

The Home S t r e t c h

The Plan

- ❖ Review of the Design
- ❖ The Last 10%
- ❖ Freezing the Project
- ❖ Ensuring Success
- ❖ Cutting your losses
- ❖ Testing
- ❖ Documentation
- ❖ Enhancements

Review of the Design

- ❖ **Late for Serious Changes**
 - ❑ May be some course correction possible.
- ❖ **Often: Simplification rather than enhancement**
 - ❑ Shed some frills.
 - ❑ Narrow down some of the goals.
- ❖ **When Adding Things: Must be *Orthogonal!***
 - ❑ Orthogonal: Will *not* adversely affect other parts.
 - ❑ Don't risk project for that "just one more".

The Last 10%

- ❖ You may think you're almost done
- ❖ Common wisdom is:

*The last 10% of a project takes up
90% of the time.*

- ❖ Allow for the unexpected
- ❖ Prevent serious problems by testing as you go
- ❖ Don't put off fixing a problem to go to another enhancement

Freezing the Project

- ❖ *Earlier rather than later, quit adding features*
- ❖ **Make sure what you have is done right**
- ❖ **Allow for the unexpected**
- ❖ *Resist the lure of enhancements*
- ❖ **Spend any extra time to make product more professional**

Ensuring Success

- ❖ **Always have a working project**
 - ❑ After some natural increment (with everything so far working) *save a complete copy (project)*.
 - ❑ Think of it as a simpler version.
 - ❑ Don't lose or change this copy.
- ❖ **Start the next version**
 - ❑ After significant progress, *repeat* this process.
- ❖ **Too often, a formerly working project is “destroyed” by improvements**
 - ❑ It may never work again.
 - ❑ You must have a previous version to *fall back on* .

Cutting your Losses

- ❖ **Sometimes: Nothing Seems to Work**
- ❖ ***Before it's too late:***
 - ❑ Severely *Prune* your goals.
 - ❑ Get help from instructors for this.

A Simple Working Project
ALWAYS RATES HIGHER
than a Fancy Non-Working Project

Testing

“Testing can prove the presence of bugs, but not the absence of bugs.”

- ❖ **Games: different standard from most software**
 - ❑ Bugs sometimes become features.
- ❖ **Errors can be costly, however**
 - ❑ When demo-ing for your grade!
 - ❑ When showing off for your date.
- ❖ **Test Plan**
- ❖ **Testing by a naïve user**

Documentation

- ❖ **Javadocs provide imbedded documentation**
- ❖ **Traditional**
 - ❑ **User manual.**
 - ❑ **Technical/Program Logic Manual (for heirs).**
- ❖ **On-line documentation**
- ❖ **Legal / for Grade**
 - ❑ **Make clear *who* did *what* work and *when*.**

Enhancements

- ❖ ***If* you have time ...**

- ☐ Make sure you have polished main parts.
- ☐ Make sure you do not risk previous work.

- ❖ **Enhancements can be a lot of fun**

- ☐ They might add that extra sparkle.

- ❖ **The pressure is off**

- ☐ Little cost: if it doesn't work, *back it out*