

Three-axis NC Cutter Path Generation for Subdivision Surface

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Objective

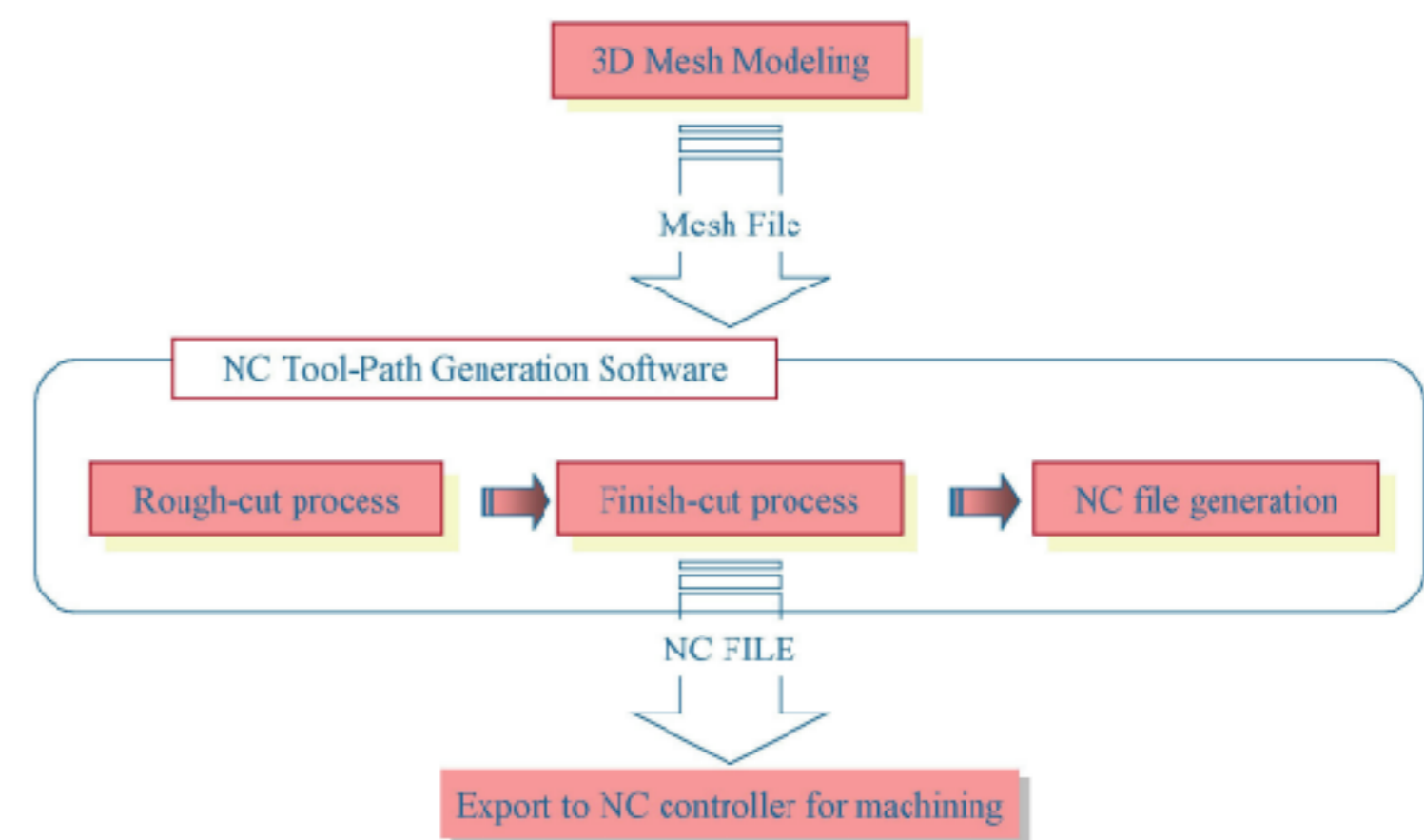
Propose an effective NC cutter path generation method for subdivision surface.

- Considering the feature of subdivision surfaces try to get reasonable automation and rapidity.

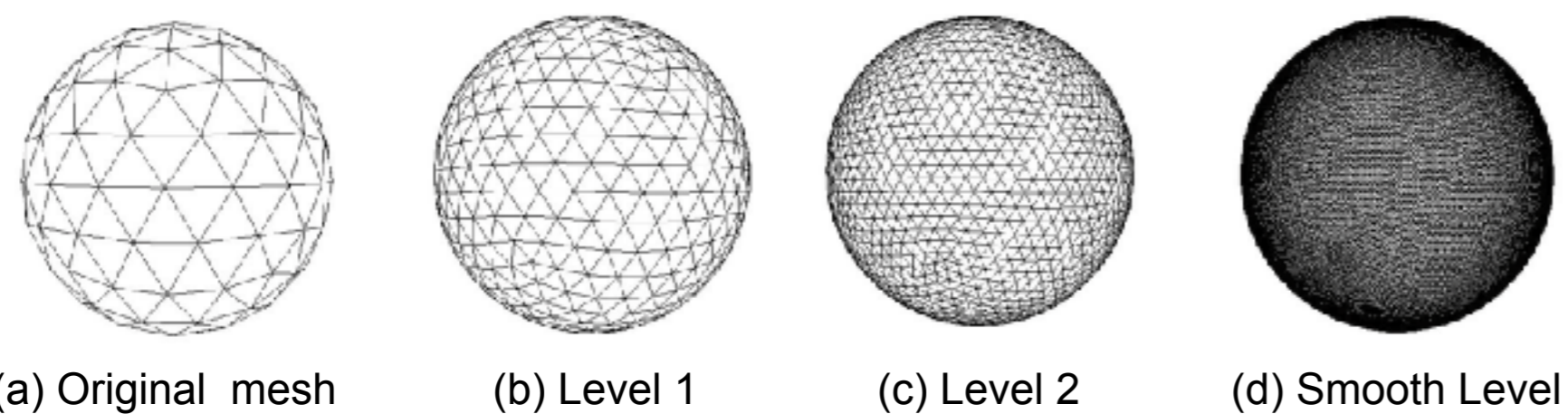
Investigators

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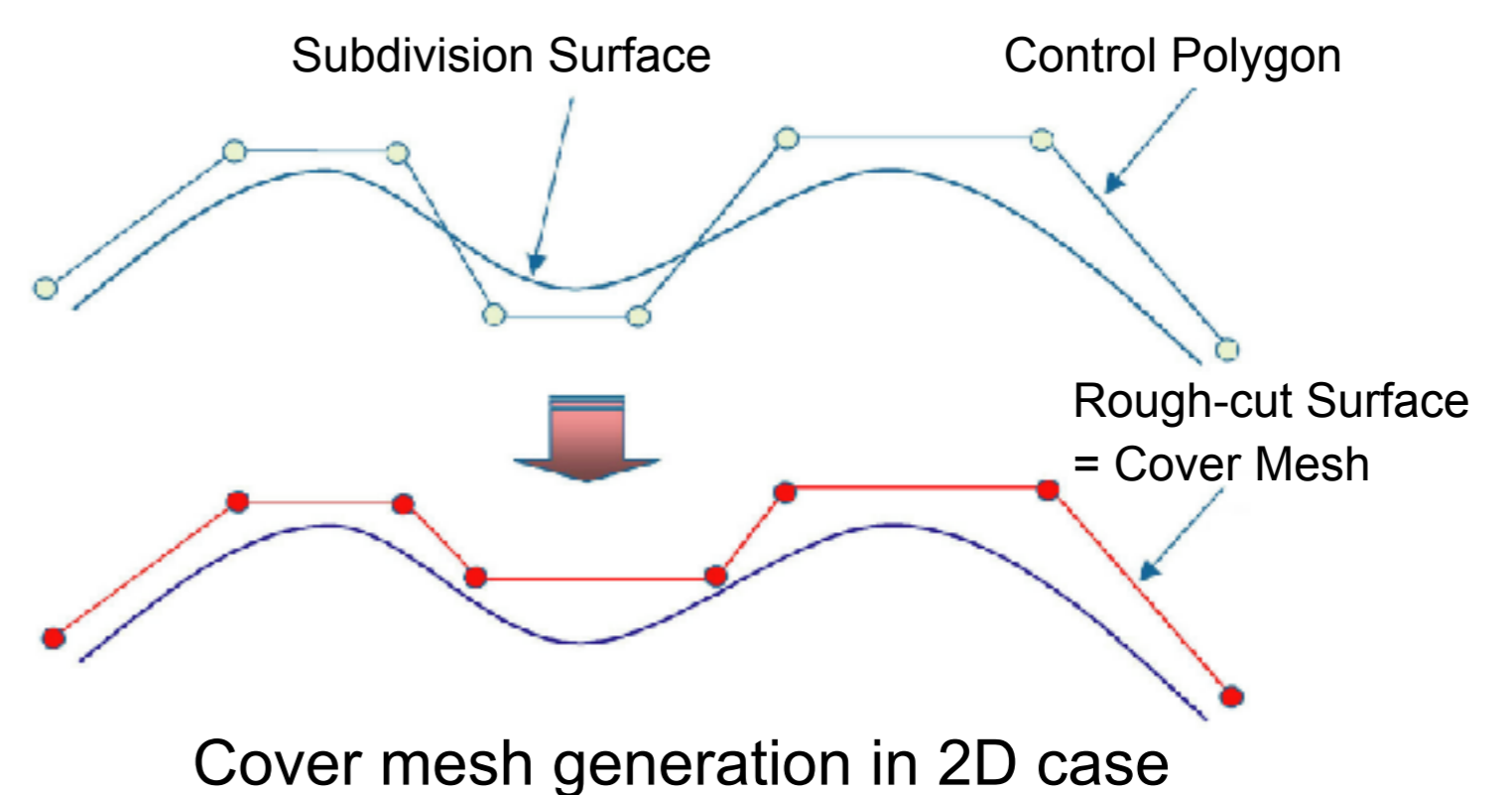
System Construction



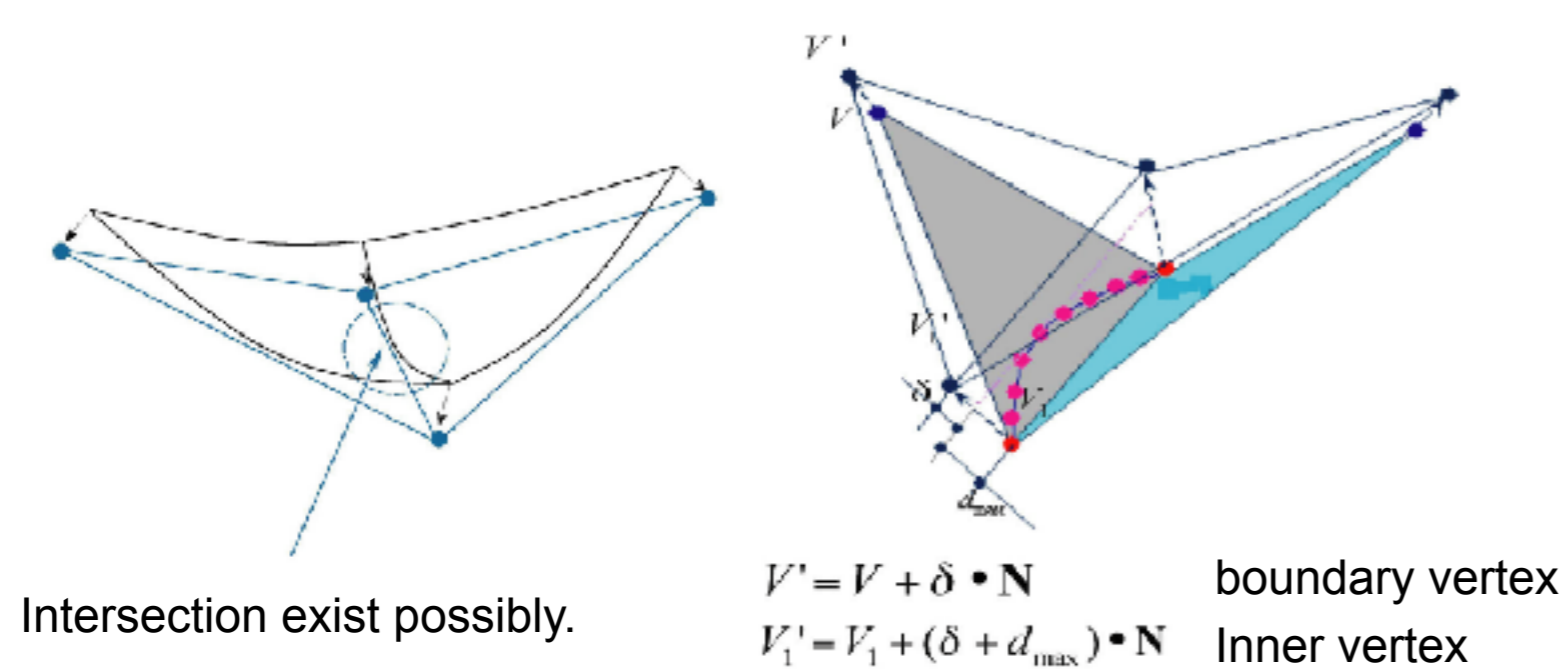
Loop Subdivision Surface



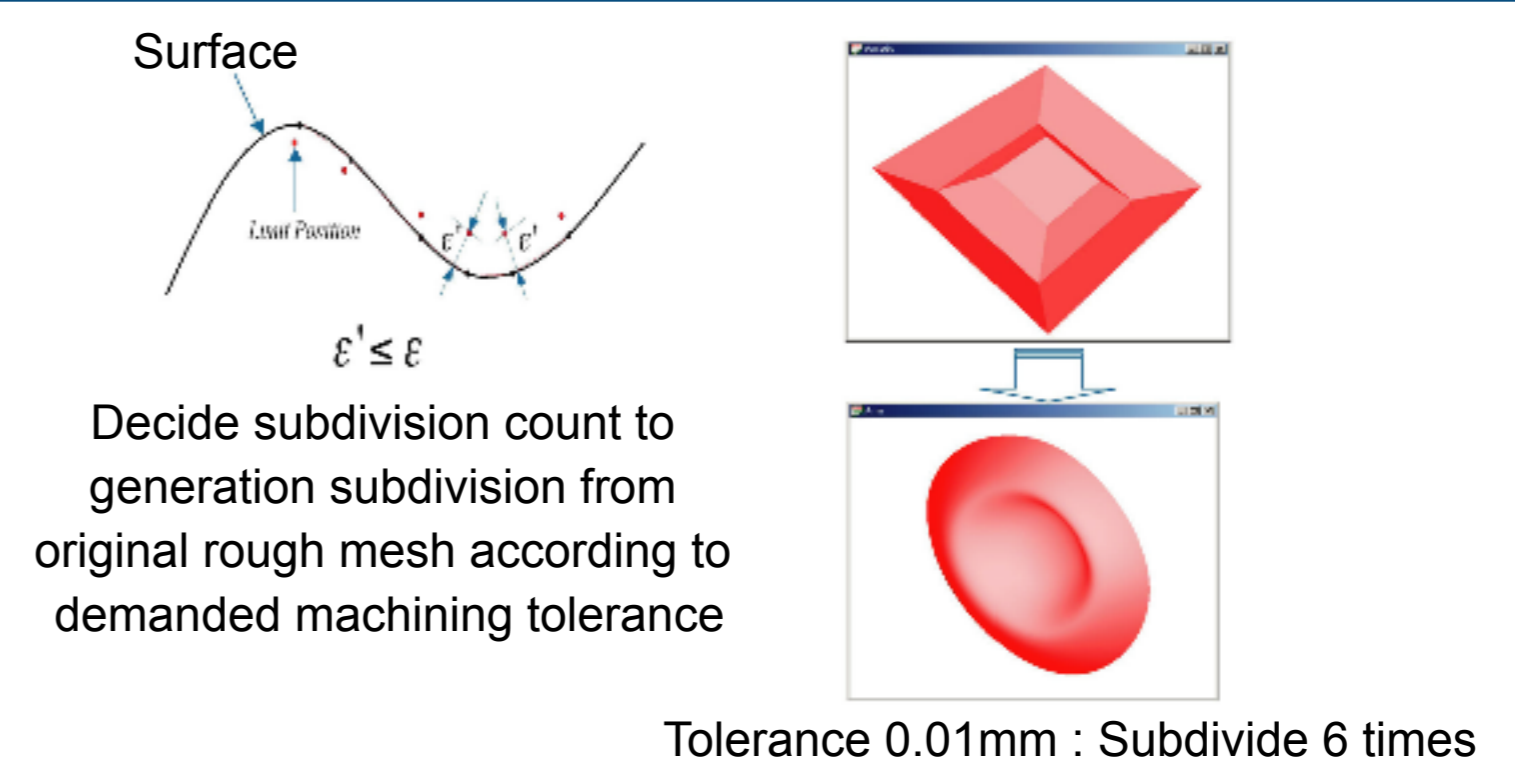
Rough-cut Surface Generation with Rough Mesh



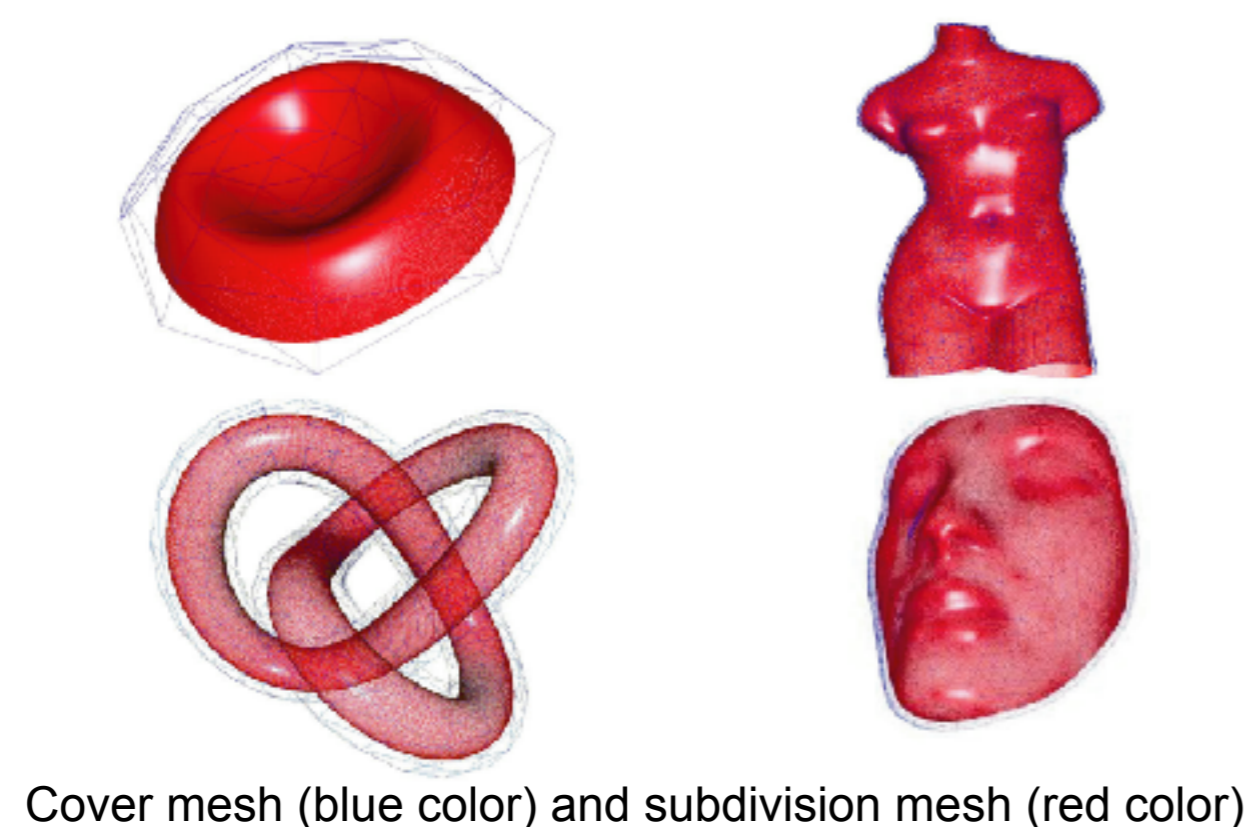
Cover Mesh Generation in 3D Case



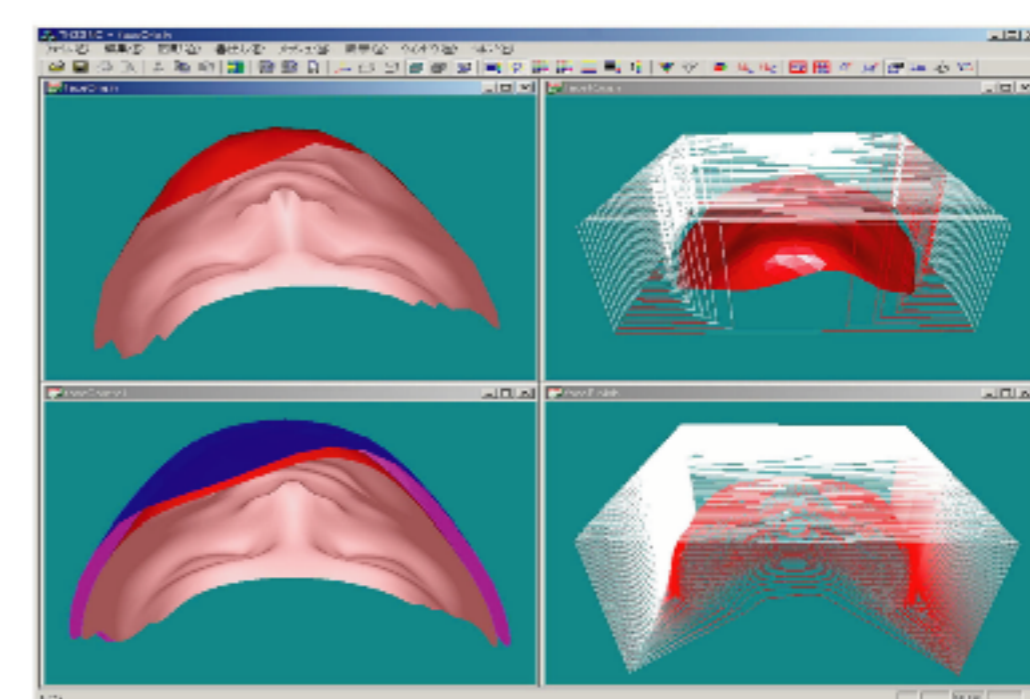
Finish-cut Surface Generation with Fine Mesh



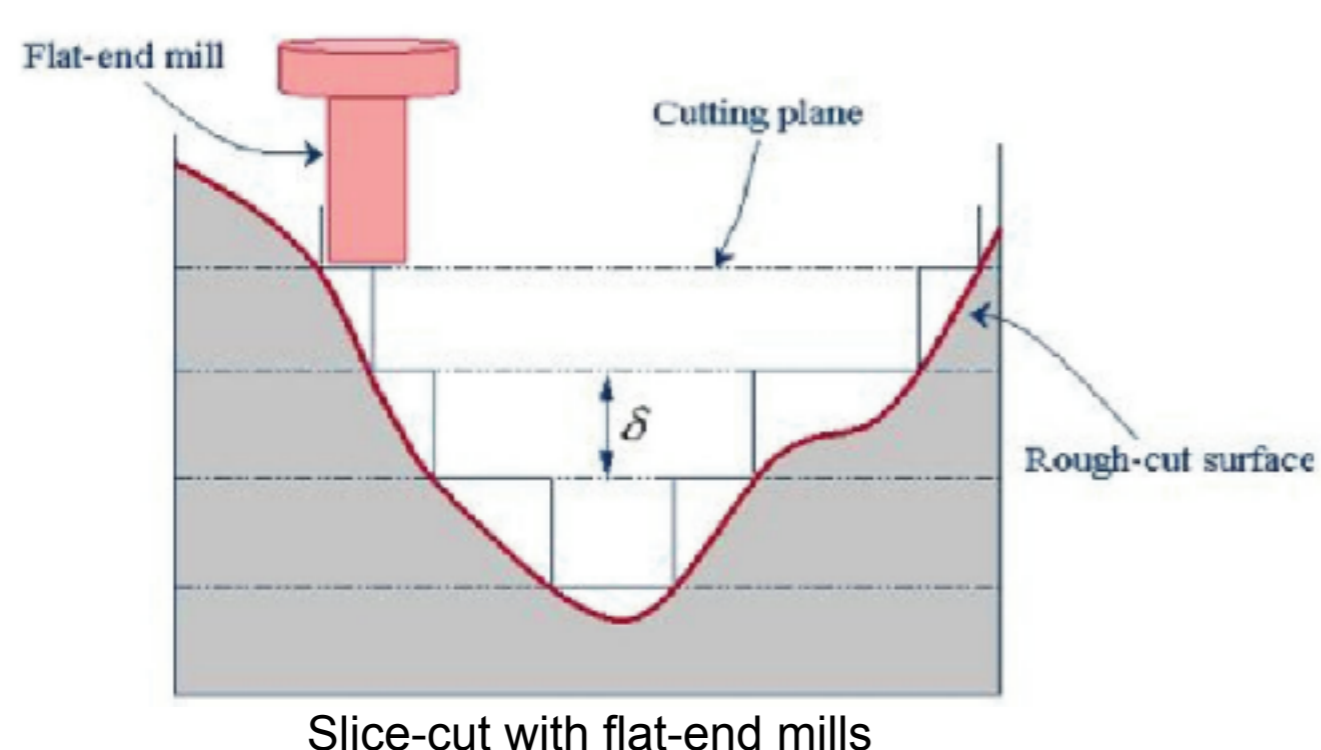
Samples of Cover Mesh



Example



Rough-cut Path Generation



Machining Examples

Machining Center : Roland PNC-300 CAMM-3

Spindle Speed	6000 rpm	Spindle Speed	8000 rpm
Work piece material	WAX	Work piece material	WAX
Mill radius	1.5mm	Mill radius	1.5mm
Feed rate	0.6 m/min	Feed rate	0.3 m/min

