Publication Identifier Syntax for NIST Technical Series Publications

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Abstract

This document describes the final publication identifier (PubID) syntax used to uniquely identify all instances of a NIST Technical Series publication.

Keywords

NIST Technical Series publications; publishing; unique identifiers.

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1 Introduction

1.1 Purpose

This document describes a publication identifier (PubID) syntax– like those used by Standards Developing Organizations (SDOs) – that will facilitate simple, unique, and unambiguous publication referencing. The syntax can accommodate a variety of parameters that currently exist in existing NIST Technical Series publications and includes a structure that is flexible and can meet the future needs of additional series and document development models.

1.2 Scope

This PubID syntax shall be applied to all new NIST Technical Series publications starting April 2022. The PubID will be used on cover pages, filenames, and DOIs. The PubID syntax may be applied to NIST Technical Series publications published before April 2022 on a case-by-case basis as determined by the NIST Information Services Office (NIST ISO).

The two PubID formats described in Section 2.2—Human-Readable PubID and Machine-Readable PubID—will be used by the NIST ISO in specific contexts. Authors and other organizations may use variations of these identifiers, but that is outside of this document's scope.

2 Publication Identifier Syntax

This section identifies the NIST Technical Series publications PubID syntax, including elements, structure, and examples.

2.1 PubID Elements

The PubID consists of the following elements:

- Optional elements are in brackets [ ].
- Alternatives are separated with a vertical bar |.
- Parentheses ( ) indicate element groupings.
- Quotation marks "" and braces { } identify allowed values.

In the (Human-Readable) examples, the underlined text highlights the element being described. See Sec. 2.3 for examples of both Human-Readable and corresponding Machine-Readable PubIDs.

2.1.1 Publisher

```
<publisher>      =     "NIST" | "NBS"
```

Description: The <publisher> element is REQUIRED. It identifies the publisher of the document at the time it was published.

Scope Note: Refer to the document to identify the correct publisher name. Generally speaking, use "NIST" for 1988-present, and "NBS" for 1901-1988.

Example: NIST TN 2067

2.1.2 Series

```
<series>   =     "AMS" | "BH" | "BMS" | … | "TN" | "TTB"
```

Description: The <series> element is REQUIRED. It identifies the publication's NIST series.

Scope Note: See Appendix A.1 for the current list of series abbreviations.

Example: NIST SP 1500-7r2

2.1.3 Report Number

```
<report-num> = ( <sequence-num> |

               ( <subseries-num> [<subseries-id>]"-"<sequence-num>) )

     <sequence-num>   =     {0-9}      ; integer

     <subseries-num>  =     {0-9} | yyyymmdd

     <subseries-id>   =     "GB"       ; GB used for SP 1190 GuideBriefs
```

Description: The <report-num> element is REQUIRED. It identifies a report's position within a series or subseries. The <sequence-num> is an integer. The subseries number (<subseries-num>) may be an integer or a date, depending on the series.

Scope Note: See Appendix A.2 for the current list of subseries and each one's subseries number (<subseries-num>). Currently, the only subseries with a <subseries-id> are the SP 1190 Guide Briefs, SP 1190GB.

Examples:

NIST SP 1190GB-12 NIST SP 1500-1 NIST CSWP 20200204-7

2.1.4 Part

```
<part>     =  [<part-id>] ( [<part-type>][<part-id>] )

     <part-id>  = {A-Z0-9}            ; Uppercase letters, and numbers

     <part-type> = "pt" | "v" | "sec" | "sup" | "indx"
```

Description: The <part> element is OPTIONAL. Each occurrence of <part-id> and <part-type> can appear no more than once.

Scope: Sometimes a <part-id> consists only of an uppercase letter that follows <report-num>. Usually, a <part-type> is identified as a "Part" ("pt"), "Volume" ("v"), "Section" ("sec"), Supplement ("sup"), or Index ("indx"). In rare instances, a <part> may consist of two part identifiers. See A.3 for descriptions of the different <part-type> values.

Examples:

NIST SP 800-137A NIST SP 800-57pt3 NIST IR 8011v3

NBS NSRDS 3sec11 NIST SP 955sup2010 NBS NSRDS 63indx

NIST IR 8183Av1

2.1.5 Edition

```
<edition> = <edition-type><edition-id>

     <edition-type>   =     "-" | "e" | "r"

     <edition-id> =   {1-9} | yyyy
```

Description: If the <edition> is present, then both <edition-type> and <edition-id> are REQUIRED. The <edition-id> may consist of a whole number or a year.

Editions are published according to NIST procedure PR 1502.01.

Scope: The hyphen "-" <edition-type> may only be used for publications with historical precedent (e.g., NIST FIPS 201-3, NIST SP 800-73-4). Otherwise, indicate that it's an "edition" ("e") or "revision" ("r"). Typically, editions use a year value (yyyy) for <edition-id>. If an existing publication indicates it's a "version", it's PubID should use the "revision" <edition-type>.

Examples:

NIST FIPS 201-3 NIST IR 7383e2013 NIST SP 800-53Ar5

2.1.6 Stage

```
<stage> = <stage-id><stage-type>

      <stage-id> =     "i" | "f" | {2-9}   ; "i","f", and positive integers

      <stage-type> =   "wd" | "prd" | "pd"
```

Description: If the publication is a Draft, the <stage> element is REQUIRED. If the publication is Final, then the <stage> element is OMITTED. When the <stage> element is present, it consists of a <stage-type> preceded by a <stage-id>.

Scope: The most commonly used <stage-type> is "public draft" ("pd"); most occurrences will be an "initial" or "first" public draft, where <stage> = ipd . Occasionally there are pubs identified specifically as a "final public draft" where <stage> = fpd . Other drafts subsequent to an initial draft will have a sequential number, 2pd, 3pd…

These <stage-type> fields are used most frequently for publications from the Information Technology Laboratory's Computer Security Division and Applied Cybersecurity Division. For explanations, see Appendix B.

Examples:

NIST SP 1800-90 iwd NIST SP 1800-33 iprd

NIST SP 800-140Cr1 ipd NIST IR 9072 2pd NIST SP 800-37r2 fpd

2.1.7 Update

```
<update> = <update-type><update-id>

      <update-type>    =     "upd"

      <update-id>      =     {1-9}           ; positive integers
```

Description: If the publication is an update (published according to NIST procedure PR 1502.01), then the <update> element is REQUIRED. When the <update> element is present, it consists of an <update-type> followed by an <update-id>.

Scope: Currently, the only <update-type> is "upd". The first update of a publication has <update-id> of "1", resulting in <update> = upd1. If subsequent updates are published, the <update-id> increases incrementally. For historical FIPS that included a "Change Notice", those are now considered "updates" and simply use the "upd" <update-type>.

Examples: NIST SP 800-53B-upd1 NIST FIPS 202-upd1 ipd

2.1.8 Translation

```
<translation> = {aaa}        ; ISO 639-2 three-letter language code
```

Description: If the publication is in a language other than English, then the `<translation>` element is REQUIRED. The publication's language is indicated using a three-letter ISO 639-2 language code. If a language specifies multiple codes (e.g., French), use the bibliographic "(B)" code (e.g., "fre" for French).

Scope: These translation language codes will differ from the language codes used in DOIs before the implementation of this PubID syntax (e.g., pt → por; es → spa, etc.).

Examples:

NIST SP 800-181r1 por NIST IR 8119 vie NIST CSWP 20180416 ara

2.2 PubID Formats

The NIST ISO will use the PubID in two formats: a Human-Readable PubID and Machine-Readable PubID. They comprise the same PubID structure but use different characters to separate the PubID elements.

2.2.1 Human-Readable PubID

The NIST ISO will use the Human-Readable PubID in NIST Technical Series publications:

- on cover pages and title pages
- in reference lists
- in publication listings on NIST websites

Human-Readable PubID

`<publisher> <series> <report-num>[<part>][<edition>][-<update>] [<stage>] [<translation>]`

Example: NIST HB 150-1e2021-upd3 ipd spa

2.2.2 Machine-Readable PubID

The NIST ISO will use the Machine-Readable PubID to construct:

- digital object identifiers (DOIs)
- publication filenames

Machine-Readable PubID

`<publisher>.<series>.<report-num>[<part>][<edition>][-<update>][.<stage>][.<translation>]`

Example: NIST.HB.150-1e2021-upd3.ipd.spa

2.2.3 Other PubID Formats

This specification does not preclude the use of other formats by NIST or external organizations, nor does it require NIST authors to use these PubIDs within specific contexts. One example format that has been proposed previously is a "full format," e.g., "NIST Special Publication (SP) 800-53 Revision 5 Update 1", which would correspond to Machine-Readable PubID NIST.SP.800-53r5-upd1. Such formats may be used by others but are outside the scope of this specification.

2.3 PubID Examples

Table 1 shows examples of how this PubID could be applied to some existing publications.

Table 1: Example Implementations of the NIST Technical Series publications PubID

<publisher>	<series>	<report- num>	[<part>]	[<edition>]	[<update>]	[<stage>]	[<translation>]	Human Readable PubID	Machine Readable PubID
NIST	TN	2500						NIST TN 2500	NIST.TN.2500
NIST	AMS	600-9						NIST AMS 600-9	NIST.AMS.600-9
NIST	SP	800-90	B					NIST SP 800-90B	NIST.SP.800-90B
NIST	IR	8011	v3					NIST IR 8011v3	NIST.IR.8011v3
NIST	IR	8183	Av1					NIST IR 8183Av1	NIST.IR.8183Av1
NIST	NCSTAR	1-1	Cv1					NIST NCSTAR 1-1Cv1	NIST.NCSTAR.1-1Cv1
NBS	NSRDS	3	sec9					NBS NSRDS 3sec9	NBS.NSRDS.3sec9
NIST	TN	2135	sup					NIST TN 2135sup	NIST.TN.2135sup
NIST	SP	964	indx					NIST SP 964indx	NIST.SP.964indx
NIST	SP	800-57	pt1	r5				NIST SP 800-53pt1r5	NIST.SP.800-57pt1r5
NIST	SP	800-40		r3				NIST SP 800-40r3	NIST.SP.800-40r3
NIST	SP	922		e2020				NIST SP 922e2020	NIST.SP.922e2020
NIST	HB	150-6		e2020				NIST HB 150-6e2020	NIST.HB.150-6e2020
NIST	SP	800-188				2pd		NIST SP 800-188 2pd	NIST.SP.800-188.2pd
NIST	SP	800-53		r5		fpd		NIST SP 800-53r5 fpd	NIST.SP.800-53r5.fpd
NIST	IR	8204			upd1			NIST IR 8204-upd1	NIST.IR.8204-upd1

<publisher>	<series>	<report- num>	[<part>]	[<edition>]	[<update>]	[<stage>]	[<translation>]	Human Readable PubID	Machine Readable PubID
NIST	FIPS	140-2			upd2			NIST FIPS 140-2-upd2	NIST.FIPS.140-2-upd2
NIST	SP	800-53		r4	upd3			NIST SP 800-53r4-upd3	NIST.SP.800-53r4-upd3
NIST	SP	800-53	A	r4	upd1			NIST SP 800-53Ar4-upd1	NIST.SP.800-53Ar4-upd1
NIST	SP	800-60	v1	r1				NIST SP 800-60v1r1	NIST.SP.800-60v1r1
NIST	SP	800-57	pt1	r4				NIST SP 800-57pt1r4	NIST.SP.800-57pt1r4
NIST	SP	800-73		-4 *(historical precedent)*	upd1			NIST SP 800-73-4-upd1	NIST.SP.800-73-4-upd1
NIST	SP	800-85	B	-4 *(historical precedent)*		ipd		NIST SP 800-85B-4 ipd	NIST.SP.800-85B-4.ipd
NIST	SP	1800-13	B			2pd		NIST SP 1800-13B 2pd	NIST.SP.1800-13B.2pd
NIST	SP	1800-19	B			iprd		NIST SP 1800-19B iprd	NIST.SP.1800-19B.iprd
NIST	IR	8228					spa	NIST IR 8228 spa	NIST.IR.8228.spa

Appendix A—NIST Technical Series and Abbreviations

A.1 Series Abbreviations

Series descriptions are maintained on the NIST Information Services Office website.

AMS	Advanced Manufacturing Series
BH	Building and Housing
BMS	Building Materials and Structures Reports
BSS	Building Science Series
CIRC	NBS Circulars
CS	Commercial Standards
CSM	Commercial Standards Monthly
CSWP	NIST Cybersecurity White Papers
EAB	Economic Analysis Briefs
FIPS	Federal Information Processing Standards Publications
GCR	Grantee/Contractor Reports
HB	Handbooks
IR	NISTIR
MONO	Monographs
MP	Miscellaneous Publications
NCSTAR	National Construction Safety Team Act Reports
NSRDS	National Standard Reference Data Series
OWMWP	Office of Weights and Measures White Papers
PC	Photographic Laboratory Circulars
RPT	National Bureau of Standards Reports
SIBS	Special Interior Ballistic Studies
SP	Special Publications
TIBM	Technical Information on Building Materials for Use in the Design of Low Cost Housing
TN	Technical Notes
TTB	Technology Transfer Briefs

A.2 Special Publications Subseries

The Special Publications series consists of these additional subseries:

SP 250	Special Publication Subseries: Calibration Services
SP 260	Special Publication Subseries: Standard Reference Materials
SP 300	Special Publication Subseries: Precision Measurement and Calibration
SP 400	Special Publication Subseries: Semiconductor Measurement Technology
SP 480	Special Publication Subseries: Law Enforcement Technology
SP 500	Special Publication Subseries: Computer Systems Technology
SP 700	Special Publication Subseries: Industrial Measurement Series
SP 800	Special Publication Subseries: Computer Security
SP 823	Special Publication Subseries: Integrated Services Digital Network Series
SP 960	Special Publication Subseries: NIST Recommended Practice Guides
SP 1190GB	Special Publication Subseries: 1190 Guide Briefs
SP 1200	Special Publication Subseries: Protocols
SP 1500	Special Publication Subseries: Working Group Papers
SP 1800	Special Publication Subseries: NIST Cybersecurity Practice Guides
SP 1900	Special Publication Subseries: Cyber-Physical Systems
SP 2000	Special Publication Subseries: Standards Coordination
SP 2100	Special Publication Subseries: Conference Proceedings

A.3 Part Type Definitions

Section 2.1.4 identifies five `<part-type>` values. Associated `<part-type>` values are linked by a shared `<report-num>`. One `<report-num>` can have multiple `<part-type>` values.

A.3.1 Part

`<part-type> = pt`

Description: A self-contained document that is linked to other self-contained documents within a series, and along with those linked documents, makes up a larger whole. A part may be published alongside other parts within a volume. Each part may or may not have a unique title.

A.3.2 Volume

`<part-type> = v`

Description: A document that is part of a larger collection. May be used to combine parts and|or

sections, split large documents for ease of reading, or as an identifier for a sequence of documents. Each volume may or may not have a separate title.

A.3.3 Section

`<part-type> = sec`

Description: a subdivision of a document, also known as a chapter. It is published as a stand-alone document but is not self-contained. May be used to split large documents for ease of reading or to present to different audiences. Each section should have a unique title.

A.3.4 Supplement

`<part-type> = sup`

Description: additional information that supports a document or collection of documents, also known as an appendix. It is published as a stand-alone but is not self-contained. A supplement should use the title of the document or collection of documents it is supporting.

A.3.5 Index

`<part-type> = indx`

Description: a list of words and/or phrases and locations where related information can be found in a document or collection of documents. It is published as a stand-alone but is not self-contained. An index should use the title of the document or collection of documents it is supporting.

A.4 Stage Definitions

Section 2.1.6 describes how to specify different stages of draft publications (i.e., they have not been published as "final"). These typically are not entered in NPS, but they are often assigned DOIs and uploaded to the NIST Library's publications server. They are also occasionally referenced by other, final publications. Therefore, the PubID can be composed to identify these draft publications.

NIST's Computer Security Division and Applied Cybersecurity Division use the following stages in their publication development process. Not every publication goes through every stage. Some are published only as "final" publications, but the vast majority are first issued as an Initial Public Draft (typically just referred to as a "Public Draft") and then a Final publication.

The National Cybersecurity Center of Excellence (NCCoE) has been experimenting with a new agile publication development process for some of their multi-volume SP 1800 series documents, and they created the "Work-in-Progress" and "Preliminary Draft" stages to support this effort. These are more informal draft stages during early development that precede the release of any full, initial public draft (IPD) for public comment. These stages are not prescriptive. Other divisions and OUs at NIST may or may not choose to use them.

A.4.1 Work-in-Progress Draft (WD)

```
<stage-type>     = wd

<stage-id>       = i | 2 | 3 |…| f
```

A work-in-progress draft (WD) indicates that the document is currently under development.

A WD is not yet complete, and organizations should not attempt to implement it. The content is in an early stage of development – rough, incomplete, and experimental. It has not been extensively edited or vetted. This provides an insider view of the development of the content and gives NIST an opportunity to share early thoughts, ideas, and approaches with the community. NIST welcomes early informal feedback and comments, which will be adjudicated after the specified public comment period.

There will be one or more versions of the content before it is graduated to a preliminary draft (PRD) status.

The initial WD has `<stage> = iwd`. Any subsequent WDs will have `<stage> = 2wd | 3wd |… .`

A.4.2 Preliminary Draft (PRD)

```
<stage-type>     = prd

<stage-id>       = i | 2 | 3 |…| f
```

After the comments of a work-in-progress draft (WD) have been collected and adjudicated, a preliminary draft (PRD) is produced.

A PRD is more cohesive and composed of a complete, logical grouping of sections or a volume. The content is considered to be stable, but changes are expected to occur. There are gaps in the content, and the overall document is still incomplete. NIST welcomes early informal feedback and comments, which will be adjudicated after the specified public comment period. Organizations may consider experimenting with guidelines with the understanding that they will identify gaps and challenges.

There will be one or more versions of the content before it is graduated to a public draft (PD) status.

The initial PRD has `<stage> = iprd`. Any subsequent PRDs will have `<stage> = 2prd | 3prd |… .`

A.4.3 Public Draft (PD)

```
<stage-type>     = pd

<stage-id>       = i | 2 | 3 |…| f
```

The most commonly used public comment document at NIST is the Public Draft (PD)—and specifically the Initial (first) Public Draft (IPD).

A Public Draft is a complete document that is posted on a NIST website for a specific public comment period, during which reviewers may submit comments (e.g., technical and editorial) to NIST via email. For NIST IRs, TNs, SPs, the comment period is typically 30, 45, or 60 days; FIPS comment periods are typically 90 days or longer.

Authors review all comments received, make appropriate changes to the document, and determine whether to proceed with a subsequent Public Draft (to obtain more public input) or—more commonly—a Final publication.

The initial PD has `<stage> = ipd`. Any subsequent PDs will have `<stage> = 2pd | 3pd |…` . There are some cases where the authors may specifically designate a PD as a Final Public Draft (FPD). The FPD provides one last public comment period and may be especially important for publications that significantly impact stakeholders. An FPD stage is typically planned from the beginning of the publication development process. The comment period is typically shorter than any other comment period. The Final Public Draft has `<stage> = fpd`.

A.4.4 Final Publication

```
<stage-type> (Not Applicable)
```

A Final publication has been reviewed and approved by ERB and is published by the NIST Library. It may or may not have had draft stages.

No `<stage>` is included in the PubID for the Final publication.