NTCIP 1208:2005

National Transportation Communications for ITS Protocol

Object Definitions for Closed Circuit Television (CCTV) Switching

Joint Standard of AASHTO, ITE, and NEMA

version 01.12

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National Transportation Communications for ITS Protocol

Object Definitions for Closed Circuit Television (CCTV) Switching

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ACKNOWLEDGEMENTS

FOREWORD

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

This document is an NTCIP Device Data Dictionary Standard. Device Data Dictionary standards provide definitions of data elements for use within NTCIP systems.

A Joint NTCIP Device Data Dictionary standards publication is equivalent to these document types at the standards organizations:

> AASHTO – Standard Specification
> ITE – Software Standard
> NEMA – Standard

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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; October 2004
> ITE – Software Standard; May 2005
> NEMA – Standard; November 2004

History

From 1996 to 1999, this document was referenced as NEMA TS 3.SWITCH. However, to provide an organized numbering scheme for the NTCIP documents, this document is now referenced as NTCIP 1208. The technical specifications of NTCIP 1208 are identical to the former reference, except as noted in the development history below:

> NTCIP 1208 v01.04. July 1999 – Accepted as a User Comment Draft by the Joint Committee on the NTCIP. January 2000 – NTCIP Standards Bulletin B0041 distributed for user comment.

> NTCIP 1208 v01.11. August 2003 – Accepted v01.11 as a Recommended Standard by the Joint Committee on the NTCIP. May 2004 – NTCIP Standards Bulletin B0094 referred v01.11d for balloting. Approved by AASHTO in October 2004, approved by ITE in May 2005, and approved by NEMA in November 2004.

> NTCIP 1208:2005 v01.12. October 2005 – Edited document for publication; revised front matter.

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INTRODUCTION

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

The *NTCIP Object Definitions for Closed Circuit Television (CCTV) Switches* defines data elements in ASN.1 using the SNMP Object Type Macro for devices that control discrete input and output video signals. These definitions are intended for CCTV video switching devices.

This standard defines requirements that are applicable to all NTCIP environments and it also contains optional and conditional clauses that are applicable to specific environments for which they are intended.

The following keywords apply to this document: AASHTO, ITE, NEMA, NTCIP, CCTV, switch, data elements.

In 1992, the NEMA 3-TS Transportation Management Systems and Associated Control Devices Section began the effort to develop the NTCIP. 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 ITS network.

In September 1996, an agreement was executed among AASHTO, ITE, and NEMA to jointly develop, approve, and maintain the NTCIP standards. In August 1997, the CCTV Working Group was first organized to develop data element definitions for camera control. In June 1998, the CCTV WG began work on the video switch standard.

CONTENTS

Section 1
GENERAL

1.1   SCOPE

The communications between an ITS Management Center or portable computer and a Closed Circuit Television (CCTV) Switch is accomplished by using the NTCIP Application Layer services to convey requests to access or modify values of CCTV Switch 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 switches within a transportation environment. This publication defines data elements that are specific to CCTV Switches and also defines standardized data element Groups that 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.

1.2   REFERENCES

For approved revisions, contact:

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Proposed revisions, which are under discussion by the relevant NTCIP Working Group, and revisions recommended by the NTCIP Joint Committee are available on the World Wide 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.

1.2.1   Normative References

	NTCIP 1201 v02 (formerly TS 3.4)	*NTCIP – Global Object Definitions*
	NTCIP 1103 v02	*NTCIP – Transportation Management Protocols*
	NTCIP 2301 v02	*NTCIP – Simple Transportation Management Framework Application Profile*
ISO/IEC	8824-1:1998	*Information Technology—Abstract Syntax Notation One (ASN.1): Specification of Basic Notation*