

TECHNICAL REPORT

**ISO/IEC
TR
15294**

First edition
2000-04-01

Information technology — Methods for data flow control at synchronous and asynchronous DTE-DCE interfaces

*Technologies de l'information — Méthodes pour interfaces DTE-DCE
synchrones et asynchrones de commande de flux de données*

Reference number
ISO/IEC TR 15294:2000(E)



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO/IEC 2000

All rights reserved. Unless otherwise specified, 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 either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 734 10 79
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

Attention is drawn to the possibility that some of the elements of this Technical Report may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC TR 15294, was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

This Technical Report is technically aligned with ITU-T Recommendation V.43, but is not published as identical text.

Introduction

When using DCEs incorporating data compression and/or error correction, it is essential that the DCE have some method of controlling the flow of data from the DTE (a similar requirement applies for the associated DTEs, see below). This is because the degree of compression obtained will vary from moment to moment, and the buffers in the DCE may fill up during periods of lower compression, or while correction of transmission errors is active.

Likewise, during periods of high compression, the DTE may become overloaded with the amount of incoming data and may not be able to process this data properly without means of controlling the flow of data from the DCE.

There are many methods of flow control in existence, and DCE and DTE designers should ensure that they provide methods suitable for the associated DTE and DCE, respectively, to be used.

This Recommendation aims at giving guidelines in order to assist DTE and DCE designers in their tasks. It lists several mechanisms which are known to operate successfully with DTEs and DCEs although no single mechanism will operate with all DTEs and DCEs, and some DTEs may not respond to any of the mechanisms described. Both the synchronous and the asynchronous modes of operation are addressed.

NOTE The guidelines given in this Technical Report may not be exhaustive.

Information technology — Methods for data flow control at synchronous and asynchronous DTE-DCE interfaces

1 Scope

This Technical Report provides guidance for the choice of an appropriate method for, and the implementation of, data flow control capabilities in DTEs and DCEs. It also coordinates information from other Recommendations and International Standards and provides tutorial material on these flow control techniques.

2 Reference

- [1] ITU-T Recommendation V.24, *List of definitions for interchange circuits between data terminal equipment and data circuit-terminating equipment*.