

THE STRUCTURED SPECIFICATION

CONTENTS OF THE STRUCTURED SPECIFICATION

The essential ingredient of the Structured Specification is the logical model of the new system, consisting of:

- * DFD's
- * Data Dictionary
- * Mini Specs
- * Entity Model

In addition the specification should contain a Data Access Diagram, a specification guide, and information on requirements with regard to:

- * Performance
- * Recovery
- * Audit
- * Security

SPECIFICATION GUIDE

The Structured Specification is going to be used by many different people throughout the project life-cycle. It is worth including some commentary on the contents, particularly if it is the first occasion such a specification has been used in the organisation.

The guide should list the elements of the specification, should briefly describe the role and conventions of DFD's, DD, Mini-Specs and the Entity Model and should explain the correlation between these.

Sometimes within an organisation conventions are adapted or new conventions developed which are not particular to one methodology. Such variations should be explained in the guide. Analysts should be careful when adopting new conventions that they do not introduce redundancy e.g. it is often regarded as useful to have several additional cross-references without taking into account that these carry a maintenance overhead.

When a Structured Specification guide has been developed it can usually be included as standard in all subsequent specifications with very little change.

PERFORMANCE REQUIREMENTS

The analyst should give any information on system priorities and timing constraints e.g. that orders must be filled within 2 working days of date of receipt; that response time at a terminal must be within certain limits for specific transactions or at certain periods of the day; that end-of-day reports must be available at a geographically remote location by 9.00 a.m. the following morning.

Some of these factors will already have been taken into account when making the decision as to the overall scope and structure of the system but the designer will require all this information when developing the outline design from the Structured Specification.

RECOVERY REQUIREMENTS

Recovery procedures are more critical with on-line systems. The analyst will have discussed with the users the type of recovery procedures required when the scope of the system (i.e. the area of automation) was being decided particularly if on-line facilities are being provided.

Recovery procedures vary considerably, ranging from having a fall-back system available immediately when the main system has a failure, to having a reciprocal arrangement with another site in which it

might require several days preparation before the system would be 'up and running'.

The business operations determine the nature of the recovery procedures required and the analyst should indicate in the Structured Specification what these are.

AUDIT REQUIREMENTS

When the system is being designed, controls will be built in as a matter of course. In the Specification the analyst should describe any unusual or specific audit requirements discovered during investigation and discussions with the users.

SECURITY REQUIREMENTS

The analyst should describe any restrictions required for security reasons. Such restrictions may include limited access (enquiry as opposed to update) to certain data stores or data elements, and/or access confined to certain times of day, certain locations or certain people.

Again this is most critical for on-line systems, since access to such systems is gained via terminals which are often dispersed widely through an organisation.

ADVANTAGES OF THE STRUCTURED SPECIFICATION

This new type of specification is both different to and superior to the old in the following respects:

- * it is pictorial and therefore easier to read and understand.
- * it is precise and unambiguous.
- * it is partitioned and presents the reader with levels of detail.
- * it separates the logical view from the physical view.
- * it does not pre-empt design.
- * it is maintainable.

