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Produktanforderungen

Projekt Pflichtenheft Beispiel

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Abbildungsverzeichnis

**Es konnten keine Einträge für ein Abbildungsverzeichnis gefunden werden.**

Tabellenverzeichnis

Es konnten keine Einträge für ein Abbildungsverzeichnis gefunden werden.

# Introduction

The V-Modell is a process model for planning and executing Roles. The V-Modell XT is a further development of the V-Modell 97. In the following the "V-Modell XT" will be designated as "V-Modell".

## Objectives

This document is intended to briefly and precisely describe the fundamentals for the application of the V-Modell. It defines all terms important for the understanding of the V-Modell. Before starting a V-Modell Project, all participants shall have a uniform understanding of the practice based on the V-Modell fundamentals described in this manual.

## Audience

This document is intended for all who want to realize their own projects using the V-Modell. For all stakeholders having management tasks and decision competences in a V-Modell project, the reading of this document is indispensable. In addition, it is a brief introduction for all who want to inform themselves about the V-Modell.

## Contents and Structure

This document comprises the following chapters:

Objectives and Structure of the V-Modell

This chapter describes the objectives for the development of the V-Modell, the advantages of its use as well as the limits and the target groups of the V-Modell. Contents and structure of the V-Modell and its elements will be explained.

Basic Concepts of the V-Modell

This chapter presents the basic core concepts of the V-Modell, particularly the concepts of Process Modules , Project Types, Project Type Variant, Project Execution Strategy and Decision Gate. In addition, the interaction between various V-Modell Project and the target-oriented and result-oriented project execution approach will be described.

Management Mechanisms of the V-Modell

Successful projects require a target-oriented direction, execution and control. This in turn requires interaction between various management mechanisms, like Project Management, Quality Assurance, Configuration Management, and Problem and Change Management. This chapter provides application guidance for the management mechanisms specified in the V-Modell.

Project Execution

This chapter provides the application guidelines for the actual processing of the project task. This application guidance covers system development projects of suppliers and the Further Development of the V-Modell . This chapter describes the procedures for the maintenance and further development of the V-Modell.

# Objectives and Structure of the V-Modell

The V-Modell is designed as guidance for planning and executing development projects, taking into account the entire system life cycle. It defines the results to be achieved in a project and describes the actual approaches for developing these results. In addition the V-Modell specifies the re- sponsibilities of each participant. Thus, the V-Modell describes in detail, "who" has to do "what" and "when" within a project. Other guidelines, e.g. ISO standards, are presently in use, but they are less concrete than the V-Modell because they, e.g., do not specify product templates.

## kjkjkjkjk

These standardized, methodical guidelines permit a systematic execution even of complex and extensive projects. Thus, projects get more planable, traceable and lead to high-quality results with greater reliability, which is advantageous for acquirer and supplier.

The cooperation between acquirer and supplier is an essential factor of success. Thus, it is regulated by the V-Modell. The responsibilities of both sides are specified. Thus, the V-Modell standards are an important basis for contracts between acquirer and supplier. In addition, the V-Modell improves the comparability of Offers.

Also small business enterprises profit from the V-Modell. The V-Modell provides them with stan- dardized and well-tried templates for development and management processes. Thus, small business enterprises can systematize their processes with reasonable effort and thereby reliably achieve high- quality development results, as well.

Thus, the V-Modell can be used as basis for contracting, as process guidance and as basis of com- munication.

## V-Modell 97 as Origin

With the publication of the Development Standards for IT Systems of the Federal Republic of Ger- many in 1997, the V-Modell 97 entered into force as standard for all civil and military federal agen- cies. In detail, the Federal Ministry of Defense (BMVg), the Federal Office of the Bundeswehr for Information Management and Information Technology (IT-AmtBw), and the Federal Ministry of the Interior, Central Office for Information Technology Coordination in the Federal Administration (BMI-KBSt), provided the following documents as General Directives (Allgemeiner Umdruck - AU) No. 250 to 252 and as KBSt Series, Volume 27/1 and 27/2:

Software Lifecycle Process Model (AU 250)

Part 1: Regulations (AU 250-1, KBSt Volume 27/1)

Part 2: Supplements with Regard to Authorities (AU 250-2, KBSt Volume 27/2)

Part 3: Collection of Manuals (AU 250-3, KBSt Volume 27/2)

Methods Standard (AU 251)

Functional Tool Requirements (AU 252)

## The V-Modell XT as the successor of the V-Modell 97

In 1997, the V-Modell 97 was completed; since then it has not been updated. Therefore, it did not reflect the state-of-the-art of information technology in 2004. New methods and technologies - as for example the component-based development or the test-first approach - are considered only to a limited degree in the V-Modell 97. As a consequence, in 2004, the V-Modell was no longer used as much as it would be desirable.

In addition, comprehensive experiences with the V-Modell 97 were collected, and proposals for im- provements were developed. The implementation of these proposals will improve the effective use and acceptance of the new V-Modell.

Against this background, division A5 of the Federal Office of the Bundeswehr for Information Ma- nagement and Information Technology and the Federal Ministry of the Interior, Central Office for Information Technology Coordination in the Federal Administration (BMI-KBSt) have advanced the Development Standards for IT Systems of the Federal Republic of Germany on the basis of the V-Modell 97. Proceeding from contents and scope of the V-Modell 97, the following requirements were implemented:

* Improvement of the following quality characteristics: project-specific and organization-spe- cific adaptability, applicability within the scope of the project, scalability to different project sizes, and changeability and growth potential of the V-Modell itself
* Consideration of the state-of-the-art of technology and adaptation to current regulations and standards
* Extension of the application to the entire system life cycle already during the development
* Introduction of an organization-specific process for improving process models

## Objectives of the V-Modell

The V-Modell provides guidance for the planning and realization of Projects. The following ob- jectives are intended to be achieved by a project execution Project Compliant to the V-Modell:

### Minimization of Project Risks

The V-Modell improves project transparency and project control by specifying standardized approa- ches and describing the corresponding results and responsible Roles. It permits an early recogniti- on of planning deviations and risks and improves process management, thus reducing the project risk.

### Improvement and Guarantee of Quality

As a standardized process model, the V-Modell ensures that the results to be provided are complete and have the desired quality. Defined interim results can be checked at an early stage. Uniform pro- duct contents will improve readability, understandability and verifiability.

Reduction of Total Cost over the Entire Project and System Life Cycle

The effort for the development, production, operation and maintenance of a system can be calcula- ted, estimated and controlled in a transparent manner by applying a standardized process model. The results obtained are uniform and easily retraced. This reduces the acquirers dependency on the supplier and the effort for subsequent activities and projects.

Improvement of Communication between all Stakeholders

The standardized and uniform description of all relevant elements and terms is the basis for the mu- tual understanding between all stakeholders. Thus, the frictional loss between user, acquirer, sup- plier and developer is reduced.

## Limits of the V-Modell

The following aspects are not covered by the V-Modell. In a V-Modell Project, these aspects must be regulated in addition, or the V-Modell must be adapted accordingly:

The placing of contracts for services is not regulated. The V-Modell only considers the pla- cing of contracts for subsections.

During the Introduction and Maintenance of an Organization-Specific Process Model, the model does not differentiate between acquirer and supplier.

The organization and execution of operation, maintenance, repair and Disposal of the sys- tem are not covered by the V-Modell. However, planning and preparation of a concept for these tasks are regulated in the V-Modell.

## Audience of the V-Modell

The V-Modell is intended for all persons participating as acquirer or supplier in development pro- jects. As process model for project management, it is particularly designed for Project Leaders and executives who monitor, execute and accompany the project. For the project staff, the V-Modell in many ways offers support for a successful cooperation in and contribution to the projects. The V- Modell supports the handling of projects in enterprises, public and military agencies, and authorities and agencies of the Bundeswehr.

## Contents and Structure of the V-Modell

As shown in Figure 1, the documentation of the V-Modell comprises the following sections, each of which is intended for a specific V-Modell User group:

A fundamental knowledge of the first two parts is the prerequisite for the successful application of the V-Modell in a project. The following parts 3 to 7 are V-Modell References. A V-Modell refe- rence is a specific view of the contents of the V-Modell. It is not necessary to read these V-Modell References before starting a project. Instead, the V-Modell References and the parts 8 and 9 can be used as reference work to be at hand when necessary during project execution.

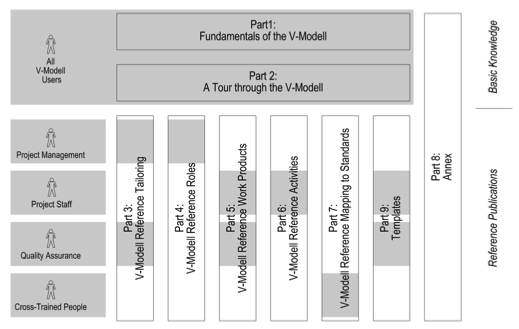


Figure 1 - Target Groups of the V-Modell Sections

Section 1: Fundamentals of the V-Modell

This section describes the basic core concepts of the V-Modell and the interaction between various V-Modell projects. In addition, it introduces application guidelines regulating the implementation of the V-Modell in concrete projects. Some of these application guidelines concentrate on basic mana- gement mechanisms, while others cover the proper processing of the project task.

Section 2: A Tour through the V-Modell

The Tour through the V-Modell shows by means of selected examples how the V-Modell is applied within the scope of a concrete project. This section gives a first impression of the use of the V-Mo- dell in practical projects.

Section 3: V-Modell Reference Tailoring

The V-Modell Reference Tailoring describes the project types, project type variants and project cha- racteristics which are used for preparing a specific application profile for the project. In addition, it presents the significant contents of the project execution strategies and process modules feasible with the V-Modell. Moreover, the decision gates available in the V-Modell will be described. Thus, this V-Modell reference includes the information required for Tailoring.

Section 4: V-Modell Reference Roles

The V-Modell Reference Roles provides a survey of all roles included in the V-Modell. In addition to a detailed description of the roles, this reference describes the products and activities for which each individual role is responsible and the processes in which the role is included. Thus, this V-Mo- dell Reference provides a guideline for the assignment of roles and a first orientation for the future tasks and competences of the project members.

Section 5: V-Modell Reference Work Products

The V-Modell Reference Products includes all disciplines, products and subjects of the V-Modell in accordance with the hierarchical product model. It describes the connections between the individual products by means of so-called product dependencies. Thus, this V-Modell reference is particularly relevant for editors and inspectors of V-Modell products.

Section 6: V-Modell Reference Activities

The V-Modell Reference Activities includes all activities and work steps of the V-Modell in accor- dance with the hierarchical activity model. In particular, it describes the processing of the specific work steps within the scope of an activity. An activity determines the way and the work steps which will be employed in order to develop an actual product. Accordingly, this V-Modell Reference is particularly relevant for the project staff.

Section 7: V-Modell Reference Mapping to Standards

Being used as base of organization-wide development processes, the V-Modell must be compatible with current (quasi) standards and regulations, e.g., ISO 9001:2000, ISO/IEC 15288 and CMMI. For each standard, the V-Modell Reference Mapping to Standards includes a presentati- on of the terms of the respective standard mapped to the V-Modell concept.

* Thus, this V-Modell Re- ference supports cross-trained
* persons who are already familiar with certain standards.
* In addition, the V-Modell
* Reference Mapping to Standards shows the coverage of standards like ISO, IEC, and CMMI by the V-Modell.

Section 8:Annex

The Appendix includes several indices and reference works, e.g., method references, tool refe- rences, a glossary, a list of abbreviations and reference documents. The other V-Modell sections re- fer to the entries in the appendix as required.

**Section 9:Templates**  
This section includes templates for the individual products in the form of RTF documents. These

# templates can be employed directly within the scope of a project or adapted as required before use