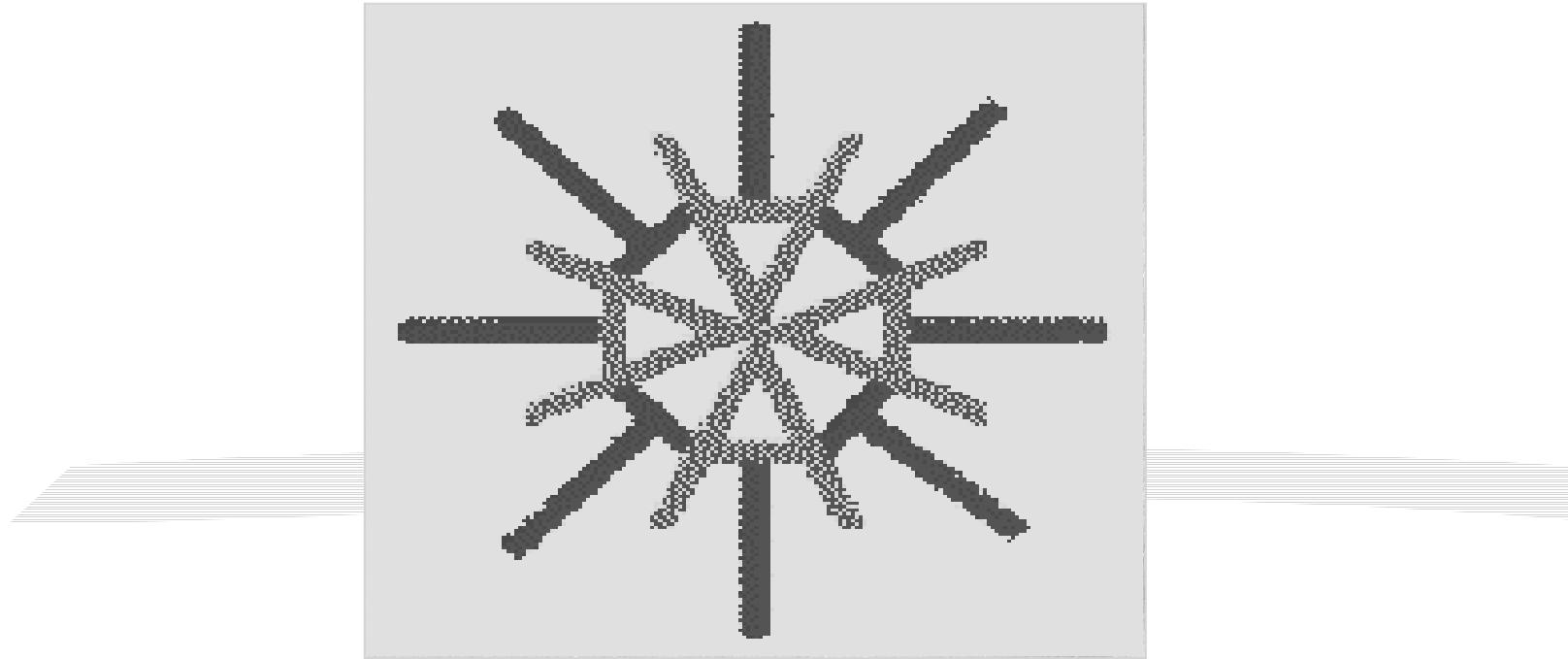


Vanguard Advanced Technologies

APPLICATION DELIVERY SERVICES



Managing Tool Selection

Robin Biscardi and Joe Christiano
ADS Standard Software Management
January 11, 2000

Managing Tool Selection

- ❑ Who is The Vanguard Group?
 - Largest No-Load Mutual Fund Company
 - Founded in 1975
 - Headquartered in Malvern, Pa

- ❑ Application Delivery Services (ADS)
 - Within the Advanced Technology Division
 - Development of:
 - Methodology
 - Development Standards and Practices

- ❑ Standard Software Management (SSM)
 - Management of Development Tools

Vanguard Advanced Technologies

Managing Tool Selection

- ❑ Vanguard Systems Architecture
 - Designed to Fit Within Vanguard's Business Architecture
 - Outlines Frameworks, Standards, and Design Principles
 - Composed of Four Layers
 - Application
 - Technical
 - Operations
 - Development

Managing Tool Selection

- Development Architecture
 - Combination of Development Methodology, Tools, and Environment that supports the development and operations of business systems
 - Tools Management
 - Defines Process of Managing System Development Tools.
 - Includes:
 - Planning
 - Research
 - Evaluation and Approval
 - Selection
 - Procurement and License Management
 - Delivery
 - Maintenance
 - Retirement

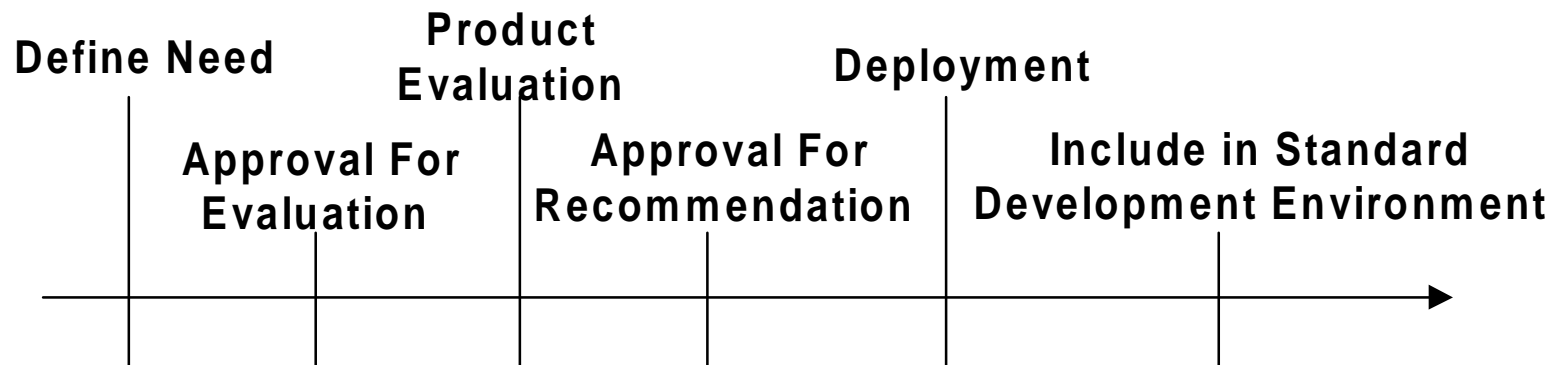
Managing Tool Selection

□ Tools Management

- Nearly Five Year Effort On The Part Of Standard Software Management(SSM) to:
 - Standardize Products & Versions
 - Institute Guidelines for Appropriate Use of Tools
 - Institute Budgetary Controls
 - Institute Purchasing Controls
 - Institute License Management
 - Standardize Installation Process
 - Promote Improved Communication and Relationships throughout Information Technology

Managing Tool Selection

High Level Event Work Flow



Managing Tool Selection

- ❑ Follows Vanguard Project Life Cycle Methodology
 - Utilize Standard Templates
 - Produce Standard Deliverables

- ❑ Create Project Charter and Project Plan
 - Define Business Case For Use Of New Product
 - Identify Requirements
 - Research potential products
 - Identify Stakeholders
 - Most of the time this is the evaluation team
 - Assess Budgetary Impact

Managing Tool Selection

- ❑ Obtain Approval
 - Technology Team Approval For Evaluation
 - Cross-Section of Technology Management
 - Meetings scheduled weekly
 - Several presentations per meeting

Managing Tool Selection

- ❑ Initiate Procurement Process
 - Prepare and Submit Request For Proposal or Information
 - Obtain Vendor Non Disclosures
 - Perform Contract Review
 - Obtain Evaluation Agreements

- ❑ Evaluation Team Ranks and Weighs Requirements

- ❑ Decision Based Upon Request For Proposal Information Received Measured Against Product Requirements

Managing Tool Selection

□ Evaluation Process

- Plan
 - Define Testing Criteria
- Obtain and Install Evaluation Copies
- TestLab Preparation
 - Test product(s) with Vanguard Standard Operating and Development Environments
- Document Evaluation
 - Expected vs. Actual Results

Managing Tool Selection

- ❑ Prepare and Document Recommendation

- ❑ Obtain Approval
 - Technology Team Approval For Purchase
 - Cross-Section of Technology Management

Managing Tool Selection

- Post-Approval Activity
 - Develop Roll-Out Plan
 - Additional Hardware/Software Needed?
 - Arrange Vendor Training/Consulting
 - Negotiate Vendor Contract
 - Create Installation Procedures
 - Communicate Product Availability
 - Coordinate Installation Process

Managing Tool Selection

- Tool Becomes Part Of Vanguard Standard Development Environment (SDE)
 - Ongoing review and management process through product life cycle
 - Identifies potential product retirement

Managing Tool Selection

□ QUESTIONS??