

A Working Group Draft Standard of the Joint Committee

NTCIP 1402 v. 1.03

-- DRAFT Amendment 1

Transit Communications Interface Profiles

**Part of the National Transportation Communications for
ITS Protocol**

Standard on Incident Management (IM) Objects

Draft August 2002

Also referenced as TCIP-IM

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Published by

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FOREWORD

This document uses only metric units.

This document is an NTCIP Information Data Dictionary Standard. Information Data Dictionaries Standards formally express management information in terms of objects (data elements, data frames, and messages) for use within TCIP and NTCIP systems.

The TCIP family of standards addresses Advanced Public Transportation Systems (APTS) data interfaces and related automated transit tools and data. The standards address the business requirements of these APTS data interfaces. In some cases, specialized terms were needed to define general classes of information. For example, different business areas needed to define data elements related to time, date and footnotes. Special, constrained data types were developed so that the transit domain data concepts were consistent across business areas, while specific needs were met. These data types are defined within the TCIP family of standards and in this document.

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. Inquires, comments, and proposed or recommended revisions should be submitted to:

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Approvals

This document will be separately balloted and approved by AASHTO, ITE, and NEMA after recommendation by the Joint Committee on the NTCIP. Each organization is expected to approve this NTCIP Information Data Dictionary Standard as the following standard type, as of the date:

AASHTO – Standard Specification; Month YYYY
ITE – Software Standard; Month YYYY
NEMA – Standard; Month YYYY

History

From 1997 to 1999, this document was referenced as ITE ST-ITS-TCIP-IM and/or NEMA TS 3.TCIP-IM. However, to provide an organized numbering scheme for the NTCIP, this document is now referenced as NTCIP 1402. The technical specification of NTCIP 1402 is identical to the former reference, except as noted in the development history:

TCIP documents version 0.1. Distributed in September 1997 for public review.

TCIP-PI Recommended Standard version 1.0, February 20, 1998, changed to version 1.1, July 31, 1998. Revisions included: Sections 2.1, 2.3, 4.3, 5.1, 5.2, and 6.0.

NTCIP 1402 version 97.01.01, July 31, 1998. Approved by AASHTO in July 1999, approved by ITE in October 1999, and approved by NEMA in February 2000.

NTCIP 1402 v01.02, December 1, 2000. Incremented version number and updated date; added and revised front matter; updated references to NTCIP and NEMA document numbers in References Clause; updated references to ITE document numbers; inserted introduction text in Section on Requirements; deleted Annex A Comment Form; and inserted introduction text in Annex on the ASN.1 Script.

Draft NTCIP 1402 v01.03 Amendment 1, August 2002. Updated references, corrected typographic errors and printing errors.

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Section 1 GENERAL

1.2.1 Normative References

-- Updated the publications information for Normative References

draft NTCIP 1400:2002 Amendment 1, *Transit Communications Interface Profile Framework*, version 1.05 Amendment 1.

draft NTCIP 1401:2002 Amendment 1, *Transit Communications Interface Profile, Standard on Common Public Transportation Objects*, version 1.03 Amendment 1, August, 2002.

draft NTCIP 1404:2002 Amendment 1, *Transit Communications Interface Profile, Standard on Scheduling and Runcutting Objects*, version 1.03 Amendment 1, August, 2002.

draft NTCIP 1405:2002 Amendment 1, *Transit Communications Interface Profile, Standard on Spatial Representation Objects*, version 1.03 Amendment 1, August, 2002.

draft NTCIP 1406:200x Amendment 1, *Transit Communications Interface Profile, Standard on Control Center Objects*, version 1.03 Amendment 1, August, 2002.

draft NTCIP 1407:200x Amendment 1, *Transit Communications Interface Profile, Standard on On-Board Objects*, version 1.03 Amendment 1, August, 2002.

ISO/IEC 8824:1998, *Abstract Syntax Notation One (ASN.1)*

<<Update reference for TMDD>>

1.2.2 Informative References

-- Updated the publications information for Informative References

IEEE Std 1489-1999, *IEEE Standard for Data Dictionaries for Intelligent Transportation Systems*. 27 October 1999.

IEEE Std 1488-2000, *IEEE Trial-Use Standard for Message Set Template for Intelligent Transportation Systems*. 13 July 2000.

Section 2
TERMINOLOGY

-- no change

Section 3
CONCEPT OF OPERATIONS

-- Revised Section title to Concept of Operations

Section 4 REQUIREMENTS

4.1 INCIDENT MANAGEMENT DATA DICTIONARY

IM_DestinationAgencyID_id

(1) *The Representative class term (in descriptive name and field) shall be modified to identifier (id).*

Descriptive Name IM_DestinationAgencyID_id
Representation class term identifier

IM_DispatcherID_id

(1) *The Representative class term (in descriptive name and field) shall be modified to identifier (id).*

Descriptive Name IM_DispatcherID_id
Representation class term identifier

IM_EmployeeFunction_cd

(1) *The error codes shall be removed from the code list.*

Representation layout IM-EmployeeFunction ::= INTEGER
{
command (1), -- command
safety (2), -- safety
information (3), -- information
liaison (4), -- liaison
operations (5), -- operations
staging (6), -- staging
branch (7), -- branch
division (8), -- division
strike-team (9), -- strike team
company (10), -- company
task-force (11), -- task force
group (12), -- group
planning (13), -- planning
resource-unit (14), -- resource unit
situation-unit (15), -- situation unit
documentation-unit (16), -- documentation unit
demobilization (17), -- demobilization unit
technical-specialist (18), -- technical specialist
logistics (19), -- logistics
service-branch (20), -- service branch
communications (21), -- communications unit
medical-unit (22), -- medical unit
rehabilitation (23), -- rehabilitation
food-unit (24), -- food unit
support-branch (25), -- support branch
supply-unit (26), -- supply unit
facilities-unit (27), -- facilities unit
ground-support-unit (28), -- ground support unit
administration (29), -- finance/administration
time-unit (30), -- time unit
procurement-unit (31), -- procurement unit
claims-unit (32), -- compensations claims unit
cost-unit (33), -- cost unit

transit-ft-operator (34), -- Transit: full time operator
transit-pt-operator (35), -- Transit: part time operator
transit-conductor (36), -- Transit: conductor
transit-engineer (37), -- Transit: engineer
transit-maintenance (38), -- Transit: maintenance

Valid value rule

1 Command
2 Safety
3 Information
4 Liaison
5 Operations
6 Staging
7 Branch
8 Division
9 Strike Team
10 Company
11 Task Force
12 Group
13 Planning
14 Resource Unit
15 Situation Unit
16 Documentation Unit
17 Demobilization Unit
transit-supervisor (39), -- Transit: supervisor/ manager 18 Technical Specialist
transit-revenue-collector (40), -- Transit: revenue collector 19 Logistics
transit-dispatcher (41) -- Transit: dispatcher 20 Service Branch
-- 42-149 (reserved for standard codes) 21 Communications Unit
-- 150-255 (reserved for local use) 22 Medical Unit
} (0..255) 23 Rehabilitation
24 Food Unit
25 Support Branch
26 Supply Unit
27 Facilities Unit
28 Ground Support Unit
29 Finance/Administration
30 Time Unit
31 Procurement Unit
32 Compensations Claims Unit
33 Cost Unit
34 Transit: full time operator
35 Transit: part time operator
36 Transit: conductor
37 Transit: engineer
38 Transit: maintenance
39 Transit: supervisor/manager
40 Transit: revenue collector
41 Transit: dispatcher
42-149 (reserved for standard codes)
150-255 (reserved for local use)

IM_EmployeeIDSource_id

(1) The Representative class term (in descriptive name and field) shall be modified to identifier (id).

Descriptive Name IM_EmployeeIDSource_id
Representation class term identifier

IM_EmployeeIDSystem_id

(1) The Representative class term (in descriptive name and field) shall be modified to identifier (id).

Descriptive Name IM_EmployeeIDSystem_id
Representation class term identifier

IM_EventIDSource_id

(1) The Representative class term (in descriptive name and field) shall be modified to identifier (id).

Descriptive Name IM_EventIDSource_id
Representation class term identifier

IM_EventIDSystem_id

(1) The Representative class term (in descriptive name and field) shall be modified to identifier (id).

Descriptive Name IM_EventIDSystem_id
Representation class term identifier

IM_IncidentID_id

(1) The Representative class term (in descriptive name and field) shall be modified to identifier (id).

Representation class term identifier

IM_OtherVehicleInvolvedID_id

(1) The Representative class term (in descriptive name and field) shall be modified to identifier (id).

Descriptive Name IM_OtherVehicleInvolvedID_id
Representation class term identifier

IM_ResponseEmployeeID_id

(1) The Representative class term (in descriptive name and field) shall be modified to identifier (id).

Descriptive Name IM_ResponseEmployeeID_id
Representation class term identifier

IM_ResponseUnitID_id

(1) The Representative class term (in descriptive name and field) shall be modified to identifier (id).

Descriptive Name IM_ResponseUnitID_id
Representation class term identifier

IM_SourceID_id

(1) The Representative class term (in descriptive name and field) shall be modified to identifier (id).

Descriptive Name IM_SourceID_id
Representation class term identifier

4.2 MESSAGE SET

ImEventSystem_message

(1) *Last version included the wrong message. This is the correct message for ImEventSystem*

Message body

```
ImEventSystem ::= SEQUENCE {
  event-system-id IM-EventIDSystem,
  source-type IM-SourceType,
  source-id IM-SourceID,
  type SEQUENCE OF IM-IncidentType,
  subtype SEQUENCE OF IM-IncidentSubtype OPTIONAL,
  incidentSeverity CPT-SeverityLevel OPTIONAL, -- range (1..10)
  employee-system-id IM-EmployeeIDSystem OPTIONAL,
  workstationID CC-WorkstationID,
  event-desc-short IM-IncidentDescShort OPTIONAL,
  event-desc-long IM-IncidentDescLong OPTIONAL,
  event-location SpLocationclass OPTIONAL,
  ptv-id CPT-PTVehicleID OPTIONAL,
  -- if the source event is on-board a vehicle, data element is mandatory
  transit-facility CPT-TransitFacilityID OPTIONAL,
  response-agencyID IM-ResponseAgencyID OPTIONAL,
  response-employeeID IM-ResponseEmployeeID OPTIONAL
} (WITH COMPONENTS{..., event-desc-short PRESENT}|
  WITH COMPONENTS{..., event-desc-long PRESENT} )
```

**Annex B
ASN.1 Script**

(Informative)

TBD