



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

T.66

(04/99)

SERIES T: TERMINALS FOR TELEMATIC SERVICES

**Facsimile code points for use with
Recommendations V.8 and V.8 *bis***

ITU-T Recommendation T.66

(Previously CCITT Recommendation)

ITU-T T-SERIES RECOMMENDATIONS
TERMINALS FOR TELEMATIC SERVICES

For further details, please refer to ITU-T List of Recommendations.

ITU-T RECOMMENDATION T.66

FACSIMILE CODE POINTS FOR USE WITH RECOMMENDATIONS V.8 AND V.8 *bis*

Summary

This Recommendation defines the coding to be used in V.8 and V.8 *bis* negotiation to enable the selection of T.30 facsimile related capabilities.

Source

ITU-T Recommendation T.66 was revised by ITU-T Study Group 8 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on the 1st of April 1999.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation the term *recognized operating agency (ROA)* includes any individual, company, corporation or governmental organization that operates a public correspondence service. The terms *Administration*, *ROA* and *public correspondence* are defined in the *Constitution of the ITU (Geneva, 1992)*.

INTELLECTUAL PROPERTY RIGHTS

The ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. The ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, the ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

© ITU 1999

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the ITU.

CONTENTS

Page

1	Scope	1
2	References.....	1
3	Abbreviations.....	1
4	Introduction	2
5	Code points used with V.8 procedures.....	2
5.1	Coding for V.8 information categories.....	2
6	Code points used with V.8 <i>bis</i> procedures.....	2
6.1	Coding for the Standard Information Field	2
6.2	Coding for the Standard Information Field – T.30 facsimile.....	2

FACSIMILE CODE POINTS FOR USE WITH RECOMMENDATIONS V.8 AND V.8 bis

(revised in 1999)

1 Scope

This Recommendation defines the code points reserved in Recommendations V.8 and V.8 *bis* for T.30 facsimile applications and further defines in successive octets the capabilities that may be negotiated.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

- ITU-T Recommendation H.324 (1996), *Terminal for low bit rate multimedia communication*.
- ITU-T Recommendation T.30 (1996), *Procedures for document facsimile transmission in the general switched telephone network*.
- ITU-T Recommendation T.39 (1997), *Application profiles for simultaneous voice and facsimile terminals*.
- ITU-T Recommendation V.8 (1998), *Procedures for starting sessions of data transmission over the public switched telephone network*.
- ITU-T Recommendation V.8 bis (1998), *Procedures for the identification and selection of common modes of operation between data circuit-terminating equipments (DCEs) and between data terminal equipments (DTEs) over the public switched telephone network and on leased point-to-point telephone-type circuits*.
- ITU-T Recommendation V.34 (1996), *A modem operating at data signalling rates of up to 33 600 bit/s for use on the general switched telephone network and on leased point-to-point 2-wire telephone-type circuits*.
- ITU-T Recommendation V.61 (1996), *A simultaneous voice plus data modem, operating at a voice plus data signalling rate of 4800 bit/s, with optional automatic switching to data-only signalling rates of up to 14 400 bit/s, for use on the general switched telephone network and on leased point-to-point 2-wire telephone type circuits*.
- ITU-T Recommendation V.70 (1996), *Procedures for the simultaneous transmission of data and digitally encoded voice signals over the GSTN, or over a 2-wire leased point-to-point telephone type circuits*.

3 Abbreviations

This Recommendation uses the following abbreviations:

ASVF	Analogue simultaneous voice and facsimile communication
CCITT	International Telegraph and Telephone Consultative Committee
DSVF	Digital simultaneous voice and facsimile communication
GSTN	General Switched Telephone Network
ISO	International Organization for Standardization
ITU-T	International Telecommunication Union – Telecommunication Standardization Sector
MS	Mode Select

4 Introduction

Recommendations V.8 and V.8 *bis* define code points used in negotiating capabilities during connection establishment procedures. Certain of these codes have been reserved for definition and use by Study Group 8.

This Recommendation defines the code points as dedicated to T.30 facsimile and related applications and further defines in successive octets the capabilities that may be negotiated.

5 Code points used with V.8 procedures

5.1 Coding for V.8 information categories

Table 1 shows the bits b5, b6 and b7 on line 8 reserved for facsimile function in Table 2/V.8. These bits are used to define the call function categories.

Table 1/T.66 – Information categories

Start	b0	b1	b2	b3	b4	b5	b6	b7	Stop	Category octets (b4 = 0) with category given by tag b0-b3
0	1	0	0	0	0	x	x	x	1	Call function
0	1	0	1	0	0	x	x	x	1	Modulation modes
0	0	1	0	1	0	x	x	x	1	Protocols
0	1	0	1	1	0	x	x	x	1	PSTN access
0	1	1	1	1	0	x	x	x	1	Non-standard facilities
0	0	1	1	0	0	x	x	x	1	For use by the Telecommunications Industries Association (United States of America)
0	1	1	1	0	0	x	x	x	1	PCM modem availability
0	0	1	1	1	0	x	x	x	1	Facsimile function

Table 2 shows the call function categories defined by Study Group 8.

6 Code points used with V.8 *bis* procedures

6.1 Coding for the Standard Information Field

Bit 5 of Table 6-2/V.8 *bis* (Standard Information Field – {SPar(1)} Coding) is indicated as "Reserved for use by ITU-T/Study Group 8". The accompanying Note 4 specifies that the Level 2 and 3 Pars associated with this SPar(1) are reserved for allocation by ITU-T/Study Group 8.

Table 3 defines the label of Bit 5 of Table 6-2/V.8 *bis* (Standard Information Field – {SPar(1)} Coding) as T.30 Facsimile.

6.2 Coding for the Standard Information Field – T.30 facsimile

The coding of the first octet of the NPar(2) coding is shown in Table 4 codes. The T.30 procedures code point is applicable in the case where V.8 *bis* is used with facsimile/telephone switching (OutGoing Message – OGM) and no V.8 is forthcoming, i.e. T.30 modulation schemes that do not depend on V.8 for initiation. The other code point contains the modulation types which could be indicated with V.8 *bis* in the facsimile environment.

Table 2/T.66 – The facsimile function category

Start	b0	b1	b2	b3	b4	b5	b6	b7	Stop	Octet –"callf0"	ITU-T Recommendation Reference
0	0	1	1	1						Tag b0-b3 indicating the Study Group 8 category	
					0					Indicates a category octet	
								x		A "1" denotes calls for applications using Group 3 extended negotiation protocol	Recommendation T.30
							x			A "1" denotes reserved for caller initiated session for applications using Group 3 extended negotiation protocol	Recommendation T.30
						x				Reserved (Note)	
									1	Stop bit	

NOTE – Reserved bits, when sent, should be set to 0 and ignored by the receiver.

Table 3/T.66 – Standard Information Field – {SPar(1)} coding

SPar(1)s	8	7	6	5	4	3	2	1
Defined in V.8 bis	x	x	x	x	x	x	x	1
Defined in V.8 bis	x	x	x	x	x	x	1	x
Defined in V.8 bis	x	x	x	x	x	1	x	x
Defined in V.8 bis	x	x	x	x	1	x	x	x
T.30 Facsimile	x	x	x	1	x	x	x	x
Defined in V.8 bis	x	x	1	x	x	x	x	x
Defined in V.8 bis	x	1	x	x	x	x	x	x
Defined in V.8 bis	x	0	0	0	0	0	0	0

Table 4/T.66 – Standard Information Field – T.30 facsimile {NPar(2)} coding – Octet 1

NPar(2)s	8	7	6	5	4	3	2	1
T.30 procedures (without V.8)	x	x	x	x	x	x	x	1
V.34 (half duplex mode)	x	x	x	x	x	x	1	x
V.34 (duplex mode)	x	x	x	x	x	1	x	x
V.61 (ASVF)	x	x	x	x	1	x	x	x
V.70 (DSVF)	x	x	x	1	x	x	x	x
Non-standard capabilities	x	x	1	x	x	x	x	x
No parameters in this octet	x	x	0	0	0	0	0	0

The coding of second octet of the Group 3 facsimile Standard Information Field is used to indicate other capabilities, as shown in Table 5 codes.

Table 5/T.66 – Standard Information Field – T.30 facsimile {NPar(2)} coding – Octet 2

NPar(2)s	8	7	6	5	4	3	2	1
H.324 (MSVF)	x	x	x	x	x	x	x	1
Extended negotiation method	x	x	x	x	x	x	1	x
MS initiated session (Note)	x	x	x	x	x	1	x	x
Reserved for allocation by ITU-T	x	x	x	x	1	x	x	x
Reserved for allocation by ITU-T	x	x	x	1	x	x	x	x
Reserved for allocation by ITU-T	x	x	1	x	x	x	x	x
No parameters in this octet	x	x	0	0	0	0	0	0
NOTE – Session initiated by the responding terminal.								

ITU-T RECOMMENDATIONS SERIES

Series A	Organization of the work of the ITU-T
Series B	Means of expression: definitions, symbols, classification
Series C	General telecommunication statistics
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Telephone transmission quality, telephone installations, local line networks
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks and open system communications
Series Y	Global information infrastructure
Series Z	Languages and general software aspects for telecommunication systems