CGI Studio 3.11

CGI Studio 3.11 - What's New:

Welcome to CGI Studio 3.11, Candera's software development platform for hybrid 2D and 3D graphical interfaces for automotive systems.

This page provides information regarding the most recently added features and updates since our last release.

Smart Importer

CGI Studio’s Smart Importer supports now

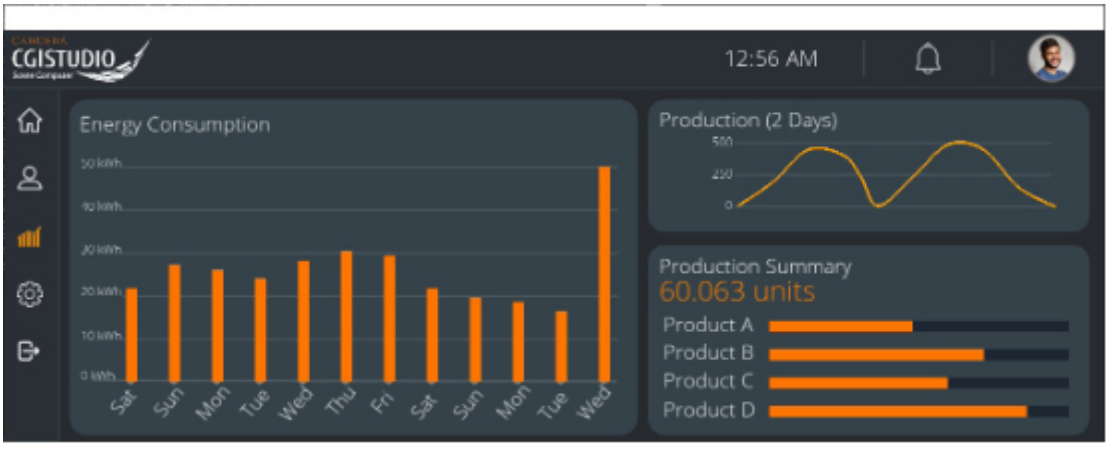
- Adobe XD format
- Direct import without converters of Adobe XD, Adobe Photoshop, Axure RP and Sketch
- Automatic sizing support
- Selection of empty bitmaps
- And many other smaller improvements

For more information regarding the full functionality of this tool, please reference the Smart Importer article.

Chart Control

A bar graph and a line graph got added.

A bar graph is a graph that presents categorical data with rectangular bars with heights proportional to the values that they represent. A line graph or curve graph is a type of chart which displays information as a series of data points connected by straight line or spline segments.



For more information regarding the full functionality of this tool, please reference the BarGraph and LineGraph articles in the Predefined Controls.

Scene Composer Improvements

- Support for multiple global state machines
- Improved support for color palette
- Support of partial execution of animations
- State Machine usability and performance improvements
- Dynamically changing text style behavior
- Improved HMI Report interface

Documentation and Sample Updates

Newly added and reworked documentation about

- Axure RP Guide
- Multiple global State Machines tutorial
- New IVI sample & tutorial
- Updated Smart Importer best practices document
  - <CGI Studio root folder>\cgi_studio_docs\

MATLAB Connector (MLC) Improvements

Added IPC integration to allow running the CGI Application independently from the MATLAB state machine.

Tool Improvements:

- Changed dialog windows to appear on the same screen as the main window.
- Changed generated code to use the MLC namespace.
- Changed HMI-Signal-Buffer to separate Output-Signal and Input-Signal processing to allow reduction of delays in specific use cases.
- Changed HMI-Signal-Buffer methods to be virtual to support custom modifications.
- Changed default compiler to Visual Studio 2017 (previously Visual Studio 2010)
- Added support for Toggle-Buttons to the Input-Panel.
- Added new “Generate Code” build option.
- Added build flags to configure MEX (MATLAB Executable) compiler settings.
- Added generation of additional meta-info for signals (Signal-Type, Data-Type) for enhanced logging capabilities.
- Fixed an issue where the port-type setting is being reset when the signal type is changed.
- Fixed Input-Panel build issues for 64-Bit systems.

Templates:

- Changed templates to support changes related to generated code.
- Added IPC integration. This allows the CGI-Application to run independently from the MATLAB state machine offering multiple benefits:
  - Improved stability due to separated processes.
  - Improved diagnostics as the console window of the CGI-Application is now visible.
  - Easier debugging as the CGI-Application can now be debugged normally.
  - Faster testing on target as target device can connect directly to MATLAB simulation.
  - Easy to integrate additional features like recording and replaying of signal data.

Documentation:

- Added “MLC IPC” chapter.

Cybersecurity - ISO/SAE 21434:2021

Candera has developed a guideline to integrate CGI Studio into a cybersecurity-relevant software stack. The document, available on demand, aids cybersecurity managers and engineers to accurately assess the risks and vulnerabilities of CGI Studio, and integrate it properly into their product and their Cybersecurity Management System.

Platform Support

- Extended platform support for NXP iMX8 Nano
- Extended platform support for STMicroelectronics STM32MP1 series
- Multiple display support for DRM/KMS devices

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