5i’

C.3 *Non-Basic Terminal Capabilities (NBTCs) T.62 Negotiation test schedule*

This section of Annex C defines the test for negotiation for non-basic terminal capabilities (NBTC).

The format given here corresponds to the basic Teletex tabular test schedules and differs only in that no specific references to coding examples are made. This is because the coding used is based on the capabilities supported by the terminal and the valid T.62 protocol element description.

Session test schedule

NBTC negotiation tests

Terminal called/tester calling

Test from state 1.1.

Before each test, the tester will S-CSS.

H.T. [T95.64]

1 Test No. a) State diagram route b) SPDUs sent by the tester c) Comments }	2 Type of test	3 Tester action	4 Tester detects	5 {
CDN1/0 Correct indication of NBTC in RSSP } a) 1.1 b) CSS V1, V6 (REP) c) The NBTC indicated in RSSP must be consistent with those supported by SUT }	{ S-CSS		{ R-RSSP	a) DR 1.1

Table [T95.64], p.

Session test schedule

NBTC negotiation tests

Terminal called/tester calling

Test from DR 1.1.

Before each test, the tester will:

— S-CSS

— R-RSSP

H.T. [T96.64]

1 Test No. a) State diagram route b) SPDUs sent by the tester c) Comments }	2 Type of test	3 Tester action	4 Tester detects	5 {
CDN21/1 a) Any NBTC, when indicated in RDCLP, must be supported by the SUT }	Response to CDCL without NBTC	S-CSUI/CDCL	R-RSUI/RDCLP	a) DR 6.1 b) CDCL V5 {

Table [T96.64], p.

Session test schedule

NBTC negotiation tests

Terminal called/tester calling

Test from DR 1.1. *(cont.)*

Before each test, the tester will:

— S-CSS

— R-RSSP

H.T. [T97.64]

1 Test No. a) State diagram route b) SPDUs sent by the tester c) Comments }	2 Type of test	3 Tester action	4 Tester detects	5 {
CDN21/2 Successful negotiation of NBTC in CDCL/RDCLP } a) DR 6.1 b) CDCL with NBTC of Table 3/T.62 supported by the SUT } R-RSUI/RDCLP with acceptance of CDCL parameters or list of all NBTC of the SUT or list of NBTC requested in CDCL } a) DR 2.1 b) CDS with NBTC requested for the document }	{ S-CSUI/CDCL a) DR 1.1	S-CDS	{ {	{
CDN21/3 Successful negotiation of NBTC (excluding those of Table 3/T.62) in CDCL/RDCLP } a) DR 6.1 b) CDCL with NBTC supported by the SUT excluding those of Table 3/T.62 } R-RSUI/RDCLP with acceptance of CDCL parameters or list of all NBTC of the SUT or list of the requested NBTC in CDCL } a) DR 2.1 b) CDS with those NBTC requested for the document }	{ S-CSUI/CDCL a) DR 1.1	S-CDS	{ {	{

Table [T97.64], p.

Session test schedule

NBTC negotiation tests

Terminal called/tester calling

Test from DR 1.1. *(cont.)*

Before each test, the tester will:

— S-CSS

— R-RSSP

H.T. [T98.64]

1 Test No. a) State diagram route b) SPDUs sent by the tester c) Comments }	2 Type of test	3 Tester action	4 Tester detects	5 {
CDN21/4 Negotiation of all NBTC supported by SUT and others } a) DR 6.1 b) CDCL with all NBTC supported by SUT } R-RDCLP with list of all NBTC supported by the SUT }	{ S-CDCL a) DR 1.1		{ {	

Table [T98.64], p.

Session test schedule

NBTC negotiation tests

Terminal calling/tester called

Test of NBTC from state 0.3

Before each test, prepare a document in the SUT.

H.T. [T99.64]

1 Test No. a) State diagram route b) SPDUs sent by the tester c) Comments }	2 Type of test	3 Tester action	4 Tester detects	5 {
CGN0/0 Correct indication of NBTC in CSS } R-CSS with indication of NBTC from Table 3/T.62 supported by SUT as receiving capabilities } a) 0.3 - 8.1 c) Create a basic document in the SUT requiring no NBTC }	{ {	{ S-RSSP		b) RSSP V1 - V10
CGN0/1 Unsuccessful negotiation of NBTC in CSS/RSSP } a) 0.3 - 8.1 c) Create a document in the SUT requiring only standardized option NBTC (i.e. as in Table 3/T.62) } a) 8.1 - 9 DS 1.1 b) RSSP (with a subset of the requested NBTC or no NBTC) }	{	R-CSS S-RSSP	{ R-CSE	{

Table [T99.64], p.

Session test schedule

NBTC negotiation tests

Terminal calling/tester called

Test of NBTC from state 0.3 *(cont.)*

Before each test, prepare a document in the SUT requiring only NBTC from Table 3/T.62.

H.T. [T100.64]

1 Test No. a) State diagram route b) SPDUs sent by the tester c) Comments }	2 Type of test	3 Tester action	4 Tester detects	5 {
CGN0/2 Successful negotiation of NBTC in CSS/RSSP } b) RSSP with all the required NBTC or RSSP with all NBTC of Table 3/T.62 } c) SUT shall preceded with the sending of the document (preceeded or not by a CDCL/RDCLP) }	{	R-CSS S-RSSP [S-RDCLP]	a) 0.3 - 8.1 [R-CDCL] R-CDS	a) 8.1 - 9 DS 1.1 { {

Table [T100.64], p.

Session test schedule

NBTC negotiation tests

Terminal calling/tester called

Test of NBTC from state 0.3 *(cont.)*

Before each test, prepare a document in the SUT requiring

— (1) NBTC from Table 3/T.62

— (2) NBTC outside Table 3/T.62

H.T. [T101.64]

1 Test No. a) State diagram route b) SPDUs sent by the tester c) Comments }	2 Type of test	3 Tester action	4 Tester detects	5 {
CGN0/3 Successful two step negotiation } a) 8.1 - 9 DS 1.1 b) RSSP indicating NBTC (1) } R-CDCL requesting NBTC (2) } a) DS 6.1 - DS 1.1 b) RDCLP with NBTC (2) b) RDCLP with NBTC (1) and (2) RDCLP V6 (REP) } R-CDS with NBTC (1) and NBTC (2) }	{ a) DS 1.1 - DS 6.1	R-CSS S-RSSP S-RDCLP	a) 0.3 - 8.1 { {	{ {

Table [T101.64], p.

Session test schedule

NBTC negotiation tests

Terminal calling/tester called

Test from state 9 DS 1.1.

Before each test, the tester will:

— R-CSS

— S-RSSP

H.T. [T102.64]

1 Test No. a) State diagram route b) SPDUs sent by the tester c) Comments }	2 Type of test	3 Tester action	4 Tester detects	5 {
CGN91/0 Unsuccessful two step negotiation of NBTC in CSS/RSSP } c) Create a document in the SUT requiring NBTC excluding those of Table 3/T.62 } R-CDCL (requesting NBTC required for document) } a) 9 DS 6.1 - 9 DS 1.1 b) RDCLP with a subset of the requested NBTC, RDCLP with a subset of the requested NBTC plus others }	{ a) 9 DS 1.1 - 9 DS 6.1	S-RDCLP	{ { R-CSE	{ b) RDCLP V8 (REP)

Table [T102.64], p.

ANNEX D
(to Recommendation T.64)

Teletex Application Service test schedules

D.1 *Introduction*

This test schedule is based on the application service requirements. The objective is to cover those mandatory parts of F.200, F.201, T.60, T.61, T.62 and T.90 which refer to aspects of the Teletex application service.

Tests covering protocol conformance to T.70 and T.62 are contained in the transport layer and session/document layer test schedules.

This test schedule identifies test areas which are subject to national requirements.

It should be noted that many Administrations will define additional service requirements that are not covered by these tests.

D.2 *Overview*

The abbreviation SUT (System Under Test) is used when referring to the Teletex terminal or system being tested.

Each test consists of three parts: the title of the test, the actions required to establish the tests and the checks that have to be carried out to assess the SUT.

For each test, the Recommendation and section number which defines the particular service requirement is given.

All Recommendation section numbering references refer to the 1984 Red Book version.

The tests are divided into two main types:

— normal condition tests that assess a terminal’s ability to behave correctly under normal conditions;

— exception condition tests that assess a terminal’s ability to continue to function correctly under exception or error conditions.

D.2.1 *Normal condition tests*

These tests are divided into 2 main categories:

— mandatory tests which are carried out on all SUTS;

— conditional tests which are only carried out if the SUT has certain capabilities.

These categories are sub-divided into: tests carried out with the SUT establishing the call, and tests carried out when the SUT is called.

Mandatory tests are numbered MG1, MG2, . | | when the SUT is the sender, and MD1, MD2, . | | when the SUT is the receiver.

Conditional tests are numbered CG1, CG2, . | | when the SUT is the sender, CD1, CD2, . | | when the SUT is the receiver.

D.2.2 *Exception condition tests*

These tests are divided into two categories:

— tests carried out with the SUT establishing the call. These are numbered EG1, EG2, . | |

— tests carried out when the SUT is called. These tests are numbered ED1, ED2, . | |

D.3 *Teletex application service tests under normal conditions*

D.3.1 *Mandatory tests*

The following tests shall be carried out on all SUTs that have a transmission capability.

D.3.1.1 *SUT calling, tester called*

Test MG1 — Correct handling of Terminal Identification (TID),

Parts 1 to 4

SUT establishes a call.

Check:

— that the TID in CSS is consistent with the value assigned to the SUT,

— that the TID in CSS is in compliance with Recommendation F.200 format (Rec. F.200, § 7.5) and Recommendation T.61 encoding (Rec. T.61, § 4),

Test MG2 — Correct handling of date and time

SUT establishes a call.

Check:

— consistency of the date and time with that accessible in local mode (Rec. F.200, § 5.3.2.7),

— compliance to Recommendation F.200 format (Rec. F.200, § 5.3.2.7),

— compliance to Recommendation T.61 encoding (Rec. T.61, § 4).

Test MG3 — Capability to transmit normal documents in one session

SUT formats and transmits at least one document.

Check:

— that the document is completely transmitted,

— that the document type identifier parameter is absent from CDS.

Test MG4 — Ability to provide information to the operator in case of document transmission failure

This test is for further study as it is not a requirement specified in the 1984 Red Book version of Recommendation F.200.

Test MG5 — Capability to generate and transmit control and normal documents in the telex mode

SUT generates a Telex submission Control Document

SUT generates a Normal Document suitable for transmission to Telex.

SUT sends Control Document followed by Normal Document(s) to tester.

Check:

— that the Control Document is submitted before the Normal Document(s) during the same session,

— that the content of the Normal Document is restricted to the ITA2 character repertoire and the line length restricted to 69 characters,

— that the service interworking identifier is present in the Normal Document(s),

— that the Control Document identifier is present in the CDS of the Control Document,

— that the document reference number is correctly incremented in the CDS of the Control Document and the Normal Document(s).

Test MG6 — Correct handling of basic page formats and character encoding

SUT transmits a two-page document containing the CCITT Test (Rec. T.63) (see Notes 1 and 2).

Check:

— that the document transmitted is of two pages in total, the first being horizontally oriented and the second vertically oriented (see Notes 1 and 2),

— that the encoding of the graphic and control characters is correct,

— that CR/FF or FF/CR is present in the first CDUI of each page and that subsequent CDUIs within the same page do not contain FF.

Note 1 — If the terminal is unable to generate both horizontal and vertical pages, the test shall be carried out by using only one page format.

Note 2 — Depending on national requirements, the actual characters which can be created and transmitted may constitute a subset of the Teletex basic character repertoire. Any characters that are not generated shall be replaced by the coding of a valid T.61 character (e.g. question mark).

Note 3 — The document to be sent must be created on the terminal by use of normal operator input devices (e.g. keyboard).

D.3.1.2 *SUT called, tester calling*

Test MD1 — Correct handling of Terminal Identification (TID),

Parts 1 to 4

Tester establishes a call up to receiving RSSP.

Check:

— that the TID in RSSP is consistent with the value assigned to the SUT,

— that the TID in RSSP complies to Recommendation F.200 format (Rec. F.200, § 7.5) and complies to Recommendation T.61 encoding (Rec. T.61, § 4).

Test MD2 — Correct handling of call identification line

(A) Tester transmits documents of several pages (at least two documents of two pages in the same session).

SUT presents the documents with the CILs (see Note 1).

Check:

— position of CIL within printable area (see Note 2),

— compliance to Recommendation F.200 format (Rec. 200, § 5.3.2),

— consistency of the CIL with TID, date and time, document reference number and page number transmitted by the tester.

(B) The same Test MD2 (A), but using a different length reference number.

(C) The same Test MD2 (A), but using a different type of valid TID.

Note 1 — The choice of whether and where this presentation is made is a local decision except in certain recovery situations (see Test MD5).

Note 2 — The CIL may be partially overlapped by user text if the first/last communicable text line is superscripted/subscripted.

Test MD3 — *Capability to receive normal document(s) in one session*

(A) Tester transmits two documents of three pages, each page containing 1600 octets (including graphic and control characters).

Check:

— that it is possible to present the documents on the SUT,

— that the contents, layouts, and formats of the presented documents are identical to the documents sent by the tester.

(B) Tester transmits 3 documents each of one page, the first document consisting only of CR/FF, the second document consisting of CR/FF plus one graphic character, the third document consisting of CR/FF plus at least 4000 characters.

Check:

— that it is possible to present the documents on the SUT,

— that the contents, layouts, and formats of the presented documents are identical to the documents sent by the tester.

(C) Tester transmits one document containing one 200-character page. The page should be transmitted using 1 character per CDUI.

Check:

— that it is possible to present the document on the SUT,

— that the content, layout, and format of the presented document is identical to the document sent by the tester.

Test MD4 — *Capability to receive control documents* (Rec. T.62, Annex F and Rec. T.90)

(A) Tester transmits a Telex Non-Delivery Notification Control Document and sends it to the SUT.

Check:

— that the document is not rejected and is handled correctly by the SUT (Rec. T.90, § 4.4).

(B) Tester transmits to the SUT a Control Document which cannot be automatically processed by the SUT.

Check:

— that on user request the document is correctly presented.

Test MD5 — *Ability to handle continuation documents* (Rec. F.200, § 5.3.2.3)

Tester begins transmission of a multi-page document.

SUT receives and acknowledges at least one page.

Tester causes transmission to be interrupted.

Tester continues the interrupted document.

Check:

— that the CIL has been presented at the point of interruption and the point of continuation,

— that the system provides a means for the operator to linkback to the original interrupted document, e.g. same document reference number in both CILs.

(A) Interruption and continuation occur within the same call and same session.

(B) Interruption and continuation occur within the same call and different sessions.

(C) Interruption and continuation occur within different calls.

(D) Interruption due to a local SUT failure, e.g. power failure.

(E) Interruption due to a network failure, e.g. physical network disconnection.

(F) Tester begins transmission of a multi-page document.

SUT receives and acknowledges at least one page.

Tester causes transmission to be interrupted.

Tester transmits a complete document.

Tester continues the interrupted document.

Check:

— that the system receives both documents,

— that the CIL has been presented at the point of interruption and the point of continuation,

— that the system provides a means for the operator to linkback to the original interrupted document, e.g. same document reference number in both CILs.

Test MD6 — Ability to handle document discarding (Rec. T.62, § 3.4.8, Note 2)

(A) Tester transmits at least one page of a document, receives acknowledgement and then sends CDD.

Check:

— that the document is discarded and not available to the operator or that the operator is informed that the portion of document received is totally invalid.

(B) Tester transmits at least one page of multi-page document.

Tester causes transmission to be interrupted.

Tester continues interrupted document.

Tester sends CDD after at least one further page has been acknowledged.

Check:

— that, either the entire document has been discarded (including pages received prior to and after the document interruption) or that the operator is informed that the portion of document received is totally invalid.

(C) Tester transmits at least one page of multi-page document.

Tester causes transmission to be interrupted.

Tester closes session.

Tester continues interrupted document in a new session.

Tester sends CDD after at least one further page has been acknowledged.

Check:

— that, either the entire document has been discarded (including pages received prior to and after the document interruption) or that the operator is informed that the portion of document received is totally invalid.

Test MD7 — Ability to handle interrupted documents

(A) SUT receives and acknowledges at least one page.

Tester causes transmission to be interrupted.

Tester does not continue interrupted document.

Check:

— that the interrupted document is accessible to the user,

— that the CIL has been presented at the point of interruption.

(B) The same as Test MD7 (A), but with the interruption due to local SUT failure, e.g. power failure.

(C) The same as Test MD7 (A), but with the interruption due to network failure, e.g. physical disconnection.

Test MD8 — *Ability to provide status reporting and operator indicators* (Rec. F.200, § 7.4)

(A) Tester transmits a complete document to the SUT.

Check:

— that ‘message received into store’ indication is given to the operator [Rec. T.60, § 7.2 a)].

(B) Disable SUT's memory (see Note).

Tester attempts to transmit a document to the SUT.

Check:

— that 'terminal unable or soon unable to receive' indication is given to the operator [Rec. T.60, § 7.2 b)].

(C) Disable printer (where used as receive store) (see Note).

Tester attempts to transmit a document to the SUT.

Check:

— that 'operator assistance required' indication is given to the operator [Rec. T.60, § 7.2 c)].

Note — On certain systems it may not be possible to carry out this test.

Test MD9 — *Reaction to memory overflow conditions* (Rec. 200, § 7.3.2.2)

(A) Fully load the SUT's memory (see Note).

Tester attempts to transmit a document to the SUT.

Check:

— that the system provides an indication in the control procedures that its receiving capabilities are jeopardized, e.g. responds to CCS with an RSSN with reason 'receiving capabilities unable to enter into a session'.

(B) Leave space in the memory to receive two pages (see Note).

Attempt to transmit a five-page document to the SUT.

Check:

— that the system responds to CDPBs with RDPBPs until memory fills, when the response should change to RDPBN,

— that it is possible to present pages which were positively acknowledged and that they are identical to those sent by the tester.

Note — On certain systems it may not be possible to manipulate the memory.

Test MD10 — *Correct handling of basic page format and character encoding* (Rec. F.200, § 7.3.2.2)

(A) Tester transmits the CCITT test text of Recommendation T.63 and the pages defined in Annex E to Recommendation T.64.

The SUT presents document(s).

Check:

— that the complete basic repertoire has been received and that all graphic characters have been presented (displayed and/or printed) as legibly as possible and that the functions invoked by the control characters are correctly represented (e.g. underline, PLU, PLD),

— that the documents received are as sent and presented as legibly as possible.

(B) The same as Test MD10 (A), but with the presentation control functions SGR, SHS, SVS, PFS, parameter default values absent (see Rec. T.61, § 4.2.3.1).

Test MD11 — *Independence of local and communication functions* [Rec. F.200, § 1.2.2.1 f)]

Place the SUT in local mode.

Tester sends a document to the SUT.

Check:

— that the document is received correctly and that local mode of operation is not disturbed by reception of incoming document.

D.3.2 *Conditional tests*

The following tests shall be carried out on SUTs which support the appropriate capabilities.

D.3.2.1 *SUT calling/tester called*

Test CG1 — Ability to handle continuation documents (Rec. F.200, § 5.3.2.3)

(A) The SUT starts to send a multi-page document.

Tester interrupts document transmission after the SUT has received acknowledgement of at least one page.

SUT continues document transmission within the same call and the same session.

Check:

— that the DRN in the CIL is the same as that in the original CDS,

— that the system continues transmission of the interrupted document without repeating pages for which acknowledgements have been received,

— that CRN of resumption is incremented by one in the next page boundary (CDE or CDPB).

(B) SUT starts to send a multi-page document.

Tester interrupts document transmission after the SUT has received acknowledgement of at least one page.

SUT continues document transmission in a different session.

Check:

— that the DRN in the CIL is the same as that in the original CDS,

— that the system continues transmission of the interrupted document without repeating pages for which acknowledgements have been received,

— that CRN of resumption is incremented by one in the next page boundary (CDE or CDPB),

— that the TIDs of the called and calling systems transmitted in CDC are correct,

— that the date and time is the same as that in the original CSS.

(C) SUT starts to send a multi-page document.

Tester interrupts document transmission after the SUT has received acknowledgement of at least one page.

SUT transmits a complete document.

SUT continues interrupted document in a new session.

Check:

— that both documents are transmitted correctly,

— that the DRN in the CIL is the same as that in the original CDS,

— that the system continues transmission of the interrupted document without repeating pages for which acknowledgements have been received,

— that CRN of resumption is incremented by one in the next page boundary (CDE or CDPB),

— that the TIDs of the called and calling systems transmitted in CDC are correct,

— that date and time is the same as that in the original CSS.

Note — SUTs which claim the ability to handle continuation documents may not have the capability to support this facility in all of the conditions specified above.

Test CG2 — Ability to handle the change control function

(A) SUT offers control to tester.

Operator sets up SUT to offer control to the tester.

SUT establishes the call and transmits document(s) to the tester.

SUT gives control to the tester.

Tester transmits document(s) to the SUT.

SUT releases the call.

Check:

— that the SUT has transmitted and received the documents correctly.

(B) SUT gives control to tester on request.

Operator sets up SUT to give control to the tester on tester request.

SUT establishes a call and transmits document(s) to the tester.

Tester requests control.

SUT gives control to the tester.

Tester transmits document(s) to the SUT.

Check:

— that the SUT has transmitted and received the document(s) correctly.

Note 1 — Change of control may occur before or after the document(s) has been transmitted.

Note 2 — Systems which can handle change control may not have the capability in both the conditions specified above.

Test CG3 — *Correct handling of non-basic terminal capabilities* (NBTCs)

(A) Successful negotiation (for one document) (see Note 2).

SUT creates a document containing at least one NBTC.

SUT establishes a call to the tester.

SUT requests the NBTC(s) contained in the document.

Tester accepts the NBTC(s).

Check:

— that SUT correctly initiates the negotiation (see Notes 1 and 2),

— that SUT transmits the document,

— that the NBTC(s) are correctly encoded in the transmitted document.

(B) Successful negotiation (one basic document and one document containing NBTCs in the same session).

SUT creates two documents: the first a basic document, the second containing NBTC(s) supported by the SUT.

SUT establishes a call to the tester.

SUT requests all of the NBTC(s) contained in the second document. (This negotiation may occur after transmission of the first document.)

Tester accepts the NBTC(s).

SUT transmits documents.

Check:

— that SUT correctly initiates the negotiation (see Notes 1 and 2),

— that SUT transmits the basic document followed by the non-basic document.

(C) Unsuccessful negotiation (one document).

SUT creates a document containing at least one NBTC.

SUT establishes a call to the tester.

SUT requests all of the NBTC(s) contained in the document.

Tester responds as if it were a system not supporting NBTC(s).

Check:

— that SUT does not transmit the document.

(D) Negotiation of two documents in the same session — one successful, one unsuccessful.

SUT creates two documents each requiring different NBTCs.

SUT establishes a call to the tester.

SUT requests the NBTC(s) of both documents.

Tester accepts the NBTC(s) of only one document.

Check:

— that SUT transmits the document for which the NBTC(s) have been accepted.

— that SUT does not transmit the document for which the NBTC(s) have not been accepted.

Note 1 — NBTC(s) related to the document may be indicated in RSSP and will therefore not need to be negotiated using CDCL, RDCLP.

Note 2 — Tests (A) (B) (C) shall be repeated to cover all the NBTCs supported by the SUT, if they cannot be all present at the same time in a single document.

Test CG4 — Correct handling of memory negotiation

(A) Correct number of kilo-octets requested

SUT creates two documents:

— one document of one page containing 1600 octets,

— one document of seven pages containing 512 octets each.

SUT transmits those two in two different sessions.

Check:

— that SUT requested 2 kilos octets of receiving memory in the first session, and 4 kilo octets in the second session.

(B) Interworking with basic systems

SUT creates a three-page document and tries to transmit it to the tester.

Tester simulates a system which is not supporting the memory negotiation facility (e.g. answering with an empty RDCLP to the CDCL).

Check:

— that SUT transmits the document.

D.3.2.2 *SUT called, tester calling*

The following test shall be carried out on SUTs which support the appropriate capabilities.

Test CD1 — Ability to transmit a document after change control has occurred

Operator sets-up SUT to transmit a document after change control.

Tester establishes a call and transmits document(s) to SUT.

SUT requests and receives control.

SUT transmits document(s) to the tester.

Check:

— that the SUT has transmitted and received the document(s) correctly.

Test CD2 — *Capability to receive monitor documents in one session* (Rec. T.62, Annex F).

SUT receives one monitor document

Check:

— that, if accepted, the document is not presented to the operator.

Test CD3 — *Capability to receive operator documents in one session* (Rec. T.62, Annex F)

SUT receives and presents on user request one Operator Document

Check:

— that if accepted the document is received and presented correctly.

Test CD4 — *Correct handling of non-basic terminal capabilities* (NBTCs)

(A) Successful negotiation (for one document) (see Note 2).

Tester creates a document containing NBTCs supported by the SUT.

Tester initiates capability negotiation (CDCL) prior to the transmission (see Note 1).

Tester transmits the document to the SUT.

Check:

— that SUT has responded positively to the capability negotiation (CDCL) initiated by the tester,

— that SUT receives and presents the document correctly.

(B) Successful negotiation for two documents (in two steps) in the same session (see Note 2).

Tester creates two documents, each requiring different NBTCs supported by the SUT.

Tester initiates negotiation (CDCL) for the first document (Note 1).

Tester transmits first document to the SUT.

Tester initiates negotiation (CDCL) for the second document (see Note 1).

Tester transmits second document to the SUT.

Check:

— that SUT has responded positively to both negotiations (CDCL) initiated by the tester,

— that SUT receives and presents correctly both documents.

(C) Successful negotiations (in one step) for two documents in the same session (Note 2).

Tester creates two documents, each requiring different NBTCs supported by the SUT.

Tester initiates negotiation (CDCL) for both documents (see Note 1).

Tester transmits both documents to the SUT.

Check:

— that SUT has accepted all capabilities requested by the tester during the negotiation (CDCL),

— that SUT receives and presents correctly both documents.

(D) Unsuccessful negotiation (the requested NBTCs not supported) (see Note 3).

Tester creates a document requiring NBTCs not supported by the SUT.

Tester initiates negotiation (CDCL) for the NBTCs related to the document.

Check:

— that SUT does not accept the capabilities requested by the tester during the negotiation.

(E) Negotiation of two documents in the same session one successful, one unsuccessful (see Note 3).

Tester creates two documents: the first one containing NBTCs supported by the SUT, and the second one containing NBTCs not supported by the SUT.

Tester initiates negotiation (CDCL) for both documents.

Check:

— that SUT accepts only the capabilities required for the first document, and does not accept the capabilities required for the second one.

Note 1 — NBTC(s) related to the document may be indicated in RSSP, and will not necessarily need to be negotiated using CDCL/RDCLP.

Note 2 — This test shall be repeated to cover all the NBTCs supported by the SUT, if they cannot all be presented at the same time in a single document.

Note 3 — This test can be performed only if the SUT does not support all the possible NBTCs.

Test CD5 — *Ability for systems which support memory negotiation to interwork with basic systems*

(A) Interworking with basic systems.

Tester sends a basic document to the SUT, without memory negotiation.

Check:

— that SUT receives and presents correctly the document.

D.4 *Teletex application service tests under exception conditions*

These tests ensure tha the SUT does not fail under exception conditions that affect the application service. The expected reaction of the SUT is not specified except that it must continue to be available for service (i.e. no system error).

D.4.1 *SUT calling/tester called*

Test EG1 — *Receiving incorrect TID in RSSP*

SUT calls the tester to establish the connection.

The tester answers positively to the opening of the session (CSS/RSSP), but an invalid TID in RSSP (i.e. not in accordance with the F.200 format).

Attempt to interchange a document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

Test EG2 — *Receiving an unknown reason code in document transmission rejection*

(A) SUT calls the tester.

Tester refuses the session connection by sending a RSSN with an unknown reason code (i.e. presently not yet defined in the CCITT Recommendation).

Attempt to interchange a document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

(B) SUT transmits at least one page of a document.

Tester causes transmission to be interrupted by sending an RDPBN with an unknown reason code.

Attempt to interchange a document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

D.4.2 *SUT called/Tester calling*

Test ED1 — Receiving incorrect TID in CSS

Tester sends a CSS with an invalid TID (i.e. not in accordance with F.200 format).

Try to present CIL on SUT, if the CSS has not been rejected in real time.

Attempt to interchange a document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

Test ED2 — Receiving incorrect date and time in CSS

Tester sends a CSS with an invalid date and time (i.e. not in accordance with the F.200 format). If this CSS is accepted by SUT, the tester transmits a one page document to the SUT.

Try to present CIL on SUT.

Attempt to interchange a document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

Test ED3 — Receiving too long DRN/CRN

Tester transmits a document to the SUT, with a document reference number (DRN) of 4 octets, and checkpoint reference numbers (CRN) of 4 octets (by adding leading zeros to the regular values).

Try to present the received document including CIL (if not rejected in real time) on the SUT.

Attempt to interchange a document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

Test ED4 — Receiving a document containing incorrect presentation information

(A) One page exceeding the number of lines allowed.

Tester transmits a one page document to SUT, which exceeds the number of lines specified in Table 1/T.60.

If accepted, the SUT must be able to present the document or an error must be indicated to the operator.

Attempt to interchange a document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

(B) Pages containing lines which exceed the maximum number of characters allowed per line.

Tester transmits a document to SUT, which contains lines requesting more characters (print positions) than allowed in Table 1/T.60.

If accepted the SUT must be able to present the document or an error must be indicated to the operator.

Attempt to interchange another document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

(C) Incorrect use of form feed (FF).

Tester transmits a one page document using more than one CDUI, each containing FF.

If accepted, try to present this document on SUT.

Attempt to interchange another document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

(D) Incorrect use of PLU/PLD.

Tester transmits a one page document with incorrect use of PLU/PLD in single lines, e.g.:

Page 1:

1st line: <char> <PLD> <char> <PLU> <char> <PLU> <char> <CR> <LF>

Page 2:

1st line: <char> <CR> <LF>

2nd line: <char> <PLU> <char> <PLU> <char> <PLU> <5 char> <PLD> <char> <PLD> <char> <PLD> <char> <CR> <LF>

3rd line: <character>

If accepted, try to present the document on SUT.

Attempt to interchange another document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

(E) An undefined bit-combination of the primary set of graphic characters, the supplementary set of graphic characters, and the set of control functions.

Tester transmits undefined bit combinations in one or more pages, e.g.:

Graphic characters

05/12, 05/14

06/00

07/11, 07/13, 07/14, 07/15

10/00, 10/09, 10/10, 10/12, 10/13, 10/14, 10/15

11/09, 11/10

12/00

13/00-13/15

14/05

15/15

Control functions

00/00-00/07, 00/09, 00/11

01/00-01/08, 01/12, 01/14, 01/15

08/00-08/10, 08/13, 08/14

09/00-09/10, 09/12-09/15

If accepted, try to present the document on SUT.

Attempt to interchange another document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

Test ED5 — *Receiving invalid linking information on document continuation*

SUT receives and acknowledges at least one page. Tester causes transmission to be interrupted. Tester continues interrupted document with a DCD containing invalid linking information. (e.g. wrong TID, incorrect DRN, etc.).

If accepted, try to present both parts of the document on SUT with the CIL.

Attempt to interchange another document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

Test ED6 — Receiving an undefined reason code during document interruption

Tester begins to transmit a multi-page document.

After the SUT has acknowledged at least one page, the tester causes transmission to be interrupted by sending a CDR with an undefined reason code.

Try to present the partially received document on SUT.

Attempt to interchange another document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

Test ED7 — Receiving a document with NBTCs, which have not been negotiated and are not supported by SUT

(A) Tester creates a document requiring an NBTC, not supported by the SUT.

Tries to transmit the document to the SUT, without any negotiation.

If accepted, try to present the document on the SUT.

Attempt to interchange another document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

(B) Tester creates two documents; one requiring an NBTC, not supported by the SUT, one requiring no NBTC.

Tester negotiates the use of the NBTC.

Tester transmits both documents.

If accepted, try to present the document on the SUT.

Attempt to interchange another document between the SUT and the tester with the tester acting correctly.

Check:

— that the SUT is still fully operational (e.g. transmission and local functions).

BLANC

ANNEX E
(to Recommendation T.64)

Test text coding

E.1 This annex contains the test and associated encoding of characters to be used in test MD10 in addition to the test text.

H.T. [T103.64]

Page contents	SUT presentation
{	
PFS=1, SVS=3, SHS=0, SGR=4	
CR, FF	
}	{
Horizontal page format, starts with	
12 lines per inch	
10 characters per inch	
underlining beginning at home position	
}	
{	
Line 1	
<2/3> <2/4> <characters>	
}	Distance to CIL 4.23 mm
Line 2 <characters>	Distance to line 1 2.12 mm
Line 3 <characters>	Distance to line 2 2.12 mm
{	
Line 4	
<SVS=2> <characters>	
}	{
Distance to line 3	
2.12 mm	
(SVS take effect for the next line(s))	
}	
Line 5 <characters>	Distance to line 4 8.47 mm
Line 6 <PLU>*<PLD>*<PLD>*	Distance to line 5 8.47 mm
{	
<PLU> ---- within 100 stars	
}	{
underlining must be on the same level	
}	
{	
The sum of PLU and the sum of PLD are equal	
}	
{	
Line 7	
<PLD><SGR=4>* <PLU> <SGR=4>	
}	Distance to line 6 8.47 mm
{	
<PLU><SGR=4> <PLD> <SGR=4>	
}	underlining moved up and down
{	
*---- within 100 stars	
}	
{	
Line 8	
<characters> <SVS=1>	
}	Distance to line 7 8.47 mm
Line 9 <characters>	Distance to line 8 6.35 mm
Line 10 <5BS> <characters>	Distance to line 9 6.35 mm
Line 11 <5BS> <characters>	Distance to line 10 6.35 mm
{	
Line 12	
<char> <SVS=0> <char>	
}	Distance to line 11 6.35 mm
Line 13 <char>	Distance to line 12 4.23 mm
{	
Line 14	
<characters> <SVS=1>	
}	Distance to line 13 4.23 mm
{	

Line 15	
<characters> <SVS=2>	
}	Distance to line 14 6.35 mm
Line 16 <characters>	Distance to line 15 8.47 mm
Line 17 <characters>	Distance to line 16 8.47 mm
{	
Line 18	
<characters> <SVS=3>	
}	Distance to line 17 8.47 mm
Line 19 <characters>	Distance to line 18 2.12 mm
Line 20 <characters>	Distance 2.12 mm per line

Table [T103.64], p.

E.2 Correct handling and acceptance of pages with maximum numbers of lines per page.

H.T. [T104.64]

Page contents	SUT presentation
PFS 1, SVS 0, 38 lines text	38 + 1 lines
PFS 1, SVS 1, 25 lines text	25 + 1 lines
PFS 1, SVS 2, 19 lines text	19 + 1 lines
PFS 0, SVS 0, 55 lines text	55 + 1 lines
PFS 0, SVS 1, 36 lines text	36 + 1 lines
PFS 0, SVS 2, 27 lines text	27 + 1 lines

Table [T104.64], p.

E.3 Correct handling and acceptance of maximum numbers of characters per line in the printable area.

H.T. [T105.64]

Page contents	SUT presentation
{ PFS 1, SVS 0, SHS 0, 100 characters }	100 characters per line
{ PFS 1, SVS 0, SHS 0, 5BS, 105 characters }	105 characters per line
{ PFS 1, SVS 0, SHS 0, 100 characters }	100 characters
No parameters, 72 characters	72 characters
{ No parameters, 5BS, 77 characters }	77 characters
No parameters, 72 characters	72 characters

Tableau [T105.64], p.

MONTAGE: PAGE PAIRE 122 = PAGE BLANCHE

Pour d´efinir la (A3)

+ tabs de la disquette Pour d´efinir la (A1)