

**INTERNATIONAL
STANDARD**

**IEC
61162-401**

First edition
2001-11

**Maritime navigation and radiocommunication
equipment and systems –
Digital interfaces –**

**Part 401:
Multiple talkers and multiple listeners –
Ship systems interconnection –
Application profile**

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CONTENTS

FOREWORD.....	7
INTRODUCTION.....	9
1 Scope.....	9
1.1 General.....	9
1.2 Application profile.....	9
2 Normative references.....	9
3 Definitions.....	10
3.1 Terms.....	10
3.2 Abbreviations.....	13
3.3 Conventions.....	13
3.4 Protocol data types.....	15
3.5 Non-protocol types.....	17
3.6 Literals.....	18
4 Dependence on T-profile.....	18
4.1 General.....	18
4.2 LNA-LNA or MAU-LNA communication.....	18
4.3 Services required.....	18
4.4 Services required, but not used by the A-profile.....	19
4.5 Variable quality of service attributes.....	19
4.5.1 Reliability and safety.....	19
4.5.2 Real time response.....	19
4.5.3 Support for stream data.....	20
4.5.4 Maximum and minimum message lengths.....	20
4.6 Congestion and flow control.....	20
5 Functional requirements for MAU.....	20
5.1 General overview.....	20
5.2 MAU configuration management.....	21
5.2.1 Define MAU parameters (MauInitialize).....	22
5.2.2 Connection open request (MauOpen).....	23
5.2.3 Connection close (MauClose).....	23
5.2.4 MAU state change call-back (MauState).....	24
5.3 Session management, authentication and congestion control.....	25
5.3.1 Session control and authentication.....	25
5.3.2 Congestion control (MauSession).....	26
5.3.3 Request and connection limiting.....	26
5.4 Interface and connection point overview.....	26
5.4.1 Special considerations for anonymous broadcast (ABC).....	27
5.4.2 MCP membership in interfaces.....	27
5.4.3 MCP attributes.....	27
5.4.4 Modify MCP attributes (McpGet, McpSet).....	28
5.4.5 Interface attributes.....	29
5.4.6 Modify interface attributes (IfGet, IfSet).....	29

5.5	Interface management.....	30
5.5.1	Define interface (IfTable).....	31
5.5.2	Remove interface (IfRemove).....	31
5.5.3	Establish interface connection (IfOpen).....	32
5.5.4	Close interface (IfClose).....	32
5.5.5	Interface state change call-back (InterfaceState).....	33
5.6	MCP transactions.....	34
5.6.1	Function type transactions.....	35
5.6.2	Non-acknowledged write transactions.....	36
5.6.3	Subscribe type transactions.....	36
5.6.4	Individual subscribe transactions.....	37
5.6.5	Client side initiation (TransActivate).....	38
5.6.6	Transaction cancellation (TransCancel).....	38
5.6.7	Client side transaction state change (TransClientState).....	39
5.6.8	Server side transaction state change (TransServerState).....	39
5.7	Bulk data transfer.....	40
6	Functional requirements for LNAs.....	40
6.1	Context diagram and functional overview.....	40
6.2	MAU name management (MauAck, MauRequest, SessionClose).....	41
6.2.1	Duplicate MAU names.....	43
6.2.2	Local MAU names.....	43
6.2.3	Remote MAU names.....	43
6.3	LNA-LNA session management.....	45
6.3.1	Heard about LNA.....	45
6.3.2	Known LNA.....	45
6.3.3	Dead LNA.....	46
6.3.4	The LNA watchdog function.....	46
6.4	Local MAU connection management.....	47
6.4.1	MAU identification.....	47
6.4.2	Local MAU state.....	47
6.4.3	Starting MAU management.....	48
6.4.4	Ending MAU management.....	48
6.5	MAU control (MCP).....	49
6.5.1	General overview.....	49
6.5.2	Functionality.....	49
6.5.3	Watchdog service.....	49
6.6	Session management.....	50
6.6.1	General principles.....	50
6.6.2	MAU session information.....	50
6.6.3	Session codes used for authentication.....	50
6.7	Accept type interface management.....	51
6.7.1	General overview.....	51
6.7.2	Possible errors in interface definitions or connection requests.....	51
6.7.3	Special handling of anonymous broadcast interfaces.....	52
6.7.4	Definition and removal of accept interface.....	53
6.7.5	Establishing and closing connections to accept interfaces.....	53
6.8	Connect type interface management.....	55

6.9	General transaction management.....	57
6.9.1	MCP identity and transaction address.....	57
6.9.2	Transaction identity.....	57
6.9.3	Session identity.....	57
6.9.4	Transaction types.....	57
6.9.5	Exception handling.....	58
6.10	Accept side transaction management.....	59
6.10.1	Read, write and function transaction handling.....	61
6.10.2	Non-acknowledged write request.....	61
6.10.3	Initial subscribe.....	61
6.10.4	Initial individual subscribe.....	62
6.10.5	Server initiated subscribe acknowledgement.....	62
6.10.6	Server initiated individual subscribe acknowledgement.....	62
6.10.7	Anonymous broadcast subscribe.....	62
6.10.8	Cancellation of a transaction.....	62
6.11	Connect side transaction management.....	63
6.12	LNA-MAU.....	64
6.13	Use of priority levels in LNA.....	64
6.14	Congestion control.....	65
6.14.1	Congestion cases.....	65
6.14.2	LNA requirements.....	65
6.14.3	MAU requirements.....	66
7	Protocol defined as sequence diagrams.....	66
7.1	General conventions.....	66
7.1.1	Broken connections.....	66
7.1.2	Exception handling.....	66
7.2	LNA management.....	67
7.2.1	Opening LNA-LNA connection.....	67
7.2.2	LNA watchdog functionality.....	67
7.2.3	Congestion control.....	67
7.3	Opening and closing MAU sessions.....	68
7.3.1	MAU to MAU communication via same LNA.....	68
7.3.2	Opening a MAU session.....	68
7.3.3	Closing a MAU session.....	69
7.3.4	Finding a remote MAU in LNA.....	70
7.3.5	Server MAU or LNA dies.....	71
7.4	Opening and closing interfaces.....	71
7.4.1	Opening accept interface.....	71
7.4.2	Closing accept IF.....	72
7.4.3	Opening connect IF.....	72
7.4.4	Closing connect interface.....	73
7.5	Data transfer messages.....	73
7.5.1	Data transfer of read, write or function type.....	74
7.5.2	Subscribe data transfers.....	75
7.5.3	Data transfer cancel and transfer timeout.....	76

8	Message definitions.....	78
8.1	Introduction	78
8.1.1	Common message format.....	78
8.2	MAU-LNA messages	79
8.2.1	Message format.....	79
8.2.2	MAU session control.....	80
8.2.3	Interface definition messages	82
8.2.4	Data transfer messages.....	86
8.3	LNA-LNA message formats for reliable link.....	89
8.3.1	General message format	89
8.3.2	Connection management	90
8.3.3	MAU management	90
8.3.4	Interface connection management	92
8.3.5	Data transfer management	94
8.4	LNA-LNA message formats for multicast link	95
8.4.1	General message format	95
8.4.2	Different multi-cast ports	95
8.4.3	Name look-up and watchdog messages	96
8.4.4	Data transfer messages.....	98
8.4.5	Anonymous broadcast message details	99
9	General identity codes.....	100
9.1	Protocol and software version codes	100
9.2	Network address, node number and LNA id (address_m, word32_m).....	100
9.3	MAU identity (mauname_m, mauid_m).....	100
9.4	Data object and MCP identity (mclid_m).....	101
9.5	Interface code (mclid_m).....	102
9.6	Data object name (mcname_m, mcpname_m).....	102
9.7	Interface name (ifname_m).....	102
9.8	Session identity (word16_m)	102
9.9	Transaction identity (word32_m).....	102
9.10	Format string.....	102
9.10.1	Data record format encoding	102
9.10.2	Transaction type coding.....	104
9.10.3	Complete format string	104
9.11	Password (password_m)	104
10	Data marshalling	104
10.1	Introduction	104
10.2	Network octet order	105
10.2.1	General	105
10.2.2	Basic types.....	105
10.2.3	Composite types.....	106
10.2.4	Messages	106
10.3	Pack and unpack routines	106
10.3.1	Introduction	106
10.3.2	Pack routine	106
10.3.3	Unpack routine	107

11	Communication link between MAU and LNA	107
11.1	Introduction	107
11.1.1	General service specification	107
11.1.2	Point to point	108
11.1.3	Connection oriented	108
11.1.4	Symmetrical and full duplex	108
11.1.5	Message based	108
11.1.6	Priority	108
11.1.7	Buffering and flow control	108
11.1.8	Reliable transfer	108
11.1.9	Error reporting	108
12	General principles for module functionality	109
12.1	Flexibility in receiving, conservatism in sending	109
12.2	Garbled messages	109
12.3	Closed communication links	109
	Annex A (normative) Message codes	110
	Annex B (normative) Error codes and message field values	112
	Annex C (normative) Symbolic constants	113
	Annex D (informative) Compatibility between MiTS and the IEC 61162-400 series	115

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MARITIME NAVIGATION AND RADIOCOMMUNICATION
EQUIPMENT AND SYSTEMS –
DIGITAL INTERFACES –**

**Part 401: Multiple talkers and multiple listeners –
Ship systems interconnection – Application profile**

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization, comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.

3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.

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6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61162-401 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

The text of this standard is based on the following documents:

FDIS	Report on voting
80/310/FDIS	80/325/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

The special typographical conventions and nomenclature used in this standard are defined in IEC 61162-400, annex A.

Annexes A, B and C form an integral part of this standard. Annex D is for information only.

The committee has decided that the contents of this publication will remain unchanged until June 2005. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

INTRODUCTION

International Standard IEC 61162 is a four-part standard which specifies four digital interfaces for applications in marine navigation, radiocommunication and system integration.

The four parts are:

- IEC 61162-1 Single talker and multiple listeners
- IEC 61162-2 Single talker and multiple listeners, high speed transmission
- IEC 61162-3 Multiple talkers and multiple listeners – Serial data instrument network
- IEC 61162-4 Multiple talkers and multiple listeners – Ship systems interconnection.

Part 4 of the standard is sub-divided into a number of individual standards with part numbers in the IEC 61162-400 series. A full reference to part 4 can be found in IEC 61162-400, clause 4.

This part of the standard, IEC 61162-401: A-profile specification, defines the application functionality and its implementation in an application layer protocol.

Relationship with the other parts of the IEC 61162 series of standards is defined in annex B to IEC 61162-400.

MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – DIGITAL INTERFACES –

Part 401: Multiple talkers and multiple listeners – Ship systems interconnection – Application profile

1 Scope

1.1 General

IEC 61162-4 series specifies a communication system for use in integrated ship control systems.

IEC 61162-400 defines the overall functional scope for the communication system.

1.2 Application profile

This part of IEC 61162 describes the application profile (A-profile – corresponding to ISO-OSI layers 5 to 7 [ISO 7498]) of the communication protocol which is the basis for the communication system. It relies on the realization of layers 1 to 4 (the T-profile) as described in part 410.

The description of the A-profile is in terms of services offered to the application using the protocol and of message contents and sequences used to realize these services.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61162. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61162 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 61162-400, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 400: Multiple talkers and multiple listeners – Ship systems interconnection – Introduction and general principles*

IEC 61162-410, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 410: Multiple talkers and multiple listeners – Ship systems interconnection – Transport profile requirements and basic transport profile*

IEC 61162-420, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 420: Multiple talkers and multiple listeners – Ship systems interconnection – Companion standard requirements and basic companion standards*

IEEE 754: *IEEE Standard for Binary Floating-Point Arithmetic*

ISO/IEC 8859-1, *Information technology – 8-bit single-byte coded graphic character sets – Part 1: Latin alphabet No. 1*

ISO/IEC 10646-1, *Information Technology – Universal Multiple-Octet Coded Character Set (UCS) – Part 1: Architecture and Basic Multilingual Plane*

RFC 2500:1999, *Internet Official Protocol Standards – Internet Activities Board standard*

NOTE RFC (request for comments) is a document issued by the Internet engineering task force (IETF), the International standardization body for the Internet, that describes a part of the Internet protocol. Some RFCs are accepted as official Internet standards and listed in the “Internet Official Protocol Standards” itself an RFC.