

- ***CONTROL_ADAPTIVE**

- Card 4

Variable	CNLA			MMM2D	ADPERRR	D3TRACE	IADPFC	IFSAND
Type	F			I	I	I	I	I
Default	0			0	0	0	0	0

- **IADPFC=1**: turns on run-time control for 3D TET r-adaptivity (available in R9)

- Main features

- Manually trigger additional adaptive remeshing

- Manually remesh and edit mesh

- Define adaptive parameters for individual adaptive part

- Two control files in the job folder

- **adapt.fc1**

- Trigger additional adaptive steps either immediately or any time later

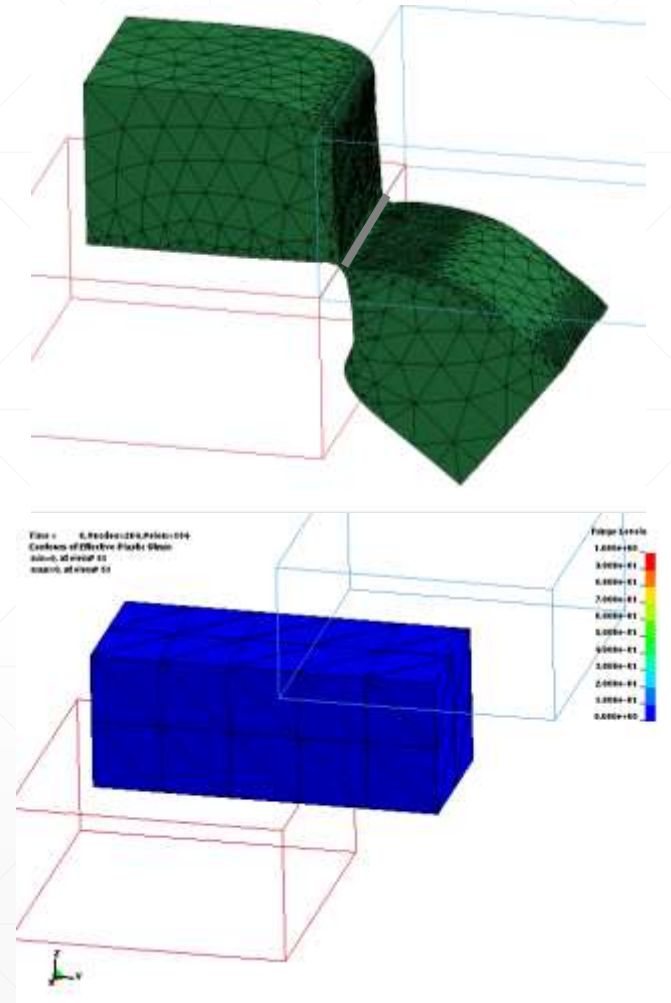
- Manually remesh/edit the mesh instead of using LS-DYNA remesher

- **adapt.fc2**

- Set specific **RMIN**, **RMAX**, **TBIRTH** and **TDEATH** for individual adaptive part



- **adapt.fc1** defines three parameters (**C1, C2, C3**)
 - (1,0.0,0): trigger additional normal adaptivity immediately
 - (1, 0.0025,0): trigger additional normal adaptivity at $t=0.0025$
 - (1, 0.0025,3): trigger special adaptivity with manual remeshing on adaptive part 3 at $t=0.0025$
- **Manual remeshing and mesh editing procedure:**
 - (1) LS-DYNA hangs up waiting for new mesh from user
 - (2) "**user.mesh**" file in the job folder contains the mesh for users to remesh / edit
 - (3) Change **C1** to -1 to continue LS-DYNA with new "**user.mesh**"



- **adapt.fc2** defines parameter list for adaptive parts

- Example:

- Line 1: 2 (number of adaptive parts)

- Line 2: 2, 0.0,0.1,1,4 (for adaptive part 2, **TBIRTH** is 0.0, **TDEATH** is 0.1, **RMIN**=1, **RMAX**=4)

- Line 3: 3, 0.01,0.2,2,4 (for adaptive part 3, **TBIRTH** is 0.01, **TDEATH** is 0.2, **RMIN**=2, **RMAX**=4)

- If new mesh quality of some adaptive parts using manual remeshing is NOT good enough for the remesher in LS-DYNA (TET remesher in LS-PrePost is a good tool to test that), it is recommended to stop adaptivity by setting corresponding **TDEATH** to be just slightly larger than C2 in adapt.fc1 to avoid error termination due to failure of automatic remeshing

