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National Transportation Communications for ITS Protocol

Object Definitions for Closed Circuit Television (CCTV) Camera Control

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FOREWORD

This document uses only metric units.

This document defines the Closed Circuit Television (CCTV) data elements, or objects, that are supported by the NTCIP.

The text includes an extended glossary in Annex A that is defined as informative.

For more information about NTCIP standards, visit the NTCIP Web Site at http://www.ntcip.org. For a hardcopy summary of NTCIP information, contact the NTCIP Coordinator at the address below.

In preparation of this NTCIP document, input of users and other interested parties was sought and evaluated. Inquiries, comments, and proposed or recommended revisions should be submitted to:

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Approvals

This document was separately balloted and approved by AASHTO, ITE, and NEMA after recommendation by the Joint Committee on the NTCIP. Each organization has approved this standard as the following standard type, as of the date:

AASHTO – Standard Specification; February 2001
ITE – Software Standard; May 2001
NEMA – Standard; July 2001

History

From 1997 to 1999, this document was referenced as TS 3.CCTV. However, to provide an organized numbering scheme for the NTCIP documents, this document is now referenced as NTCIP 1205. The technical specifications of NTCIP 1205 are identical to the former reference, except as noted in the development history below:

TS 3.CCTV v98.01.03. August 1998 – Accepted as a User Comment Draft by the Joint Committee on the NTCIP. October 1998 – Distributed by NTCIP Standards Bulletin B0028 for user comment.

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NTCIP 1205:2001 v01.08, December 2001. January 2002 – Formatted for printing: updated title page date and version number; and revised front matter to conform to NTCIP 8002. All references to TS 3 standard numbers were changed to equivalent NTCIP standard numbers.

INTRODUCTION

The purpose of this document is to define the Closed Circuit Television (CCTV) Camera Control objects that are supported by the NTCIP.

The following keywords apply to this document: AASHTO, ITE, NEMA, NTCIP, CCTV, camera control, objects.

In 1992, the NEMA 3-TS Transportation Management Systems and Associated Control Devices Section began the effort to develop the NTCIP. The Transportation Section's purpose was to respond to user needs to include standardized systems communication in the NEMA TS 2 standard, *Traffic Controller Assemblies*. Under the guidance of the Federal Highway Administration's NTCIP Steering Group, the NEMA effort was expanded to include the development of communications standards for all transportation field devices that could be used in an Intelligent Transportation Systems (ITS) network.

In September 1996, an agreement was executed among AASHTO, ITE, and NEMA to jointly develop, approve, and maintain the NTCIP standards. Under the guidance of the Joint AASHTO/ITE/NEMA Committee on the NTCIP, a Working Group was formed to develop the object definitions for Closed Circuit Television camera control. The CCTV WG first met in August 1997.

The *NTCIP Object Definitions for Closed Circuit Television (CCTV) Camera Control* defines objects in ASN.1 using the SNMP Object Type Macro for devices that sense the presence or similar characteristics of vehicles. These definitions are intended for CCTV camera control devices.

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NTCIP Management Information Base and Data Dictionary
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CONTENTS

Section 2
GENERAL

2.1 SCOPE

The communications between an ITS Management Center or portable computer and a Closed Circuit Television (CCTV) Camera Controller is accomplished by using the NTCIP Application Layer services to convey requests to access or modify values of CCTV Camera Control objects resident in the device via an NTCIP network. An NTCIP message consists of a specific Application Layer service and a set of data objects. An NTCIP message may be conveyed using any NTCIP defined class of service that has been specified to be compatible with the Simple Transportation Management Framework (STMF).

The scope of this document is limited to the functionality related to CCTV Camera Control within a transportation environment. This publication defines objects which are specific to CCTV and also defines standardized object Groups which can be used for conformance statements. The limits and descriptions of the parameters are established to give the user maximum flexibility to operate devices that either exist at the time this document was authored or may exist in the future.

2.2 REFERENCES

For approved revisions, contact:

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For proposed revisions which are under discussion by the relevant NTCIP Working Group, and revisions recommended by the Joint Committee on the NTCIP, browse to the Web at http://www.ntcip.org.

The following standards (normative references) contain provisions that, through reference in this text, constitute provisions of this Standard. Other documents and standards (other references) are referenced in these documents, which might provide a complete understanding of the entire protocol and the relations between all parts of the protocol. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of each standard listed below.

2.2.1 Normative References

NEMA	1201:1996	*National Transportation Communications for ITS Protocol – Global Object Definitions*
RFC1212	03/26/1991	*Concise MIB Definitions*
RFC1213	03/1991	*Management Information Base for Network Management of TCP/IP-based Internets: MIB-II*
RFC1155	05/10/1990	*Structure and Identification of Management Information for TCP/IP-based Internets*