Latest Features in Fixed-Point Designer

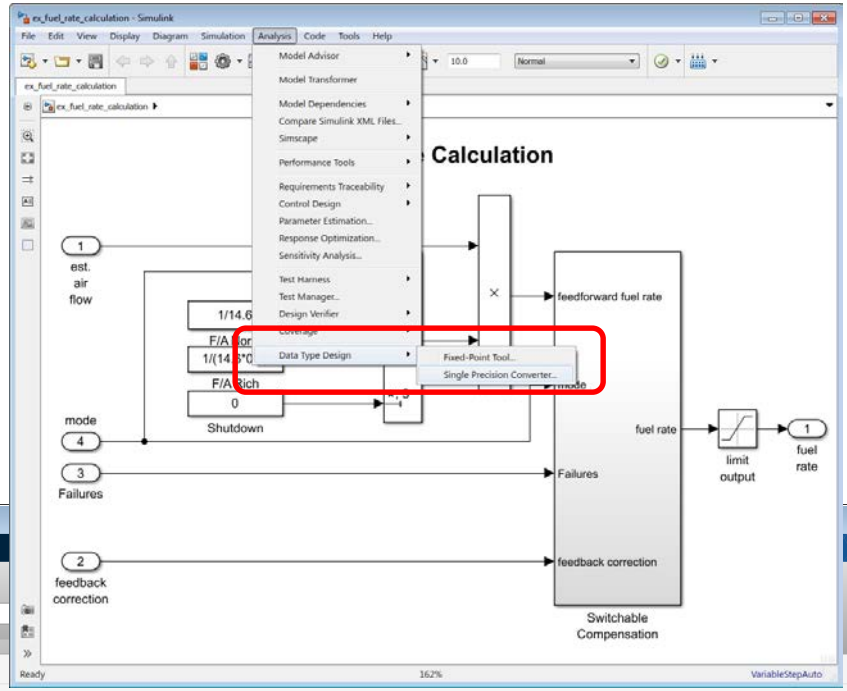
September 2016

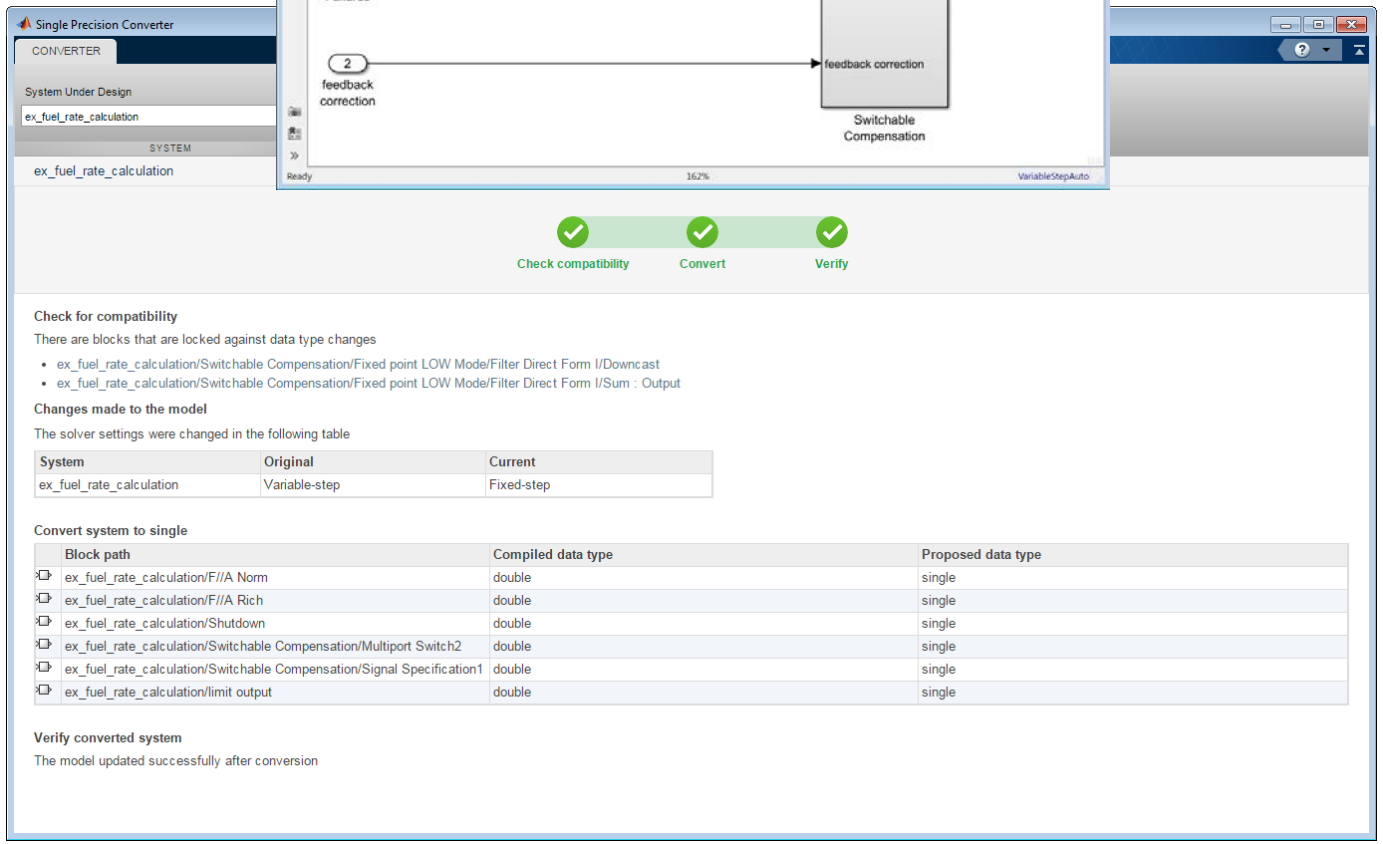
R2016b

Single-Precision Conversion

Automatically convert double-precision systems to use single-precision data types in Simulink

- Automatically convert Simulink models from double-precision to single-precision using the Single Precision Converter
- Applies to block settings, Stateflow chart settings, signal objects, and bus objects

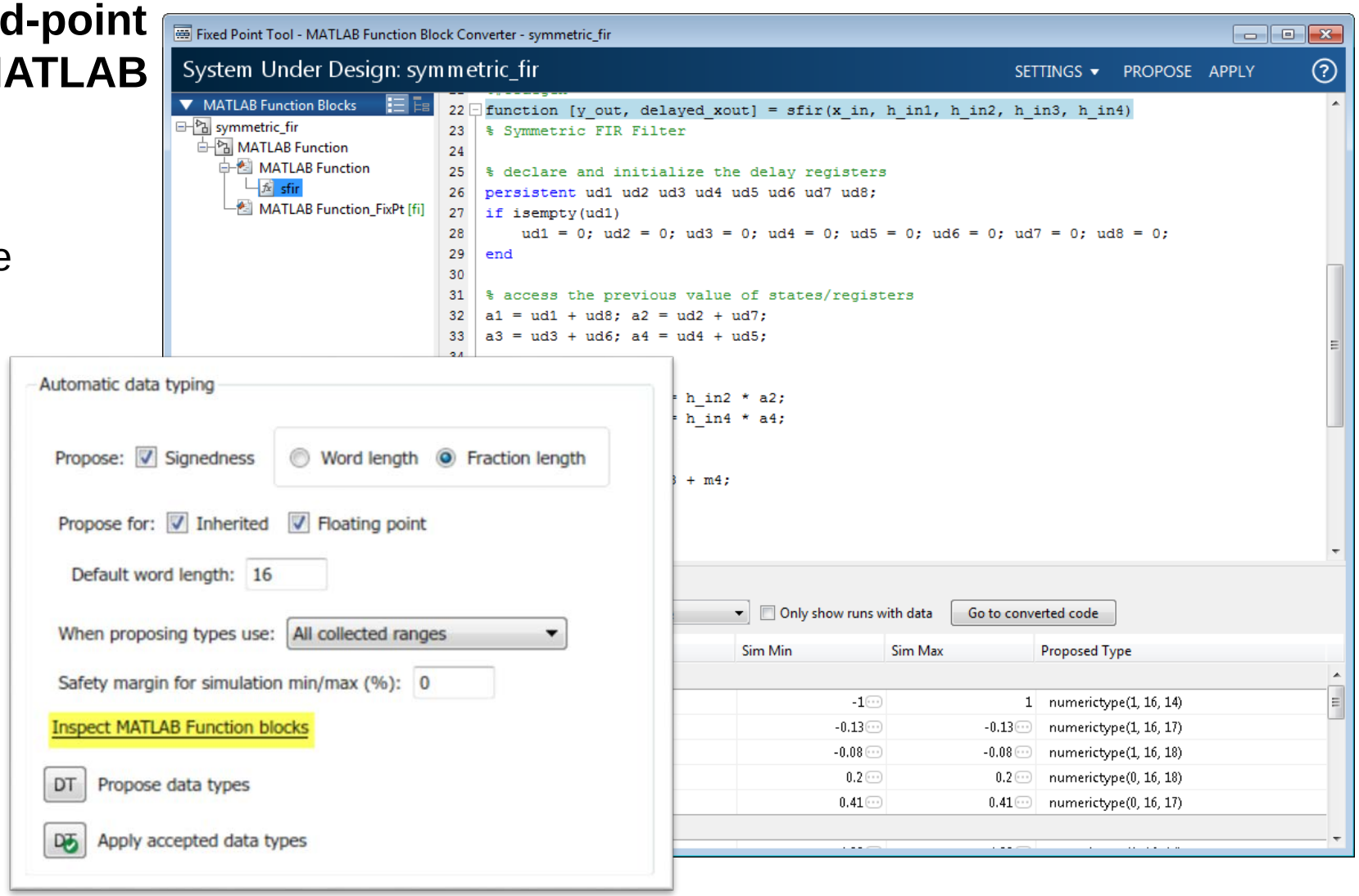




Float to Fixed Conversion of MATLAB Function Blocks

Automatically generate fixed-point versions of floating-point MATLAB function blocks

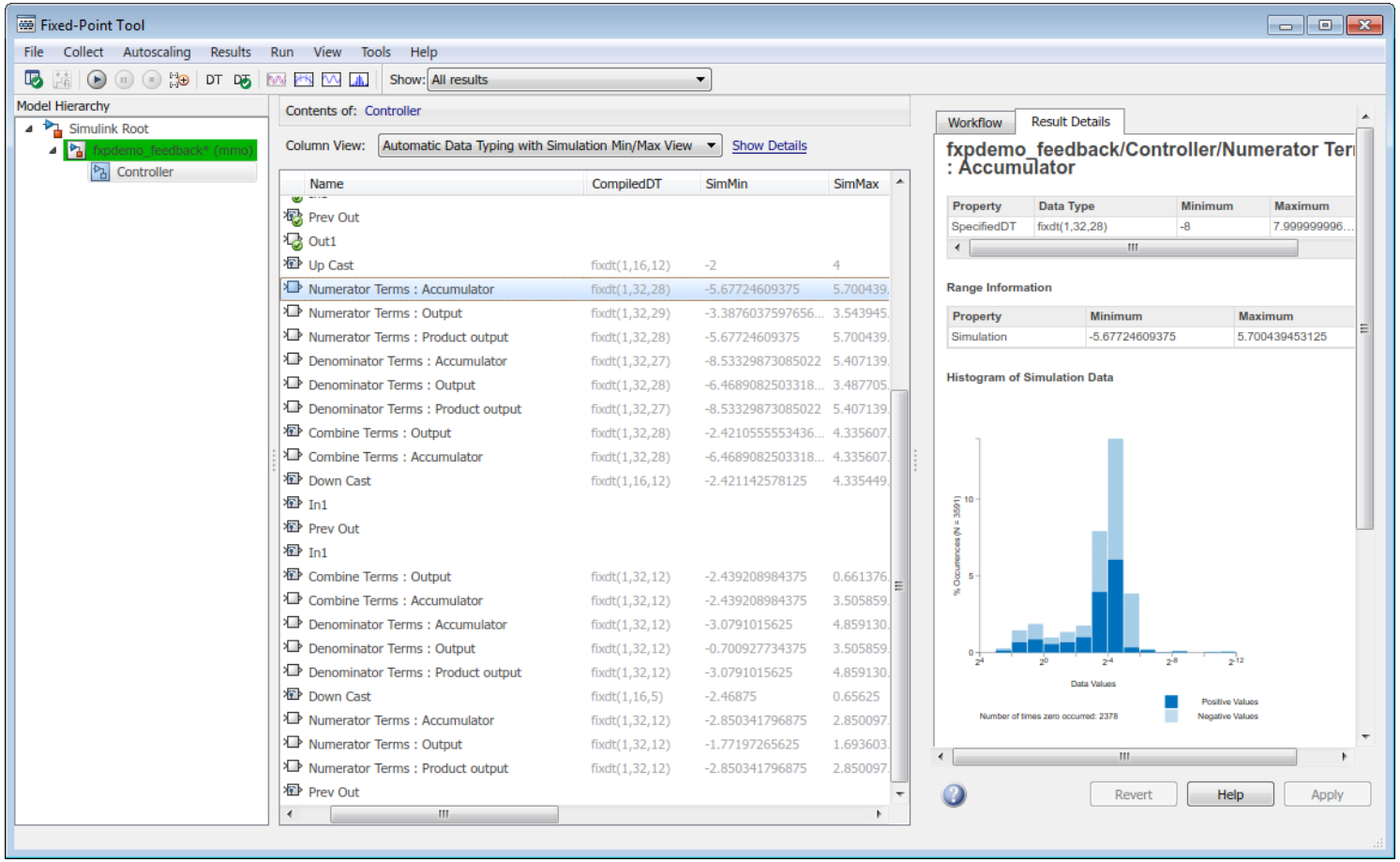
- Inspect type information of the MATLAB variables in the context of the code
- Code view provides a similar workflow to the Fixed-Point Converter app in MATLAB



Histogram Instrumentation in Simulink

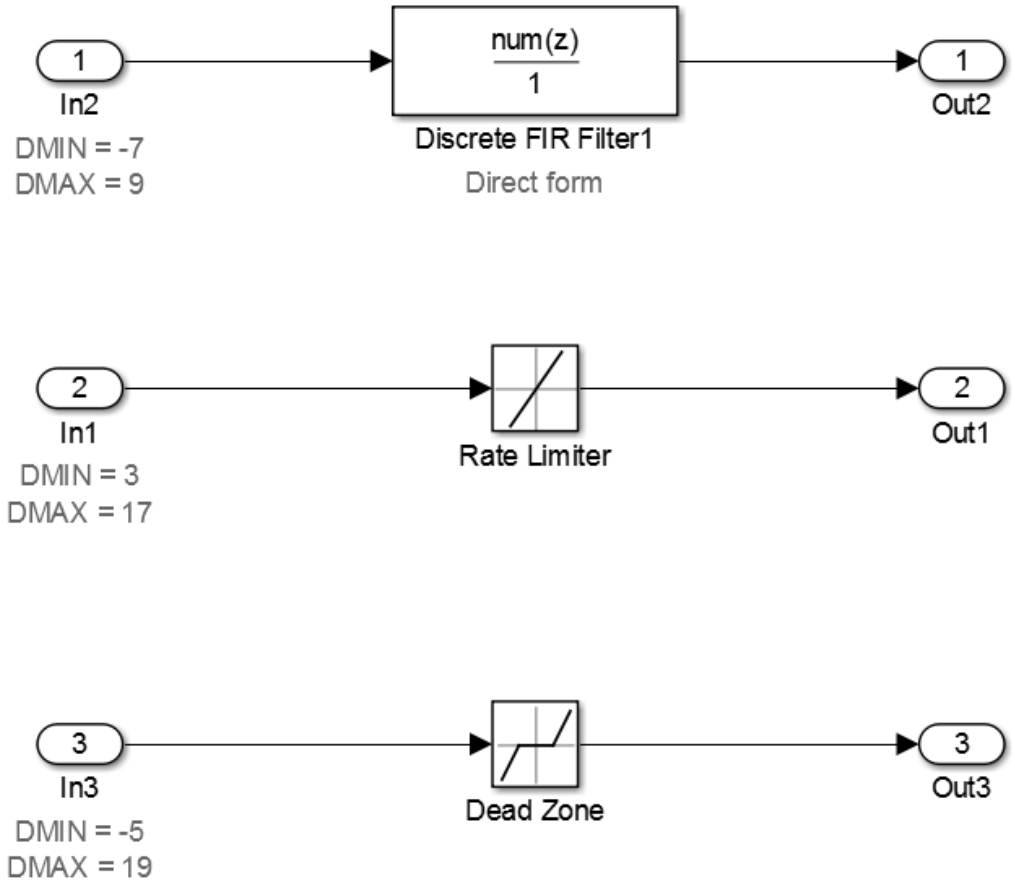
Generate log2 histograms of Simulink signals and blocks from simulation data

- Using the Fixed-Point Tool, view a histogram of bits used by each object in your system under design
- The bit weights are displayed along the X-axis, and the percentage of occurrences along the Y-axis
- Each bin in the histogram corresponds to a bit in the binary word



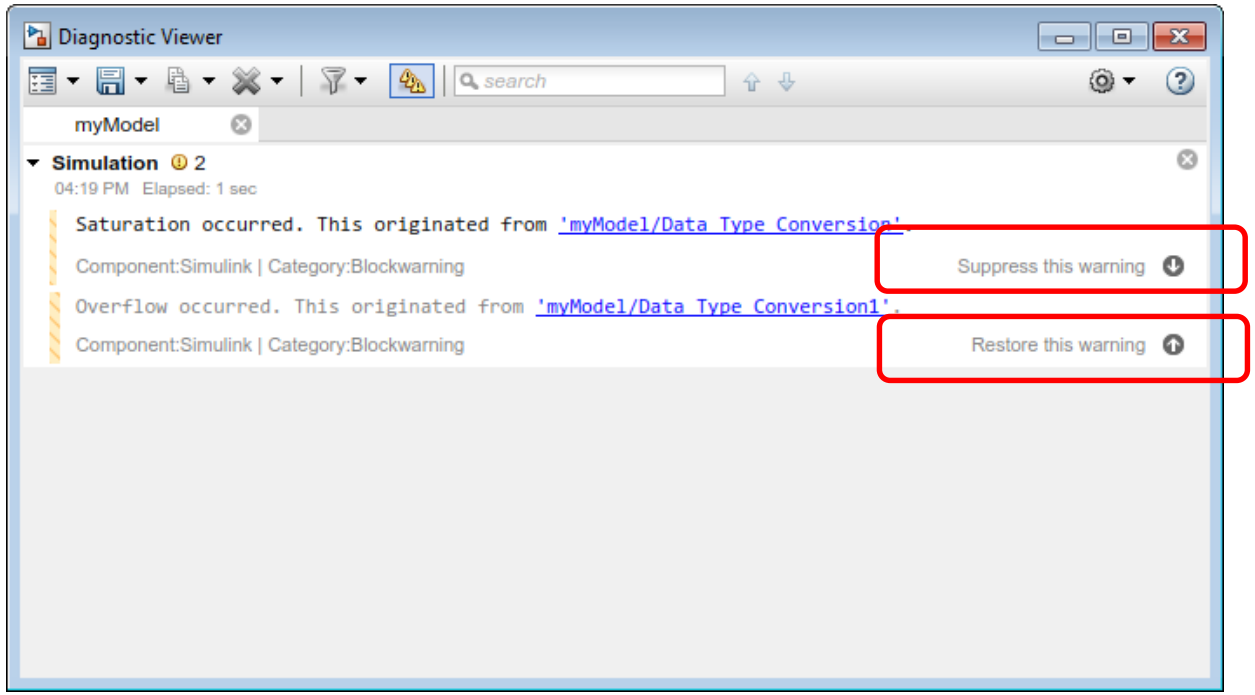
Range Analysis Support for FIR filters, Dead Zone, and Rate Limiter Blocks

- Using the Fixed-Point Tool, you can now derive ranges for models that use `Discrete FIR Filter`, `Dead Zone`, and `Rate Limiter` blocks



Simulink Diagnostic Suppressor

Suppress certain diagnostics in Simulink with Diagnostic Viewer



- Enables you to suppress warnings for specific objects in your model.
- Click the **Suppress this warning** button next to the warning in the Diagnostic Viewer to suppress the warning from the specified source. You can restore the warning from the source by clicking **Restore this warning**.
- Programmatically control the suppressions from the command line.

```
>> Simulink.suppressDiagnostic
>> Simulink.restoreDiagnostic
```