**What is SSADM?**

Structured Systems Analysis and Design Method (SSADM) is a systems approach to the analysis and design of information systems. SSADM was produced for a UK government office concerned with the use of technology in government, from 1980 onwards. The names "Structured Systems Analysis and Design Method" and "SSADM" are now Registered Trade Marks of the Office of Government Commerce (OGC), which is an Office of the United Kingdom's Treasury.

**Introduction**

System design methods are a discipline within the [software development](http://www.selectbs.com/analysis-and-design/what-is-a-software-development-process) industry which seek to provide a framework for activity and the capture, storage, transformation and dissemination of information so as to enable the economic development of computer systems that are fit for purpose.

SSADM is a [waterfall method](http://www.selectbs.com/analysis-and-design/what-is-the-waterfall-model) by which an Information System design can be arrived at; SSADM can be thought to represent a pinnacle of the rigorous document-led approach to system design, and contrasts with more contemporary [Rapid Application Development](http://www.selectbs.com/analysis-and-design/what-is-rapid-application-development) methods such as DSDM.

SSADM is one particular implementation and builds on the work of different schools of development methods, some of the key members of which included:

### Stages

The SSADM method involves the application of a sequence of analysis, documentation and design tasks concerned with:

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|  | * **Feasibility Stage**    + Analyze the current situation at a high level. A DFD (Data Flow Diagram) is used to describe how the current system works and to visualize known problems. The following steps are part of this stage: * Develop a Business Activity Model. * Investigate and define requirements. * Investigate current processing. * Investigate current data. * Derive logical view of current services. * **Requirements Analysis Stage**    + The first part is researching the existing environment, where system requirements are identified and the current business environment is modelled. Modelling consists of creating a DFD and LDS (Logical Data Structure) for processes and data structures that are part of the system. In the second part, BSO (Business Systems Options), 6 business options are presented. One of the options is selected and built. The following steps are part of this stage: * Define BSOs. * Select BSO * **Requirements Specification Stage**    + To assist the management to make a sound choice, a number of BSOs, each describing the scope and functionalities provided by a particular approach, are prepared and presented to them. These options may be supported by technical documentation such as Work Practice Model, LDM (Logical Data Model) and DFD. They also require financial and risk assessments to be prepared, and need to be supported by outline implementation descriptions. The following steps are part of this stage: * Define required system processing. * Develop required data model. * Derive system functions. * Develop user job specifications. * Enhance required data model. * Develop specification prototypes. * Develop processing specification. * Confirm system objectives. * **Technical System Specification Stage**    + In this stage, technically feasible options are chosen. The development/implementation environments are specified based on this choice. The following steps are part of this stage: * Define TSOs. * Select TSO. * **Logical System Specification Stage**    + In this stage, logical designs and processes are updated. Additionally, the dialogs are specified as well. The following steps are part of this stage: * Define user dialogue. * Define update processes. * Define enquiry processes. * **Physical Design Stage**    + The objective of this stage is to specify the physical data and process design, using the language and features of the chosen physical environment and incorporating installation standards. The following activities are part of this stage: * Prepare for physical design. * Complete the specification of functions. * Incrementally and repeatedly develop the data and process designs. |  |
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### Techniques

The 3 most important techniques that are used in SSADM are:

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|  | * **Logical Data Modeling**    + This is the process of identifying, modelling and documenting the data requirements of the system being designed. The data are separated into entities (things about which a business needs to record information) and relationships (the associations between the entities). * **Data Flow Modeling**    + This is the process of identifying, modelling and documenting how data moves around an information system. Data Flow Modeling examines processes (activities that transform data from one form to another), data stores (the holding areas for data), external entities (what sends data into a system or receives data from a system), and data flows (routes by which data can flow). * **Entity Behaviour Modeling**    + This is the process of identifying, modelling and documenting the events that affect each entity and the sequence in which these events occur. |  |
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