INTERNATIONAL STANDARD

# ISO/IEC 4335

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**AMENDMENT 6**
1995-11-15

# Information technology — Telecommunications and information exchange between systems — High-level data link control (HDLC) procedures — Elements of procedures

## AMENDMENT 6: Extension of HDLC sequence number modulus beyond 128

*Technologies de l'information — Télécommunications et échange d'information entre systèmes — Procédures de commande de liaison de données à haut niveau (HDLC) — Éléments de procédures*

*AMENDEMENT 6: Extension du module du numéro de séquence HDLC au-delà de 128*

Reference number
ISO/IEC 4335:1993/Amd.6:1995(E)

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## Foreword

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Amendment 6 to International Standard ISO/IEC 4335:1993 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

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## Introduction

This amendment increases the modulus number (i.e. the sequence number) in steps up to a maximum of 2 147 483 648 which can be represented in 31 bits. This is done by the introduction of a new "Set Mode" command that can be used to negotiate or indicate the modulus in absence of, or to override, a default value. This uses an optional information field in the mode-setting commands/responses.

This amendment also introduces the information field in mode-setting commands/responses.



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# Information technology — Telecommunications and information exchange between systems — High-level data link control (HDLC) procedures — Elements of procedures

## AMENDMENT 6: Extension of HDLC sequence number modulus beyond 128

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**Subclause 5.2**

*Change item (a) of the fifth paragraph to read as follows:*

a) accepting and responding to one of several appropriate mode-setting commands [set normal response mode (SNRM), set asynchronous response mode (SARM), set normal response mode extended (SNRME), set asynchronous response mode extended (SARME), set mode (SM) or set mode (SM) with the mode in the optional information field selected as normal response mode or asynchronous response mode, set initialization mode (SIM), and disconnect (DISC)];

*In the first sentence of the sixth paragraph, insert the following after ".....extended (SABME)," and before "SIM .....":*

set mode (SM) or SM with the mode in the optional information field selected as balanced mode,

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**Subclause 5.2.2**

*In the first sentence of the third paragraph, change the phrase in the parentheses to read as follows:*

(SABM, SABME, SM or SM with the mode in the information field selected as balanced mode, SIM).....

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**Subclause 6.2.1**

*Replace the second sentence of the first paragraph to read as follows:*

The modulus equals 8, 128, 32 768 or 2 147 483 648.

*Add the following at the end of the first paragraph.*

The control field formats for modulo 32 768 are shown in table 6 (see 7.5).

The control field formats for modulo 2 147 483 768 are shown in table 7 (see 7.6).

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**Subclause 7.1**

*Add the following unnumbered command to table 3.*

SM - Set Mode

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**Subclause 7.2.4**

*Add the following after the third sentence in paragraph 2.*

For modulo 32 768 sequence numbering the N(R) value for each designated I frame shall occupy bit positions 2-16 of the two-octet field, as per the encoding of the N(R) field in octets 3-4 of the control field for modulo 32 768, with bit position 1 in the first octet of the two-octet field set to "0", as illustrated in Figure 8. For modulo 2 147 483 648 sequence numbering the N(R) value for each designated I frame shall occupy bit positions 2-32 of the four-octet field, as per the encoding of the N(R) field in octets 5-8 of the control field for modulo 2 147 483 768, with bit position 1 in first octet of the four-octet field set to "0", as illustrated in figure 9.

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**Subclause 7.2.4**

*Insert new figures 8 and 9, as shown below. Renumber present figures 8 to 13 as figures 18 to 23.*

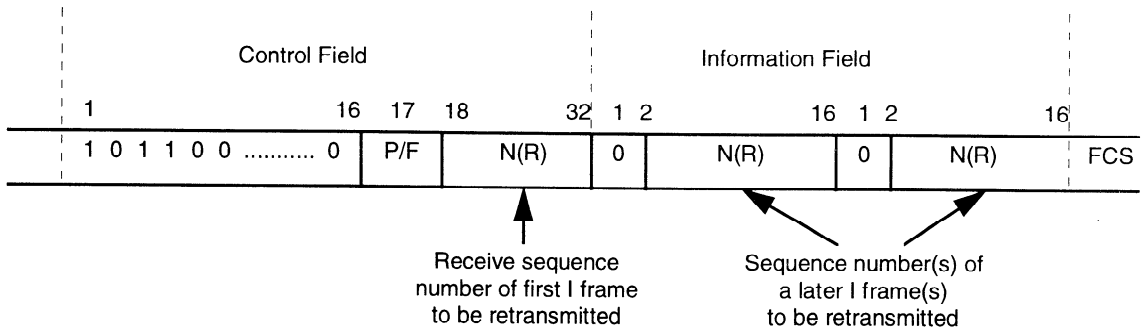


**Figure 8 — Control field and information field encoding in SREJ frame for modulo 32 768 numbering**

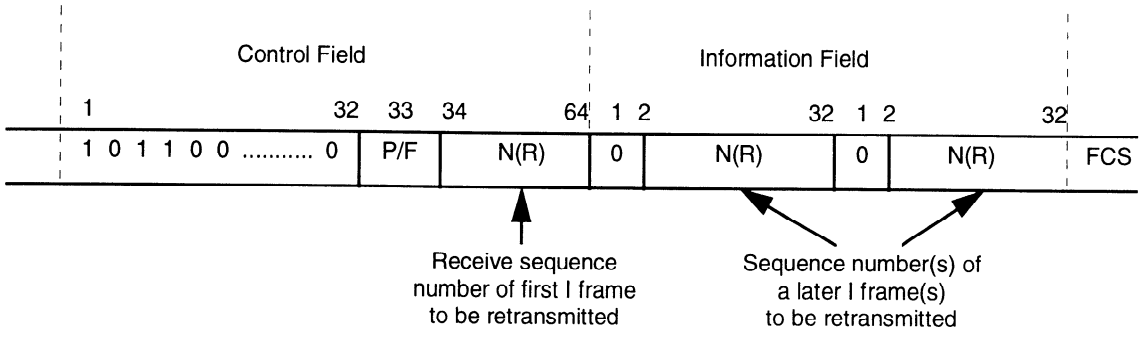


**Figure 9 — Control field and information field encoding in SREJ frame for modulo 2 147 483 648 numbering**



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