

Continuous transfer function

ans =

$$\frac{100}{s^3 + 11 s^2 + 30 s + 200}$$

Continuous-time transfer function.

Tustin discretization

ans =

$$\frac{0.007576 z^3 + 0.02273 z^2 + 0.02273 z + 0.007576}{z^3 - 2.061 z^2 + 1.485 z - 0.303}$$

Sample time: 0.1 seconds

Discrete-time transfer function.

Boxer-Thalor discretization

ans =

$$\frac{0.05 z^2 + 0.05 z}{1.575 z^3 - 3.225 z^2 + 2.325 z - 0.475}$$

Sample time: 0.1 seconds

Discrete-time transfer function.

Halijak discretization

ans =

$$\frac{0.05 z^2 + 0.05 z}{2.1 z^3 - 4.8 z^2 + 3.9 z - 1}$$

Sample time: 0.1 seconds

Discrete-time transfer function.

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