Knowledge Management Project Methodology

An Overview

Based on the K-CIRmodel Methodology

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K-CIRmodel Methodology Overview

Purpose and Scope

The K-CIRmodel is an approach and a methodology for conducting Knowledge Management system implementation projects. The K-CIRmodel assumes that a previous organizational knowledge analysis was successfully completed (usually performed by or/and involved with organizational consultants), that artifacts from that analysis are available and that management have decided to move forward to the implementation step, i.e. to construct a system to manage organizational knowledge based on the needs, requirements and characteristics defined in the knowledge analysis stage.

In its essence, K-CIRmodel is an implementation framework that helps Shondoo Consulting's customers, consultants, and certified partners develop Knowledge Management solutions as quickly and successfully as possible. Based on the collective experience of successful Shondoo Consulting's engagements, K-CIRmodel uses flexible, repeatable methods and tools, and is continually improved by incorporating feedback from consultants and projects.

K-CIRmodel covers the entire implementation project lifecycle from planning through operational deployment, with tasks that are adaptable to any type of knowledge management project. K-CIRmodel Phases and Tasks include guidelines and document stencils to provide you with a full set of methods and tools. These methods and tools accelerate the development process, maximize the return on investment, and reduce the risk of overlooking elements critical to the success of the project.

K-CIRmodel Life Cycle

The K-CIRmodel life cycle consists of six Phases. The K-CIRmodel Phases section of this document provides detailed descriptions of Phases 1 (Discovery) through 6 (Deployment).

Each K-CIRmodel Phase contains Tasks, output artifacts, associated roles, and supporting information and guidelines.

Phase 1, Discovery is utilized at the start of a project to determine the initial scope and business objectives. **Phases 2 through 5** form an iterative development process life cycle that can be used across project life cycle phases to produce phased deliverables. For example, if an initial prototype or proof-of-concept for the Knowledge Management System needs to be developed prior to

the first deployment, and the customer wants to add features in a release after the first release, the Knowledge Management project life cycle might look similar to a regular project life cycle with iterating phases 2-5. The tasks and deliverables in the iterative releases would be tailored to the scope of the project deliverable for that release.

K- CIRmodel Rapid Application Development (RAD) Approach

K-CIRmodel can also be utilized within a Rapid Application Development (RAD) approach. RAD is a collection of practices that include requirements scrubbing and time-boxed development of a small set of features with intensive review by end users. The K-CIRmodel Tasks can be applied within the RAD process.

K-CIRmodel Benefits

K-CIRmodel is based on Shondoo Professional Services consultants' extensive experience and learning during client engagements, and is designed to be a primary means of ensuring customer success.

Benefits of using K-CIRmodel:

- K-CIRmodel Phases and Tasks specifically support the deployment of Shondoo's projects, and will evolve along with changes in Shondoo's project offerings.
- K-CIRmodel's iterative development process allows for rapid, staged deployment, with follow-on releases of additional features.
- K-CIRmodel's comprehensive set of tasks and guidelines reduce the risk of overlooking elements critical to the customer's success.
- K-CIRmodel uses reliable, repeatable methods and tools and reduces overall engagement risks.
- K-CIRmodel provides a basis for sharing and incorporating best practices and new methods to continually evolve and improve the state of our development practice.

K-CIRmodel Format

K-CIRmodel Tasks are presented in Microsoft Project with hyperlinks to the K-CIRmodel on-line documentation, which provides the following information for each Microsoft Project K-CIRmodel Task:

- **Task description -** A detailed description of the purpose of the Task and the activities involved in accomplishing it.
- **Primary role -** The role with primary responsibility for accomplishing the Task. All roles are described in the **K-CIRmodel Team Model**, a supporting document.
- **Supporting roles -** Any additional roles involved in the Task.
- **Document stencil -** The document stencil that can be used to create the output artifact for this Task. Document stencils contain prototypical outlines for the output artifacts, as well as providing guidance on the content for each section of the outline.
- **Input artifacts -** Any previous project artifacts that are used in the process of completing this Task. (Artifacts are work products produced by the project, such as a project plan or a functional specification.)
- **Output artifacts -** Any project artifacts that are generated as a result of the completion of this Task.
- **Supporting information -** Any guidelines or white papers that can assist in the performance of this Task.

Adapting K-CIRmodel to a Specific Project

Knowledge Management systems vary considerably in essence, purpose and scope. K-CIRmodel takes into consideration such a diversity.

K-CIRmodel's comprehensive set of tasks and artifacts should be adapted and tailored to the scope and complexity of a specific project.

System Categorization

Most Knowledge Management systems can be classified into the one or more of the following categories:

- **Enterprise Portal**
- Knowledge Sharing and Knowledge-based Collaboration
- Document Management
- Best Practices Management
- Competitive Intelligence
- Organizational Knowledge Classification and Retrieval
- Customer Support Management (CSR systems) and Self-Service
- Tacit Knowledge Handling
- Enterprise Expertise Management

K-CIRmodel takes into consideration this diversity of Knowledge Management systems, providing, on one hand, a generic method for designing and

implementation regardless of such specific categorization; while allowing, on the other hand, an emphasis to be drawn in certain project phases for each of the above specific system categories, depending on system's unique nature.

System Scope

Knowledge Management systems can vary in scope, from small prototype or proof of concept, department/LOB-centric knowledge management systems to enterprise-wide knowledge management. K-CIRmodel stages can be tailored to accommodate such variety of scopes. Tailoring can include omitting tasks, or reducing the formality and complexity of a task or artifact. For example, a small short-term project would still create a requirements document, but it might consist of fewer pages and be less formal than a requirements document for a larger project.

Commercial Products vs. Development

K-CIRmodel assumes usage of a combination of the following elements in the construction of a Knowledge Management System:

- Ready-made building blocks such as commercial software products.
- Customization and integration (through parameters, menus, administration interfaces, and APIs)
- Development

Given a system requirements and design, K-CIRmodel approach is to favor elements in the order listed above (i.e. ready-made building blocks, then customization and integration, and only when necessary – development).

Knowledge Management popular software building blocks include:

- Data Base Management Servers
- Web / Application Servers
- **Enterprise Information Portals (EIP)**
- Search, Classification & Retrieval Engines
- Document Management Systems
- Competitive Intelligence packages
- Content Management Systems
- Integration Technologies (Web Services / EAI)
- Business Rule Engines
- Collaboration Tools
- Expertise Management Tools (Expertise Profiling, Expert Location)
- Personalization Engines

- Knowledge Visualization Technologies
- CSR Products
- Tacit Knowledge Management Systems

K-CIRmodel fully supports such a combination of ready-made components, customization and development in system construction.

K-CIRmodel Phases

Phase 1: Discovery

Purpose

- To ensure that previous knowledge Analysis Project outcomes and relevant client information are transferred to the project team
- To establish high-level goals and objectives and to assess the risks of the program.

A program can encompass overall planning for several projects. At the project level, the purpose is to create and institute the necessary plans and procedures to ensure successful project execution.

Tasks Included

- Analyze previous Knowledge Analysis Stage results. These results should include the following items:
    - Knowledge Requirements and expected benefits
    - Knowledge Management Business Objectives
    - Knowledge Culture Analysis
    - Knowledge Classes Mapping
    - Knowledge Sources Mapping
    - Knowledge Flow Analysis
- Gather and document client background information.
- Conduct a project risk assessment.
- Perform preliminary effort and technical scoping.
- Complete Statement of Work and contractual negotiations.
- Define initial program plan, including roles and responsibilities, critical success factors, risks, and product and functionality commitments.
- Conduct Project Kickoff meeting to define project strategies for:
    - Requirements change control
    - Risk management plan

- Communications plan
- Issue resolution plan
- Project team roles and responsibilities

Output Artifacts

- Contractual agreement with customer
- Initial program and project management plans

Examples of Associated Document Stencils or Guidelines

- Project Preparation Survey
- Statement of Work
- Project Kickoff Worksheet
- Project Management Plan

Completion Milestones

- Signed contractual agreement
- Completed initial program plan
- Completed and approved initial project plan

Phase 2: Analysis

Purpose

To define and document the client's overall business and application requirements from the Knowledge Management System. This Phase includes the definition of the organizational requirements for ongoing knowledge management and maintenance by the client system.

Tasks Included

- Define the overall business requirements.
- Define system target audiences.
- Define workflow requirements.
- Define knowledge display and knowledge management requirements.
- Define knowledge production, classification, personalization, performance, collaboration, sharing, and multi-channel requirements.
- Define key performance indicators.
- Write requirements document.

- Begin requirements test plan.
- Define new organizational roles and responsibilities and Knowledge Management processes.
- Define organizational change management approach.

Output Artifacts

- Requirements document

Examples of Associated Document Stencils or Guidelines

- Requirements document
- Use Case Specification
- Questions for Gathering Client Requirements

Completion Milestones

- Completed and approved Requirements document.

Phase 3: Design

Purpose

To design the Shondoo solution that best satisfies the client's business and technical requirements, and to define the underlying technology infrastructure needed to support the client application.

Tasks Included

- Design workflow solution.
- Design Knowledge Management application.
- Design Knowledge Display application.
- Design database schema.
- Design Knowledge Collaboration strategy.
- Define architecture and configuration.
- Select software and hardware technological building blocks and products.
- Develop the security strategy.
- Design staging strategy.
- Define the backup and recovery strategy.
- Conduct capacity planning.
- Provide detailed project plan and estimate to client.

Output Artifacts

- Detailed project plan and estimate
- Functional Specification
- Detailed Design Specification
- System Architecture Specification

Examples of Associated Document Stencils or Guidelines

- Functional Specification
- Detailed Design Specification
- System Architecture Specification
- Backup and Recovery Plan

Completion Milestones

- Completed and approved functional specification
- Completed system architecture specification
- Completed and approved project plan and estimate

Phase 4: Construction

Purpose

- Implement the client system based on the client's requirements and the design.
- Perform component, functional specification, and requirements testing.

Tasks Included

- Install software products.
- Set up development, test and production environments.
- Implement application architecture (customization, code).
- Implement technical infrastructure architecture (customization, code).
- Implement design specifications (customization, code).
- Implement application integrations (customization, code).
- Develop test plans.
- Perform component level testing.
- Perform functional specification and requirements testing.

Output Artifacts

- Completed and tested application components and test plans

Examples of Associated Document Stencils or Guidelines

- Development Guidelines
- Code Review Guidelines
- Test Plan and Test Scripts

Completion Milestones

- Application and infrastructure components ready for beta testing and evaluation

Phase 5: Deployment

Purpose

Beta test and evaluate the system, launch the system, move system ownership to the supporting organization, conduct a Project Completion Review, and perform a project debriefing to gather lessons learned.

Tasks Included

- Launch beta system and perform performance tests.
- Provide training and implement organizational changes.
- Launch the system.
- Transition ownership to the supporting organization.
- Conduct Project Completion Review.
- Perform project debriefing

Output Artifacts

- Completed system test documentation
- Fully tested and launched system

Examples of Associated Document Stencils or Guidelines

- Project Configuration Worksheet
- Project Debriefing Worksheet
- Site Submission and Promotion resources

Completion Criteria

- Successful system beta test and launch based on predefined success criteria.

Phase 6: Maintenance

Tasks for this Phase are detailed in a separate document.

Appendix A: Acronyms and Definitions

Artifact - A work product produced by the project, such as a completed document or completed application component.
Document stencil - An outline or template that can be used to produce an artifact. The outline usually includes guidance regarding the intended knowledge management nature of the artifact.
K-CIRmodel - Shondoo Consulting's Knowledge Management project Methodology