Sample Problem Statements

Problem Statements

Project:	Member services information system	Project manager:	Sandra Shepherd
Created by:	Sandra Shepherd	Last updated by:	Robert Martinez
Date created:	January 9, 2003	Date last updated:	January 15, 2003

Brief Statements of Problem, Opportunity, or Directive	Urgency	Visibility	Annual Benefits	Priority or Rank	Proposed Solution
1. Order response time es measured from time of order receipt to time of customer delivery has increased to an average of 15 days.	ASAP	High	$175,000	2	New development
2. The recent acquisitions of Private Screenings Video Club and GameScreen will further stress the throughput requirements for the current system.	6 months	Med	75,000	2	New development
3. Currently, three different order entry systems service the audio, video, and game divisions. Each system is designed to interface with a different warehousing system; therefore, the intent to merge inventory into a single warehouse has been delayed.	6 months	Med	515,000	2	New development
4. There is a general lack of access to management and decision-making information. This will become exasperated by the acquisition of two additional order processing systems (from Private Screenings and GameScreen)	12 months	Low	15,000	3	After new system is developed, provide users with easy-to-learn and -use reporting tools.
5. There currently exist data inconsistencies in the member and order files.	3 months	High	35,000	1	Quick fix; then new development
6. The Private Screenings and GameScreen file systems are incompatible with the SoundStage equivalents. Business data problems include data inconsistencies and lack of input edit controls.	6 months	Med	unknown	2	New development. Additional quantification of benefit might increase urgency.
7. There is an opportunity to open order systems to the Internet, but security and control are an issue.	12 months	Low	unknown	4	Future version of newly developed system
8. The current order entry system is incompatible with the forthcoming automatic identification (bar-coding) system being developed for the warehouse.	3 months	High	65,000	1	Quick fix, then new development

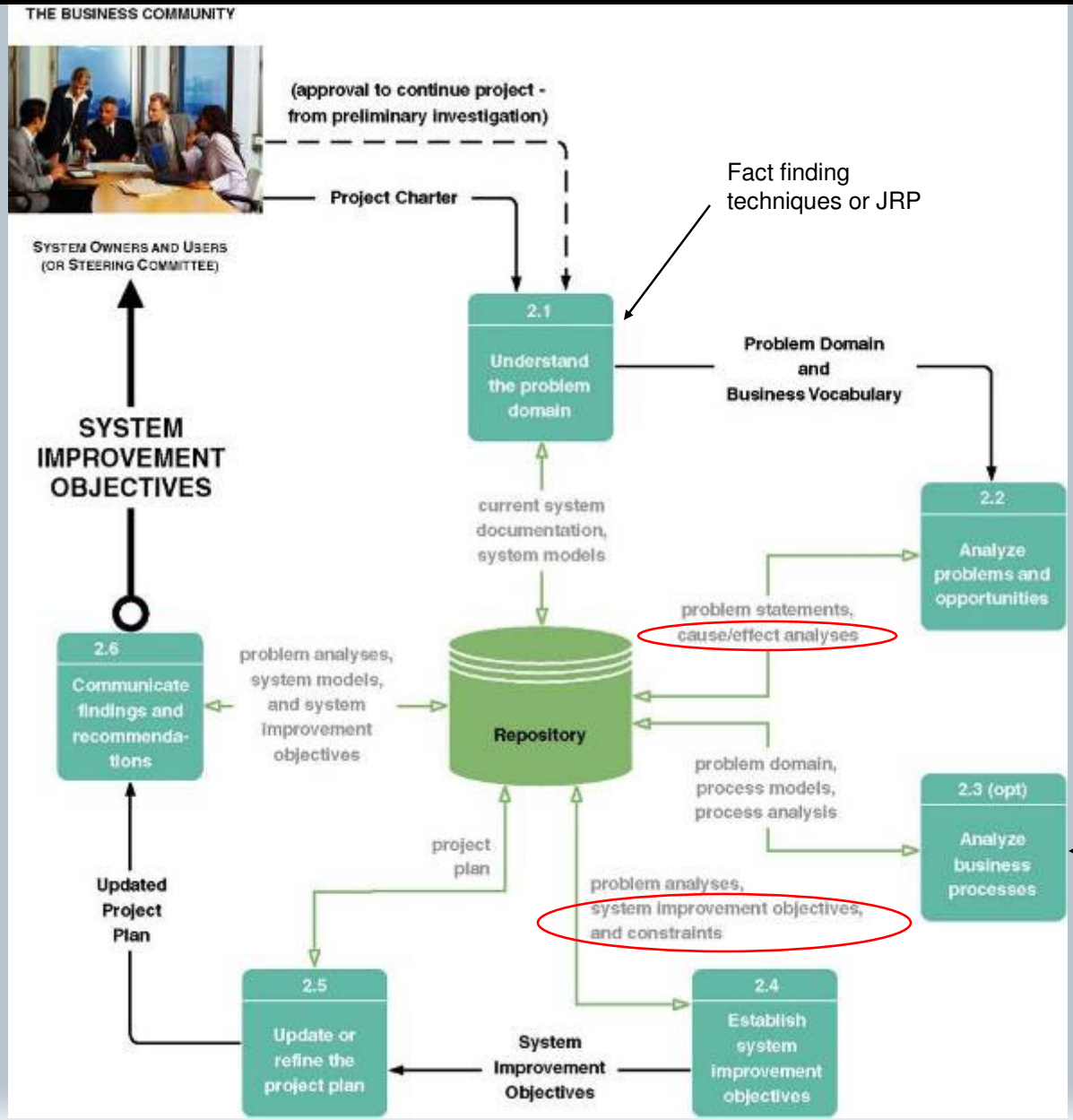
Scope Definition Phase

Steering body – komite dari eksekutif dan manajer sistem yang mempelajari dan memprioritaskan beberapa proposal proyek untuk menentukan proyek mana yang akan menghasilkan nilai terbesar bagi organisasi, sehingga harus disetujui

- Disebut juga *steering committee*.

Project charter – hasil akhir dari fase investigasi pendahuluan, yang menyatakan ruang lingkup proyek, rencana, metode, standar, dst.

Tasks for Problem Analysis Phase of Systems Analysis



Cause-and-Effect Analysis

Cause-and-effect analysis –teknik yang mempelajari masalah untuk menentukan sebab dan akibat

System Improvement Objectives

Objective – pengukuran kesuksesan. Sesuatu yang diharapkan untuk tercapai, bila diberikan *resources* yang cukup

- Mengurangi jumlah *account* pelanggan yang tak dapat ditagih 50 persen sampai dengan tahun depan
- Meningkatkan 25 persen jumlah aplikasi pinjaman yang dapat diproses dalam 8 jam
- Menurunkan 50 persen waktu yang dibutuhkan untuk menjadwalkan kembali lot produksi jika sebuah workstation tidak berfungsi

Constraint – sesuatu yang membatasi fleksibilitas dalam menentukan solusi untuk tujuan anda. Biasanya tidak dapat diubah.

- Sistem baru harus operasional paling lambat 15 April
- Biaya sistem baru tidak dapat melebihi USD 350,000
- Sistem baru harus berbasis internet
- Sistem baru harus melakukan tagihan ke pelanggan setiap 15 hari

Sample Cause-and-Effect Analysis

PROBLEMS, OPPORTUNITIES, OBJECTIVES, AND CONSTRAINTS MATRIX

Project:	Member Services Information System	Project Manager:	Sandra Shepherd
Created by:	Robert Martinez	Last Updated by:	Robert Martinez
Date Created:	January 21, 2003	Date Last Updated:	January 31, 2003

CAUSE-AND-EFFECT ANALYSIS		SYSTEM IMPROVEMENT OBJECTIVES	
Problem or Opportunity	**Causes and Effects**	**System Objective**	**System Constraint**
1. Order response time is unacceptable.	1. Throughput has increased while number of order clerks was downsized. Time to process a single order has remained relatively constant. 2. System is too keyboard-dependent. Many of the same values are keyed for most orders. Net result is (with the current system) each order takes longer to process than is ideal. 3. Data editing is performed by the AS/400. As that computer has approached its capacity, order edit responses have slowed. Because order clerks are trying to work faster to keep up with the volume, the number of errors has increased. 4. Warehouse picking tickets for orders were never designed to maximize the efficiency of order fillers. As warehouse operations grew, order filling delays were inevitable.	1. Decrease the time required to process a single order by 30%. 2. Eliminate keyboard data entry for as much as 50% of all orders. 3. For remaining orders, reduce as many key-strokes as possible by replacing keystrokes with point-and-click objects on the computer display screen. 4. Move data editing from a shared computer to the desktop. 5. Replace existing picking tickets with a paperless communication system between member services and the warehouse.	1. There will be no increase in the order processing workforce. 2. Any system developed must be compatible with the existing Windows 95 desktop standard. 3. New system must be compatible with the already approved automatic identification system (for bar coding).

Outline for System Improvement Report

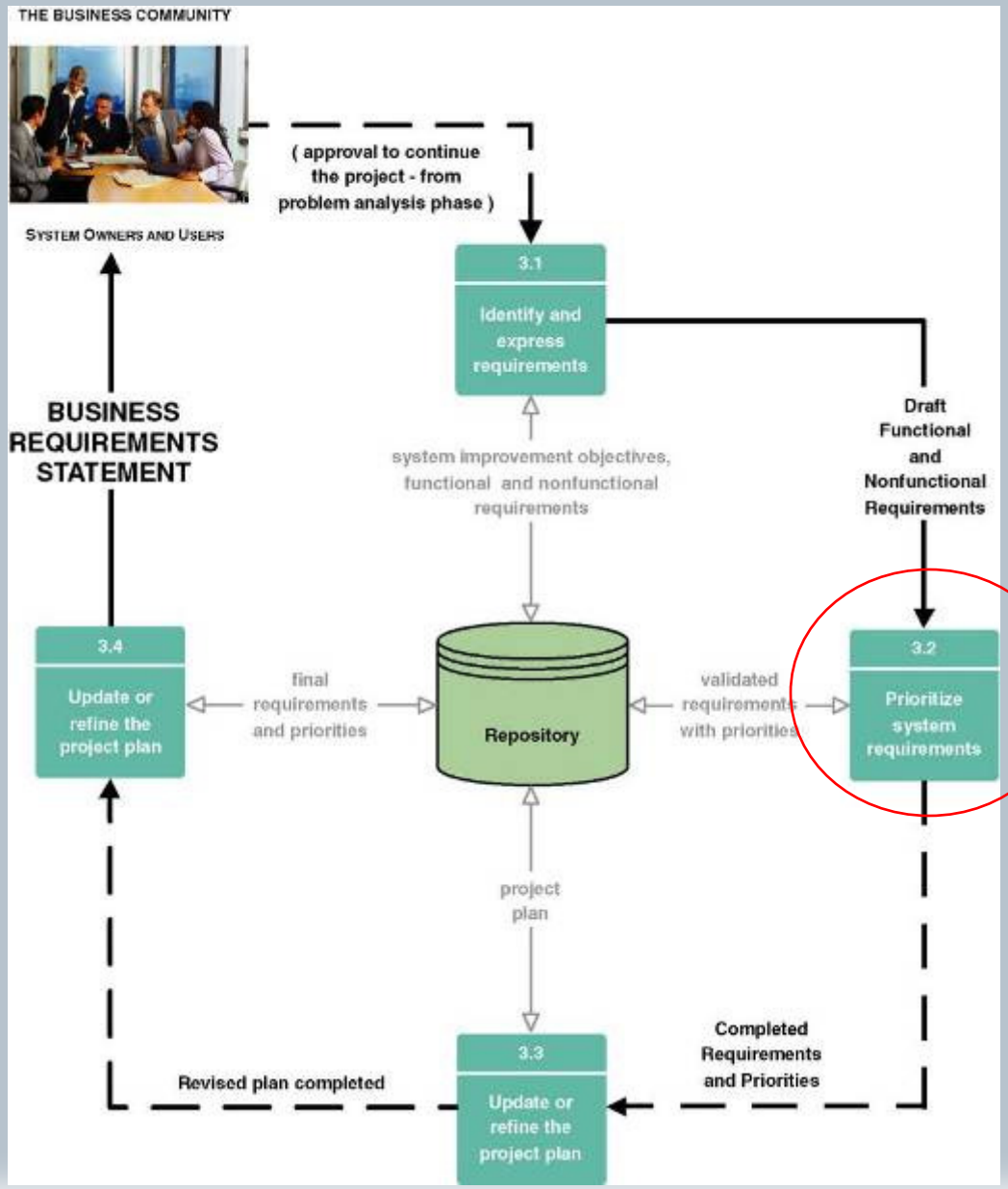
Figure 5.12 *An Outline for a System Improvement Objectives and Recommendations Report*

Analysis of the Current _____ System

I. Executive summary (approximately 2 pages)
   A. Summary of recommendation
   B. Summary of problems, opportunities, and directives
   C. Brief statement of system improvement objectives
   D. Brief explanation of report contents
II. Background information (approximately 2 pages)
   A. List of interviews and facilitated group meetings conducted
   B. List of other sources of information that were exploited
   C. Description of analytical techniques used
III. Overview of the current system (approximately 5 pages)
   A. Strategic implications (if the project is part of or impacts an existing information systems strategic plan)
   B. Models of the current system
      1. Interface model (showing project scope)
      2. Data model (showing project scope)
      3. Geographic models (showing project scope)
      4. Process model (showing functional decomposition only)
IV. Analysis of the current system (approximately 5–10 pages)
   A. Performance problems, opportunities, and cause-effect analysis
   B. Information problems, opportunities, and cause-effect analysis
   C. Economic problems, opportunities, and cause-effect analysis
   D. Control problems, opportunities, and cause-effect analysis
   E. Efficiency problems, opportunities, and cause-effect analysis
   F. Service problems, opportunities, and cause-effect analysis
V. Detailed recommendations (approximately 5–10 pages)
   A. System improvement objectives and priorities
   B. Constraints
   C. Project plan
      1. Scope reassessment and refinement
      2. Revised master plan
      3. Detailed plan for the definition phase
VI. Appendixes
   A. Any detailed system models
   B. Other documents as appropriate

Tasks for Requirements Analysis Phase

Requirement analysis phase = definition phase = logical design phase



Functional vs. Nonfunctional Requirements

Functional requirement – deskripsi dari aktivitas dan layanan yang harus disediakan sebuah sistem

– *inputs, outputs, processes, stored data*

Nonfunctional requirement – deskripsi dari fitur, karakteristik dan batasan lain yang menentukan kepuasan sistem

– *Performance, ease of learning and use, budgets, deadlines, documentation, security, internal auditing controls*