IDI Role Definition: APPLICATION SYSTEM DESIGNER (or "Chief Programmer")

RESPONSIBILITIES:

A. System Development Activities: (new systems or major enhancements to existing systems)

1. Given a complete and consistent functional specification (with performance constraints and implementation constraints) for a proposed system (or new parts of an existing system), identifies major alternative approaches to implementing the system, and evaluates the advantages, the disadvantages, and the risks of each.

2. Locates and evaluates packaged software products that may be useful in implementing such a proposed system, including:
   a) programming languages and processors
   b) C.A.S.E. tools and data dictionary systems
   c) data-base/file management systems
   d) utility programs and modules
   e) application software products not already identified by the systems analysts

3. Proposes additions and changes to <orgname>'s standards and methodology in areas related to design and programming.

4. Identifies any need to deviate from <orgname>'s mandatory standards, and prepares and submits the required justifications for each such deviation.

5. Given a feasible implementation alternative (A-1), develops, (either alone or as part of a small team) an internal system design ("architecture") of a proposed system consistent with (a) the selected alternative approach, (b) the functional specification, and (c) <orgname> standards.

6. Identifies potentially re-usable software components and initiates appropriate action to contribute them to <orgname>'s Central Module Library.

7. Given an internal system design, participates in detailed program design, coding, and testing to the degree required by the size of the system and the composition of the development team.

8. Makes assignments, in cooperation with the project leader, to project team members for the detailed program design, coding, and testing of software components of the new system.

9. Designs or obtains test data and corresponding results for systems under development.
IDI Role Definition: APPLICATION SYSTEM DESIGNER (or "Chief Programmer")

B. System Maintenance Activities: (corrections and minor enhancements to existing systems)

1. Monitors the operation of designated production systems, and initiates appropriate action
   a) to correct any problems that might jeopardize the reliability or security of a system, or
   b) to eliminate or minimize operational inefficiencies that threaten the users' cost
      justification of the system in comparison with alternatives ("performance tuning").

2. Takes appropriate and timely action to repair or circumvent any malfunction of these systems
   reported as an emergency by users or by operations staff.

3. Responds appropriately to user-initiated requests for minor changes to operational systems.

4. Updates system documentation (users' manuals, operating instructions, program material) to
   reflect changes.

ACCOUNTABILITY

The Application System Designer will be performing his or her role satisfactorily, with respect to
assigned projects and production systems, when:

1. Discrepancies between internal design of a new system ("architecture") and the functional
   design cause schedule slippage or budget overrun in fewer than one project in twenty. (A-5)

2. Non-trivial "bugs" in systems that have been tested according to agreed-upon test plans occur
   no more than once in twenty runs or once in 2500 transactions. (A-9)

3. Major design alternatives for implementing a new or changed system, including functionally
   suitable packaged software products, are overlooked in fewer than one project in twenty. (A-1,
   A-2, A-5)

4. Production application systems satisfy the performance constraints and cost limits that were
   known at the time the software was being developed. (A-5, B-1a)

5. Emergency corrections to the production systems satisfy <orgname>'s standards and agreed-
   upon response-time objectives.

6. All operational and maintenance documentation agrees with the production version of the
   system. (B-4)

7. User-requested minor changes are implemented according to (a) agreed-upon response
   objectives and (b) <orgname> standards for validating and installing new versions of
   application software. (B-3)
IDI Role Definition: APPLICATION SYSTEM DESIGNER (or "Chief Programmer")

**AUTHORITY**

In order to accomplish his or her functions, the Chief Programmer may, without additional authorization:

1. Delegate tasks to subordinate members of the project team.

2. Request services from other parts of <orgname>, subject to the limitations of the project budget.

3. Decline to undertake activities in support of the implementation of systems that appear to be infeasible or clearly unjustified, except where specifically directed to do so by higher-level management.

4. Obtain and store actual ("live") data for testing.

5. Decline to concur in the production installation of a system for which either (a) no adequate test plan exists or (b) the agreed-upon test plan has not been followed.

6. Obtain information, through established channels, about technology, software products, hardware devices, or methodology relevant to implementation of a proposed system.