SLOVENSKI STANDARD
SIST ETS 300 709 E2:2003

01-december-2003

Terminalska oprema (TE) ï Izboljġana storitev vmesnika ļ lovek-stroj za storitve sistema Videotex in multimedijske/ hipermedijske poiskavne storitve

Terminal Equipment (TE); Enhanced Man Machine Interface service for Videotex and Multimedia/Hypermedia retrieval services

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: ETS 300 709 Edition 2

SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/61444ece-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

ICS:

33.160.60	Veļ predstavni (multimedijski) sistemi in oprema za telekonference	Multimedia systems and teleconferencing equipment
35.180	Terminalska in druga periferna oprema IT	IT Terminal and other peripheral equipment

SIST ETS 300 709 E2:2003 **en**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

SIST ETS 300 709 E2:2003

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

SIST ETS 300 709 E2:2003

EUROPEAN TELECOMMUNICATION STANDARD

ETS 300 709

June 1997

Second Edition

Source: EP-MTA

Reference: RE/MTA-001075
(formerly RE/TE-01075)

ICS: 33.020

Key words: Videotex, VEMMI, multimedia, retrieval services

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Terminal Equipment (TE); Enhanced Man Machine Interface service for Videotex and Multimedia/Hypermedia retrieval services

SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/[illegible]-5af1604e509f/sist-ets-300-709-e2-2003

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE
Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE
X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 4 92 94 42 00 - Fax: +33 4 93 65 47 16

Copyright Notification: No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1997. All rights reserved.

SIST ETS 300 709 E2:2003

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

Whilst every care has been taken in the preparation and publication of this document, errors in content, typographical or otherwise, may occur. If you have comments concerning its accuracy, please write to "ETSI Editing and Committee Support Dept." at the address shown on the title page.

SIST ETS 300 709 E2:2003

Contents

Foreword 7

1 Scope 9

2 Normative references 9

3 Definitions and abbreviations 10
3.1 Definitions 10
3.2 Abbreviations 11

4 General model 12
4.1 Introduction 12
4.2 Definition of the VEMMI elements 13
4.2.1 VEMMI object definition and identification 13
4.2.2 VEMMI component definition 13
4.2.3 VEMMI component item definition 14
4.2.4 Resource definition 14
4.2.5 Transfer of VEMMI objects 14
4.2.6 Resource-file transfer 14
4.3 VEMMI plane structure model 15
4.3.1 The standard plane for Videotex data 15
4.3.2 The VEMMI objects plane 16
4.4 Operation modes for VEMMI terminals 16
4.4.1 The standard mode 16
4.4.2 The VEMMI mode 16
4.4.3 Switching between standard mode and VEMMI mode 16
4.5 VEMMI elements data content 17
4.5.1 Text data definition 17
4.5.2 Bitmaps 18
4.5.3 Colour 19
4.5.4 Videotex data 19
4.5.5 Sound 19
4.5.6 Graphical data 19
4.5.7 Video data 19
4.5.8 Multimedia data 20
4.6 VEMMI objects positioning and dimensioning 20
4.6.1 Positioning 20
4.6.2 Dimensioning 21
4.7 VEMMI elements states and state parameters 21
4.7.1 Object 21
4.7.1.1 Definition of object states 22
4.7.1.2 Definition of object state parameters 23
4.7.2 Component 23
4.7.2.1 Definition of component states 23
4.7.2.2 Definition of component state parameters 24
4.8 Local action management 24
4.9 Memory considerations 25
4.10 Common rules for object handling 26
4.10.1 Active state and focus management 26
4.10.2 Behaviour of the modal mode 26
4.10.3 Size considerations and clipping 26
4.11 Local object storage 27
4.12 Symbolic directory names 27
4.13 Specific rules for dedicated terminals and PDAs 28
4.14 VEMMI local storage interchange format 29

5 Service description 29

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-5ef1604e509f/sist-ets-300-709-e2-2003

SIST ETS 300 709 E2:2003

5.1 Service elements initiated by the VEMMI application 30
5.1.1 VEMMI_Open 31
5.1.2 VEMMI_Close 31
5.1.3 VEMMI_Resume 31
5.1.4 VEMMI_Suspend 31
5.1.5 VEMMI_Identify_Term_Cap 32
5.1.6 VEMMI_Set_Options 32
5.1.7 VEMMI_Create_Object 32
5.1.8 VEMMI_Open_Object 33
5.1.9 VEMMI_Open_Blocking_Object 33
5.1.10 VEMMI_Close_Object 33
5.1.11 VEMMI_Close_All 34
5.1.12 VEMMI_Destroy_Object 34
5.1.13 VEMMI_Obj_Access_Disable 34
5.1.14 VEMMI_Obj_Access_Enable 34
5.1.15 VEMMI_Modify_Component 35
5.1.16 VEMMI_Obj_Location_Change 35
5.1.17 VEMMI_Load_Col_Table 35
5.1.18 VEMMI_Reset_Col_Table 36
5.1.19 VEMMI_Open_Application 36
5.1.20 VEMMI_Delete_Outdated_Objects 37
5.1.21 VEMMI_Store_Objects 37
5.1.22 VEMMI_Erase_Objects 37
5.1.23 VEMMI_User_Lock 38
5.1.24 VEMMI_User_Unlock 38
5.1.25 VEMMI_Resource-file_Transfer 38
5.2 Service elements initiated by the terminal 39
5.2.1 VEMMI_Identify_Term_Cap_Resp 39
5.2.2 VEMMI_Object_Retransmission 40
5.2.3 VEMMI_User_Data 41
5.2.4 VEMMI_Open_Application_Resp 41
5.2.5 VEMMI_Store_Objects_Resp 41
5.2.6 VEMMI_Error 41
5.2.7 VEMMI_Transfer_Acknowledge 42

6 VEMMI objects introduction 42
6.1 The Application Bar 43
6.1.1 Composition 43
6.2 The Button Bar 43
6.2.1 Composition 43
6.3 The Pop-Up Menu 43
6.3.1 Composition 43
6.4 The Dialogue Box 44
6.4.1 Composition 44
6.4.1.1 The Separator component 44
6.4.1.2 The Frame component 44
6.4.1.3 The Text Presentation Area component 44
6.4.1.4 The Text component 44
6.4.1.5 The Graphic Output Area component 45
6.4.1.6 The Sensitive Text component 45
6.4.1.7 The Push Button component 45
6.4.1.8 The Text Input Field component 45
6.4.1.9 The Check Box component 45
6.4.1.10 The Radio Button component 45
6.4.1.11 The List Box component 45
6.4.1.12 The Combination Box component 45
6.4.1.13 The Slider Component 45
6.4.1.14 The Sensitive Area component 45
6.4.1.15 The Multimedia Area component 46
6.5 Operative Object 46
6.6 Bitmap resource object 46
6.7 Videotex Resource Object 46
6.8 Text Resource Object 46

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

SIST ETS 300 709 E2:2003

6.9 Font resource object 46
6.10 Metacode object 46
6.11 The Message Box 46
6.12 Sound Object 46
6.13 Video Object 46
6.14 Multimedia Resource Object 46

7 Functional description 46
7.1 General rules for the behaviour of elements 46
7.1.1 User interaction 46
7.1.2 Local actions and reports 47
7.1.3 Relationship between objects and components 48
7.1.4 Open/Close of Sound, Video, Resource and Metacode objects 48
7.1.5 Maximize operation 49
7.1.6 Notational conventions 49
7.1.7 Mnemonic 50
7.1.8 Activation and Validation 50
7.2 Text formats 50
7.2.1 VEMMI high quality text 50
7.2.1.1 Text attributes 50
7.2.1.2 In-text attributes for the definition of sensitive text 51
7.2.2 Text labels and titles 51
7.3 The Application Bar 51
7.3.1 Composition 54
7.3.1.1 Menu Choice components of the bar 54
7.3.1.2 Menu Choice components of the Pull-Down Menu 55
7.3.1.3 Menu Choice components of the Cascading Menu 57
7.4 The Button Bar 58
7.4.1 Composition 59
7.4.1.1 The Button component 59
7.5 The Pop-Up Menu 60
7.5.1 Composition 62
7.5.1.1 Menu Choice components of the Primary Pop-Up Menu 62
7.5.1.2 Menu Choice components of the Cascading Menu 62
7.6 The Dialogue Box 63
7.6.1 Composition 65
7.6.1.1 The Separator component 65
7.6.1.2 The Frame component 66
7.6.1.3 The Text Presentation Area component 67
7.6.1.4 The Text component 68
7.6.1.5 The Sensitive Text Component 73
7.6.1.6 The Graphic Output Area component 73
7.6.1.7 The Push Button component 76
7.6.1.8 The Text Input Field component 76
7.6.1.9 The Check Box component 78
7.6.1.10 The Radio Button component 79
7.6.1.11 The List Box component 80
7.6.1.12 The Combination Box component 82
7.6.1.13 The Slider Component 85
7.6.1.14 The Sensitive Area Component 86
7.6.1.15 The Multimedia Area component 88
7.7 The Message Box 89
7.8 Operative object 91
7.8.1 Requirements for standalone programs 91
7.8.2 Requirements for programs with filter interface 92
7.9 Bitmap Resource Object 93
7.10 Videotex Resource Object 94
7.11 Text Resource Object 94
7.12 Font resource object 94
7.13 Metacode object 95
7.14 Sound Object 95
7.15 Video Object 95
7.16 Multimedia Resource Object 95

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/61444ece-9280-4263-9422-5af1604e5091/sist-ets-300-709-e2-2003

SIST ETS 300 709 E2:2003

7.17 The VEMMI content encoding identification catalogue 96

8 Complete coded representation of the VEMMI 96
8.1 Introduction 96
8.2 Notation used 96
8.3 Overall switching of coding environment 97
8.3.1 Switching into the VEMMI mode 99
8.3.2 ISO/IEC 9281 syntax structure 99
8.4 VEMMI Command Syntax 101
8.5 Objects, components 104
8.6 Local actions 108

9 Encoding 108
9.1 Command structure 108
9.2 Object, component and attribute structure 109
9.3 Terminal symbols encoding 110
9.3.1 Opcodes 110
9.3.2 Integers 110
9.3.3 Enumerated 110
9.3.4 Strings 111
9.3.5 NDC 111
9.4 Attributes and lower level symbols 112
9.5 Opcodes 115
9.6 Syntax of the VEMMI_Modify_Component 117
9.7 Defaults 120

10 Introduction of the VEMMI service into existing Videotex ETSs 121
10.1 Introduction of the VEMMI to ETS 300 072 121
10.2 Introduction of the VEMMI to ETS 300 223 and ETS 300 079 121

Annex A (normative): CCITT Recommendation T.51 [2] String 122

A.1 Scope 122

A.2 Graphic character sets 122

A.3 Code extension technique 124

A.4 Repertoire of the latin-based character set 124

A.5 Control functions 124

Annex B (normative): Mandatory subset of ISO 8859 125

Annex C (normative): Minimum datatype kernel 126

History 127

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

SIST ETS 300 709 E2:2003

Foreword

This second edition European Telecommunication Standard (ETS) has been produced by the Terminal Equipment (TE) Technical Committee of the European Telecommunications Standards Institute (ETSI).

Transposition dates	
Date of adoption:	6 June 1997
Date of latest announcement of this ETS (doa):	30 September 1997
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 March 1998
Date of withdrawal of any conflicting National Standard (dow):	31 March 1998

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

SIST ETS 300 709 E2:2003

Blank page

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

SIST ETS 300 709 E2:2003

1 Scope

This second edition European Telecommunication Standard (ETS) specifies the data syntax to be used by Videotex and Multimedia/Hypermedia Information retrieval services for implementation of the Videotex Enhanced Man Machine Interface (VEMMI).

In the Videotex case this ETS is applicable to both the Videotex service and the attached Videotex terminals. Those terminals may be connected to the Videotex service via the Public Switched Telephone Network (PSTN), Integrated Services Digital Network (ISDN) or Packet Switched Public Data Network (PSPDN). Typically, the terminals should support ISDN Syntax-Based Videotex (SBV).

The ETS can also be used for any kind of retrieval service (not related to Videotex) by using the relevant underlying platform and content data types.

2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[1] CCITT Recommendation T.50 (1992): "International Reference Alphabet (IRA) (Formerly International Alphabet No. 5 or IA5) - Information technology - 7-bit coded character set for information interchange".

[2] CCITT Recommendation T.51 (1992): "Latin based coded character sets for telematic services".

[3] CCITT Recommendation T.52 (1993): "Non-Latin coded character sets for telematic services".

SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/61444bce-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

[4] ITU-T Recommendation T.101 (1994): "International interworking for videotex services".

[5] ITU-T Recommendation T.102 (1993): "Syntax-based videotex end-to-end protocols for circuit mode ISDN".

[6] ITU-T Recommendation T.105 (1994): "Syntax-based videotex application layer protocol".

[7] ITU-T Recommendation H.261 (1994): "Video codec for audiovisual services at p x 64 kbit/s".

[8] ITU-TS Recommendation H.320 (1994): "Narrow-band visual telephone systems and terminal equipment".

[9] ITU-T Recommendation F.300 (1994): "Videotex service".

[10] ISO 2022 (1986): "Information technology - ISO 7-bit and 8-bit coded character sets - Code extension techniques".

[11] ISO 2375 (1985): "Data processing - Procedure for registration of escape sequences".

[12] ISO/IEC 8632 (1992): "Information technology - Computer graphics - Metafile for storage and transfer of picture description information".

[13] ISO 8859 (1987): "Information Processing - 8-bit single byte coded graphic character sets".

[14] ISO/IEC 9281 (1990): "Information technology - Picture coding methods".

SIST ETS 300 709 E2:2003

[15] ISO/IEC 10646-1 (1993): "Information technology - Universal Multiple-Octet Coded Character Set (UCS); Part 1: Architecture and Basic Multilingual Plane".

[16] ISO/IEC 10918-1 (1994): "Information technology - Digital compression and coding of continuous-tone still images: Requirements and guidelines".

[17] ISO/IEC 11172-1 (1993): "Information technology - Coding of moving pictures and associated audio for digital storage media at up to about 1.5 Mbit/s - Part 1: Systems".

[18] ISO/IEC 11172-2 (1993): "Information technology - Coding of moving pictures and associated audio for digital storage media at up to about 1.5 Mbit/s - Part 2: Video".

[19] ISO 639 (1988): "Code for the representation of names of languages".

[20] ETS 300 072 (1990): "Terminal Equipment (TE); Videotex presentation layer protocol, Videotex presentation layer data syntax".

[21] ETS 300 073: "Videotex presentation layer data syntax; Geometric Display (CEPT Recommendation T/TE 06-02, Edinburgh 1988)".

[22] ETS 300 076 (1994): "Terminal Equipment (TE); Videotex, Terminal Facility Identifier (TFI)".

[23] ETS 300 079 (1991): "Integrated Services Digital Network (ISDN); Syntax-based Videotex, End-to-end protocols, circuit mode DTE-DTE".

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[24] ETS 300 149 (1992): "Terminal Equipment (TE); Videotex, Audio syntax".

[25] ETS 300 177 (1995): "Terminal Equipment (TE); Videotex, Photographic syntax".

SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/6b1d46ca-92c2-4265-9422-5e84045f08f1/ets-300-709-e2-2003

[26] ETS 300 223 (1993): "Terminal Equipment (TE); Syntax-based Videotex, Common end-to-end protocols".

[27] ISO/IEC DIS 13818-1: "Information technology - Generic coding of moving pictures and associated audio information; Part 1: Systems".

[28] ISO/IEC DIS 13818-2: "Information technology - Generic coding of moving pictures and associated audio information; Part 2: Video".

[29] ISO 6429 (1992): "Information technology - Control functions for coded character sets".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ETS, the following definitions apply:

controls: Visual user-interface elements that allow a user to interact with data.

dedicated terminal: Designed to support VEMMI but using a different platform than a multipurpose personal computer. Such terminals may have processing, storage and presentation limitations.

Defined Display Area (DDA): See ITU-T Recommendation F.300 [9].

emphasis: Highlighting, colour change or other visible indication of the condition of an element or choice and the effect of that condition on a user's ability to interact with that element. Emphasis can also give additional information about the state of an object. The method used to emphasize an element is terminal dependent.

SIST ETS 300 709 E2:2003

label: Text data associated with a VEMMI component to inform the user of the purpose of a particular component or item.

local manager: See VEMMI local manager.

mnemonic: A single, easy-to-remember alphanumeric character that activates a VEMMI Menu Choice component and validates it. A Mnemonic character can also be used to validate an active Push Button.

modal mode: When a VEMMI object is "modal" it is not possible for the user to leave this VEMMI object to the benefit of another VEMMI object of the same application with different possible access tools. Each attempt to access another object by the user is refused and possibly indicated by a sound signal.

resource file transfer: Mechanism to transfer files referenced by VEMMI resource objects from a VEMMI application to a VEMMI terminal.

stretched presentation: Reduced or enlarged display of a bitmap in order to meet given space requirements.

tiled presentation: Repeated display of a given bitmap in a horizontal and/or vertical direction in order to meet given space requirements.

videotex application: Videotex application using encoded data, protocols and profiles, as defined in the Videotex ETSs referenced in clause 2. A Videotex application does not use a VEMMI service, data and protocols (see ITU-T Recommendation F.300 [9]).

videotex data: Data interchanged between a Videotex application and a Videotex terminal.

VEMMI application: Application offering an enhanced man/machine interface as described in this ETS.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

VEMMI data: VEMMI objects description and contents and VEMMI commands exchanged between the VEMMI application and the VEMMI terminal.

SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

VEMMI local manager: Software running in the VEMMI terminal to handle and to present the VEMMI objects that are sent to the user by the VEMMI application.

VEMMI terminal: A terminal which is able to run a VEMMI local manager.

Videotex host computer: See ITU-T Recommendation F.300 [9].

Videotex terminal: See ITU-T Recommendation F.300 [9].

3.2 Abbreviations

For the purposes of this ETS, the following abbreviations apply:

BIN	Bitmap Identification Number
BMP	Microsoft Windows Device-Independent Bitmap
CD-ROM	Compact Disk-Read Only Memory
CGM	Computer Graphics Metafile
CIN	Component Identification Number
CMI	Coding Method Identifier
CR	Carriage Return
DDA	Defined Display Area
DE	Data Entity
DIB	Device-Independent Bitmap
DLL	Dynamic Link Libraries
DRCS	Dynamically Redefinable Character Set
DS I	Data Syntax according to ITU-T Recommendation T.101 [4], annex B
DS II	Data Syntax according to ITU-T Recommendation T.101 [4], annex C
DS III	Data Syntax according to ITU-T Recommendation T.101 [4], annex D
ESC	Escape
FIN	Font Identification Number

SIST ETS 300 709 E2:2003

G0	Primary character set of CCITT Recommendation T.51 [2]
G2	Supplementary character set of CCITT Recommendation T.51 [2]
GIF	Graphics Interchange Format
GMT	Greenwich Mean Time
GUI	Graphical User Interface
HTML	HyperText Markup Language
HTTP	HyperText Transfer Protocol
IP	Internet Protocol
IRV	International Reference Version
ISDN	Integrated Services Digital Network
JIS	Japanese Institute for Standardization
JPEG	Joint Photographic Experts Groups
LF	Line Feed
LI	Length Indicator
MDI	More Data Indicator
MIDI	Musical Instrument Digital Interface
MIN	Multimedia Identification Number
MPEG	Moving Picture Experts Group
NDC	Normalized Device Co-ordinate
OIN	Object Identification Number
PCD	Picture Code Delimiter
PCE	Picture Control Entity
PDA	Personal Digital Assistant
PDE	Picture Data Entity
PE	Picture Element
PI	Picture Identifier
PM	Picture Mode
PSPDN	Packet Switched Public Data Network
PSTN	Public Switched Telephone Network
RGB	Red Green Blue
SBV	Syntax-Based Videotex
TCP	Transmission Control Protocol
TE	Terminal Equipment
TFI	Terminal Facility Identifier
TIN	Text Identification Number
TLV	Type Length Value
TV	Television
UI	User Interface
URL	Uniform Resource Locator
VEMMI	Videotex Enhanced Man Machine Interface
VIF	VEMMI Interchange Format
VIN	Videotex Identification Number
VPDE	Videotex Presentation Data Element
VTX	Videotex

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-2af1604e509f/sist-ets-300-709-e2-2003

4 General model

4.1 Introduction

Between a host and a VEMMI terminal a VEMMI service handles:

- general VEMMI objects as described in this ETS;
- data contents as defined in this ETS;
- data contents as referenced in this ETS.

A VEMMI terminal may also handle a Videotex application using encoded data and protocols as described in the Videotex ETSs referenced in clause 2.

SIST ETS 300 709 E2:2003

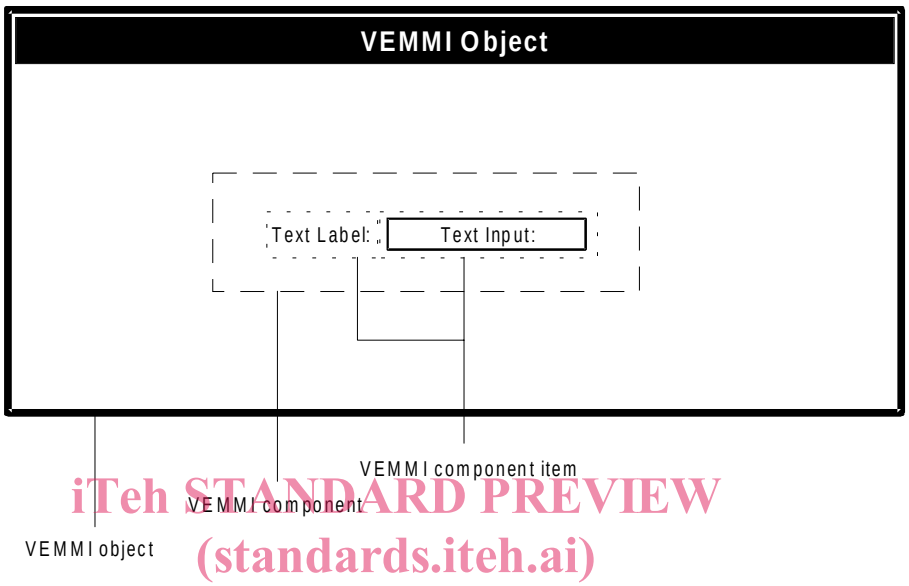
4.2 Definition of the VEMMI elements

The logical units which form the structure of the VEMMI shall be named and defined as follows:

- VEMMI objects;
- VEMMI components or components;
- VEMMI component items or items.

VEMMI element is a generic name used in this ETS to designate an object, a component or an item.

An example is given in figure 1.



iTeh STANDARD PREVIEW
(standards.iteh.ai)

Figure 1: Example showing objects/components/items

SIST ETS 300 709 E2:2003
https://standards.iteh.ai/catalog/standards/sist/614446ce-92e0-4265-9422-5af1604e509f/sist-ets-300-709-e2-2003

4.2.1 VEMMI object definition and identification

The following four different types of VEMMI objects are defined in this ETS:

- display objects;
- operative objects;
- resource objects;
- metacode objects.

If not stated otherwise the term object used alone always refers to a display object.

VEMMI objects are the logical units which are used by a VEMMI application to interact with the user.

VEMMI objects can be composed of different components.

The objects are only defined regarding their functionality, their size and position relative to the Defined Display Area (DDA). The representation of the objects is terminal dependent.

Every object shall be identified by an Object Identification Number (OIN) which shall be unique within a VEMMI application at any one time.

4.2.2 VEMMI component definition

VEMMI components always belong to a VEMMI object and are only valid within this object. The object, to which a component belongs, is named the parent object.

In order to transport information, components may carry a data content (see subclause 4.5).