A. INTRODUCTION

- Formats for pilot projects

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REFERENCES

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NOTES

There are no widely available references for this unit. We have included a long handout if you want to give your students some background.

A. INTRODUCTION

- pilot project provides the first physical results from a GIS project
  - is usually the last major milestone prior to corporate and technical commitment
  - recognizes the difference between reading about the system and actually experiencing how it operates

- a pilot is part of the effort to "sell" the system within the organization
  - the results of pilot projects can be shown to decision-makers as evidence of the system's immediate value
  - provide a tangible way of communicating the potential of the system to skeptics within the organization
• some organizations may go to full production without a pilot
  • in this case may need to rework the first deliverables as the system is "run in"
  • this risks alienating users

• pilots are useful for
  • verifying estimates of costs and benefits
  • evaluating hardware, software, system and database design, procedures and alternatives

• in summary, pilots provide a range of reduction of risks associated with project before final commitment to full production is made

**Formats for pilot projects**

1. demonstration of concepts
   • a chance for the organization to see a similar system running in production, evaluate its products
   • will be a demonstration of limited facilities on a small area, using a system which may not be part of the final production system, mainly for development and hands-on experience
     • in some cases even the data may not be part of the organization's operation
   • provides early visibility of the system to management and users

2. prototype
   • a full-scale model of the future system
   • designed to identify any problems not foreseen by FRS and benchmarks, to finalize design and the conversion process
   • may be:
     • a "Development and Technical Prototype" to test code and learn the system
     • an "Applications Prototype" demonstrating potential applications development
   • generally convert an entire region or operating division of the organization from existing procedures to the new system

**B. MANAGEMENT OF A PILOT PROJECT**

• the pilot project should be defined and managed as effectively as the major project of which it is part
  • objectives must be defined clearly

**Objectives**

• evaluate system design
  • hardware and software
  • system performance
  • database design
  • updating of cost estimates for development
- test alternatives
  - ways of generating products
  - formats for products

- evaluate map input and conversion procedures
  - evaluate whether or not to use outside suppliers for data input and conversion
  - improve estimates of input and conversion schedules and costs
  - improve information on data sources

- test management procedures
  - training for staff
  - production scheduling
  - system management
  - maintenance schedules

- market system to end-users and management

**Issues in pilot design**

- enthusiasm and support of management
  - if support is minimal, the pilot must be oriented to building a sound business case for the system

- funds available
  - an effective pilot will have a substantial cost
  - to be successful the pilot must justify this cost and the subsequent, larger cost of the production system

- geographical area of pilot
  - if the pilot covers a region within the organization's service area, this region must be a significant proportion of the total area

- level of staff experience
  - pilot project design must consider the current level of experience of the project staff
  - must allow sufficient training and experience for those involved to permit realistic evaluation of the potential of the system

- the corporate environment
  - success of the project depends on corporate climate - how conservative, how risk-averse

**Results of the pilot**

- at bare minimum:
  - experience in implementing a GIS project
  - management approval to proceed with major project
ideally, it will:
- reduces risk in all areas
- increases the effectiveness of the major project
- improves efficiency in the early stages of the major project

a pilot can result in:
- trained staff and users
- well-developed technical, managerial and production procedures
- near-production computer code
- an improved implementation plan
- enthusiastic support of management and users

C. EXAMPLE PILOTS - AM/FM SYSTEMS

all pilots are unique to their corporate and technical context
- because of the major investments involved in AM/FM projects, AM/FM installations provide good examples of carefully planned pilot projects

Pilot projects in AM/FM

- first in late 1960s in Cheyenne, Wyoming, by Public Service Company of Colorado
  - showed that technology and software cost and performance were not sufficiently advanced to support a large AM/FM project

- some pilots today use consultants and hardware/software environments that can produce results in 4 months
  - these are generally for small municipalities and utilities, less than 100,000 customers

- larger projects requiring investments in the $10 million to $100 million range may require 1 to 2 year pilots to meet design objectives

Salt River Project

- is a water management system in Arizona

- active in AM/FM since 1979

overhead - Salt River Project (2 pages)

Pilot comparisons

overhead - Comparison of several AM/FM pilots
- table summarizes 11 AM/FM pilots by size and schedule

length of time used and size are functions of:
- scope of pilot definition
- resource commitment
- corporate experience in AM/FM
- type of service area (urban/rural)
- system purchased
- contents of database
- range of applications demonstrated
- system requirements

REFERENCES

"Pacific Gas and Electric project history", see handout following (7 pages).

EXAM AND DISCUSSION QUESTIONS

1. Review and discuss the handout provided on Pacific Gas and Electric project history.

2. Summarize the arguments for and against the use of a pilot project as part of the planning process for a major GIS project.

Last Updated: August 30, 1997.