



System Development and Life-Cycle Management (SDLCM) Methodology

Subject Context Diagrams	Type	Standard
	Identifier	S-3162
	Effective Date	July 2002
	Revision No.	2

Approval

CISSCO Program Director

A. PURPOSE

This standard specifies the format and content of context diagrams.

B. APPLICABILITY

A context diagram is prepared and maintained for all projects that are developed using the SDLCM Methodology. It is initially developed as an activity of Component 1, Define Initial Project Requirements. The context diagram is refined, and may be redrawn, as an activity of Component 3, Design the Solution.

The Technical Project Manager is responsible for developing and maintaining the context diagram and key managers (especially the Business Project Manger and Business Advocate) and quality assurance personnel for reviewing it. The Executive Sponsor approves the context diagram that is produced as an activity of Component 1; the Overall Project Manager approves any updates to it. The context diagram is made available to all members of the project team, preferably in electronic form.

C. REFERENCE PUBLICATIONS

The following publications contain related information:

- *SDLCM Methodology Handbook*, Component 1
- *SDLCM Methodology Handbook*, Component 3
- *Systems Development CASE Tool Guidelines*, Systems Development and Integration Branch (SDIB) Office of Information Resources Management (OIRM), September 12, 1995
- *Standards and Conventions*, SDIB OIRM, August 28, 1995
- SDLCM Methodology Standard S-3051, System Requirements Specification

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- SDLCM Methodology Standard S-3053, System Operations Concept
- SDLCM Methodology Standard S-3171, Logical Design Document
- SDLCM Methodology Standard S-3151, Data Models
- SDLCM Methodology Standard S-3163, Data Flow Diagrams

D. STANDARD

A context diagram is a special top-level data flow diagram (DFD) that names the system to be developed or modified and that defines the bounds of a system in terms of the data it receives and generates. A context diagram provides a visual representation of the functional scope of the project.

The context diagram is initially produced as an activity of Component 1, Define Initial Project Requirements, and is included in the System Requirements Specification (SRS). It is updated, if necessary, during the data modeling activities of Component 3, Design the Solution, and is included in the Logical Design Document.

Refer to Section 2.3, Context Diagram, of the *Systems Development CASE Tool Guidelines* for additional information on context diagrams.

D.1 Context Diagram Content

Context diagrams convey the names (at a high level) of the information received and generated by the system to be developed or modified. The sources and targets of the information are represented as external agents on the context diagram. The external agents can be NRC organizations and existing systems or processes outside of the application's scope. The process name (statement) is a noun phrase that names the system to be developed or modified. Follow the guidance in Section 3.2, Process Objects, of the *Standards and Conventions* document for process and agent names.

D.2 Context Diagram Format

Represent a context diagram as a DFD with a single, large unnumbered process symbol (circle) that contains the name of application to be developed by the project. Data flows (arrows) on the left of the process symbol normally identify the external data that will be received during system operations; data flows on the right normally identify the major data to be generated.

Represent the information agents as sources and sinks. (See SDLCM Methodology Standard S-3163, Data Flow Diagrams, for guidance in representing sources and sinks.) Use sources and sinks to identify the external systems that will provide data to

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or receive data from the system to be developed or modified. An example context diagram is shown in Figure 3162-1.

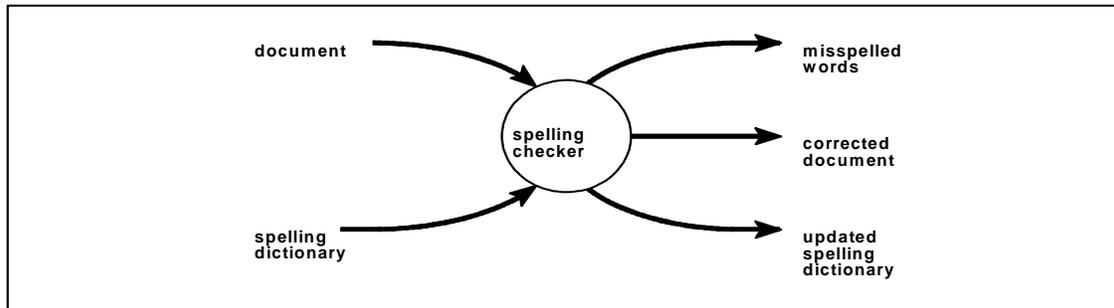


Figure 3162-1. Sample Context Diagram