APPENDIX A

PROJECT LIFE CYCLE STEPS AND CHECKLISTS

DATA WAREHOUSE PROJECT LIFE CYCLE: MAJOR STEPS AND SUBSTEPS

Note: The substeps indicated here are at a high level. Expand these substeps as necessary to suit the requirements of your environment.

PROJECT PLANNING
  - Definition of scope, goals, objectives, and expectations
  - Establishment of implementation strategy
  - Preliminary identification of project resources
  - Assembling of project team
  - Estimation of project schedule

REQUIREMENTS DEFINITION
  - Definition of requirements gathering strategy
  - Conducting of interviews and group sessions with users
  - Review of existing documents
  - Study of source operational systems
  - Derivation of business metrics and dimensions needed for analysis

DESIGN
  - Design of the logical data model
  - Definition of data extraction, transformation, and loading functions
  - Design of the information delivery framework
  - Establishment of storage requirements
  - Definitions of the overall architecture and supporting infrastructure
CONSTRUCTION
Selection and installation of infrastructure hardware and software
Selection and installation of the DBMSs
Selection and installation of ETL and information delivery tools
Completion of the design of the physical data model
Completion of the metadata component

DEPLOYMENT
Completion of user acceptance tests
Performance of initial data loads
Making user desktops ready for the data warehouse
Training and support for the initial set of users
Provision for data warehouse security, backup, and recovery

MAINTENANCE
Ongoing monitoring of the data warehouse
Continuous performance tuning
Ongoing user training
Provision of ongoing support to users
Ongoing data warehouse management

CHECKLISTS FOR MAJOR ACTIVITIES

Note: Break the following major activities down into detailed tasks. Prepare your own checklists for the tasks in each major activity.

PROJECT PLANNING
Complete definition of project scope and objectives
Prepare project initiation document
Conduct project initiation sessions with sponsor and user representatives
Complete selection of project team members
Prepare project schedule
Complete project plan document

REQUIREMENTS DEFINITION
Complete summaries of interviews and group sessions
Summarize available information on data from source systems
Document information delivery requirements to user groups
Discuss and agree with users on system performance
Complete information package diagrams showing metrics and dimensions
Prepare and publish requirements definition document

DESIGN
Complete the E-R and dimensional diagrams for the logical data model
Document all data extraction and data staging functions
Estimate data storage requirements
Classify users and determine information delivery criteria for each class
Document desired features needed in all types of tools
Create design specifications for any in-house programs for data staging, loading, and information delivery

CONSTRUCTION
Install and test infrastructure hardware and software
Install and test selected DBMSs
Install and test selected tools
Complete the physical data model and allocate storage
Test initial and ongoing data loads
Complete overall system test

DEPLOYMENT
Complete user acceptance documents
Load initial data
Install and test all the required software on the client machines
Train initial set of users
Grant authorizations for data warehouse access to various classes of users
Establish backup and recovery procedures

MAINTENANCE
Establish procedures to gather statistics for ongoing monitoring
Fine-tune the data warehouse as necessary
Complete materials for training of users and establish training schedule
Establish user support structure
Establish procedures for data warehouse management
Upgrade infrastructure as needed from time to time