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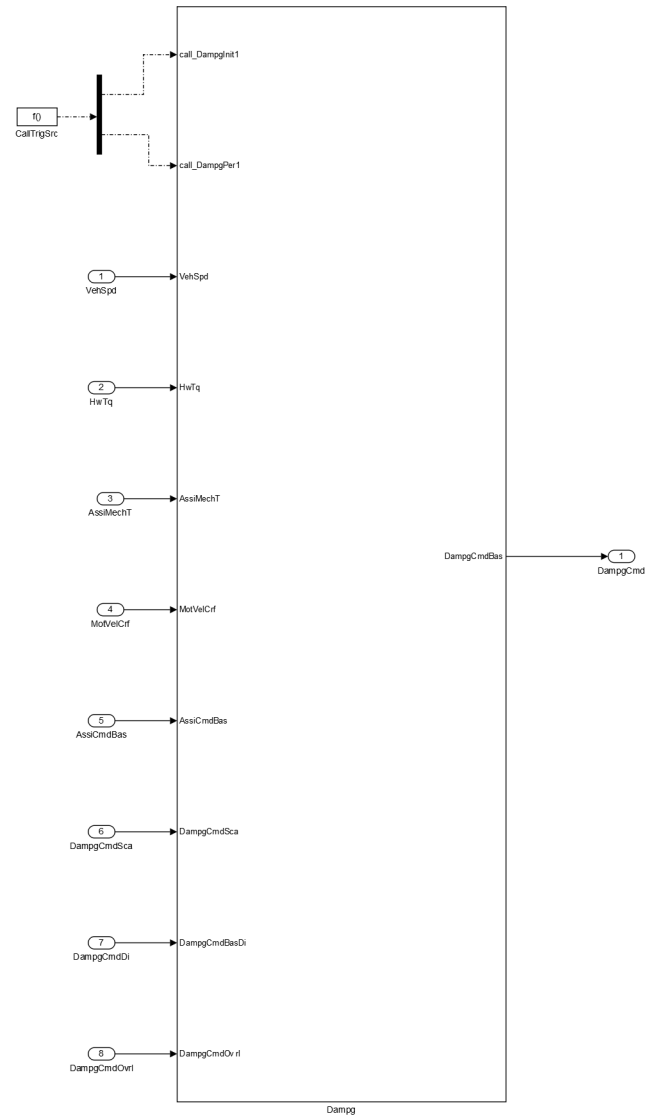
## File Dependencies:

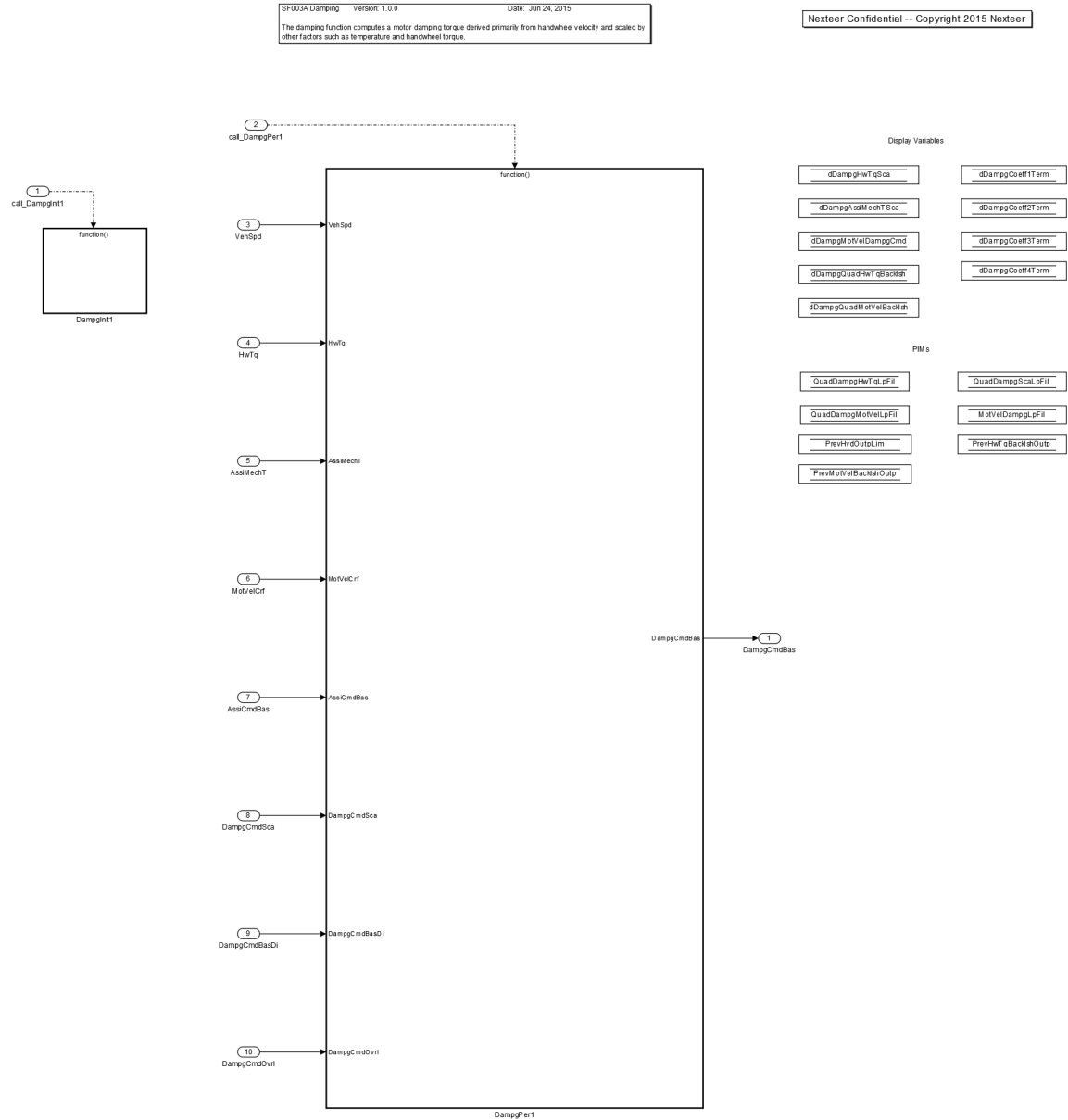
Model\_Config v1.2.0  
Nexteer\_Uilities v4.3.1  
Data\_Management v2.14.0

Requirements Baseline: NA

## Change Log:

v1.0.0  
Date: 24-Jun-2015  
Change Control #: EA4#762  
DRW: Sudeep Shankar  
Description:  
- Initial Release based off of EA3 Version 009





f()  
function

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FiLLpInit

Ic: 0

Ts: ARCHGLBPRM\_2MILLISEC\_SEC\_F32

Freq: DampgQuadHwTqLpFilFrq

StVar: QuadDampgHwTqLpFil

DampgQuadHwTqFilLpInit

FiLLpInit

Ic: 0

Ts: ARCHGLBPRM\_2MILLISEC\_SEC\_F32

Freq: DampgQuadScaLpFilFrq

StVar: QuadDampgScaLpFil

DampgQuadCmdFilLpInit

FiLLpInit

Ic: 0

Ts: ARCHGLBPRM\_2MILLISEC\_SEC\_F32

Freq: DampgQuadMotVelLpFilFrq

StVar: QuadDampgMotVelLpFil

DampgQuadMotVelFilLpInit

FiLLpInit

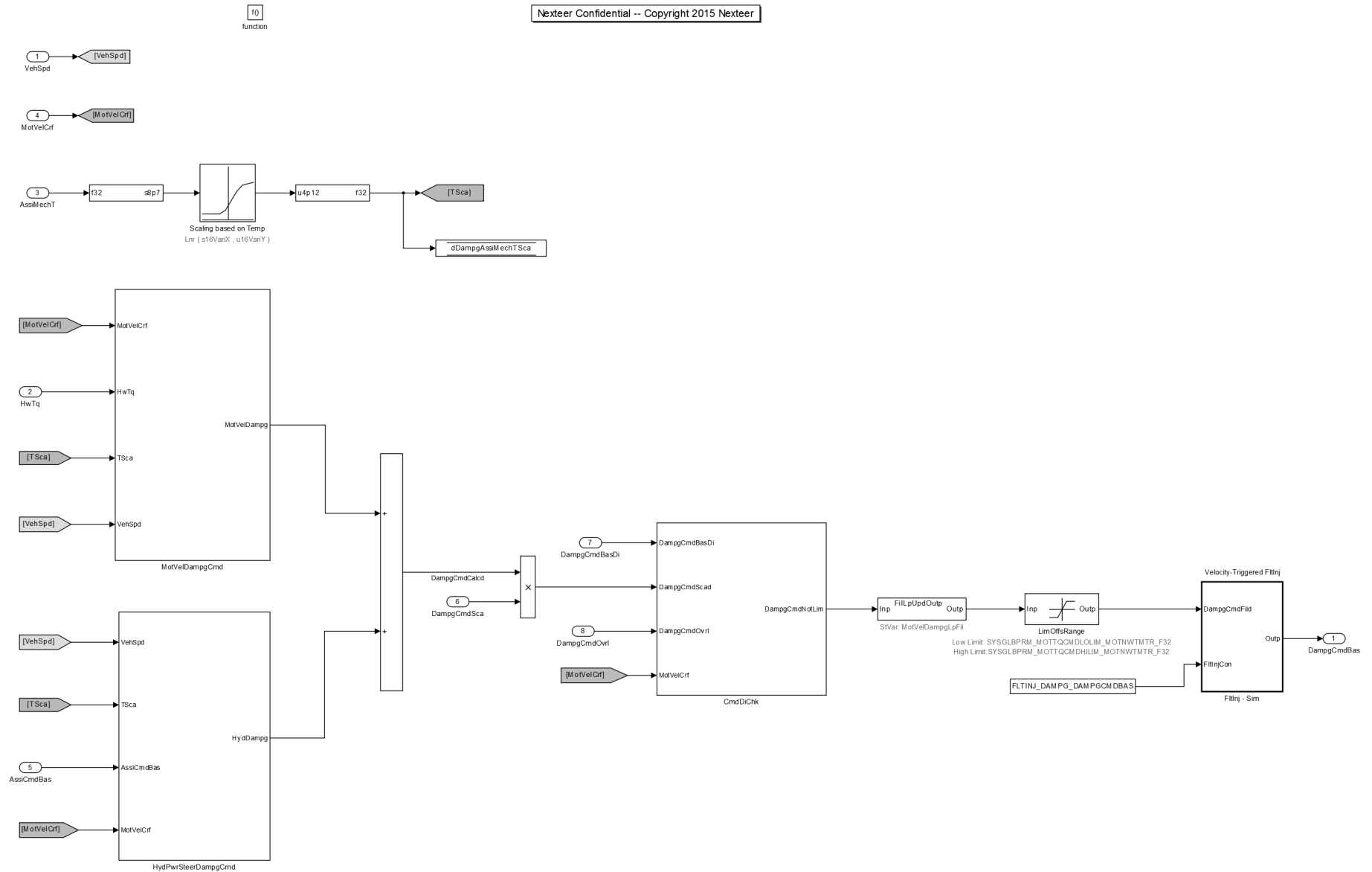
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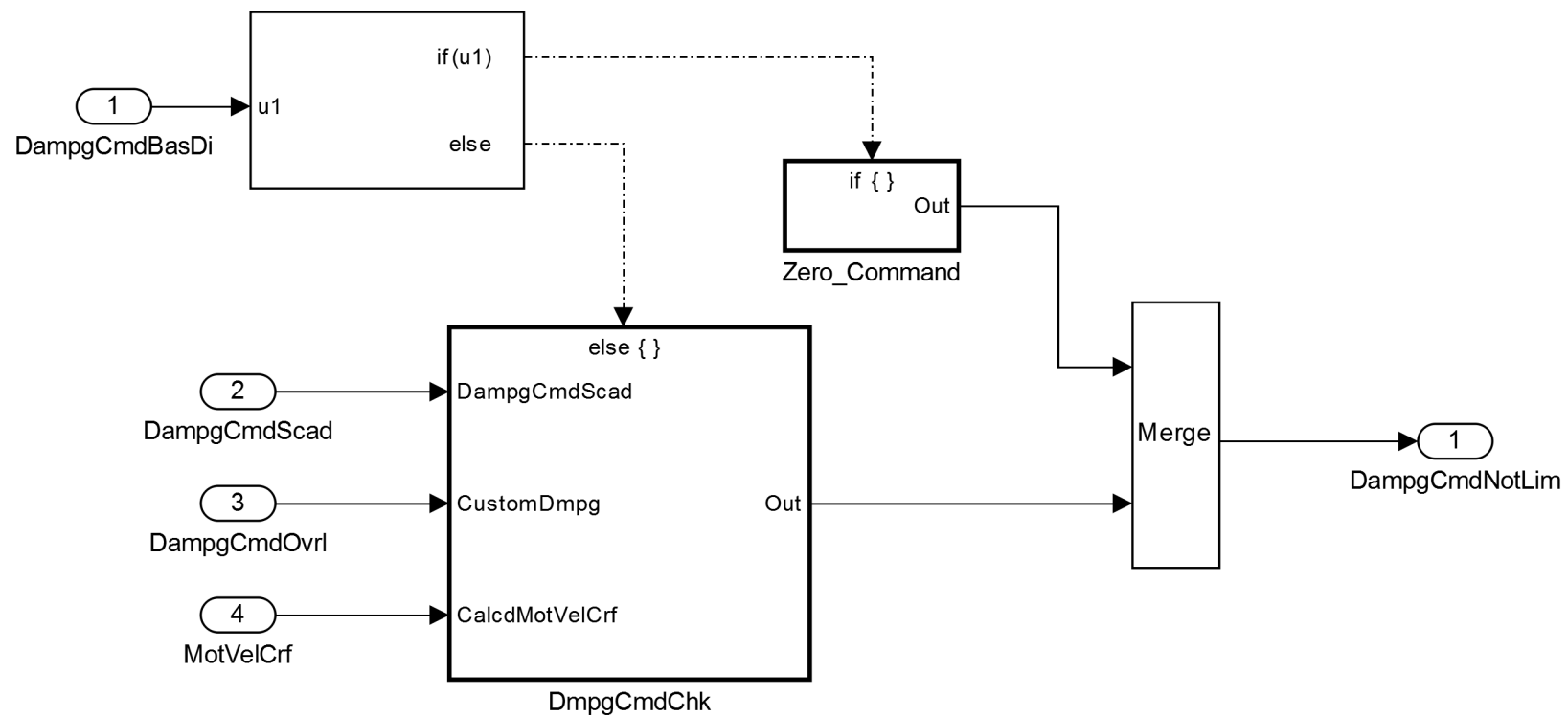
Freq: DampgMotVelLpFilFrq

StVar: MotVelDampgLpFil

DampgMotVelFilLpInit

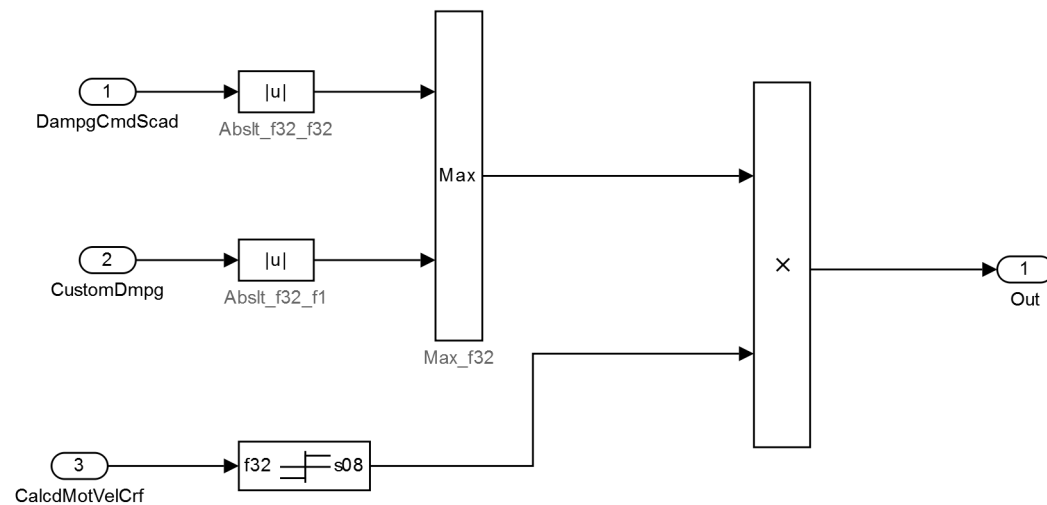


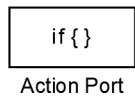
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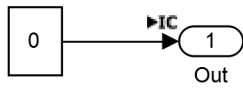
else { }  
Action Port

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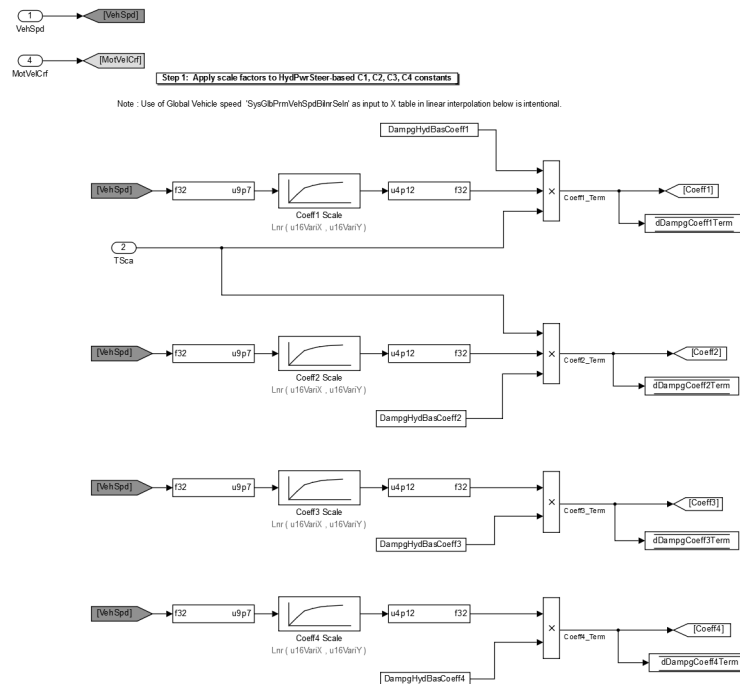


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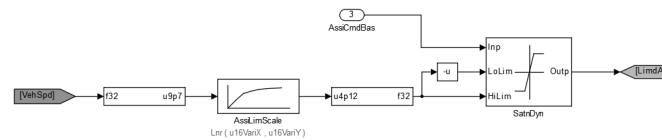


C1: Y-intercept of DampingCoef vs. Velocity (NwtMtr/RadPerSec)  
 C2: Slope of DampingCoef vs. Velocity (NwtMtr/RadPerSec per RadPerSec)  
 C3: Slope of DampingCoef vs. Assist (NwtMtr/RadPerSec per Nm)  
 C4: Tilts the plot DampingCoef vs. Velocity clockwise (reduces effect of C3 in 1st quadrant, increases C3 effect in 2nd quadrant)

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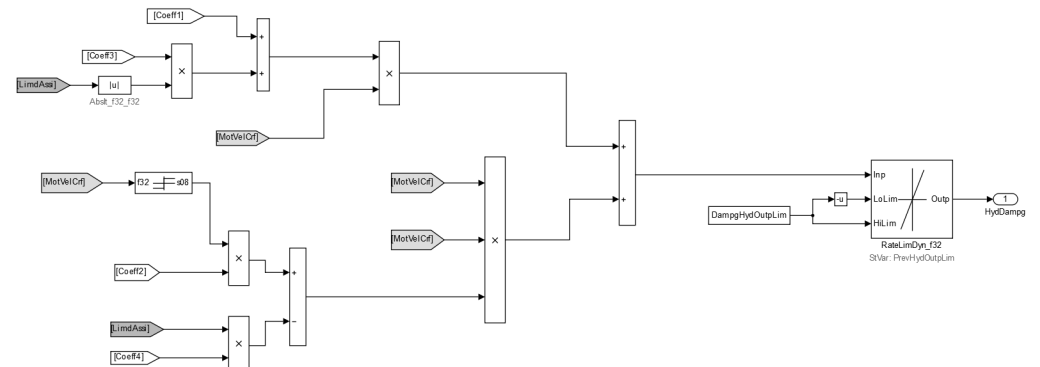


**Step 2: Limit the effect of assist**



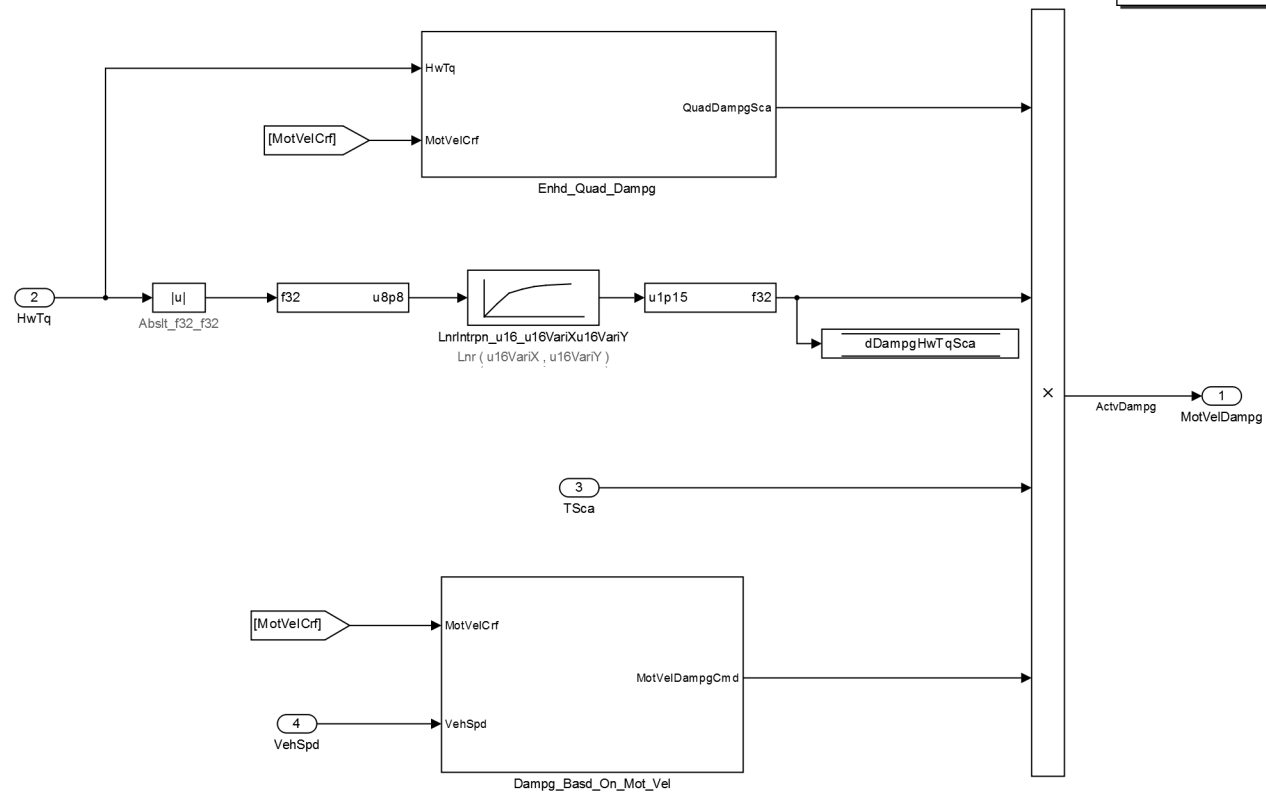
**Step 3: Apply equation**

Hydraulic System:  $F_{D\_a\_m\_p} = \text{RackVel} * (\text{Coeff1} + |\text{Pressure}| * \text{Coeff3}) + \text{RackVel}^2 * (\text{Coeff2} * \text{sign}(\text{RackVel}) - \text{Pressure} * \text{Coeff4})$   
 EFS Implementation:  $F_{D\_a\_m\_p} = \text{MotorVel} * (\text{Coeff1} + |\text{Assist}| * \text{Coeff3}) + \text{MotorVel}^2 * (\text{Coeff2} * \text{sign}(\text{MotorVel}) - \text{Assist} * \text{Coeff4})$

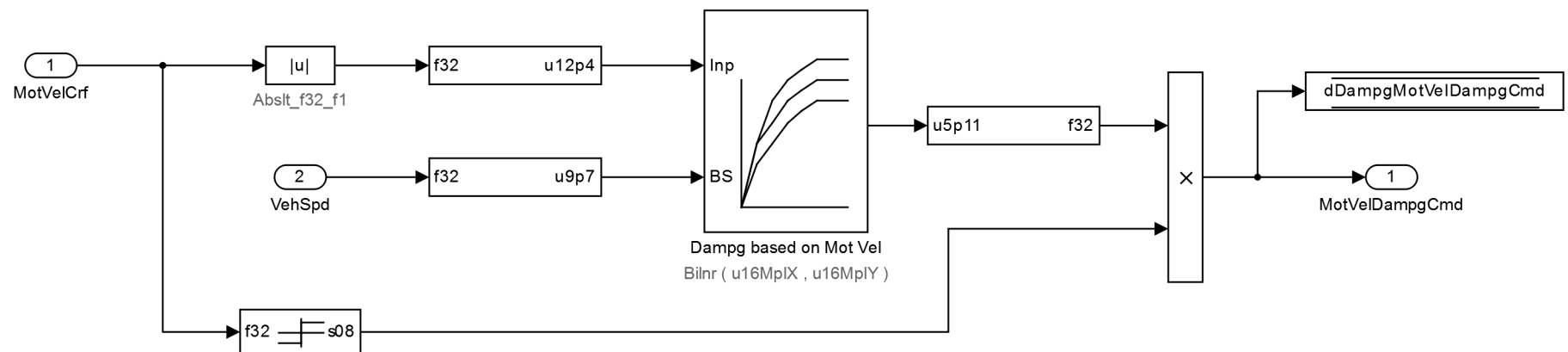




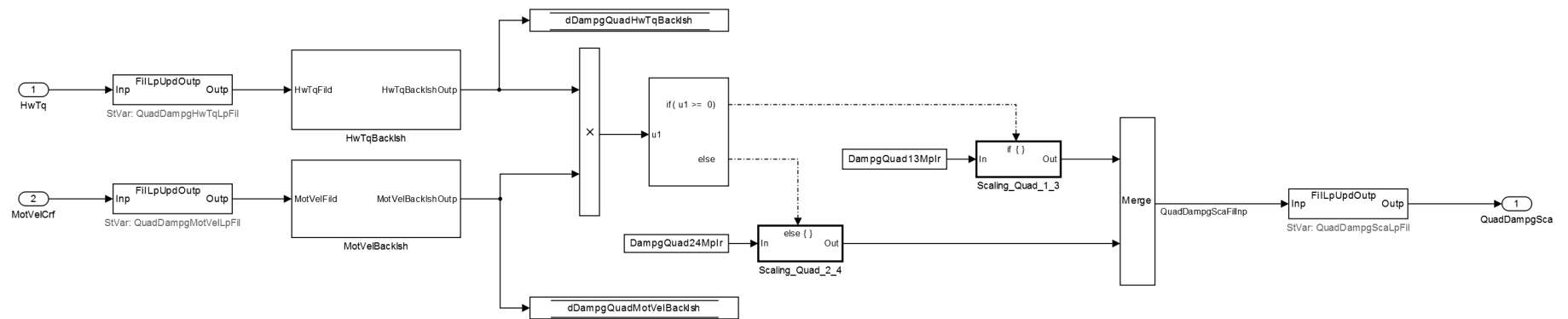
1  
MotVelCrF



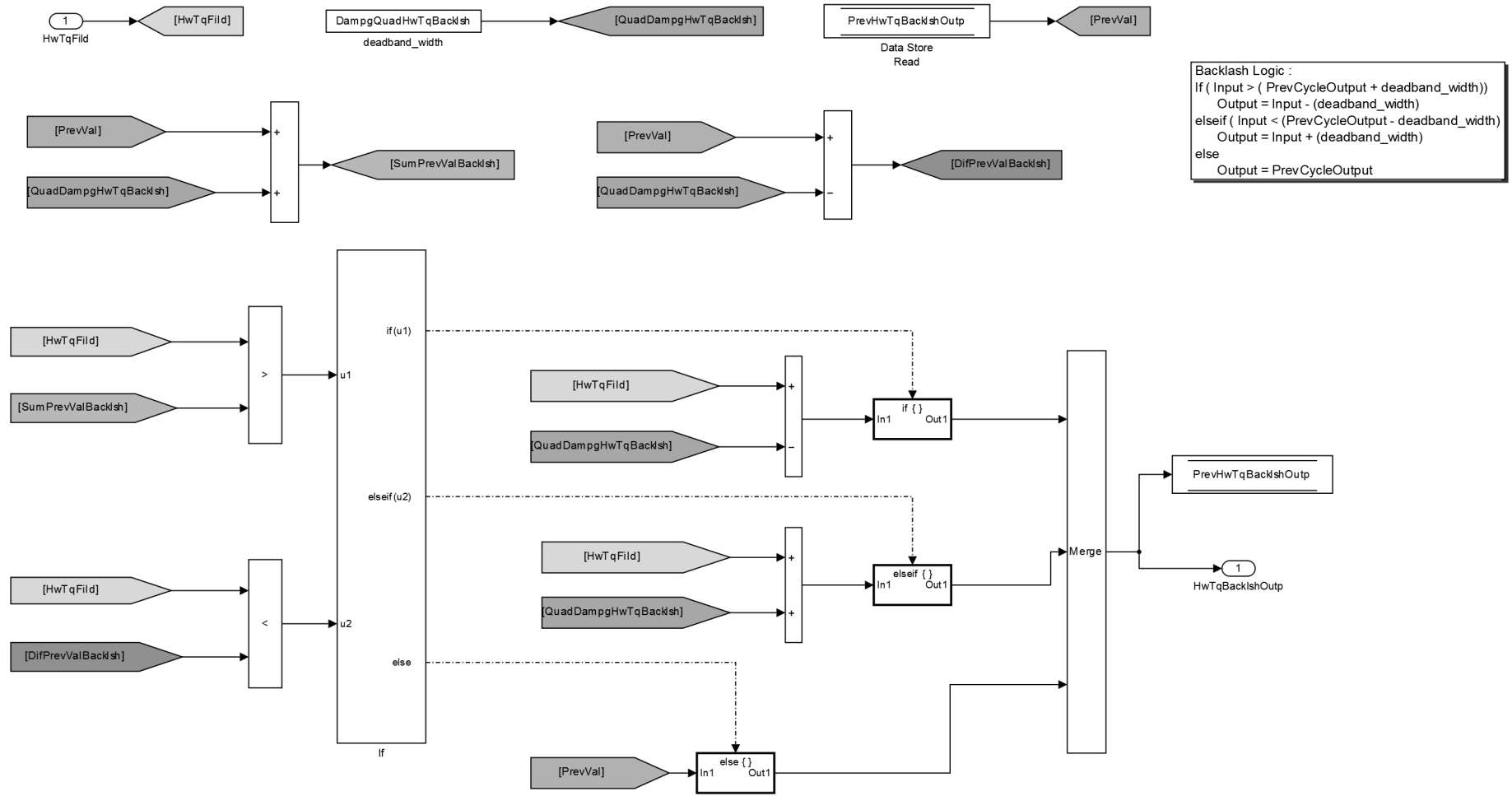
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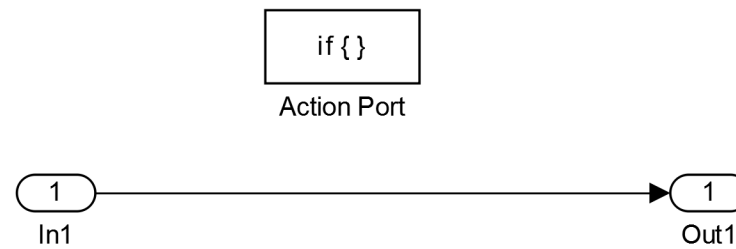


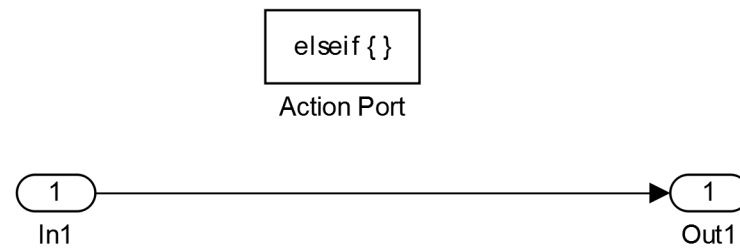
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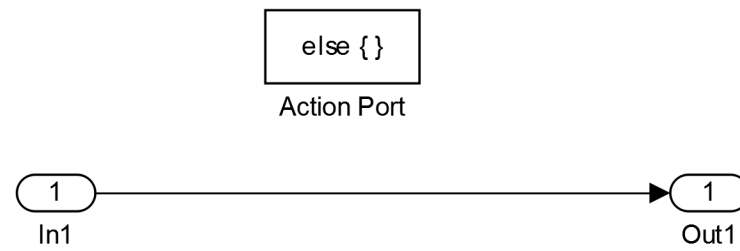


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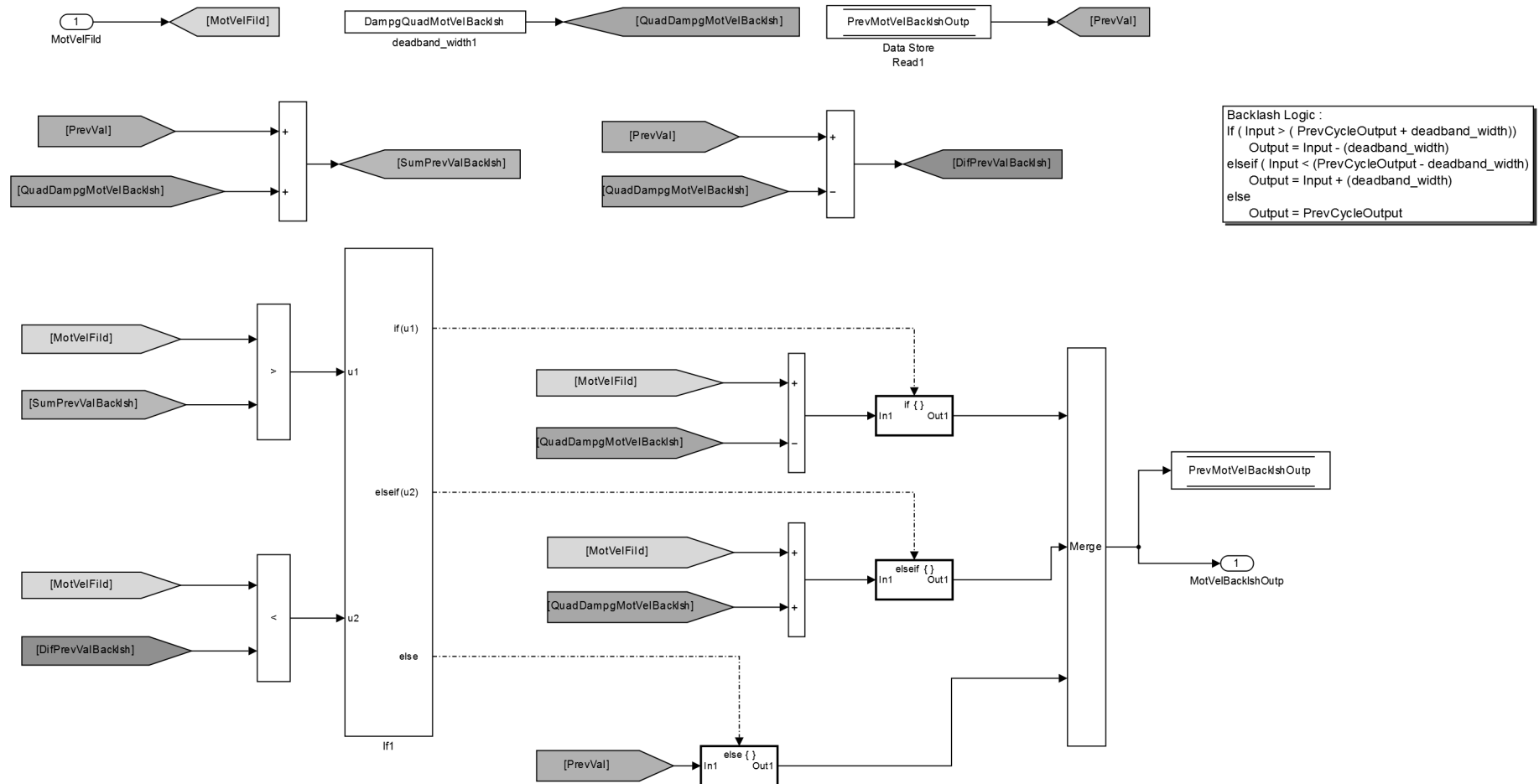




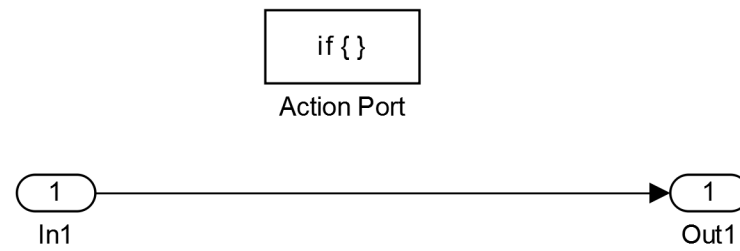


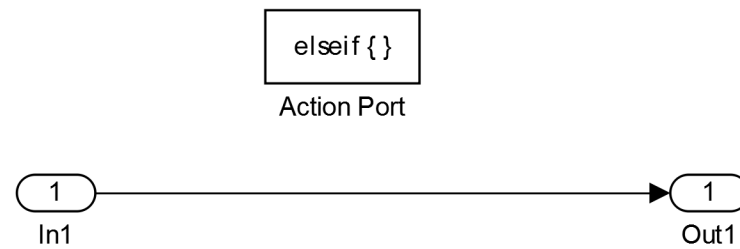


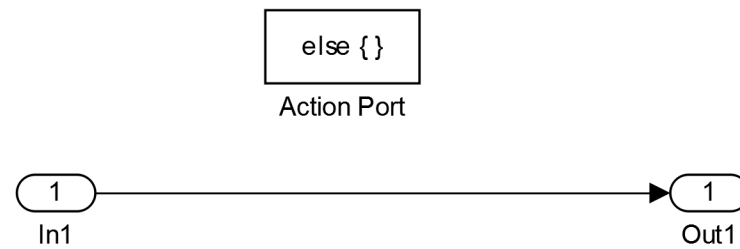
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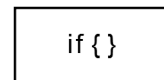




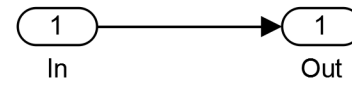








Action Port



else { }

Action Port

