).



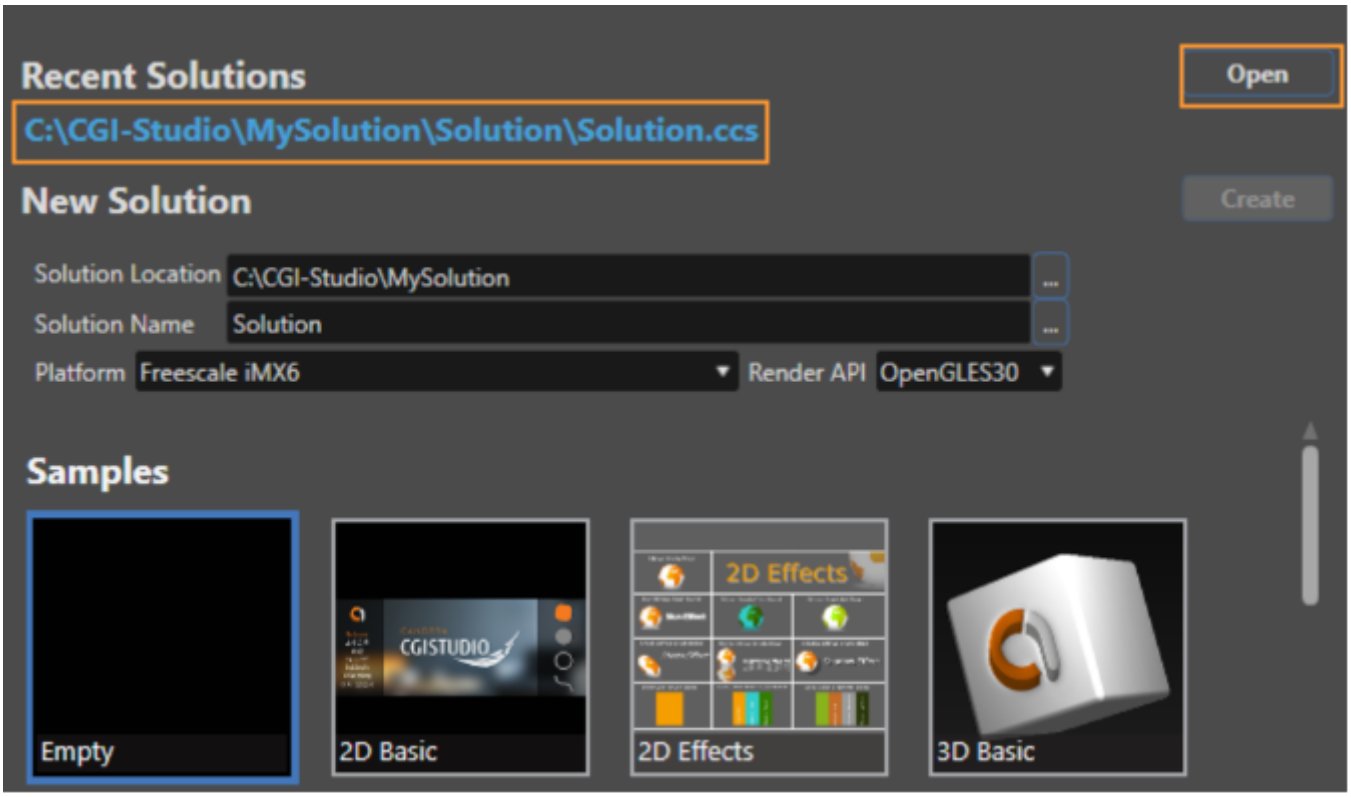
Create a new Solution

As shown in the image below, it is possible to create a CGI Studio Control Center Solution:
Select a location and a name for your solution, then choose a platform and a Render API. Select a template from the list of available Scene Composer solutions in the section below (the selected template is highlighted with a blue border). Finally, click the "Create" button (marked in orange).

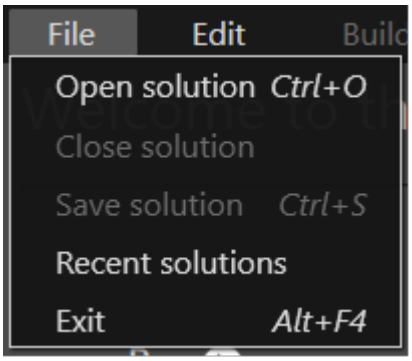


Recent Solutions

If you have already created a solution and you are reopening the CGI Studio Control Center, you can see the recent solution just above the "New Solution" section. To open the recent solution click on the solution link to select it (highlighted in bold and blue text) and click the "Open" button or simply doubleclick the recent solution you intend to open.

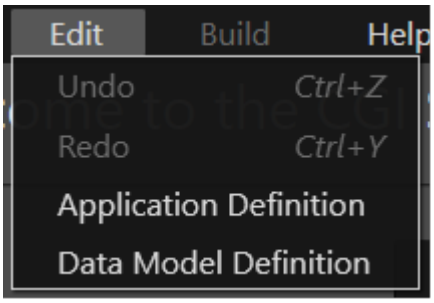


Control Center Menu

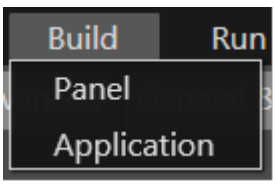


With the "File" menu you can:

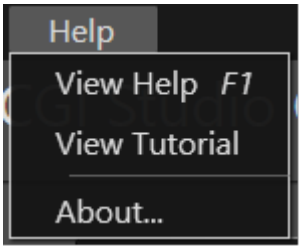
- open a solution
- close the current solution
- save the current solution
- open recent solutions from a list
- exit the Control Center



In the "Edit" menu you can undo or redo your changes.
You can also open Visual Studio to edit Application Definition or Data Model Definition (like in Custom "Courier" Section)



The "Build" menu lets you build the Panel (like in Build Panel) or the Application (like in Build Application). This menu is not available on the welcome screen and requires that a Control Center solution be in use.



Through the "Help" menu you can choose to view a Help documentation, tutorials, or information about the Control Center application itself.

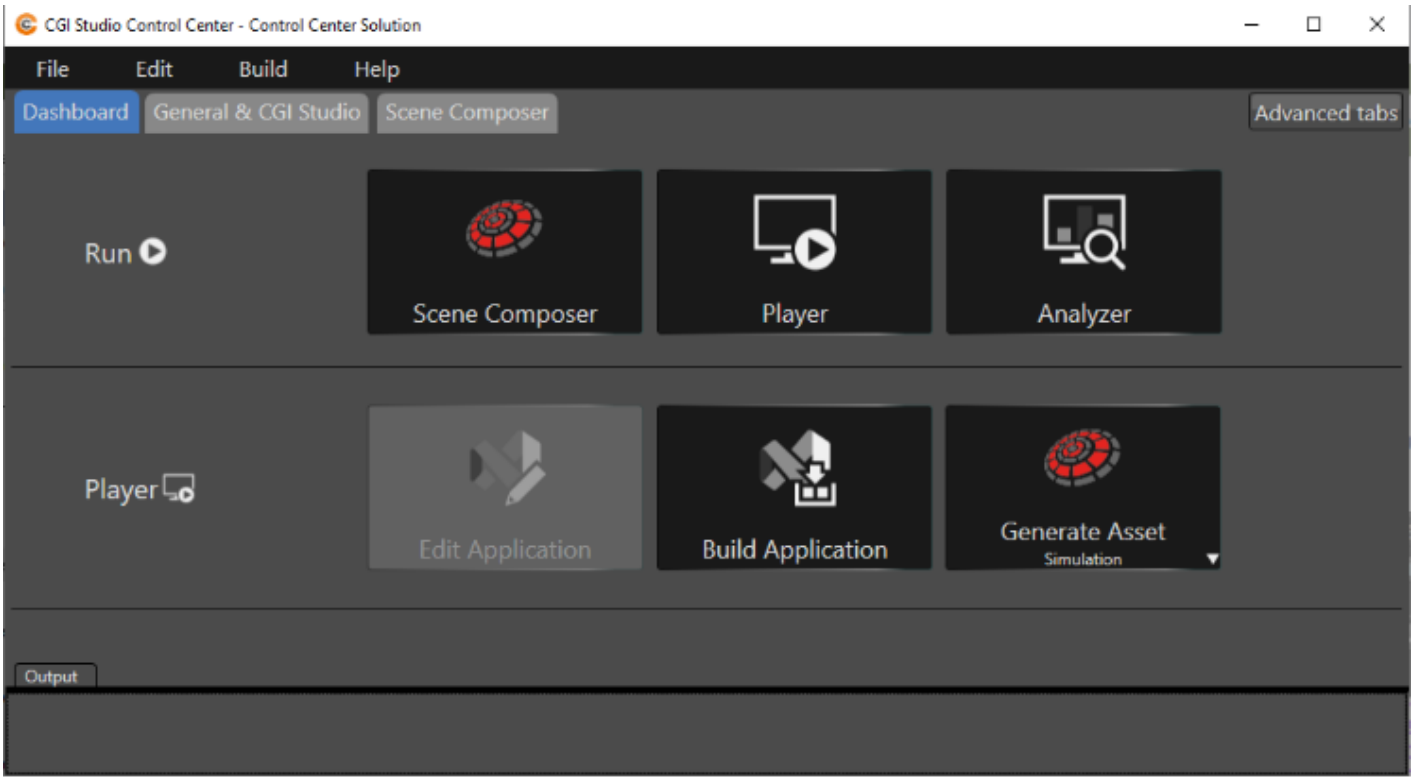
Control Center - General Settings

After opening a solution, the following pages are available:

- Dashboard
- General & CGI Studio
- Scene Composer

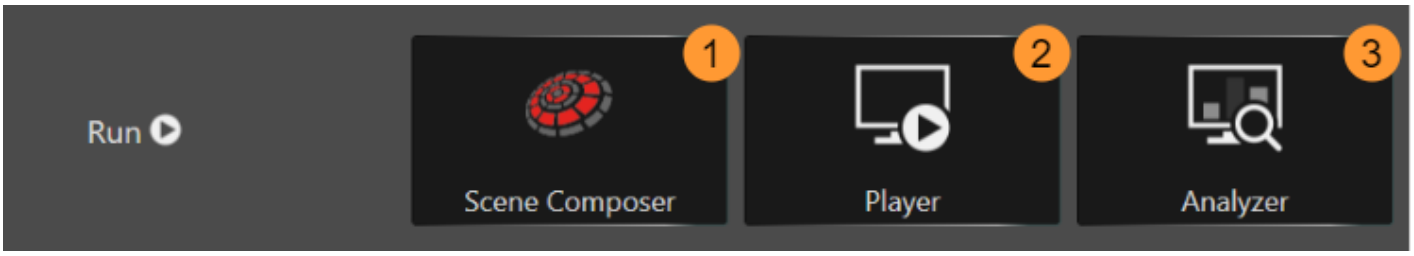
Dashboard

The Control Center Dashboard is the first page opened when opening a solution. If you close the solution using the menu "File - Close solution", you will come back to the Control Center Welcome Screen.



"Run" Section

Below the ribbon you can find buttons to run SceneComposer, the Player, and CGI Studio Analyzer with your open Solution.

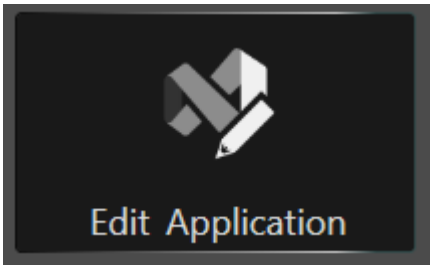


1	**Scene Composer**	Clicking on this button opens the selected solution in Scene Composer for the selected platform. More info can be found in the Scene Composer chapter.
2	**Player**	This button opens the CGI Player. Before the CGI Player is opened, a Windows Security Alert will prompt you for access. In the CGI Player you can select via checkboxes which scene will be rendered in the CGI Player Window. More info can be found in the Player chapter.
3	**Analyzer**	The Analyzer button opens the CGI Studio Analyzer. More info can be found in the Analyzer chapter.

"Player" Section

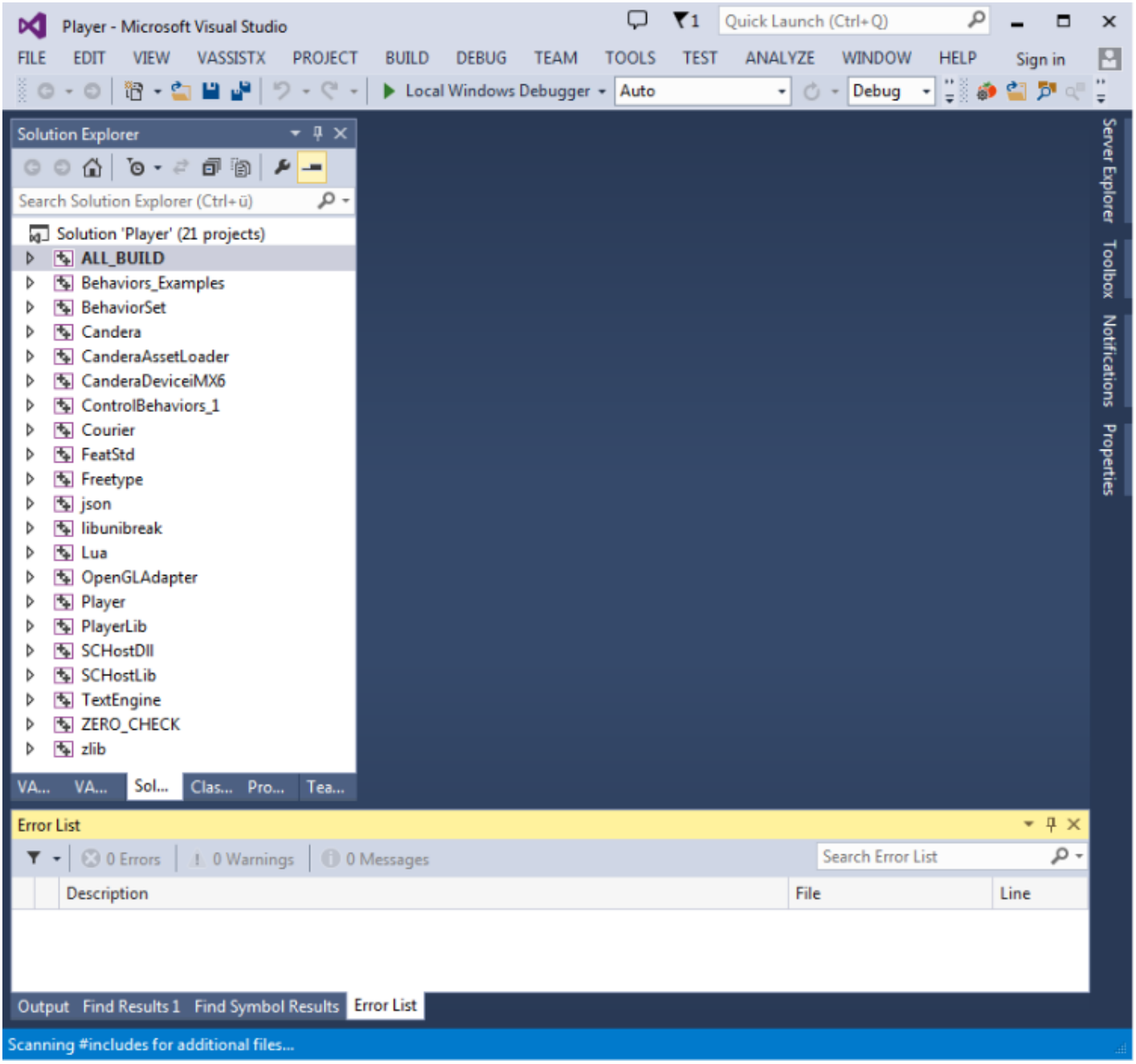
In this section you can edit or build your application and you can generate your assets for Simulation, Target or for Simulation and Target.

Edit Application

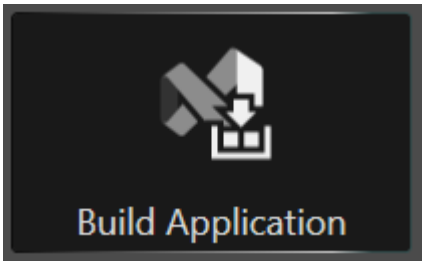


Click on this button in order to edit your application. As the icon suggests, clicking "Edit Application" opens Visual Studio with the selected sample.

This button may be disabled in a new solution. After building the application using Build Application , this button is enabled.

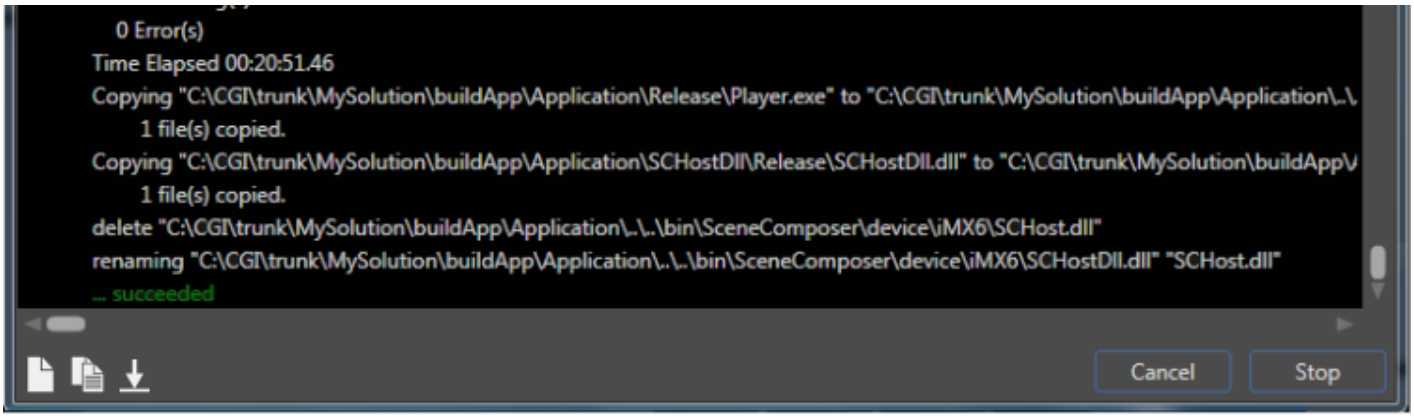


Build Application

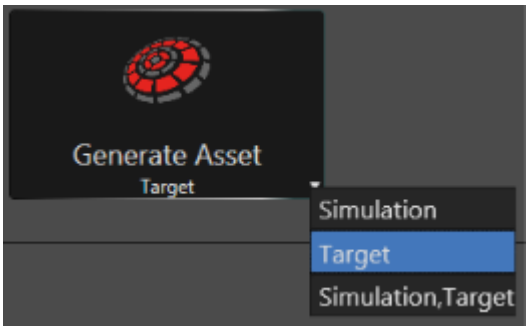


Click here to build your application. This will open the CGI Studio Control Center - Build Window and start the build process, which may take some time.

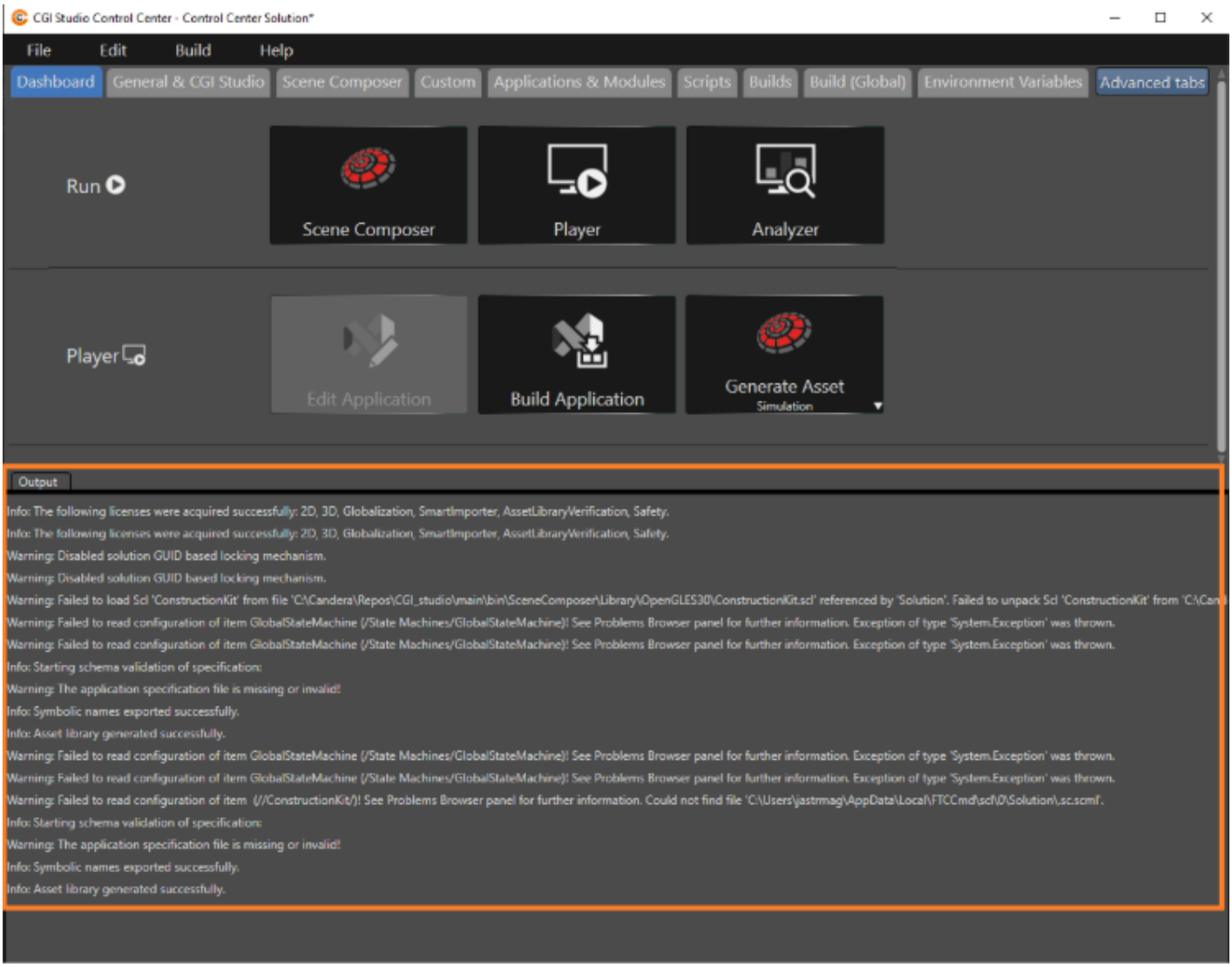
A successful build completion is signaled by "... succeeded"



Generate Asset

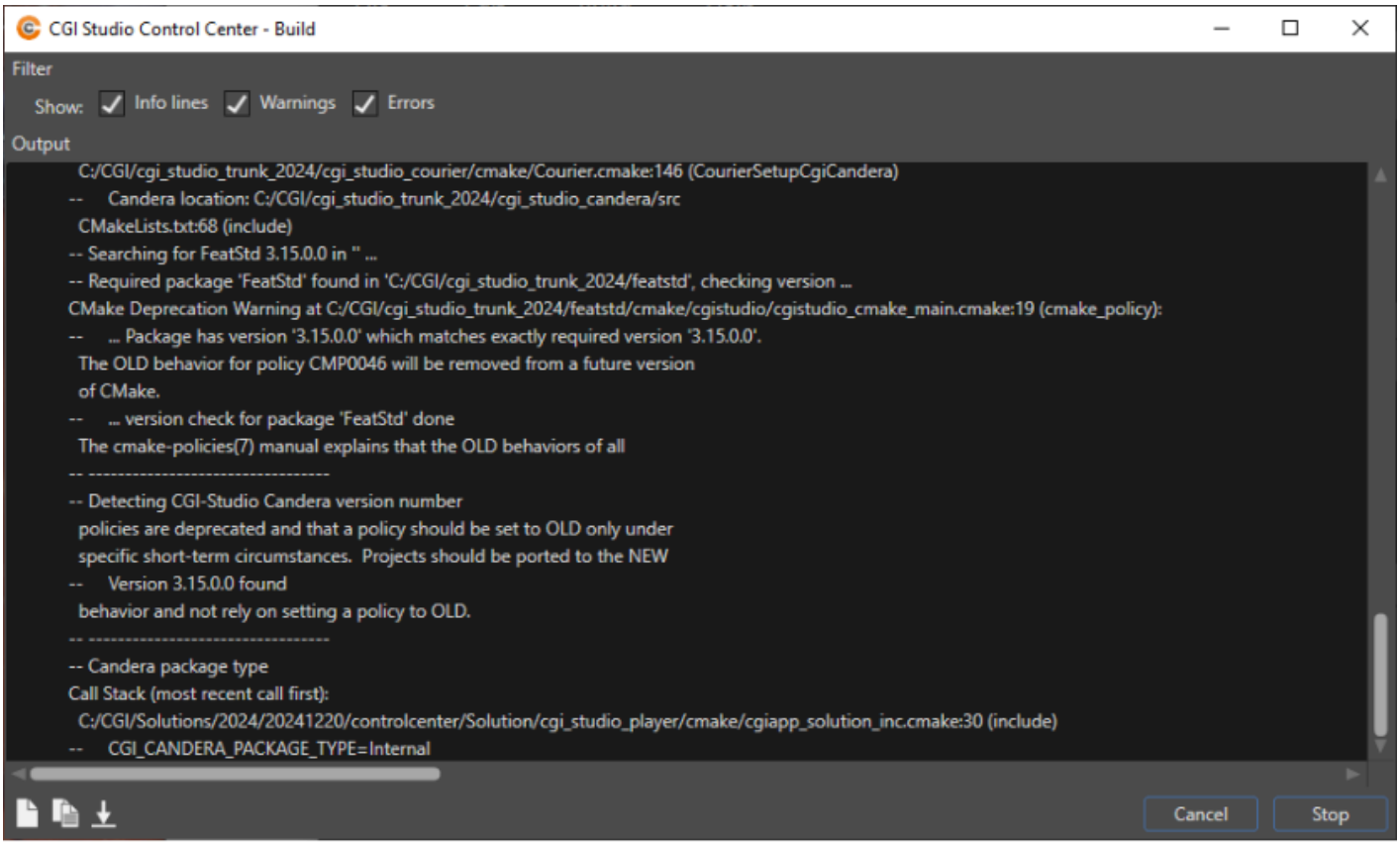


To generate assets select Simulation, Target, or Simulation and Target as desired and press the "Generate Target" button. Log output during asset generation is displayed directly in the lower part of the Control Center Window.



CGI Studio Control Center - Build Window

Whenever a build process is started in the CGI Studio Control Center (e.g. Build Application and Build Panel) the build window is opened. This window displays the build output.

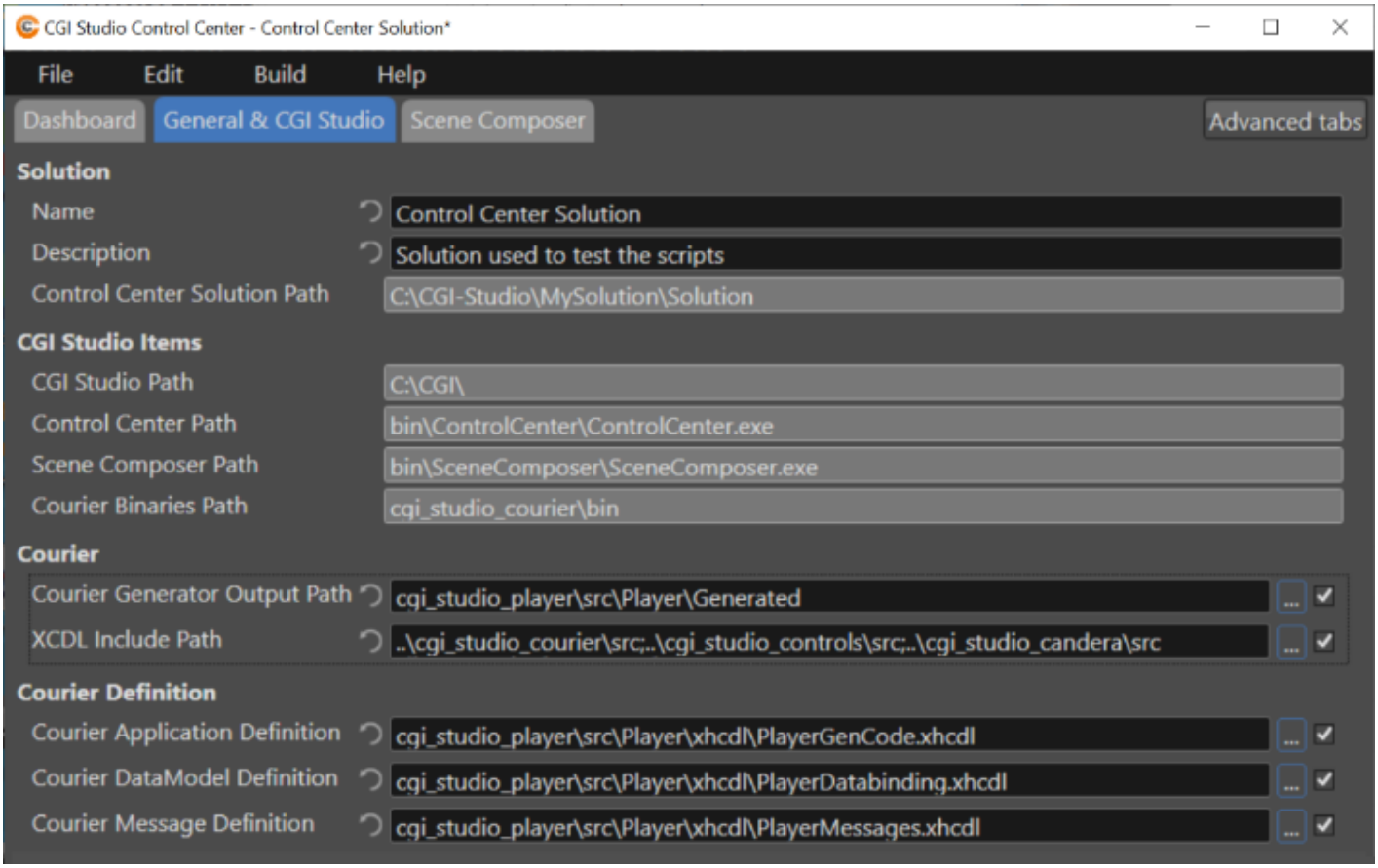


You can scroll through the build output. You can filter the output lines for Info lines, Warnings and Errors using the Checkboxes in the top of the window. You can cancel or stop the build with the buttons on the bottom right.
The buttons on the left have the following functionality:



1	Open the Build-Log file.
2	Copy the Build-Log to Clipboard.
3	Automatically scrolls to the bottom of the log output. (If you have scrolled up in the output)

General & CGI Studio



Via the General & CGI Studio tab it is possible to edit solution details and various reference paths. Items that are greyed out cannot be edited. Use the checkboxes on the right to toggle between relative paths and absolute paths. Use a semicolon to list up multiple files.

Solution

- **Name:** Name of the solution
- **Description:** Description of the solution
- **Control Center Solution Path:** The path to the current control center solution

CGI Studio Items

- **CGI Studio Path:** The root folder for all CGI Studio components (this folder should contain all CGI Studio libraries like cgi_studio_candera, cgi_studio_courier, bin/SceneComposer, etc).
- **Control Center Path:** The path to the Control Center executable
- **Scene Composer Path:** The path to the Scene Composer executable

- **Courier Binaries Path:** The path to the Courier binaries (CourierEditor.exe and CourierGenerator.exe)

Courier

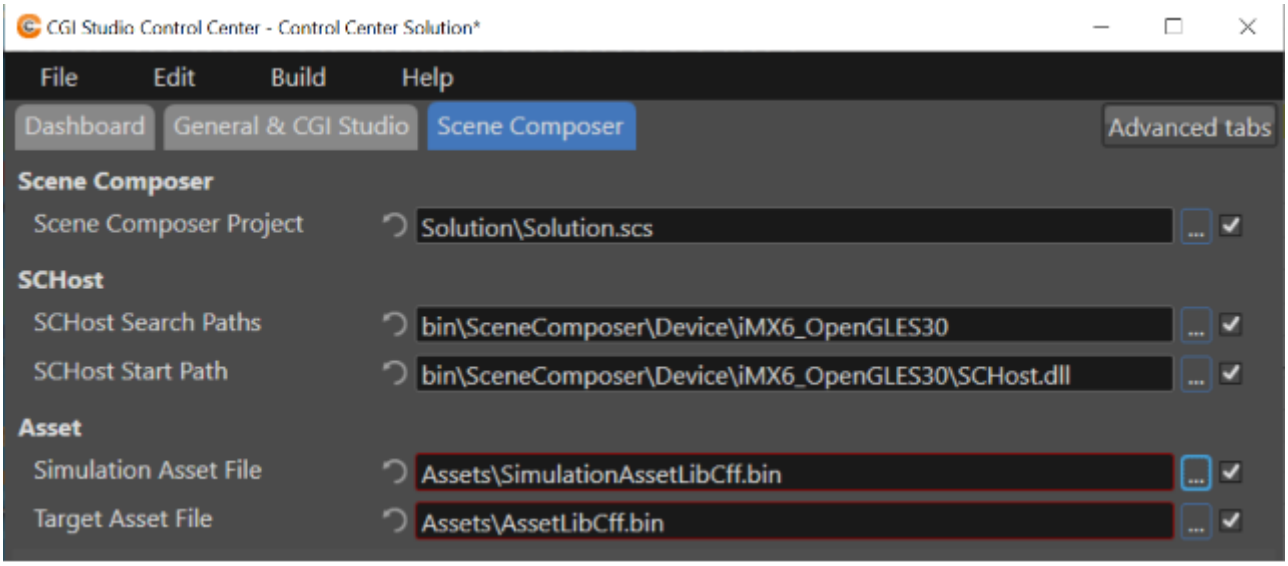
- **Courier Generator Output Path:** The folder in which CourierGenerator should generator all the code
- **XCDL Include Path:** The list of paths in which CourierGenerator and CourierEditor will search for the definition files.

Courier Definition

- **Courier Application Definition:** The main Courier definition file that will be used by CourierGenerator.
- **Courier DataModel Definition:** The path to the file that contains the definition of the data binding items
- **Courier Message Definition:** The path to the file that contains the definition of the messages that are used in the application

---

Scene Composer



Via the Scene Composer tab it is possible to edit project details and various reference paths. Use the checkboxes on the right to toggle between relative paths and absolute paths.

Scene Composer

- **Scene Composer Project:** The path to the Scene Composer project

SCHost

- **SCHost Search Paths:** Paths here are used to find the SCHost.dll when starting Scene Composer. The first found SCHost.dll will be used.
- **SCHost Start Path:** The SCHost.dll that is found will be copied to this location and Scene Composer will be started using this copy.

Asset

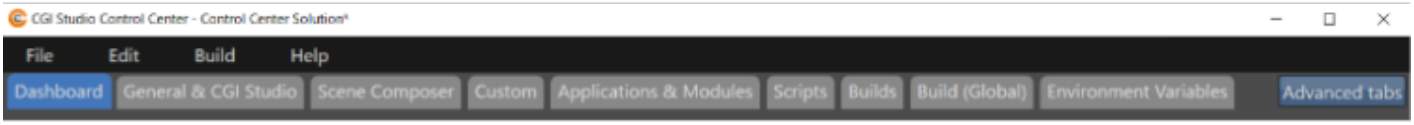
- **Simulation Asset File:** The path to the simulation asset file
- **Target Asset File:** The path to the target asset file

Control Center - Advanced Settings

Overview

The Dashboard has a ribbon below the toolbar that can be expanded to offer more possibilities. This is done with the "Advanced Tabs" button on the right.





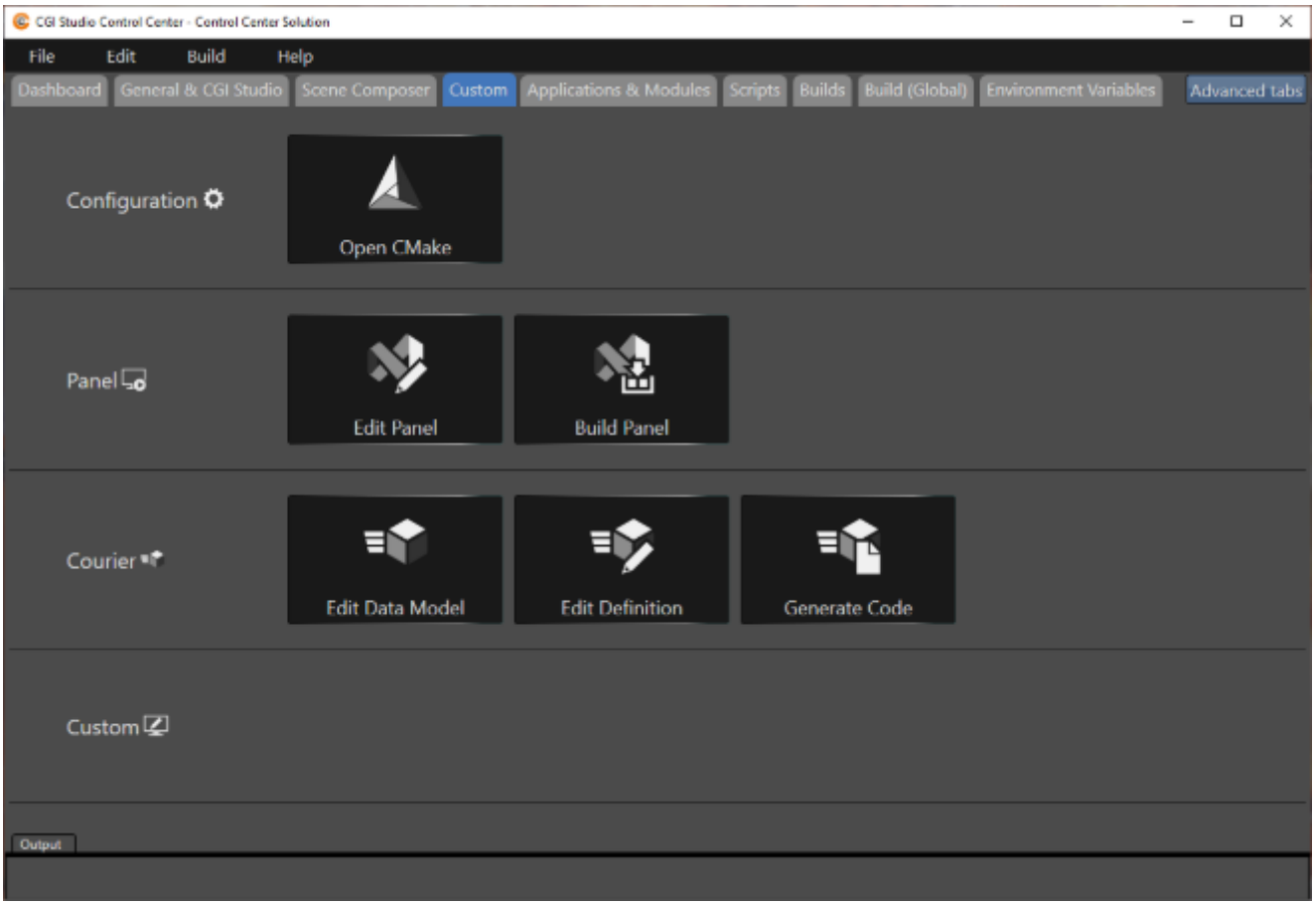
When the ribbon is expanded, the following tabs become available:

- Custom
- Applications & Modules
- Scripts
- Builds
- Build (Global)
- Environment Variables

If an advanced settings tab is active and the “Advanced Tabs” button is clicked again, the user will be returned to the Dashboard screen.

Custom

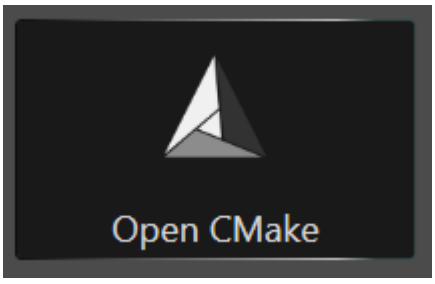
For advanced users, the Custom tab enables the user to edit and build the CGI Panel, as well as edit data bindings and Courier definitions.
Scripts here, used for general operations, can be changed and customized to fit the user's needs.



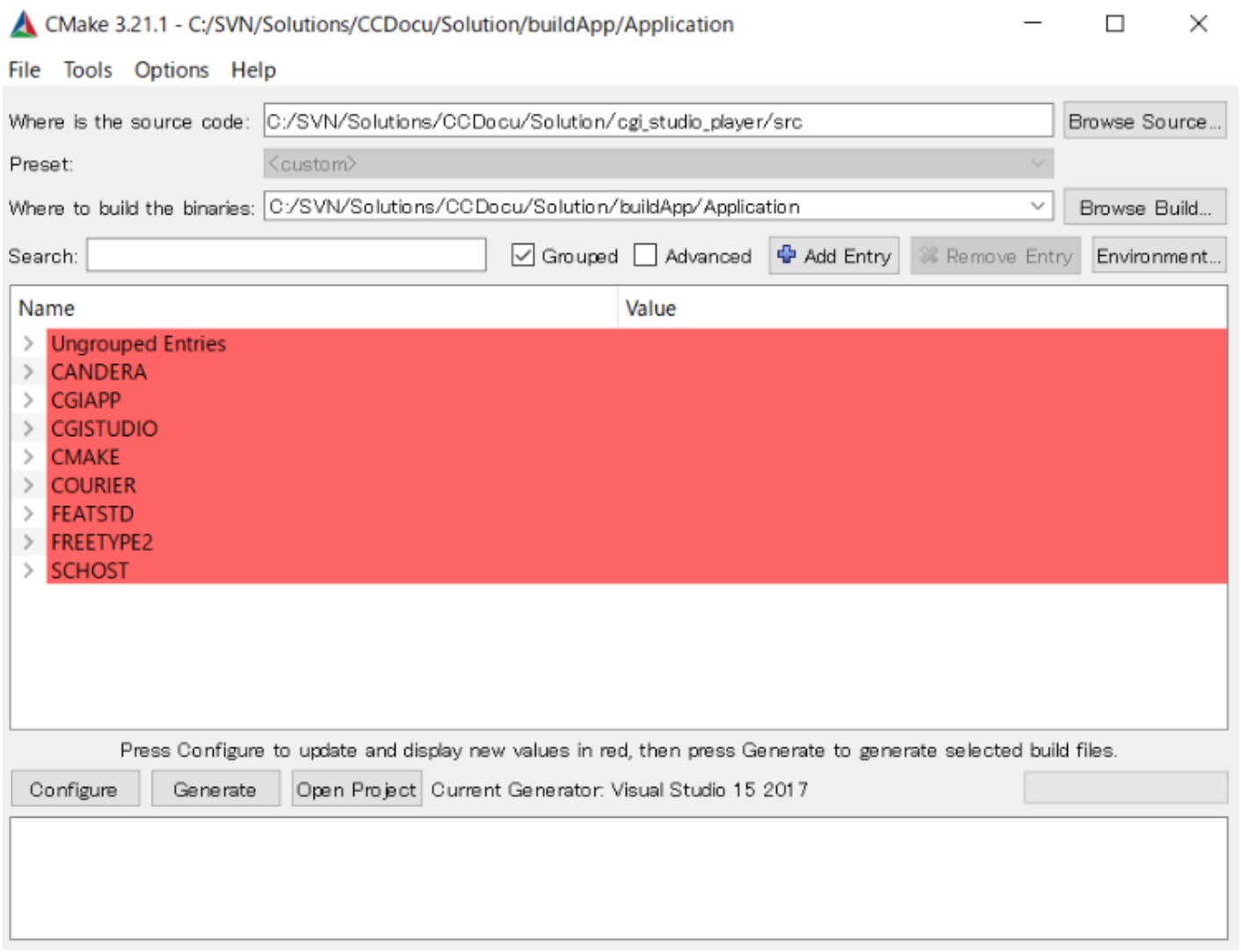
Build Configuration

Advanced users may want to change their CMake project configuration.

Open CMake



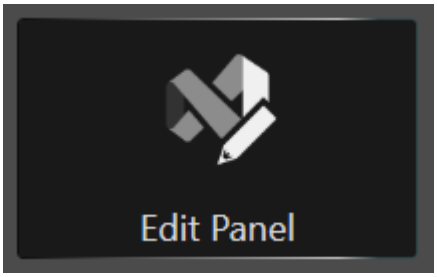
This "Open CMake" button will open your project in CMake, where you can change the CMake settings as you like.



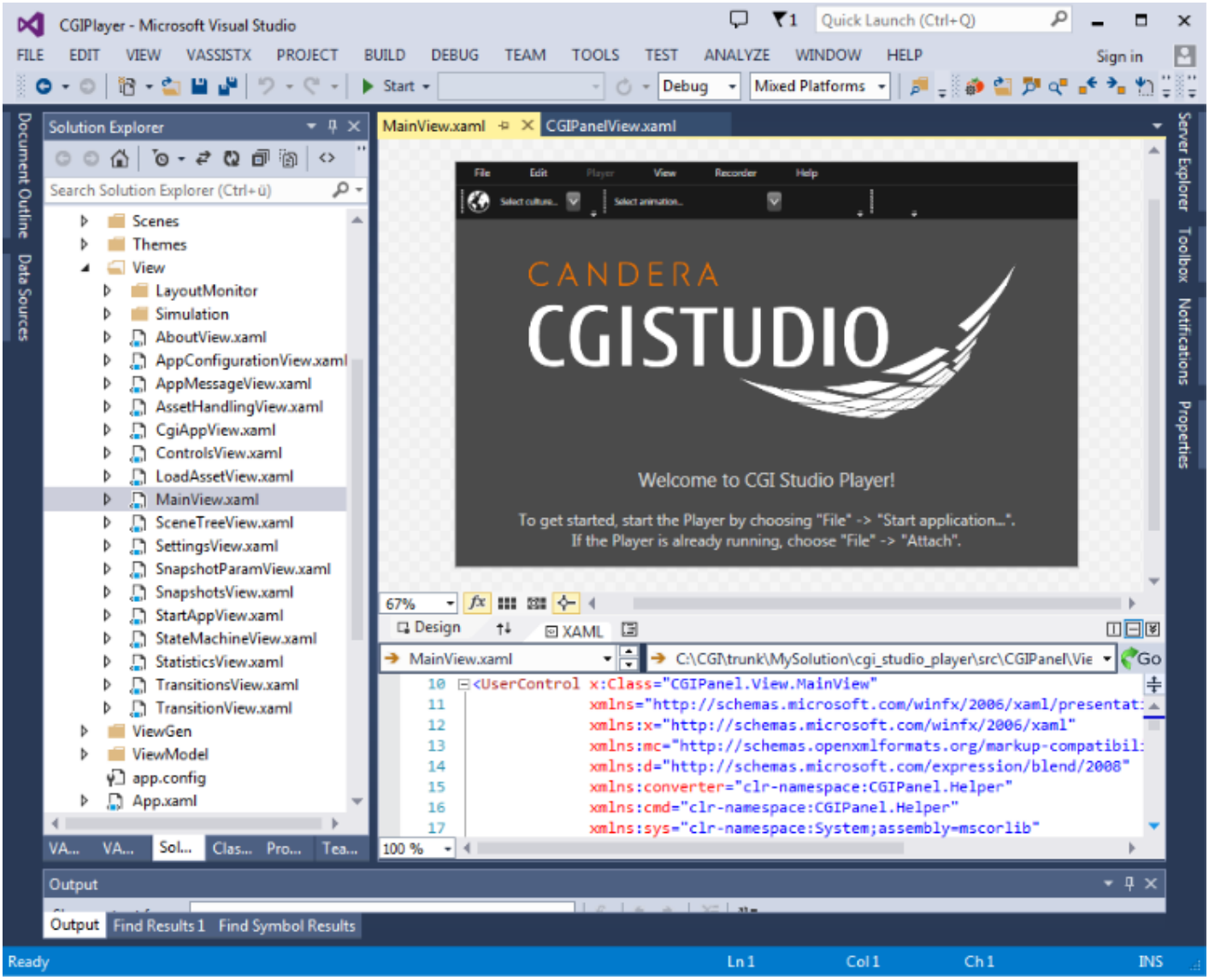
Custom "Panel" Section

In this section you can edit or build the CGI Panel.

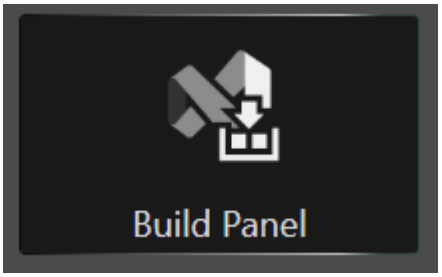
Edit Panel



Click on the "Edit Panel" button, if you want to edit CGI Panel. As indicated by the icon, clicking "Edit Panel" launches Visual Studio for editing CGI Panel.



Build Panel

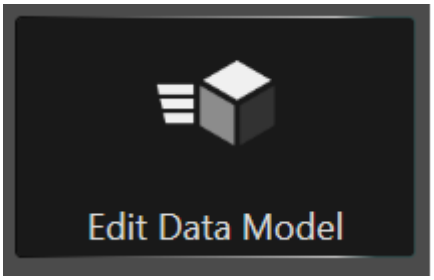


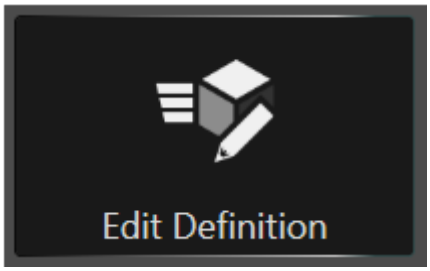
Click the "Build Panel" button to build the application. This opens the CGI Studio Control Center - Build Window and the build is started.
A successful build completion is signaled by "... succeeded" text in the output log.

Custom "Courier" Section

As seen below, this section of the Control Center is for editing the Data Model Definition and the Application Definition, as well as for code generation.

Edit Data Model Definition and Application Definition





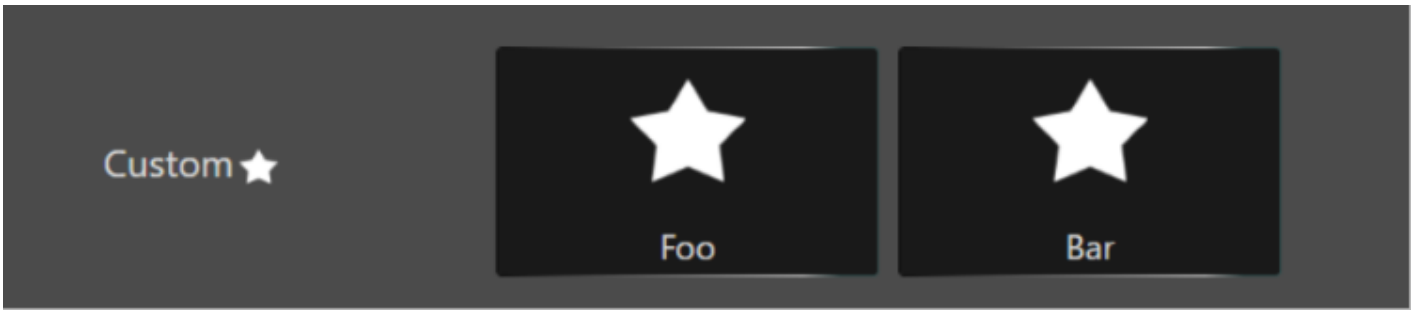
To edit the Data Model Definition, click this "Edit Date Model" button to open Visual Studio and edit PlayerDataBinding.xhcdl.	To edit the Application Definition, click this "Edit Definition" button to open Visual Studio and edit PlayerGenCode.xhcdl.

Generate



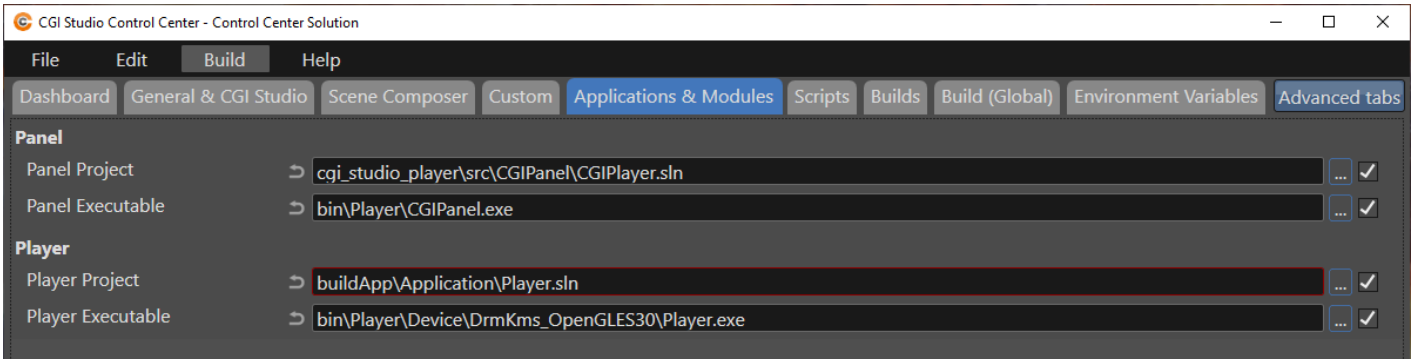
Clicking this generates the above code.

Custom ☆



Custom builds defined in the “Builds” tab are saved and displayed here. Clicking a button will execute the referenced build.

Applications & Modules



Via the Applications & Modules tab it is possible to edit various reference paths for some external applications.

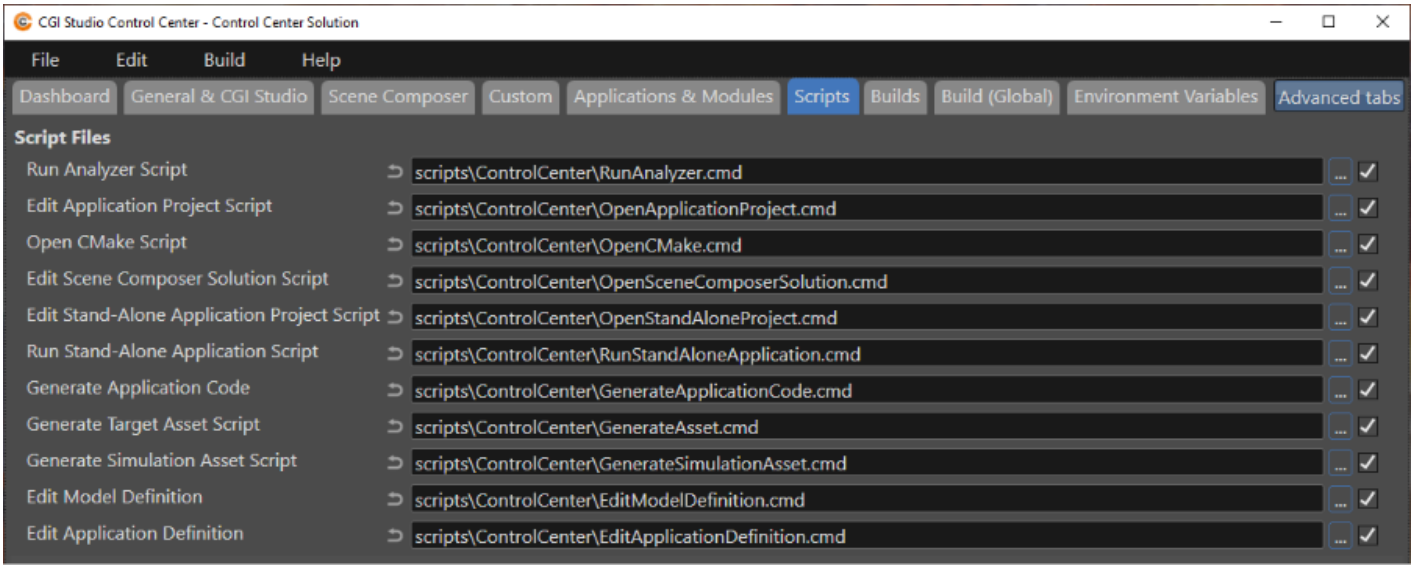
Panel

- **Panel Project:** The path of the Panel project
- **Panel Executable:** The path to the Panel executable

Player

- **Player Project:** The path of the Player project
- **Player Executable:** The path to the stand-alone executable

Control Center Scripts

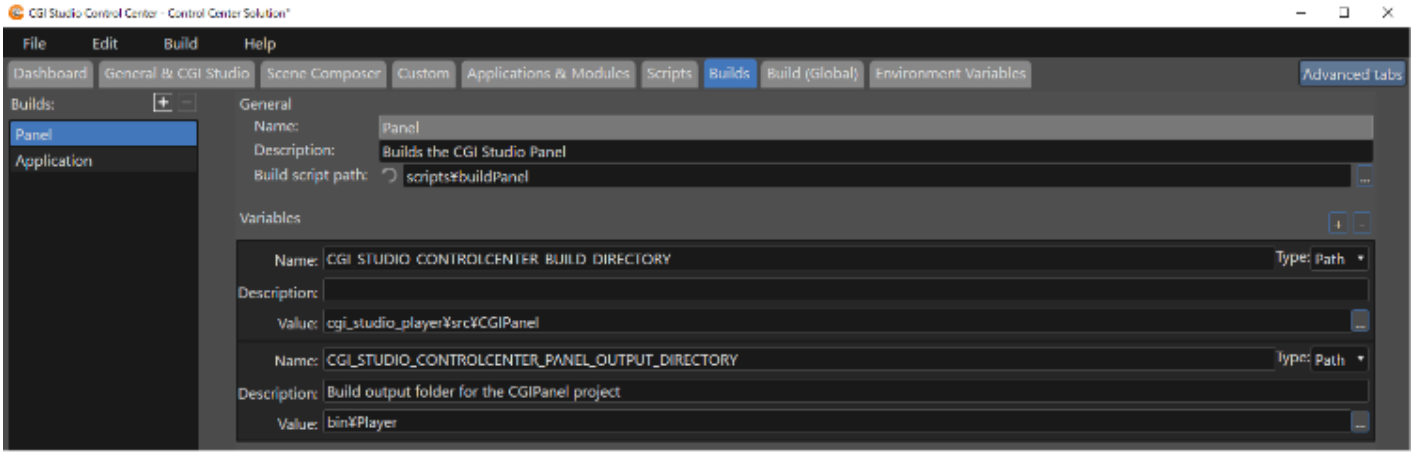


Via the Scripts tab it is possible to edit various reference paths for scripts used by Control Center that launch executables, generate codes and assets, and more.

Script Files

- **Run Analyzer Script:** Script which will be executed when the action is triggered from the menu
- **Edit Application Project Script:** Script which will be executed when the action is triggered from the menu
- **Open CMake Script:** Script which will be executed when the action is triggered from the menu
- **Edit Scene Composer Solution Script:** Script which will be executed when the action is triggered from the menu
- **Edit Stand-Alone Application Project Script:** Script which will be executed when the action is triggered from the menu
- **Run Stand-Alone Application Script:** Script which will be executed when the action is triggered from the menu
- **Generate Application Code:** Generates the application code based on the courier definitions
- **Generate Target Asset Script:** Generates Target asset
- **Generate Simulation Asset Script:** Generates Simulation asset
- **Edit Model Definition:** Edit Model Definition
- **Edit Application Definition:** Edit Application Definition

Builds

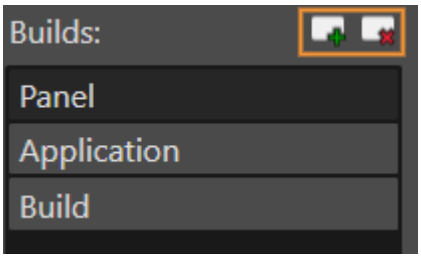


Via the Builds tab it is possible to edit variables that are used in the building of individual applications. Default builds are available in the Builds column on the left-hand side:

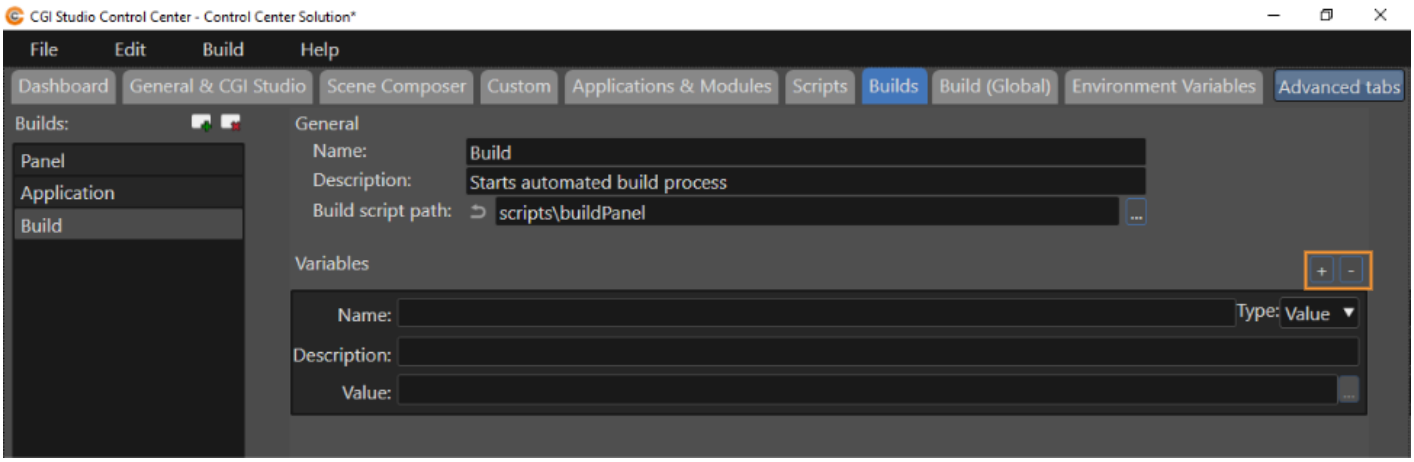
Panel – Location of build scripts and other settings needed for building CGI Panel when “Build Panel” on the “Custom” tab is clicked.
Application – Location of build scripts and other settings needed for running Control Center itself.

Each build will have variables that can be configured, seen in the Variables table.
Each variable will have a string name, a string description, and a value. This value will be either of type file (ie. Filename), path (ie. Filepath), or value (ie. string, char, int, etc.). If Type: Value is selected, the file selection button will be greyed out.

To add or delete builds, use the +/- buttons. These builds can be executed on the “Custom” tab under “Custom ☆”



To add or delete variables for a build, use the +/- buttons on the right-hand side of the variables table.


CGI Studio Control Center - Control Center Solution*
File
Edit
Build
Help
Dashboard
General & CGI Studio
Scene Composer
Custom
Applications & Modules
Scripts
Builds
Build (Global)
Environment Variables
Advanced tabs
Builds:
Panel
Application
Build
General
Name:
Build
Description:
Starts automated build process
Build script path:
scripts\buildPanel
Variables
+
-
Name:
Type:
Value
Description:
Value:

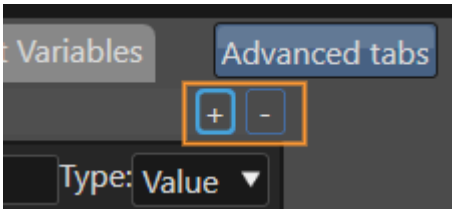
Build (Global)



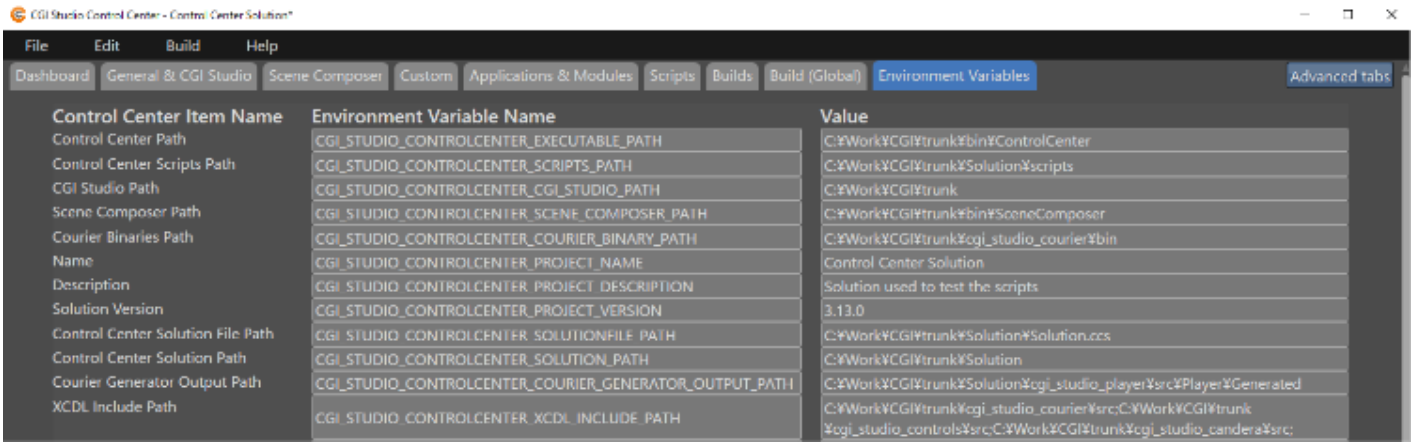
Via the Builds (Global) tab it is possible to edit variables that are used in the building of all applications.

Each variable will have a string name, a string description, and a value. This value will be either of type file (ie. Filename), path (ie. Filepath), or value (ie. string, char, int, etc.). If Type:Value is selected, the file selection button will be greyed out.

To add or delete variables for a build, use the +/- buttons on the right-hand side of the variables table.



Enviroment Variables



Via the Environmental Variables tab you can see all declared environmental variables. The variables on this page are either purely for reference (eg. Control Center Path) or correspond to variable declarations made elsewhere in the Control Center. Changes to the latter will be reflected here after closing and reopening the Control Center solution.