SIEMENS

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Benummerung
Technisches Nummernsystem (TNS)

—

Numbering
Technical Number System (TNS)

I IA IT D SR NBG M

Previous Editions

SN 01060   2004-08, 2005-12, 2006-05, 2006-08, 2008-06, 2011-06, 2012-08

SN 01060-1:   1991-10, 1995-05, 1996-07

SN 01060-1 B1.   1991-10

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SN 01060-2:   1991-10, 1995-11, 1996-10, 1999-01, 1999-10, 2000-08, 2001-11, 2003-01

Changes

Due to a CR the TNS was extended to 18 digits in total.

The table which contains the Code of Assigning Partner was extracted from this document. Maintenance and publishing will take place directly in CCS Corporate Code System.

Please see this intranet link for the CCS: CCS - Code for Administration Center

The responsible editor of this norm is I IT D SR, hereinafter referred to as "Functional Department"

Responsibility for standard

This standard is defined and modified by Workgroup TIP (Technical Identification of Products). If necessary the responsible TIP-Officer is able to provide you with older versions of this standard: TIP-Officers

Referenced Standards

DIN 6763	Numbering; Basics
DIN 6763 HS-Appendix 1	Numbering; Basics; Siemens Definitions
EN 61355-1	Classification and designation of documents for plants, systems and equipment - Part 1: Rules and classification tables
SN 01000-1	Numbering; Products and Technical Documents; Principal Number Systems
SN 01012	Numbering; Siemens Code Numbers; Issue Codes
SN 10370	Products and Technical Documents; Exchangeability and Issue
SN 10805	Numbering; Classification(SK)

Contents

1   Basics

1.1 Purpose and Scope of Application

The Technical Numbering System (TNS) is a principal numbering system as defined in SN 01000-1, approved for the numbering of products and technical documents.
This chapter contains specifications for the numbering scheme as well as rules for the generation and notation of technical numbers.

If the existing numbering systems no longer meet the requirements, the Technical Numbering System is to be used.

Depending on the level of identification required, information such as issue data can be added.

1.2 Terms and Definitions

The basic terms and definitions for numbering systems as per DIN 6763 and DIN 6763 HS Appendix 1 are applicable.

1.2.1   Technical Numbering System (TNS)

The Technical Numbering System is a counting-based identification number system that does not contain any classification data. For evaluation purposes, attributes must be maintained in separate data fields outside of TNS.
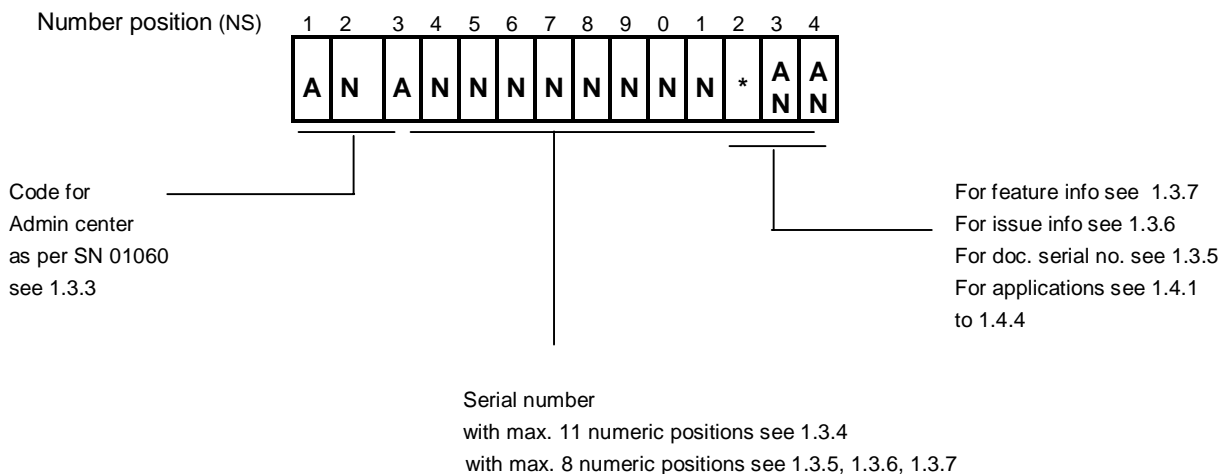
1.2.2   Technical Number (TNR)

The Technical Number (TNR) is an identification number generated according to the rules of the Technical Numbering System (TNS).

1.3   Numbering Scheme

The usual, traditional TNS number consists of 14 digits. Due to a change request the TNS was extended to 18 digits.
The use of the 18 digit TNS variant is optional and can be decided by the groups. The respective TIP-Officer must be involved in this decision.

1.3.1 The 14-digit TNS

Number position (NS)   1 2   3 4 5 6 7 8 9 0 1 2 3 4

| A | N | A | N | N | N | N | N | N | N | * | A/N | A/N |

Code for
Admin center
as per SN 01060
see 1.3.3

For feature info see 1.3.7
For issue info see 1.3.6
For doc. serial no. see 1.3.5
For applications see 1.4.1
to 1.4.4

Serial number
with max. 11 numeric positions see 1.3.4
with max. 8 numeric positions see 1.3.5, 1.3.6, 1.3.7

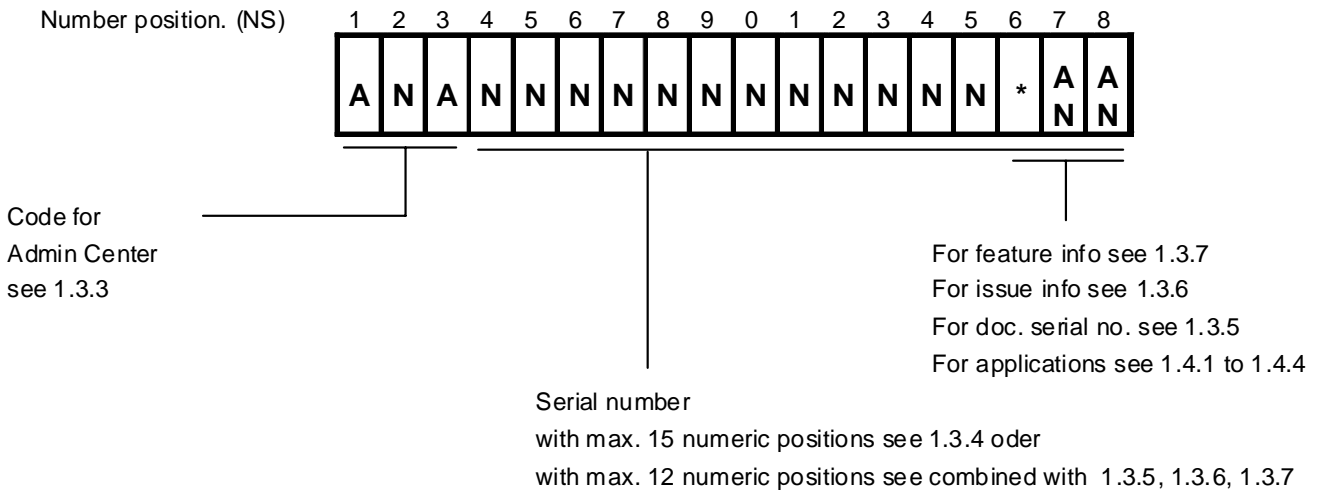Definition: **A**   letter position: „A" to „Z", without „I", „O", „Ä" , „Ö" and „Ü"

          N   digit position: „0"to, „9"

          *****   letter position or digit position or hyphen used as separator
          For restrictions see 1.4

Note: The data field requires at least 25 positions in order to process the valid code numbers of the main numbering systems as per SN 01000-1 and -2.

1.3.2 The 18 digit TNS

The use of this variant with 18 digits is
facultative.

Number position. (NS)   1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8

| A | N | A | N | N | N | N | N | N | N | N | N | N | N | N | * | A
N | A
N |

Code for
Admin Center
see 1.3.3

For feature info see 1.3.7
For issue info see 1.3.6
For doc. serial no. see 1.3.5
For applications see 1.4.1 to 1.4.4

Serial number

with max. 15 numeric positions see 1.3.4 oder

with max. 12 numeric positions see combined with 1.3.5, 1.3.6, 1.3.7

1.3.3 Code for Administration Center (KZV)

Data positions 1 to 3 of the technical number (TNS) contain the code for the administration center (KZV). The
KZV is a permanent part of the TNS and must always be specified; it remains the same even if
organizational changes are made.
An administration center is a decentralized department assigned to the user area; it assigns and administers
all technical numbers in the user area.

The code for the administration center must be requested in writing to Functional Department by the TIP-
Officer (Numbering representative) of the respective group. List of TIP-Officers

1.3.4 Serial Number

The serial number is a number with a maximum of 11 numeric positions when using the 14 digits TNS
respectively max. 15 digits when applying the 18 digit TNS system.
The serial numbers must be assigned consecutively.

1.3.5 Document Serial Number (Assignment to a Product)

In general, document serial numbers must be maintained in separate data fields. They are not a component
of the identification number (TNS). See also "Application" 1.4.1.

Documents that are to be assigned to a product can be numbered within the identification number (TNS) by
assigning letters to NS 12 to 14, respectively 16 to 18 (see also 1.4.2. for application).

| A | A | A |

The document serial number can have 1 to 3 letters. It is created with a specific user in mind when numbering technical documents.
Documents that have general validity and do **not** describe a specific product are assigned separate serial numbers.

The document serial number does not replace the item classification for technical documents / document type in accordance with SN 10805.
The item classification for the document type is kept as an attribute in a separate data field (see 1.4.1 application).

Note: Documents must always be assigned by means of structure data (parts list information).
          Assignment by means of numbering (additional document serial number) is also possible.

1.3.6 Issue Information

As a rule, issue information must be maintained in separate data fields (see SN 10370) and is not part of the identification number (TNS) (see 1.4.1 – Application).

Number system in accordance with SN 10370 (for separate data fields):

Number pos. (NS)   1   2   3
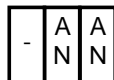

Code for issue type   Serial number (3 pos. max.)

Function status   =   F

Product status   =   E

Document status   =   U

However, based on procedures involved, it may be more practical to also maintain the issue info –product status (E) – within the identification number (TNS). (See also 1.4.3 – Application).

Number system in accordance with SN 01012 (within the TNS):

A hyphen is to be used in NS 12 respectively in NS 16 in the TNS for this application and the 2-position issue block is to be added for NS 13 and 14, respectively 17 and 18 (in accordance with Siemens code number rules of SN 01012).

This application with hyphen (-) only applies to the product status (E) and not for the issue types Function (F), Document (U), and Version (V) in accordance with SN 10370.

If, in exceptional cases, the issue types

- Function (F)
- Document (U)
- Version (V)

are maintained within the identification number (TNS, they are to be added for this application as follows:

- in NS 12: respectively 16 the specified letters F, U, V and
- in NS 13 and 14, respectively NS 17 and 18: the 2-position issue block in accordance with SN 01012.

Number system in accordance with SN 01012 (within the TNS):

F U V	A N	A N

For authorized letter / number combinations see 1.4.3.

1.3.7 Other Feature Information

In general, the feature information must be listed in separate data fields and is not part of the identification number (TNS). (For application see 1.4.1.

However, from a procedural point of view, it may be practical to also list special feature data in the identification number (TNS); e.g., a note referring to the use of the product, e.g., service (for appplication see 1.4.4).
The number system is similare to SN 01012 (within the TNS):

A	A N	A N

The assignment of NS 12 – 14, respecitvely NS 16 - 18 – according to the above convention – is done in coordination with the TIP-Officer who is in charge of the documentation for his area of responsibility.

1.4   Use of the Technical Numbering System (TNS)
The use of the TNS requires additional attributes in separate data fields.

Attributes can be, for example, identification of issue information, classification (item classification), and organizational assignment (Org ID).
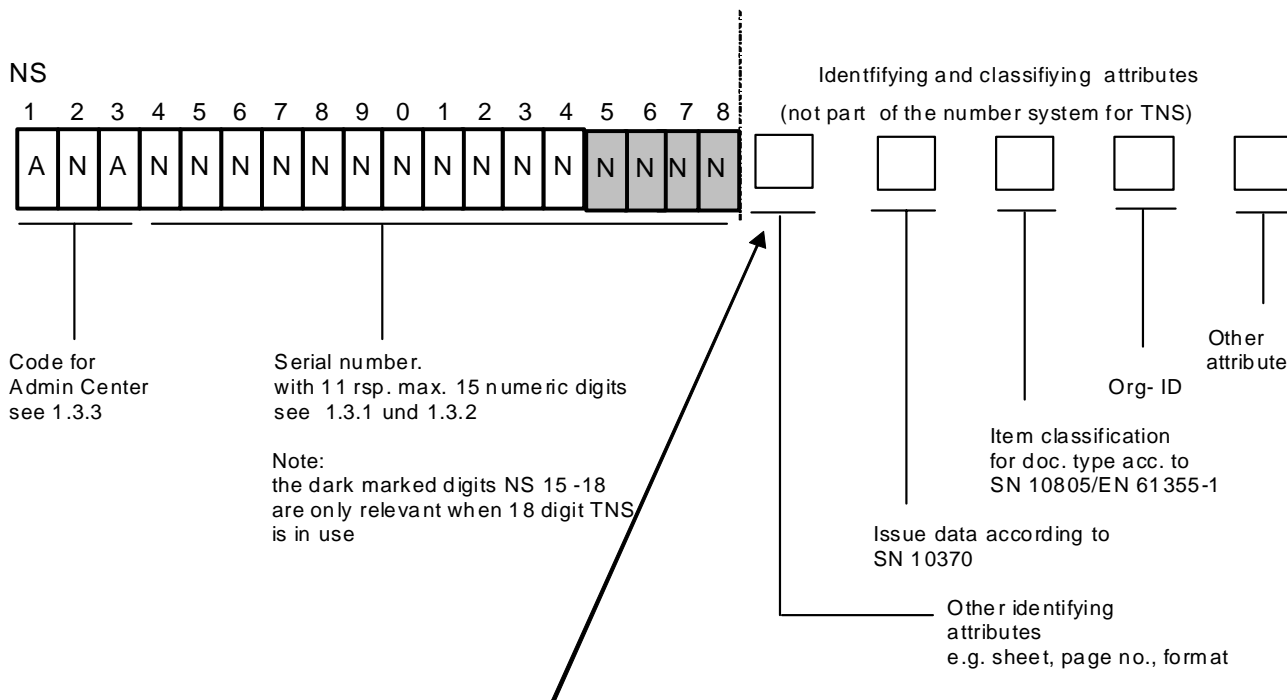However, on an exception basis, the procedure related maintenance of the document serial number; the issue information or the feature data within the identification number (TNS) can be practical. See also 1.3.5 to 1.3.7 and 1.4.2 to 1.4.4.

Data processing procedures may have to be adapted accordingly for procedure-related operations.

1.4.1 Application 1: For Products, Services and Technical Documentation

For general information see also 1.3.3. and 1.3.4.

NS

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
	A	N	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Identfifying and classifiying attributes
(not part of the number system for TNS)

Code for
Admin Center
see 1.3.3

Serial number.
with 11 rsp. max. 15 numeric digits
see 1.3.1 und 1.3.2

Note:
the dark marked digits NS 15 -18
are only relevant when 18 digit TNS
is in use

Other
attribute

Org- ID

Item classification
for doc. type acc. to
SN 10805/EN 61355-1

Issue data according to
SN 10370

Other identifying
attributes
e.g. sheet, page no., format

Examples 14 digit TNS: Attributes

| ANA | NNNNNNNNNNN |

... without attribut- statement

| ANA | NNNNNNNNNNN | AAA |

... TNS with document serial number
... e.g.. „AAA"; see 1.3.5

| ANA | NNNNNNNNNNN | AAANNN |

... TNS with separate attribute data field
  „Numbering Item Classificationt" (SN 10805)
... z.B.„AAANNN"; see 1.3.5

| ANA | NNNNNNNNNNN | E01 |

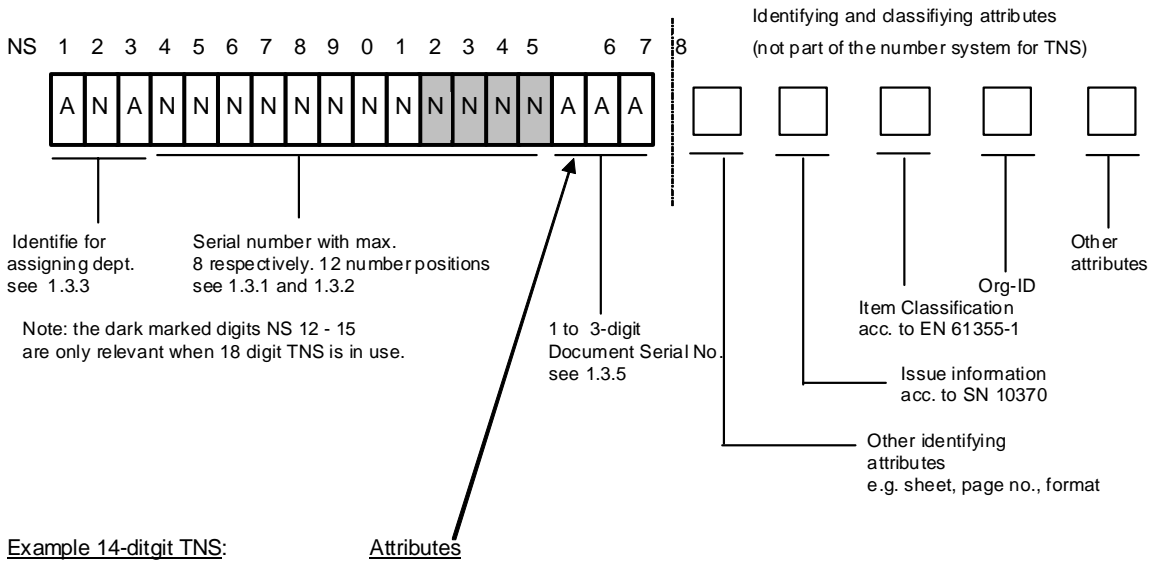... TNS mit separate attribute data field „Issue Information"" (SN 10370)
  ... z.B. „E01"; see 1.3.6

| ANA | NNNNNNNNNNN | S01 |

... TSN with separate attribute data field „Other Feature Information"
...z.B. „S01"; see 1.3.7

For authorized letters (A) und numbers (N) see 1.3.

1.4.2 Application: Technical Documentation with Document Serial Number

For general info see 1.3.3, 1.3.4 and 1.3.5.

Example 14-ditgit TNS: Attributes
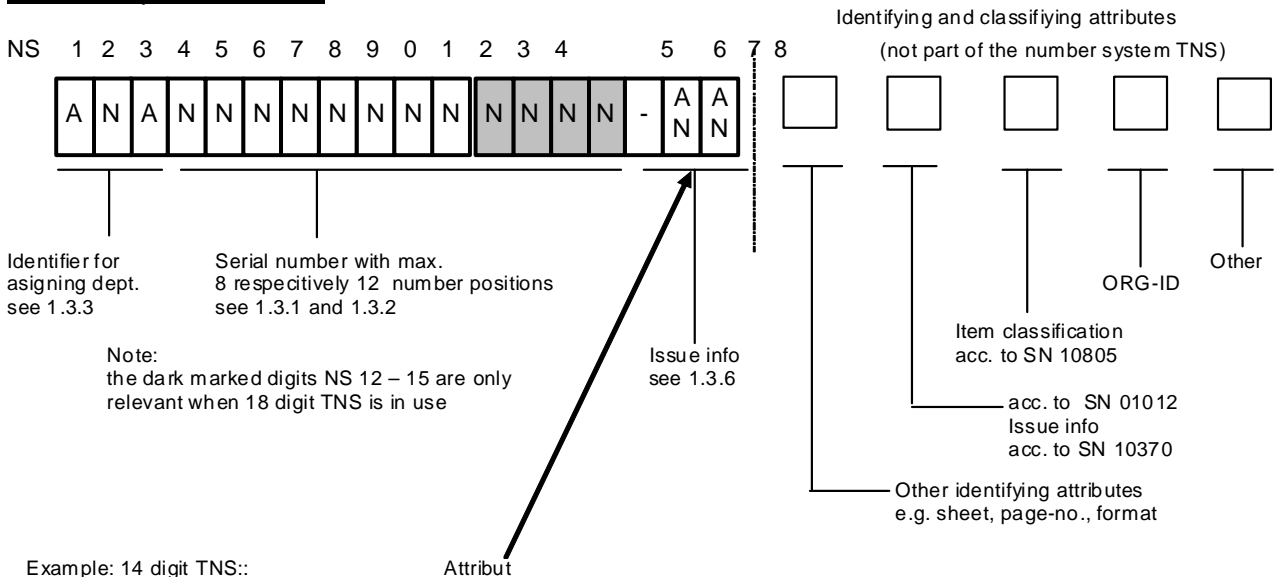
ANA	NNNNNNNN	AAA

... TNS with added attribut: „document serical number"
... e.g.. „AAA"; see 1.3.5

Authorized letters (A) see 1.3.

1.4.3 Application: Indication of the issue within the Identification Number (TNS)
For general information see 1.3.3, 1.3.4, and 1.3.6

Issue info/product status

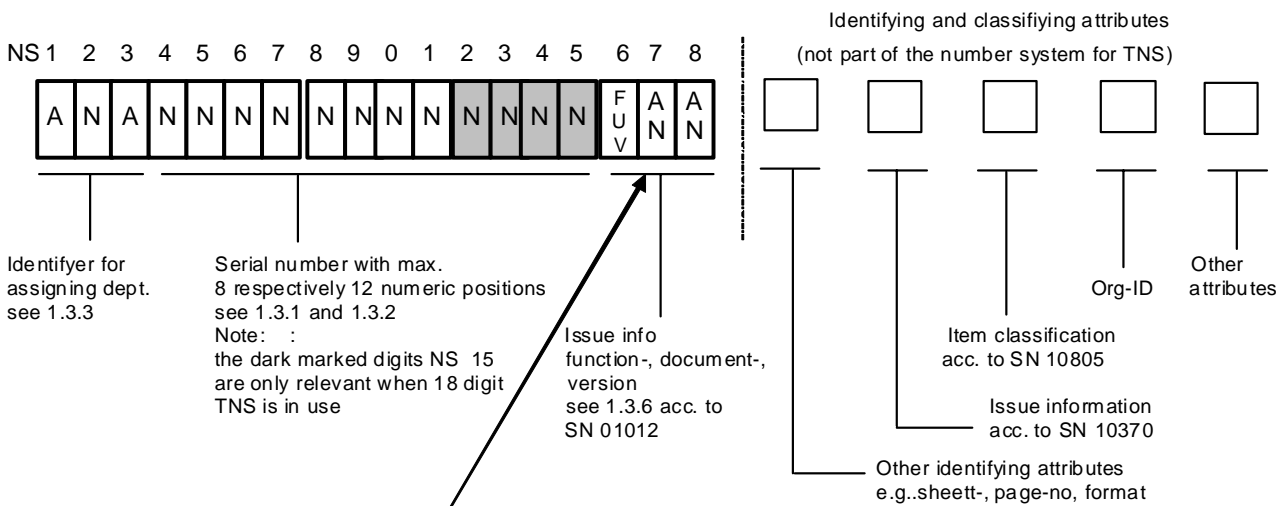Identifying and classifiying attributes
(not part of the number system TNS)

NS 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8

| A | N | A | N | N | N | N | N | N | N | N | N | N | N | N | - | A N | A N |

Identifier for
asigning dept.
see 1.3.3

Serial number with max.
8 respectively 12 number positions
see 1.3.1 and 1.3.2

Note:
the dark marked digits NS 12 – 15 are only
relevant when 18 digit TNS is in use

Issue info
see 1.3.6

Item classification
acc. to SN 10805

acc. to SN 01012
Issue info
acc. to SN 10370

Other identifying attributes
e.g. sheet, page-no., format

ORG-ID

Other

Example: 14 digit TNS::   Attribut

| ANA | NNNNNNNN | -01 |

... TNS with added attribut of issue/product status"
... e.g.. "-01", „-A1", „-1A", „-AA"

For authorized letter (A) and numbers (N) see 1.3., not permitted is 00.

Issue info/function, document version status

Identifying and classifiying attributes
(not part of the number system for TNS)

NS 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8

| A | N | A | N | N | N | N | N | N | N | N | N | N | N | N | F U V | A N | A N |

Identifyer for
assigning dept.
see 1.3.3

Serial number with max.
8 respectively 12 numeric positions
see 1.3.1 and 1.3.2
Note: :
the dark marked digits NS 15
are only relevant when 18 digit
TNS is in use

Issue info
function-, document-,
version
see 1.3.6 acc. to
SN 01012

Item classification
acc. to SN 10805

Issue information
acc. to SN 10370

Other identifying attributes
e.g..sheett-, page-no, format

Org-ID

Other
attributes

Example 14-digit TNS: Attribut

| ANA | NNNNNNNN | F01 |

... TNS with added attribut „issue/ function status"
... e.g „F01", „FA1", „F1A"; „U01", „UA1", „U1A"; „V01", „VA1", „V1A"

For authorized letter (A) and digits (N) see the following text field, not authorized is 00:

Assignment of NS 12 to 14 respectively 16 to 18:

   ANN ... (F01, U01, V01)
   AAN ... (FA1, UA1, VA1)
   ANA ... (F1A, U1A, V1A)

Authorized in NS 12:

   F, U, V

Authorized letters and numbers in NS 13 and 14 respectively 17 and 18:

   2-position number block with digits 01 to 99
   or
   alphanumeric – digits and letters 1A to 9Z, without I and O
   or
   alphanumeric – letters and digits A1 to Z9, without I and O

Not authorized:

   3-position alpha assignment „AAA" –
   see sect. 1.3.5 and 1.4.2 – Document serial number,
   collides with sect. 1.4.2.

1.4.4 Application with Feature Information within the Identification Number (TNS)

For general information see 1.3.3, 1.3.4 and 1.3.7.

Application only for special cases in coordination with the TIP-Officer and notification of the TIP WG.

For documentation of NS assignment see 1.3.7
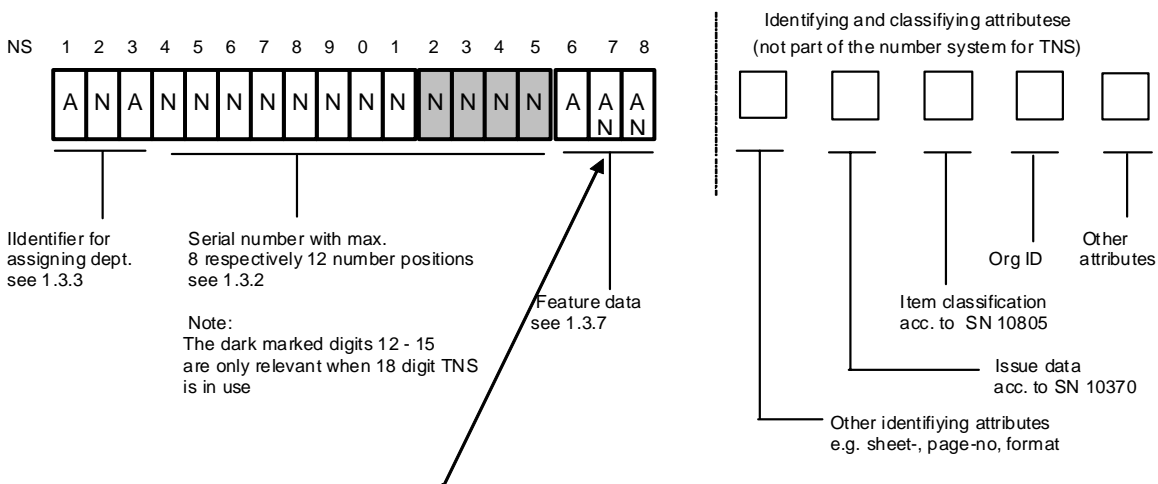
Example: 14-digit TNS   Attribut

| ANA | NNNNNNNN | A01 |

... TNS with added attribut „feature data" for a feature (e.g. service)
... e.g.. „A01", „AA1", „A1A"

For authorized letter (A) and digits (N) see the following text field, <u>not authorized is 00</u>:

<u>Assignment of NS 12 to 14 respectively NS 16 to 18:</u>
   ANN ... (A01)
   AAN … (AA1)
   ANA … (A1A)

<u>Authorized in NS 12 respectively NS 16:</u>

   Letter position A to Z, without I and O

Not authorized letter positions in NS 12 respectively 16:

   F, U, V

<u>Authorized letters and numbers in NS 13 and 14 respectively NS 17 and 18:</u>

   2-postion number block with digits 01 to 99
   or
   alphanumeric – digits and letters 1A to 9Z, without I and O
   or
   alphanumeric – digits and letters A1 to Z9, without I and O

<u>Not authorized:</u>

   3-position alpha assignment „AAA" –
   see 1.3.5 and 1.4.2 – Document-serial-number
   collides with 1.4.2.

For issue information for product, function, document and version please see 1.3.6 and 1.4.3.

1.4.5 Group-specific Assignments

The following is to be defined for all serial numbers and feature data:

- Length of the serial number(e.g., 8, 11 or 15 digits (see 1.3.1, 1.3.2 and 1.3.4)

- Notation of the serial number with or without "leading zeros" (see 1.3.4)

- Using or not using the document serial number as a separate data field
  or within the TNR; definition of number position assignment 12 to 14 respectively 16 to 18 (see 1.3.5)

- Using or not using the issue (product status -/E), F, U, V as a separate data field or within the TNS;
  definition of number position assignment 12 to 14 respectively 16 to 18 (see 1.3.6)

- If needed, definition of features as a separate data field or within the TNS;
  definition of number positions 12 to 14 respectively 16 to 18 (see 1.3.7)

1.5 Notation

The code for the administration center of the TNS must always be specified and must be correctly aligned in number positions 1 to 3.

- However, a distinction must be made between the following:

- Standard (position-oriented) notation and

- Short notation (edited for printing)

1.5.1 Standard (position-oriented) Notation

Leading zeros are not permissible in the standard notation.

1.5.1.1 NS 4 to 11 with a maximum of 8 digits right-justified
       or   see 1.3.4, 1.4.1
       NS 4 to 14 with a maximum of 11 digits right-justified
       or
       NS 4 to 18 with a maximum of 15 digits right justified

1.5.1.2 NS 4 to 11 with a maximum of 8 digits right-justified and in
       NS 12 to 14 with a maximum of 3 letters, left-justified   see document serial number
                                                     1.3.5, 1.4.2

1.5.1.3 NS 4 to 11 with a maximum of 8 digits, right-justified and in
       NS 12 a hyphen, as well as in
       NS 13 and 14 a 2-position alphanumeric assignment   see issue / product status
                                                     1.3.6 and 1.4.3

       or
       NS 4 to 11 with a maximum of 8 digits right-justified and in
       NS 12 letters F, U, V as well as in
       NS 13 and 14 a 2-powition alphanumeric assignment   see issue F, U, V
                                                     1.3.6 and 1.4.3

1.5.1.4 NS 4 to 11 with a maximum of 8 digits, right-justified, and in
NS 12 a letter (A) as well as in
NS 13 and 14 a 2-position alphanumeric assignment   see feature data
                                                       1.3.7 and 1.4.4

Note: If the numbers are displayed in tables, the position-oriented notation can be used.

1.5.2 Short Notation (Edited for Printing)

As a rule, the TNS is written and output in short notation, i.e., the blanks in front of the serial number are not shown.

The short notation also corresponds to the notation in field "SAP Material Number".

1.5.3 Technical Number (TNS) in the NORM Program

The position-oriented notation is the format used for computer-based storage and data interchange.

The short notation is to be used when editing for printing and for bar code output (Bar Code, 2D Code, RFID).

NORMbyte "TE" is defined for the TNS without included attribute data.
NORMbyte "TU" is defined for the TNS with included document serial number.
NORMbyte "TZ" is defined for the TNS with included issue and feature information.

1.5.4 Examples (randomly selected)

Example 1 – TNS with 8-position serial number

Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X						1	2	3			

Position-oriented notation   **M 1 X   1 2 3**
Short notation   **M1X123**

Example 2 – TNS with 11-position serial number

Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X			1	2	3	4	5	6	7	8	9

Position-oriented notation   **M 1 X   1 2 3 4 5 6 7 8 9**
Short notation   **M1X123456789**

Example 3 – TNS with 15-position serial number

Please note, that the use of the 18 digit TNS with 15 digit position serial number is optional.

Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
M	1	X				1	2	3	4	5	6	7	8	9	0	1	2

Position-oriented notation   **M 1 X   1 2 3 4 5 6 7 8 9 0 1 2**
Short notation   **M1X123456789012**

Example 4 – TNS with document serial number

a: Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
M	1	U			7	6	5	3	3	4	4	7	1	1	A		

Position-oriented notation   **M 1 U   7 6 5 3 3 4 4 7 1 1 A**

Short notation   **M1U7653344711A ... (A bis Z)**

b: Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
M	1	U			7	6	5	3	3	4	4	7	1	1	A		

Position-oriented notation   **M 1 U   7 6 5 3 3 4 4 7 1 1 A A**

Short notation   **M1U7653344711AA ... (AA bis ZZ)**

c: Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
M	1	U			7	6	5	3	3	4	4	7	1	1	A	A	A

Position-oriented notation   **M 1 U   7 6 5 3 3 4 4 7 1 1 A A A**

Short notation   **M1U7655334711AAA ... (AAA bis ZZZ)**

Example 4.1 – 14 digit TNS with issue information / product status (-/E)

a:

Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	–	0	1

Position-oriented notation   **M 1 X   1 2 3 – 0 1**

Short notation   **M1X123-01 … (01 to 99)**

b:

Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	–	A	A

Position-oriented notation   **M 1 X   0 0 0 1 2 3** – A A

Short notation   **M1X123-AA … (AA to ZZ)**

c:

Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	–	A	1

Position-oriented notation   **M 1 X   1 2 3** –   A 1

Short notation   **M1X123-1A … (A1 to Z9)**

d:

Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	–	1	A

Position-oriented notation   **M 1 X   1 2 3** –   1 A

Short notation   **M1X123-1A … (A1 to Z9)**

Example 4.2 – TNS with issue information / function, document, version

a: Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	F	0	1

Position-oriented notation   **M 1 X**   **1 2 3 F 0 1**

Short notation   **M1X123F01 ... (F01 to F99)**

b: Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	F	A	1

Position-oriented notation   **M 1 X**   **1 2 3** F A 1

Short notation   **M1X123FA1 ... (FA1 to FZ9)**

c: Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	F	1	A

Position-oriented notation   **M 1 X**   **1 2 3** F 1 A

Short notation   **M1X123F1A ... (F1A to F9Z)**

Example 5 – TNS with feature information

a: Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	A	0	1

Position-oriented notation **M 1 X   1 2 3 A 0 1**
Short notation **M1X123A01 ... (A01 to Z99)**

b: Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	A	A	1

Position-oriented notation **M 1 X   1 2 3 A A 1**
Short notation **M1X123AA1 ... (AA1 to ZZ9)**

c: Number position (NS)

1	2	3	4	5	6	7	8	9	0	1	2	3	4
M	1	X							1	2	3	A	1	A

Position-oriented notation **M 1 X   1 2 3 A 1 A**
Short notation **M1X123A1A ... (A1A to Z9Z)**

1.6 Comments

The TNS is a counting-based identification number system that is to be used by all persons participating in the process whenever appropriate action is required.
Prerequisite for the use of the TNS is the introduction of attributes for technical, organizational, sales, business and other relevant features.

This standard contains only specifications that apply to all Groups. Wherever the standard does not define specific rules, the Group applying the standard must implement its own rules based on its own requirements and must document these.

2   Code of Assigning Department (KZV)

2.1 Purpose and Scope of Application

This standard lists the responsible number administration centers and their codes (KZV), their responsibilities and the respective contact partners and mailing addresses.
When numbers are generated in the Technical Numbering System (TNS), the codes for the administration center are mandatory and must be entered in number positions 1 to 3.

2.2 Numbering System

Number position (NS)   1 2 3 4 5 6 7 8 9 0 1 2 3 4

Code for
administration center (KZV)
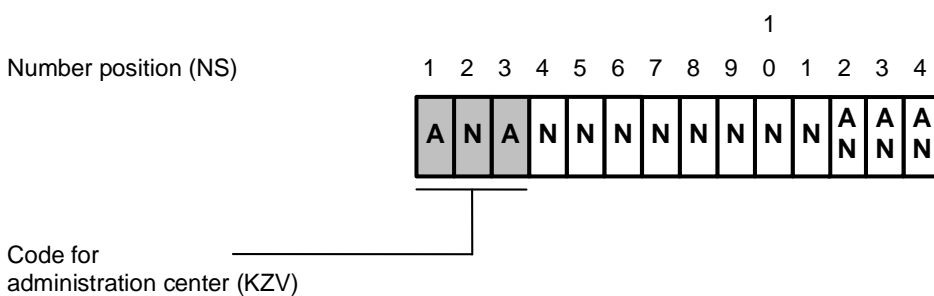
2.3 Code for Administration Center (KZV)

Codes for administration centers (KZV) are defined and assigned in response to requests submitted by the **TIP-Officer** of the requesting group.

Codes are assigned consecutively, starting with A1A.

The codes assigned are not mnemonic, i.e., they do not intentionally match technical or organizational designations.

Once assigned, codes are retained even if the organizational affiliation of an administration center changes or if products/documents with existing numbers are assigned to another administration center.
For codes assigned to administration centers, see the following table.

Note: Number position 1 (NS1) must not contain letters B, D, N and U because theoretically it may be possible that there is an overlap with the Siemens Code Number (SSN).

Please to refer to the table for identifiers assigned to assigning departments.

For the list of currently used code for Administration Center (KZV) please see the table which is – for reasons of flexibility – maintained and kept in CCS.
The intranet link to CCS is:

CCS - Code for Administration Center