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CCITT

T.431

THE INTERNATIONAL
TELEGRAPH AND TELEPHONE
CONSULTATIVE COMMITTEE

(09/92)

**TERMINAL EQUIPMENT AND PROTOCOLS
FOR TELEMATIC SERVICES**

**DOCUMENT TRANSFER AND MANIPULATION
(DTAM) – SERVICES AND PROTOCOLS –
INTRODUCTION AND GENERAL PRINCIPLES**



Recommendation T.431

FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT 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 Plenary Assembly of CCITT which meets every four years, establishes the topics for study and approves Recommendations prepared by its Study Groups. The approval of Recommendations by the members of CCITT between Plenary Assemblies is covered by the procedure laid down in CCITT Resolution No. 2 (Melbourne, 1988).

Recommendation T.431 was revised by Study Group VIII and was approved under the Resolution No. 2 procedure on the 18 of September 1992.

CCITT NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized private operating agency.

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CONTENTS

	<i>Page</i>
1 Scope and field of application	1
2 References	1
3 Definitions	3
3.1 DTAM service and protocol definitions.....	3
3.2 Reference model definitions.....	3
3.3 Service convention definitions	4
4 Abbreviations.....	4
5 DTAM for Telematic applications – General concepts.....	5
5.1 The approach to the integrated Telematic application	5
5.2 General communication functions	5
5.2.1 Document bulk transfer	5
5.2.2 Remote document manipulations	5
5.2.3 Remote document access	6
5.2.4 Remote document management.....	6
5.3 Communication support functions	6
5.4 Telematic Protocol Architecture (TPA) model	6
5.5 Intercommunication with other environment	8
6 Overview of Recommendations T.431 to T.433	8
6.1 T.431 introduction and general principles	8
6.2 T.432 DTAM service definition	8
6.3 T.433 DTAM protocol specification.....	8
7 Application rules for communication application profiles	8
7.1 General principle.....	8
7.2 Service class	10
7.3 Functional units.....	10
7.4 Communication support functions	10
7.5 Use of communication application profile.....	10
8 Service classes, functional units and communication support functions.....	10
8.1 Service classes	11
8.1.1 Document bulk transfer class	11
8.1.2 Document manipulation class.....	11
8.1.3 Document bulk transfer and manipulation class.....	11
8.1.4 Remote document access class	12
8.1.5 Remote document management class	12
8.2 Functional units.....	12
8.2.1 Association use control functional unit (Kernel).....	12
8.2.2 Capability functional unit.....	12
8.2.3 Data transmission functional units.....	12
8.2.4 Session management functional unit	12
8.2.5 Exception report functional unit	12
8.2.6 Remote document access functional unit.....	13
8.2.7 Remote document management functional unit.....	13
8.3 Communication support functions	13
8.3.1 Document bulk transfer class	13
8.3.2 Document manipulation class.....	13
8.3.3 Document bulk transfer and manipulation class.....	13
8.3.4 Remote document access class (RDA)	13
8.3.5 Remote document management class (RDM).....	13

INTRODUCTION

This Recommendation is one of a set of T.400-Series Recommendations to facilitate the interconnection of Telematic systems and terminals. It is related to other CCITT Recommendations in the set as defined by the Reference Model for Open Systems Interconnection (see Recommendation X.200). The Reference Model subdivides the area of standardization for interconnection into a series of layers of specification, each of manageable size.

The T.430-Series Recommendations define a Document Transfer and Manipulation (DTAM) Service and specify a DTAM Protocol available within the Application Layer of the Reference Model. The DTAM defined in this series of Recommendations is one of the Application Service Elements (ASE), which is specifically designed for document handling. It is concerned with identifiable bodies of information which can be treated as documents, and which may be stored within open systems or accessed, transferred and manipulated between application processes.

This Recommendation and Recommendations T.432 and T.433 define general principles and application rules, basic DTAM services, and protocol, respectively. They provide sufficient facilities to support DTAM and establish a framework for DTAM management.

This Recommendation defines in an abstract way application rules of the DTAM service. DTAM applications defined using these series of Recommendations are specified in terms of service classes. A service class consists of a combination of functional units and communication support functions.

The term document used in this series of Recommendations covers ODA documents as well as other types of information, e.g. files.

Recommendation T.431

DOCUMENT TRANSFER AND MANIPULATION (DTAM) – SERVICES AND PROTOCOLS – INTRODUCCION AND GENERAL PRINCIPLES

(revised 1992)

1 Scope and field of application

This Recommendation defines in an abstract way application rules of the DTAM service. Applications defined using this series of Recommendations are specified in terms of service classes. A service class consists of a combination of functional units and communication support functions. The combination of functional units and communication support functions are

- 1) *Functional units provided by DTAM*
 - association use control unit (Kernel);
 - capability unit;
 - document bulk transfer unit;
 - document unconfirmed manipulation unit;
 - document confirmed manipulation unit (see Note);
 - typed data transfer unit;
 - remote document management unit (see Note);
 - remote document access unit (see Note);
 - token control unit;
 - exception report unit (see Note).

Note – The use of these functional units is left for further study.

- 2) *Communication support functions*
 - Association Control Service Element (ACSE) and Presentation layer service;
 - Reliable Transfer Service Element (RTSE);
 - Remote Operation Service Element (ROSE) (see Note);
 - Session service (see Recommendation X.215) according to the rule of Recommendation T.62 bis.

Note – The use of this communication support function is left for further study.

2 References

- Recommendation T.62 bis, *Telematic control procedures for Teletex and Group 4 Facsimile Services based on Recommendations X.215 and X.225.*
- Recommendation T.400, *Introduction to Document Architecture, Transfer and Manipulation.*
- Recommendation T.411, *Open Document Architecture (ODA) and Interchange Format – Introduction and General Principles.*
- Recommendation T.412, *Open Document Architecture (ODA) and Interchange Format – Document Structures.*
- Recommendation T.414, *Open Document Architecture (ODA) and Interchange Format – Document Profile.*
- Recommendation T.415, *Open Document Architecture (ODA) and Interchange Format – Open Document Interchange Format (ODIF).*



Documents

Document Sharing Hub

Recommendation T.431 (09/92)

1

- Recommendation T.416, *Open Document Architecture (ODA) and Interchange Format – Character Content Architectures.*
- Recommendation T.417, *Open Document Architecture (ODA) and Interchange Format – Raster Graphics Content Architectures.*
- Recommendation T.418, *Open Document Architecture (ODA) and Interchange Format – Geometric Graphics Content Architectures.*
- Recommendation T.432, *Document Transfer and Manipulation (DTAM) – Services and protocols: Service Definition.*
- Recommendation T.433, *Document Transfer and Manipulation (DTAM) – Services and protocols: Protocol Specification.*
- Recommendation T.441, *Document Transfer and Manipulation (DTAM) – Operational Structure.*
- Recommendation X.200, *Open Systems Interconnection (OSI) - Model and Notation – Reference Model of Open Systems Interconnection for CCITT Applications.*
- Recommendation X.208, *Open Systems Interconnection (OSI) – Model and Notation – Specification of Abstract Syntax Notation One (ASN.1).*
- Recommendation X.209, *Open Systems Interconnection (OSI) – Model and Notation – Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1).*
- Recommendation X.210, *Open Systems Interconnection (OSI) – Service Definitions – Open Systems Interconnection Layer Service Definition Conventions.*
- Recommendation X.215, *Open Systems Interconnection (OSI) – Service Definitions – Session Service Definition for Open Systems Interconnection for CCITT Applications.*
- Recommendation X.216, *Open Systems Interconnection (OSI) – Service Definitions – Presentation Service Definition for Open Systems Interconnection for CCITT Applications.*
- Recommendation X.217, *Open Systems Interconnection (OSI) – Service Definitions – Association Control Service Definition for Open Systems Interconnection for CCITT Applications.*
- Recommendation X.218, *Open Systems Interconnection (OSI) – Service Definitions – Reliable Transfer: Model and Service Definition.*
- Recommendation X.219, *Open Systems Interconnection (OSI) – Service Definitions – Remote Operation: Model, Notation and Service Definition.*
- Recommendation X.225, *Open Systems Interconnection (OSI) – Protocol Specifications – Session Protocol Specification for Open Systems Interconnection for CCITT Applications.*
- Recommendation X.226, *Open Systems Interconnection (OSI) – Protocol Specifications – Presentation Protocol Specification for Open Systems Interconnection for CCITT Applications.*
- Recommendation X.227, *Open Systems Interconnection (OSI) – Protocol Specifications – Association Control Protocol Specification for Open Systems Interconnection for CCITT Applications.*
- Recommendation X.228, *Open Systems Interconnection (OSI) – Protocol Specifications – Reliable Transfer Protocol Specification for Open Systems.*
- Recommendation X.400, *Message handling systems: Message handling system and service overview.*