



## **A Requirements Life Cycle Process for Data Warehousing**

*4-Day Course and Workshop*

**Course Number: NT-260**

A Business Analyst's prime responsibility is to help define requirements in order to document a project's ultimate goal and to guide design and development. DEA's experience working with customers and our continual research in the field has resulted in the compilation of a number of best practices for the processes that support business analysis. In this course, we focus on those best practices particularly as they apply to data warehouse projects. Our core findings:

- A good data warehouse process should begin with understanding business need and the defining the questions that the warehouse should help the business answer.
- A good data warehouse process should deal with complexity by providing different views of the problem at different levels of detail.
- A good data warehouse process should include a formal framework of architecture products and answer what models to use, what questions to ask and what artifacts to complete.
- A good data warehouse process should provide management support by detailing activities and tasks that translate to project plans, and by including guidelines for dealing with change management, project issues, and requirement history.

This four-day course describes DEA's *LINKProcess*<sup>TM</sup> as it applies specifically to the needs of data warehouse projects. The process has been tailored to include best practices and incorporates lessons learned from data warehousing projects that range in scale from large (the creation of a new data warehouse environment) to a smaller scale (delivering data from an existing warehouse).

Our courses are developed and delivered by professionals with extensive hands-on experience in business analysis covering many different industries. We use an integrated case study developed and refined over the last 15+ years to provide a better understanding of how the deliverables support the full Requirements Life Cycle from requirements gathering to test scenarios. Hands-on work sessions provide practice in applying the techniques. The course fully supports the IIBA's Body of Knowledge areas. As the BABOK is updated, our courses are also updated to follow and reflect the industry best practices.



# Courses

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## Course Objectives:

After taking this course students will be able to:

- Understand the concepts, components and framework of DEA's Requirements Life Cycle Process for Data Warehouse Projects
- Use the IIBA Bodies of Knowledge and understand how they apply to Data Warehouse projects
- Understand the activities required of the Business Analyst
- Use techniques to elicit and document requirements from Subject Matter Experts in the most efficient way possible
- Build and develop requirements documentation, including:
  - Business questions and analytic needs
  - As-Is and To-Be warehouse processing
  - Source-to-target mapping
  - Data acquisition and integration rules
  - Data delivery rules
  - Reporting and analytics
  - Non-functional requirements such as data freshness and availability

## Who Should Attend:

- Entry-level Business Analysts and their managers who are involved in Data Warehouse projects
- Self-taught Business Analysts
- Quality Assurance Professionals
- IT Project Managers
- System Analysts interested in expanding their skills to include Business Analysis as it applies to Data Warehousing



## **A Proven Requirements Life Cycle for Data Warehousing** *4-Day Course Outline*

### **DEA's LINKProcess™ Data Warehouse Requirement Life Cycle**

- Why Is a Requirements Life Cycle Important?
- DEA's Requirements Life Cycle Approach
  - Framework
  - Architecture
  - The Value of Models
- The IIBA Bodies of Knowledge Areas
- Role of the Business Analyst
- What's Different about a Data Warehouse Project?

### **Initiate and Plan the Project**

- Work with the Project Manager to Assess the Project Type
  - New Data Warehouse
  - Data Acquisition
  - Data Delivery
- Understand the Scope and Type of the Project
- Confirm the Business Objectives and Critical Success Factors
- Determine the Requirements Activities and Assist the Project Manager in Preparing a Work Breakdown Structure
- Determine the Deliverables
- Kick off the Project

### **Incorporate a Model Driven Approach**

- Why Use Models?
- Requirements Model Basics for Data Warehouse Projects
  - Context Models
  - Data Models
  - Data Movement Processing
  - Rules Models
  - Use Cases

### **Understand the Business Need**

- Who Should You Interview?
- Identify "Questions" – What Does the Business Need from the Warehouse?
- Who Uses the Data Warehouse and Why?
- How Will Users Interact with the Warehouse?
- Who Knows the Data?
- Identify Opportunities



# Courses

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- Worksession: Document the Questions the Warehouse Needs to Answer

## **Determine the Project Context**

- What Does “Context” Mean?
- User Interfaces and System Interfaces
- Data Movement
- Worksession: Build a Context Diagram

## **Analyze the Requirements for Data Acquisition**

- Identify Sources
- Capture Source Meta Data
- Data Acquisition Rules
  - Quality
  - Availability
  - Frequency of Acquisition
- Data Profiling
  - How to Handle Issues of Incomplete or Inconsistent Data
- Historical Loads
- Conversion Issues
- Worksession: Identify Data Acquisition Requirements for the Case Study

## **Requirements for Data Warehouse Architecture**

- Different Types of Warehouses and Implementation Options
- Data Warehouse Schema Design – Conceptual, Logical, Physical
- Dimensional Design
- Marts and Views
- What’s the Role of the Business Analyst?
- Mapping Source Data to the Schema

## **Analyze the Requirements for Data Integration**

- How Will New Data Be Mapped to Existing Information in the Warehouse?
- How Will Data Be Integrated with Other Sources?
- Rules
  - Filters
  - Exclusions
  - Hierarchy of Trust – Which Data “Wins”?
  - Transformations
- Worksession: Identify Data Integration Requirements

## **Analyze the Requirements for Data Delivery**

- Reporting and Analytics
- What Gets Mapped to What?
- Filters, Exclusions, Dimensions
- Report Content vs Report Functionality vs Report Layout
- Performance



# Courses

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- Worksession: Identify Data Delivery Requirements and Create Source-to-Target Matrix

## **Model the Data Requirements**

- What Are You Modeling?
  - Data Warehouse Model
  - Data Mart
  - Views
  - Source Data
  - Target Data
- Conceptual or Logical or Physical Data Models?
  - Entities and Attributes
  - Relationships
  - Keys
- Worksession: Build an Entity Relationship Diagram

## **Use Project Results**

- Use Requirements to Build Test Scenarios
- Maintain System Documentation from Requirements Specifications
- Use Requirements to Assess the Magnitude of Development

## **Establish a Requirements Management Strategy**

- Role of the BA during Design, Build, Test and Deployment
- Tracking Requirements Changes
- Traceability