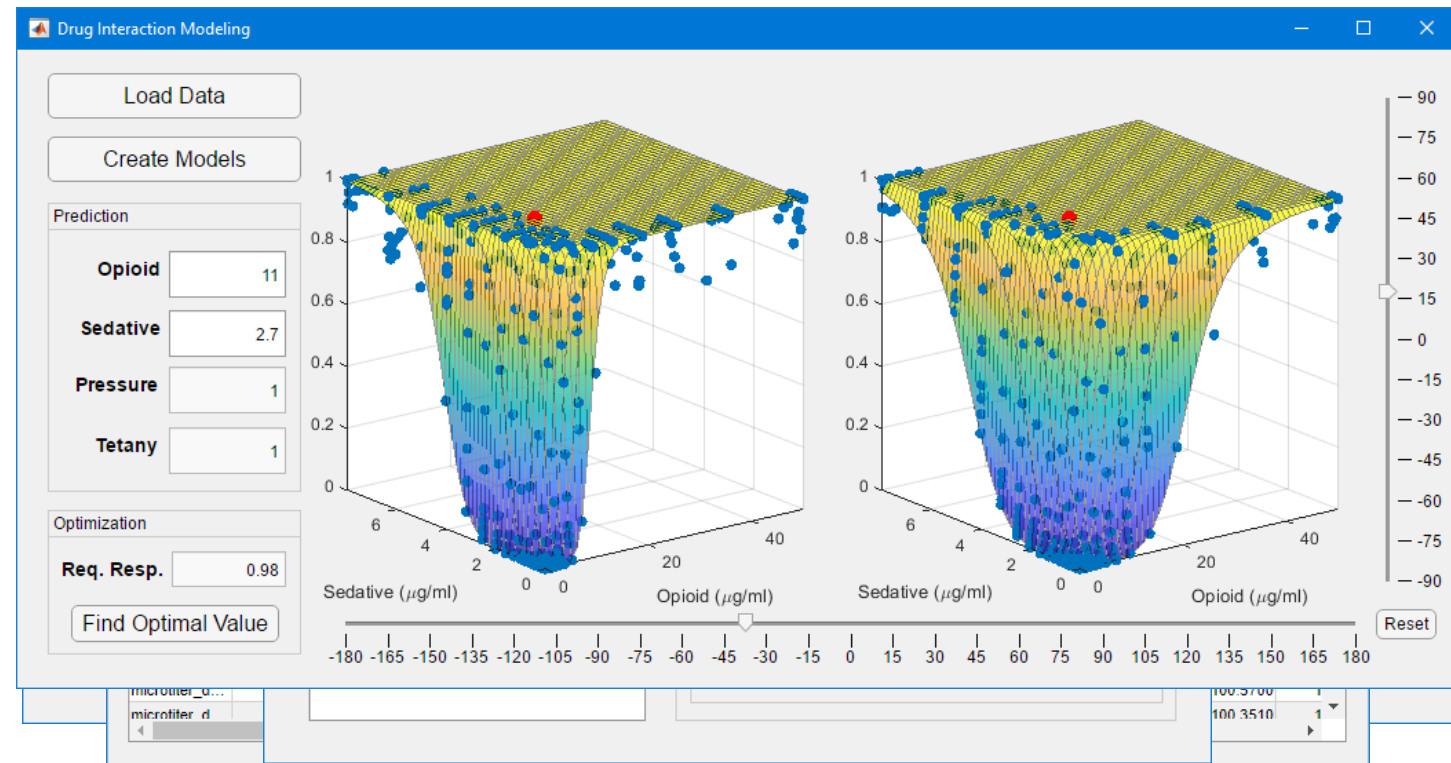


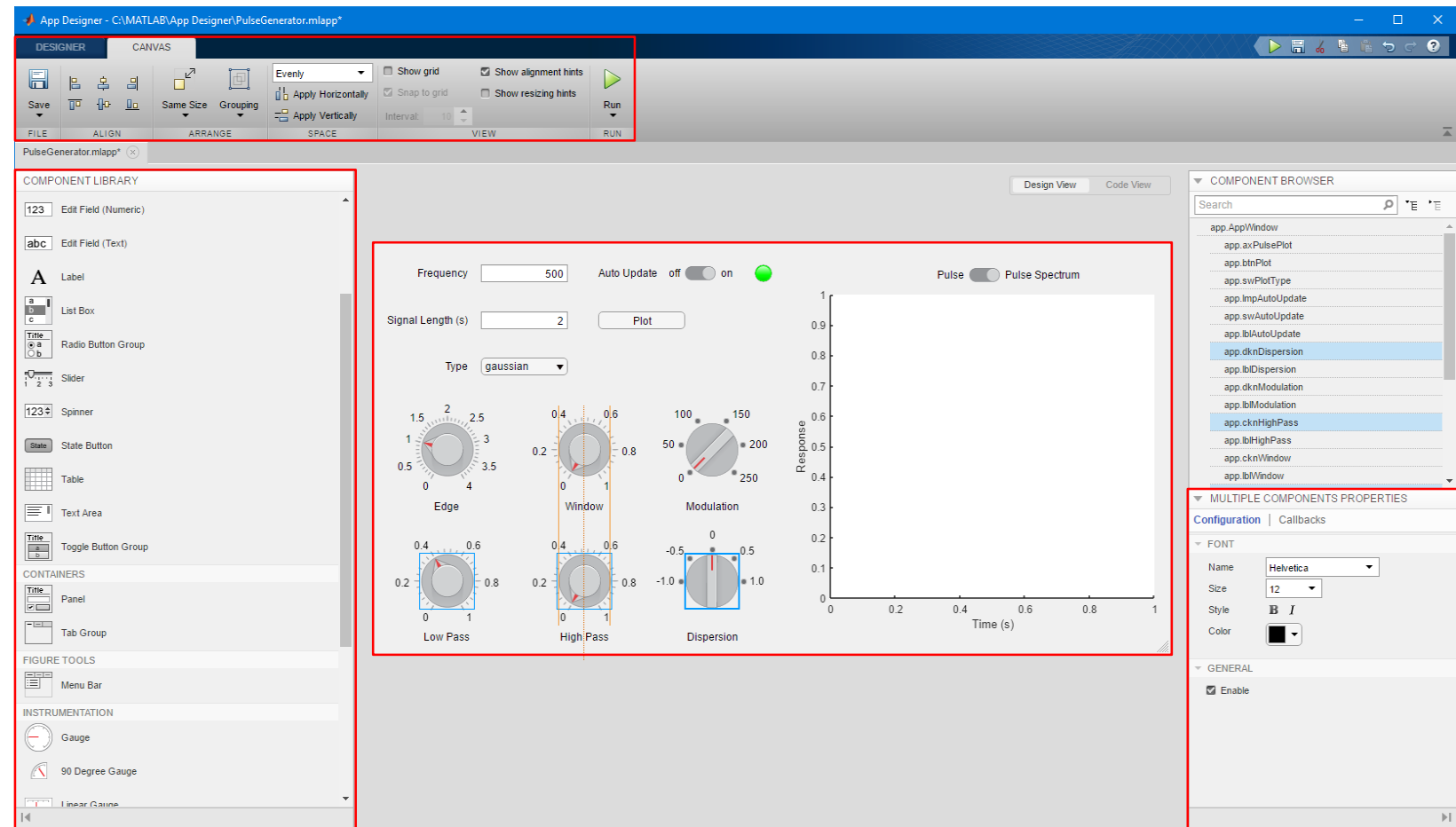
What is App Designer?

- ✓ A new environment for building MATLAB Apps
- ✓ Broad set of UI components including instrumentation controls
- ✓ Integrates the two primary tasks of app building
 - ✓ laying out visual components
 - ✓ programming app behavior
- ✓ Generates code as a MATLAB class



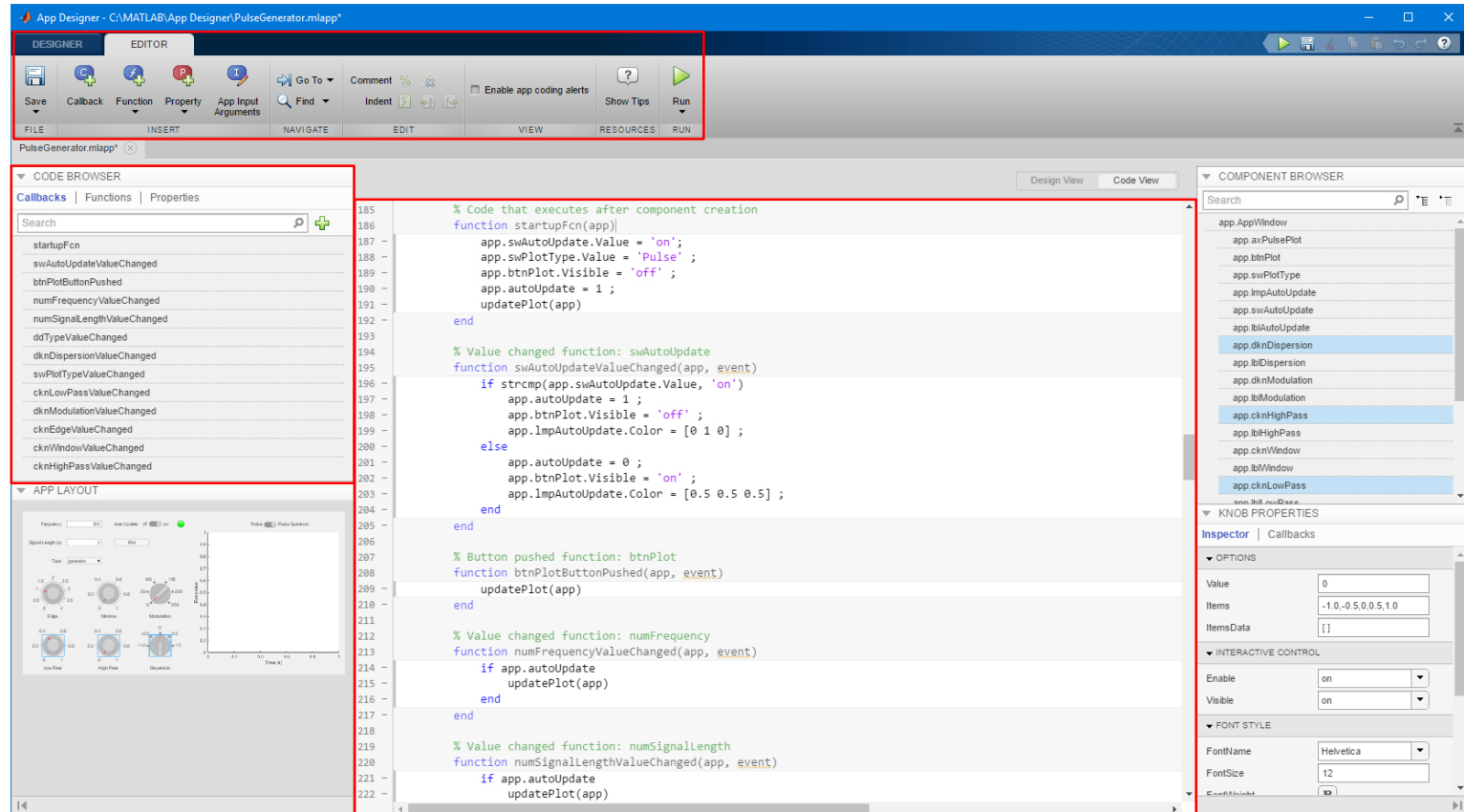
The App Designer Desktop – Design View

- ✓ Design and layout the app's interface
- ✓ Component Library
 - ✓ Select components and add them to the canvas
- ✓ Design Canvas
 - ✓ Layout components
- ✓ Toolstrip
 - ✓ Align, space, and group components
- ✓ Properties panel
 - ✓ Set common component properties
































The App Designer Desktop – Code View

- ✓ Write code to control the app's behavior
- ✓ Editor
 - ✓ Write code for callbacks and other functions
- ✓ Code Browser
 - ✓ Navigate to callbacks and app properties
- ✓ Toolstrip
 - ✓ Add new code elements – properties, callbacks, and functions



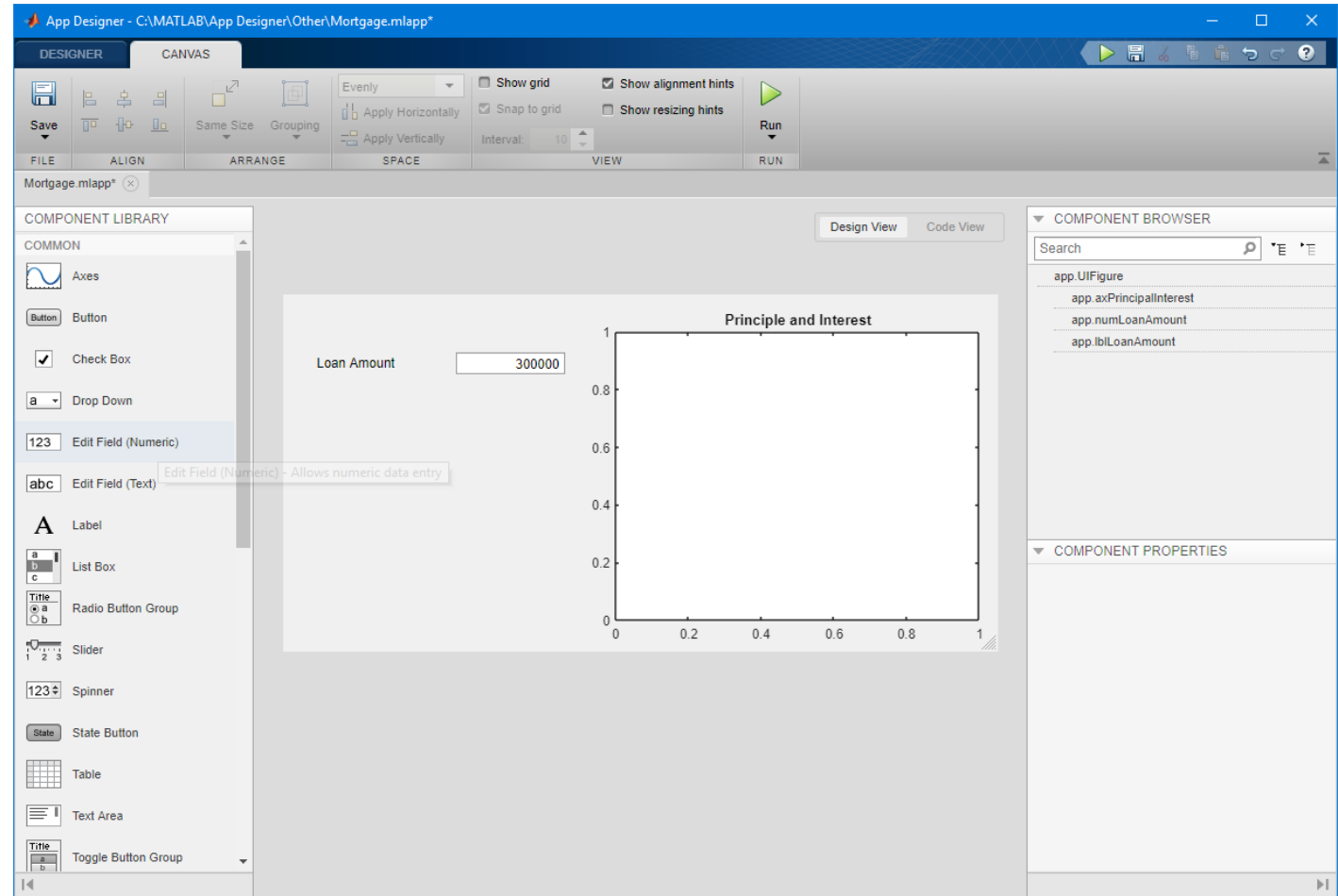
App Designer Components

- ✓ New javascript
uifigure component
- ✓ New uiaxes
component for web
graphics
- ✓ Expanded set of
standard components
- ✓ New instrumentation
components
- ✓ Other components
being considered
 - ✓ file picker
 - ✓ date picker
 - ✓ toolbar

		COMMON		
	uiaxes	 Axes		
	uibutton	 Button		
		 State Button		
	uicheckbox	 Check Box		
	uidropdown	 Drop Down		
	uieditfield	 Edit Field (Numeric)		
		 Edit Field (Text)		
	uilabel	 Label		
	uilibox	 List Box		
	uibuttongroup	 Radio Button Group		
		 Toggle Button Group		
	uislider	 Slider		
	uispinner	 Spinner		
	uitable	 Table		
	uitextarea	 Text Area		
	uitree	 Tree		
		INSTRUMENTATION		
		 Gauge		uigauge
		 90 Degree Gauge		
		 Linear Gauge		
		 Semicircular Gauge		uiknob
		 Knob		
		 Discrete Knob		
		 Lamp		uilamp
		 Switch		uiswitch
		 Rocker Switch		
		 Toggle Switch		
		CONTAINERS		
		 Panel		uipanel
		 Tab Group		uitabgroup
		FIGURE TOOLS		
		 Menu Bar		uimenu

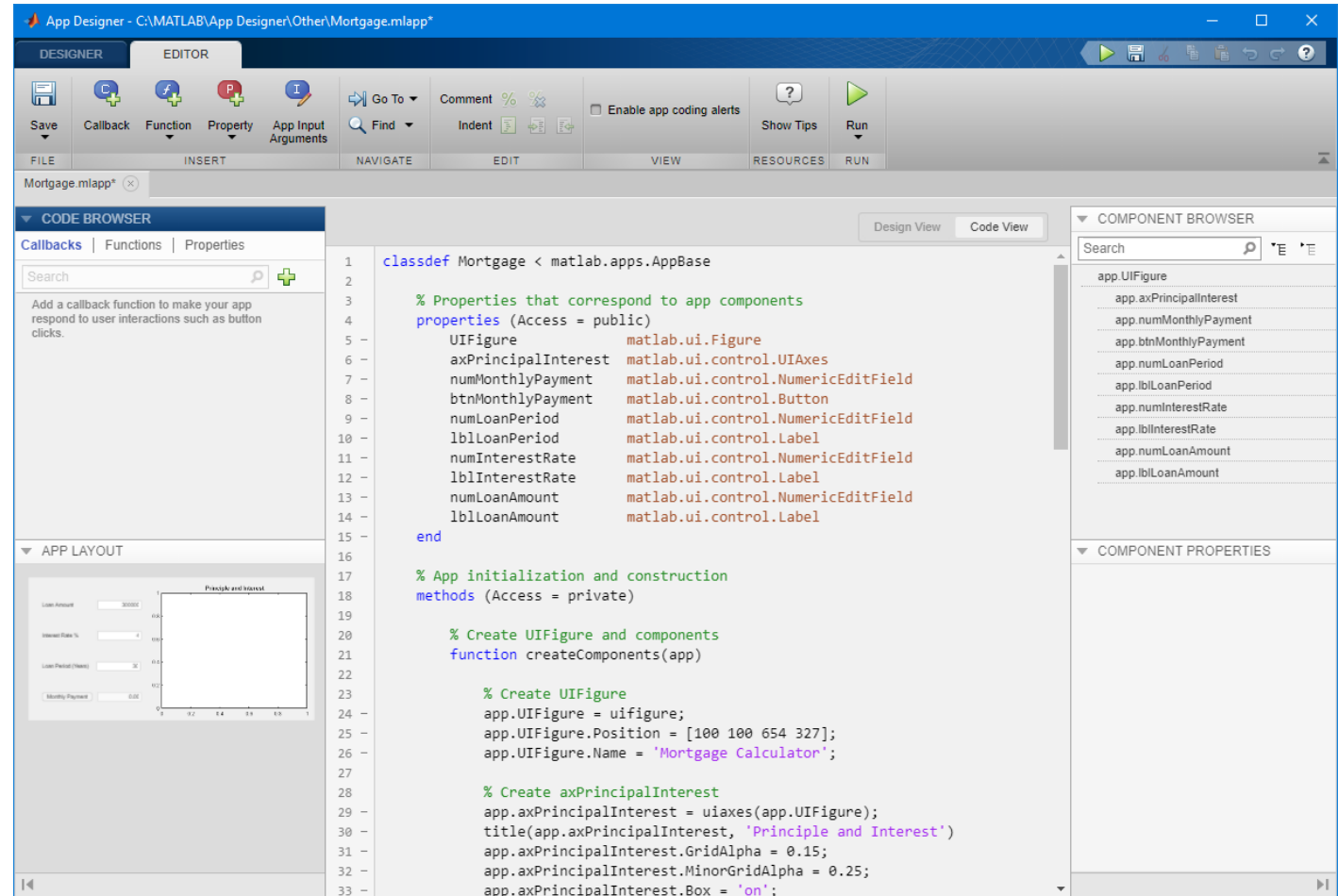
Design and Layout – Basic Steps

- ✓ Select a component from the library and drag it to the canvas
- ✓ Name the component
- ✓ Set the component properties
- ✓ Position manually or align with other components



Coding App Behavior – Basic Steps

- ✓ Select a component
- ✓ Create a callback
- ✓ Add callback code
- ✓ Use hints to avoid common programming errors



App Code Structure

- ✓ Code created for the App is a MATLAB class
- ✓ Controls and shared data are stored as properties of the class
- ✓ Callbacks and helper functions are stored as methods of the class
- ✓ App Designer generates the code for all the app components

