



JPL

Section 357

JPL and STEP-NC

A Work in Progress



Where We Started

FADAL VMC with a 32MP controller

- 486 processor
- Windows 95 operating system
- 32 meg ram
- 640 x 480 screen resolution
- Gibbs SFP (shop floor programming)



Where Are We Now

- No change in machine hardware
- Updated the computer side with;
 - AMD K6 2 400mhz
 - Windows 98se (Windows XP Pro pending)
 - 256 meg ram
 - 800 x 600 screen resolution (new adapter pending)
 - Full seat Virtual Gibbs nlo (network license option pending)
 - Internet capable



Costs

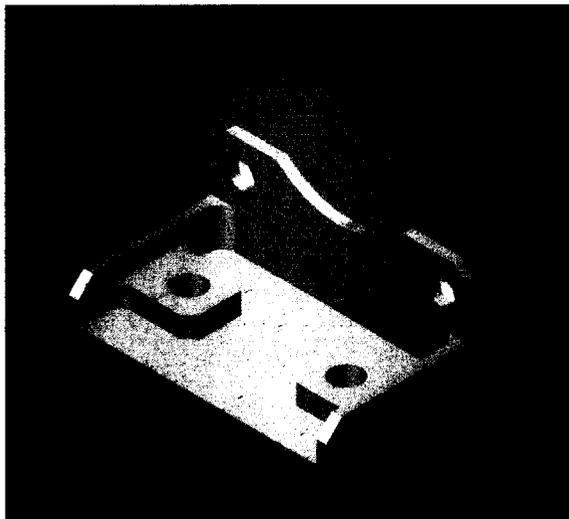
- Costs to date

– New motherboard (OEM upgrade)	\$3000
– 256meg ram (72 pin 64 meg simm's 4@ \$29.99)	\$120
– New OS	\$199
– Network card	\$39
– CD Rom drive	\$19
– New Video adapter	\$?
– Labor 10 hours @ \$78.00hr	\$780

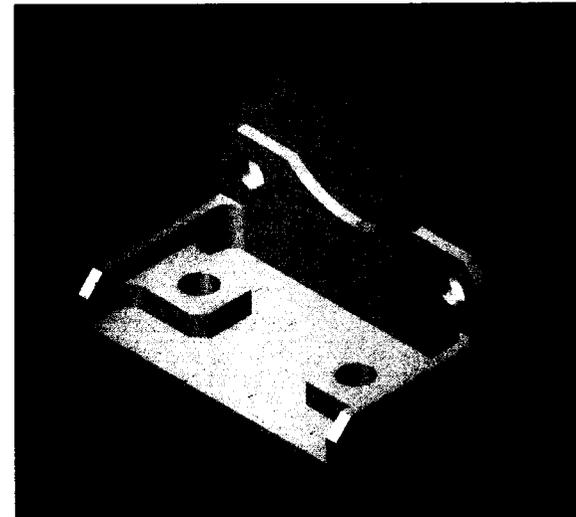


Machining Process

- Traditional multi-axis method
 - Program time 105min
 - Setup time 90min
 - Run time 16.5min



- Step-NC multi-axis method
 - Program time 12min
 - Setup time 90min
 - Run time 23min





Challenges For JPL

- Model fidelity #1 issue
- ST-Plan, Who and When
- Initial origin location from ST-Plan to ST-Machine as viewed from the machine
- Incorporating JPL's machining strategies for consistent and repeatable results
- Completing machine upgrades
- Continued funding for development