

Latest Features in Stateflow Coder

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Demo Download

- The demos presented in this document can be found in the shipping version of the product or at the following page:
 - www.mathworks.com/support/solutions/en/data/1-ALTSET/index.html

If-to-Switch Transformation

Choose to generate switch-case or if-else statements in Stateflow

- Stateflow generates code that better represents user's intent.
- Switch statements are clearer than nested if statements for certain Stateflow constructs.

```

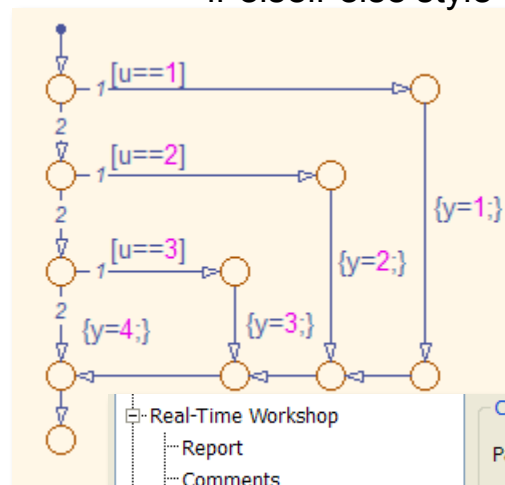
if (rtU.In1 == 1) {
    rtY.Out1 = 1.0;
} else if (rtU.In1 == 2) {
    rtY.Out1 = 2.0;
} else if (rtU.In1 == 3) {
    rtY.Out1 = 3.0;
} else {
    rtY.Out1 = 4.0;
}
    
```

if-elseif-else style

```

switch (rtU.In1) {
case 1:
    rtY.Out1 = 1.0;
    break;
case 2:
    rtY.Out1 = 2.0;
    break;
case 3:
    rtY.Out1 = 3.0;
    break;
default:
    rtY.Out1 = 4.0;
    break;
}
    
```

switch-case style



Real-Time Workshop

- Report
- Comments
- Symbols
- Custom Code
- Debug
- Interface
- Code Style

Code Style

Parentheses level: Nominal (Optimize for readability)

Preserve operand order in expression

Preserve condition expression in if statement

Convert if-elseif-else patterns to switch-case statements

Preserve extern keyword in function declarations

>> if_elseif_else