



Parallel Tools Project Workshop Participant Survey

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Background

- Tutorial and workshop held at Oak Ridge National Laboratory, with approx 30 participants from industry, academia, and several national laboratories
- Content focused on the challenges surrounding developing large scale, massively parallel, scientific applications, and how PTP could best strategically address the needs of this market
- Survey provided to attendees to gauge their requirements and solicit input for PTP strategy. 24 participated

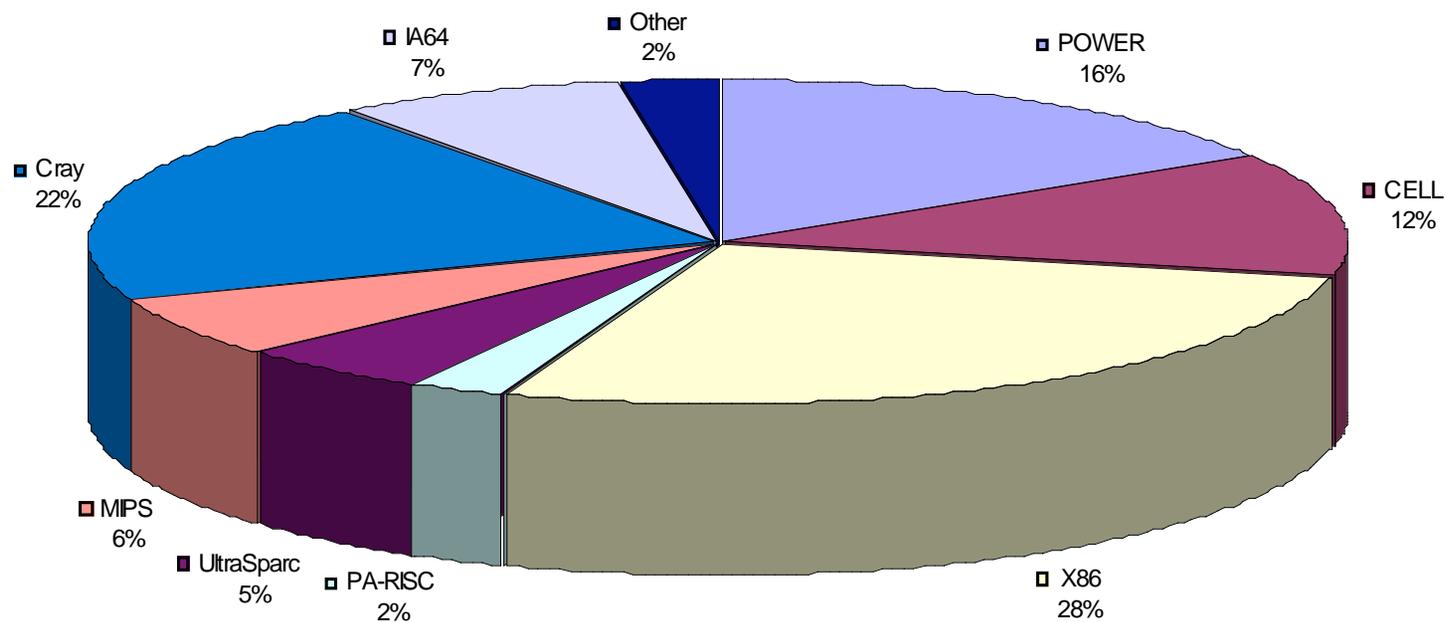


Notes On The Survey

- Generally questions were of the form “check all that apply”, so data was not mutually exclusive
 - E.g., if the chart says that x% of people use Windows, that does not mean they used it to the exclusion of Linux, they may have checked both
- Some skew to the data expected due to high percentage of attendees from Oak Ridge
- Some peculiarities in the data indicate that we could have worded a few of the questions better
- People can do all kinds of funny things with paper surveys!
 - E.g. place checkmarks next to things that are supposed to be ranked



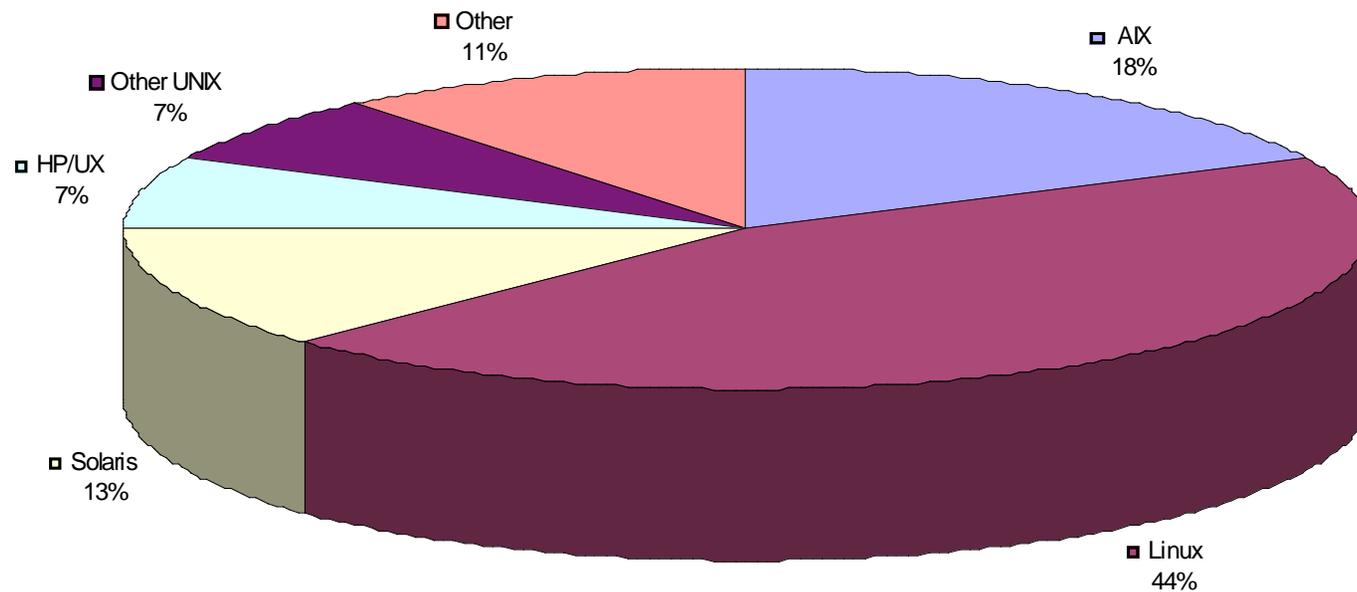
Target Architecture



- Notes:
 - Some overlap between Cray and x86?
 - IA64 encompasses x86_64 as well
 - Overlap with x86?



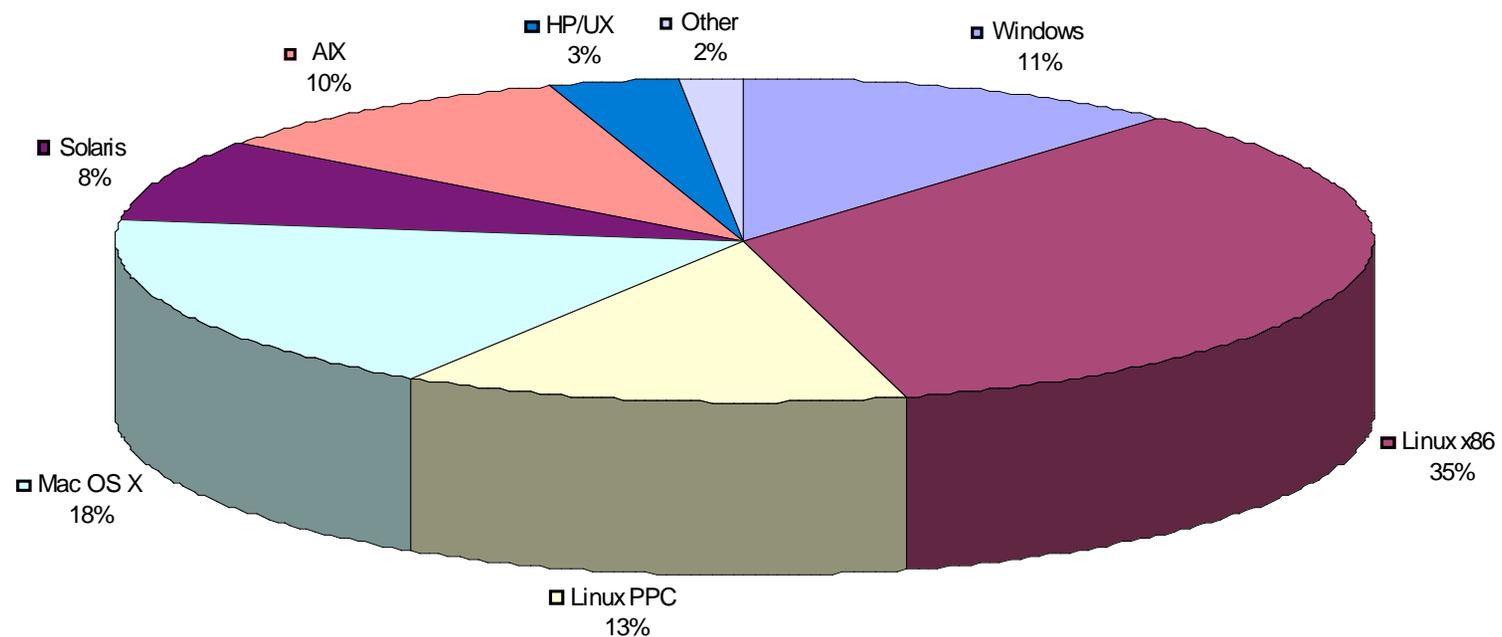
Target Operating System



- Notes:
 - Linux the obvious victor here



Development Tools Environment

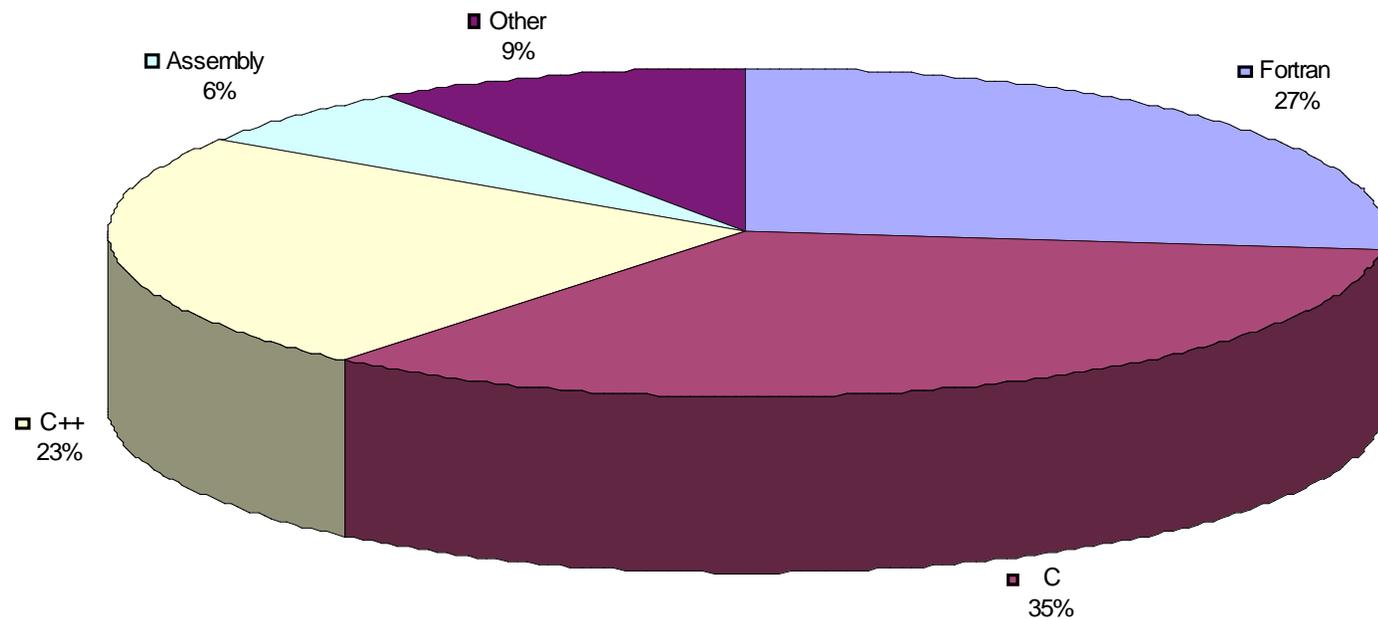


- Notes:

- Linux the definite winner (48% combined)
- MacOS X in 2nd place, ahead of Windows



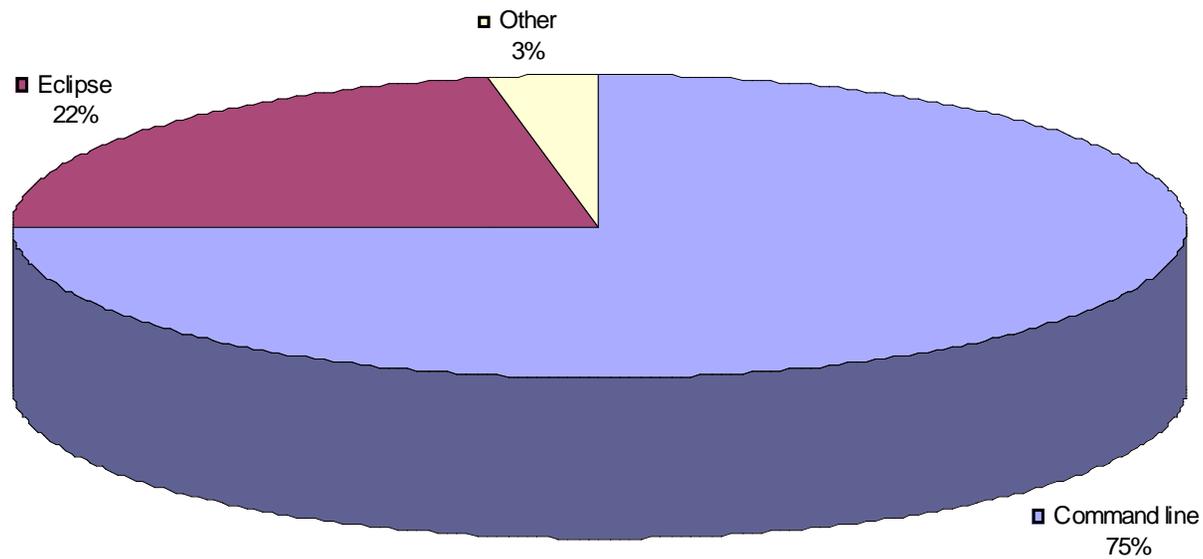
Programming Languages



- Notes:
 - Surprisingly, C edges out Fortran



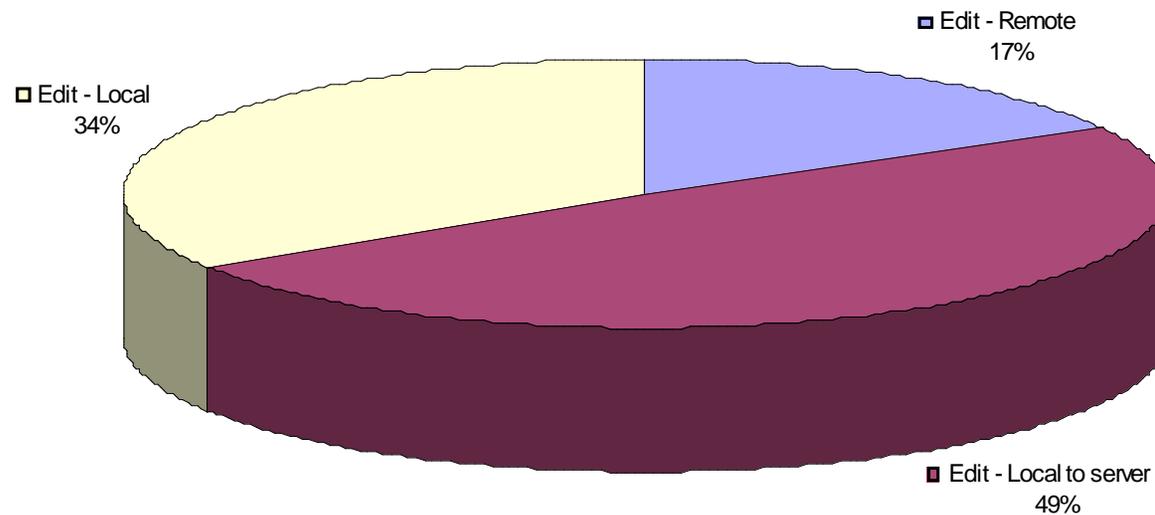
Current Development Environment



- Notes:
 - Vi and Emacs considered command line
 - Some responses begged to differ



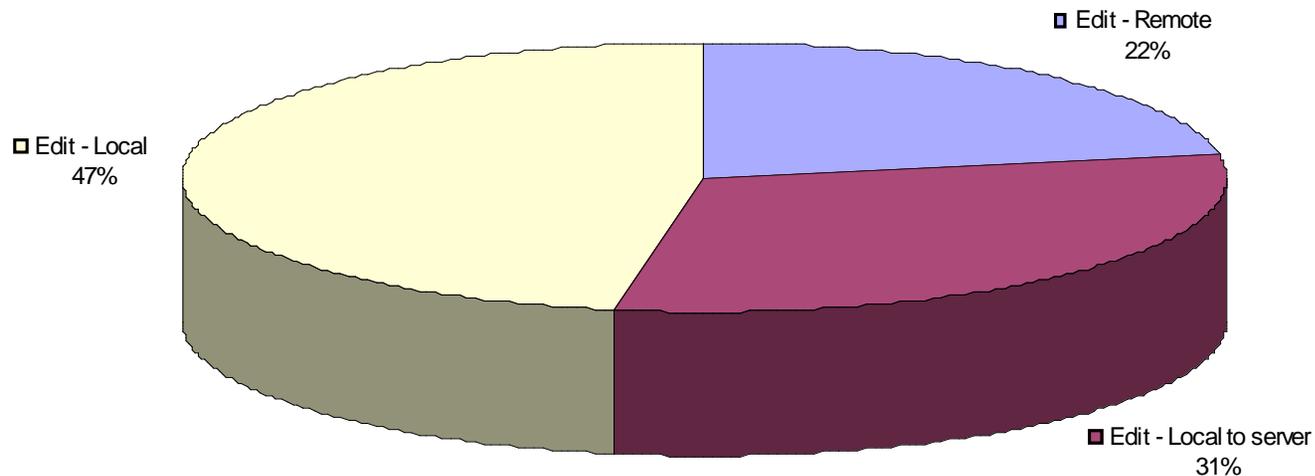
Current Development Model - Editing



- Notes:
 - “Local to server” means, for example, SSH to server and run editor at terminal
 - Remote means, for example, remote filesystem



Desired Development Model - Editing

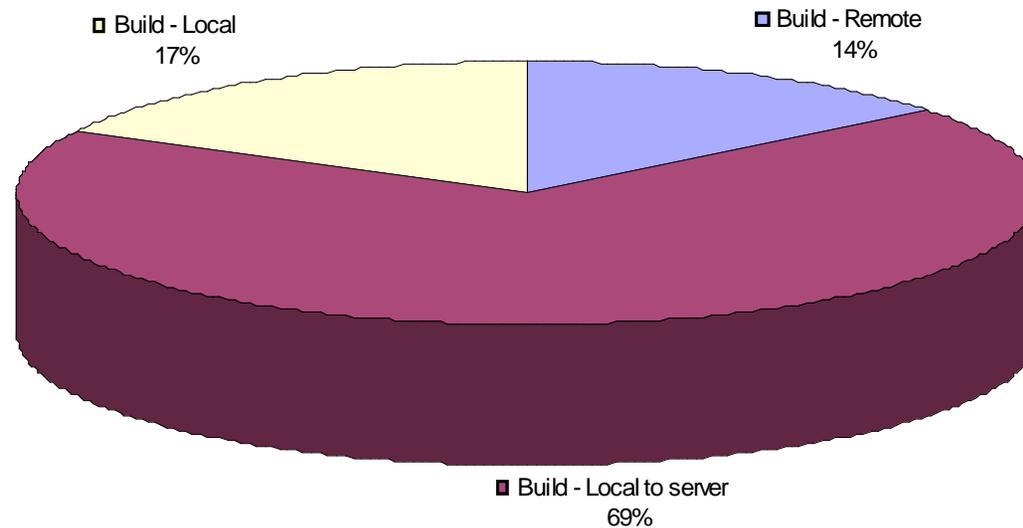


■ Notes:

- Data confusing because more people said they wanted to edit locally than said they already do edit locally, which in theory they can already do
 - Did they really mean remote? Maybe question should have been worded better
- Seems more important to note that 69% don't want to edit on the server

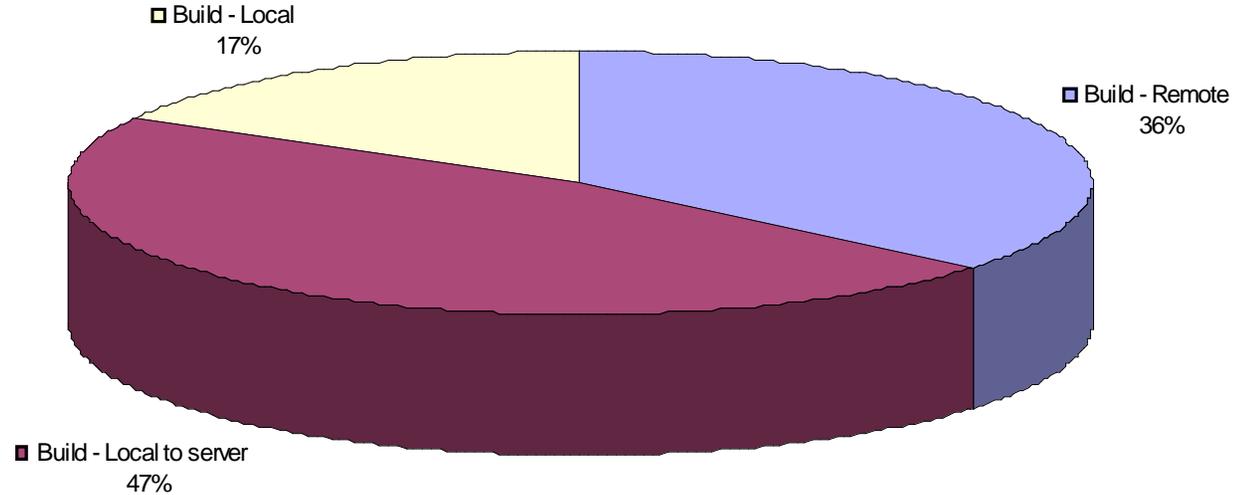


Current Development Model - Build





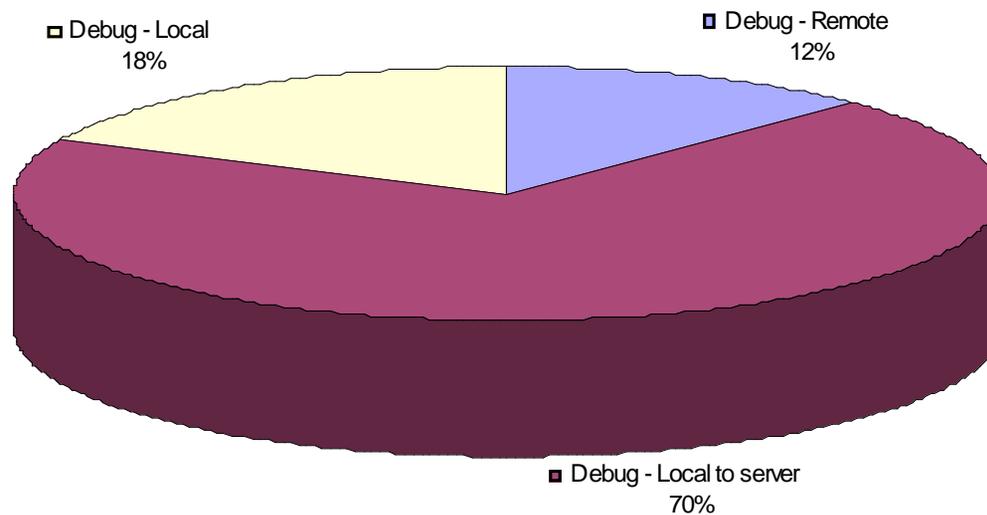
Desired Development Model - Build



- Notes:
 - Over 50% don't want to build on the server



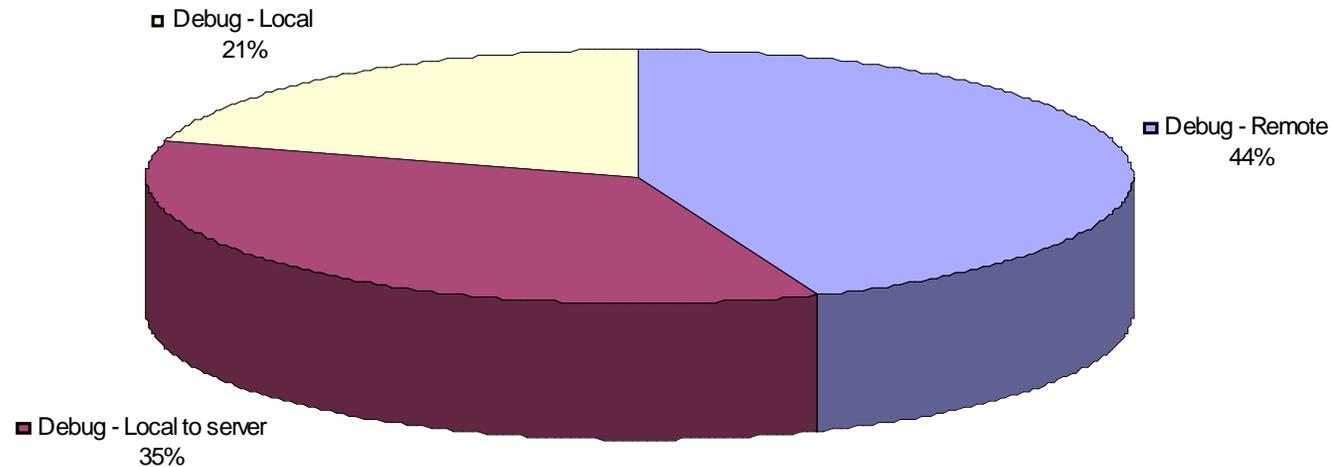
Current Development Model - Debug



- Notes:
 - “Local” means “debug locally, then rebuild and deploy to server once bug free”

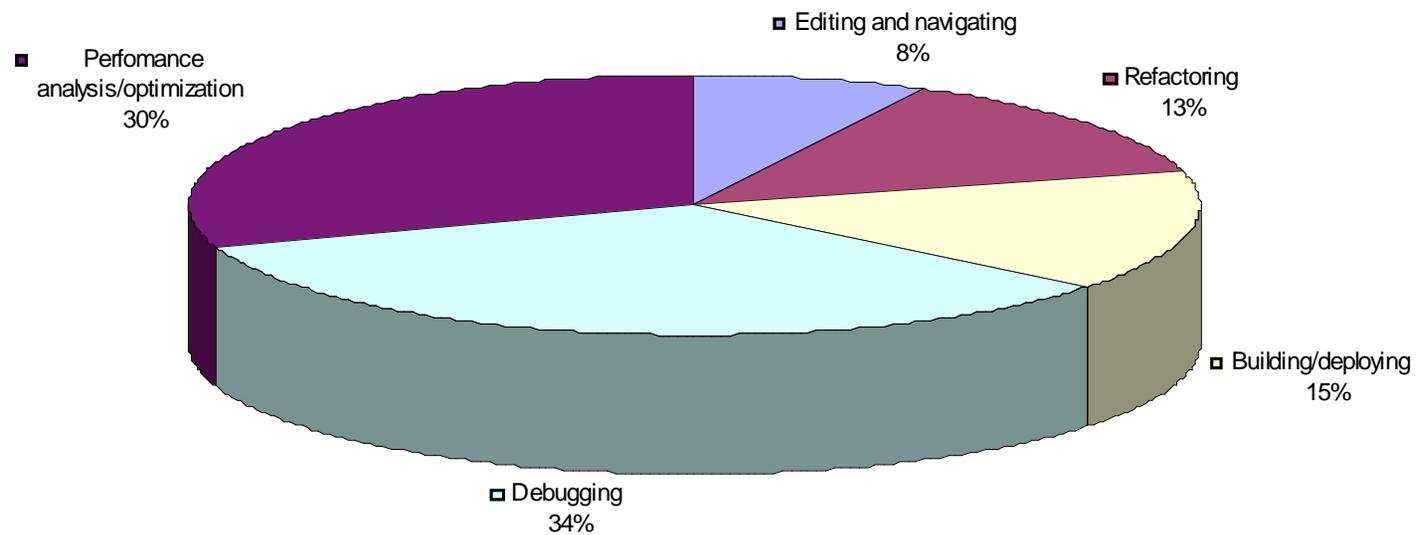


Desired Development Model - Debug



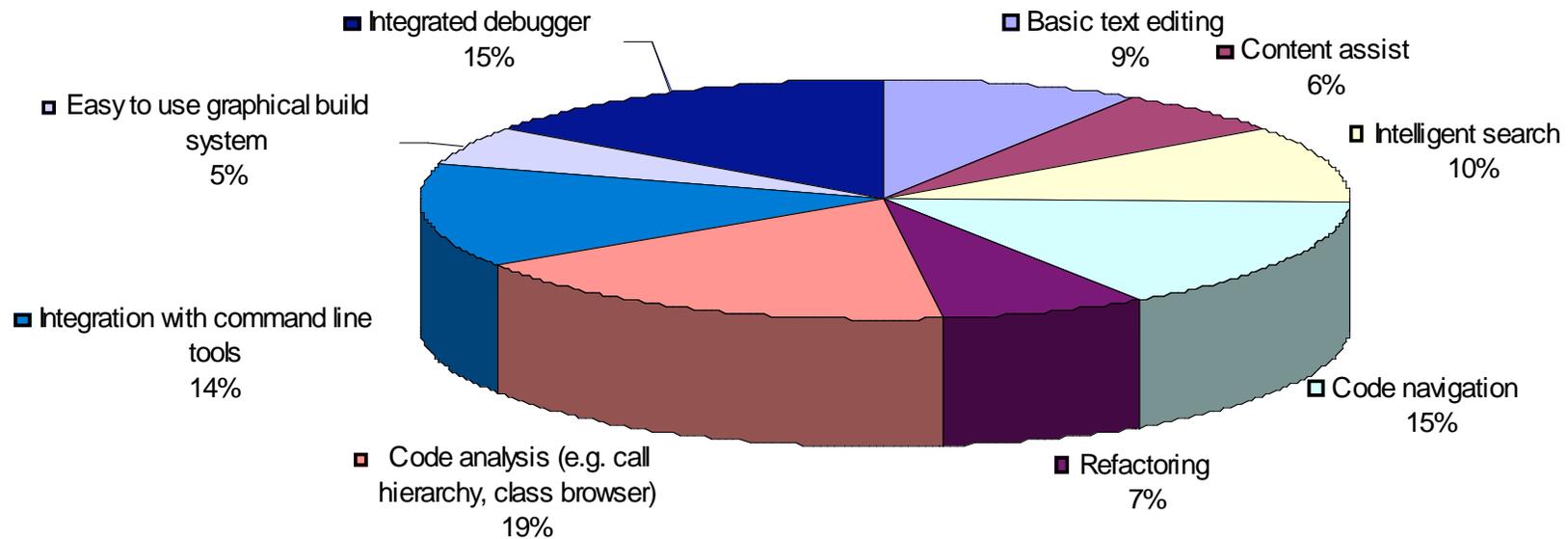


Impedances To Productivity





Features By Importance To Productivity





Suggested Features To Allocate Resources To

