

## **Committee on WIPO Standards (CWS)**

### **Fifth Session**

**Geneva, May 29 to June 2, 2017**

### **NEW WIPO STANDARD FOR AN AUTHORITY FILE OF PATENT DOCUMENTS PUBLISHED BY A PATENT OFFICE**

*Document prepared by the Secretariat*

1. The Committee on WIPO Standards (CWS) at its reconvened fourth session held in March 2016, agreed to create Task No. 51 to “Prepare a recommendation for an authority file of patent documents issued by a national or regional patent office to enable other patent offices and other interested parties to assess the completeness of their collections of published patent documents”. The CWS established a new task force (Authority File Task Force) to handle the task and designated the European Patent Office (EPO) as the Task Force Leader. (See paragraph 108 of document CWS/4BIS/16.)
2. The CWS requested the new Task Force to present a proposal for a new WIPO Standard or the revision of existing WIPO Standard(s) for consideration and adoption by the CWS at its next session to be held in 2017 (see paragraph 109 of document CWS/4BIS/16).
3. The EPO, as the Leader of the Authority File Task Force, has prepared a progress report on the work carried out by the Task Force, which is reproduced in Annex I to this document.
4. Within the framework of Task No. 51, the Authority File Task Force prepared draft recommendations for an authority file of published patent documents for consideration and adoption by the CWS as a new WIPO Standard. The proposed name of the new standard is “WIPO Standard ST.37 – Recommendation for an authority file of published patent documents”. The proposed draft recommendation consists of the main body and two Annexes and is reproduced in Annex II to the present document.

5. The proposed draft standard recommends two formats for the authority file: text and XML (preferred). The Task Force has yet to develop two annexes (Annex III and Annex IV) to define and provide examples of XML schema (XSD) and Data Type Definition (DTD) aligned with the new recommendation for authority files, as well as other relevant WIPO Standards (for example, WIPO Standard ST.96).

6. Considering that the proposed draft recommendation contains references to the Annexes III and IV (see paragraph 5 above), to avoid possible confusion, it is proposed to include the following editorial note in the standard until the said annexes are prepared and approved by the CWS:

Editorial Note by the International Bureau

Annexes III and IV to the present Standard, which define XML schema (XSD) and Data Type Definition (DTD), are under preparation by the Authority File Task Force. They are planned to be presented for consideration and adoption by the Committee on WIPO Standards (CWS) at its sixth session in 2018.

Until the said Annexes are adopted by the CWS, the only recommended format for the purpose of this Standard is text.

7. If the draft standard and the editorial note are approved by the CWS, the description of Task No.51 should be revised as follows:

“Prepare and present for consideration at the sixth session of the CWS to be held in 2018, Annex III “XML schema (XSD)” and Annex IV “Data Type Definition (DTD)” to WIPO Standard ST.37 “Recommendation for an authority file of published patent documents”.”

8. *The CWS is invited to:*

(a) *note the content of the present document;*

(b) *note the progress report on the work of the Authority File Task Force (refer to paragraph 3 above and Annex I to this document);*

(c) *consider and decide on the adoption of the new standard “WIPO Standard ST.37 – Recommendation for an authority file of published patent documents”, as referred to in paragraph 4 above and reproduced in Annex II to this document;*

(d) *consider and decide on the editorial note as proposed in paragraph 6 above; and*

(e) *consider and decide on the revision of the description of Task No. 51, as referred to in paragraph 7 above.*

[Annexes follow]

## **REPORT ON THE RECOMMENDATION FOR AN AUTHORITY FILE OF PATENT DOCUMENTS ISSUED BY A NATIONAL OR REGIONAL PATENT OFFICE TO ENABLE OTHER PATENT OFFICES AND OTHER INTERESTED PARTIES TO ASSESS THE COMPLETENESS OF THEIR COLLECTIONS OF PUBLISHED PATENT DOCUMENTS**

### **BACKGROUND**

1. The Authority File Task Force was created by the Committee on WIPO Standards (CWS), at its reconvened fourth session (CWS/4BIS) in March 2016 to handle the Task No. 51 (see paragraph 122 (e) of document CWS/4BIS/16):

“Prepare a recommendation for an authority file of patent documents issued by a national or regional patent office to enable other patent offices and other interested parties to assess the completeness of their collections of published patent documents.”

2. The Task Force was also requested:

“To present a proposal for a new WIPO standard or the revision of existing WIPO Standard(s) for consideration and approval by the CWS at its next session to be held in 2017”

3. The European Patent Office (EPO) was assigned the role of Task Force Leader. The Secretariat set up a Wiki space to facilitate the Task Force discussion (AFTF Wiki).

### **PROGRESS REPORT**

4. The Task Force started operating in June 2016. The discussion was based on a draft prepared by the EPO. Many Offices participated in the process and posted useful comments.

5. The Task Force established the objectives and scope of the new recommendation for an authority file; it held a meeting in person in September 2016 in Geneva, had several WebEx and completed two discussion rounds in the AFTF Wiki.

6. The structure of the proposed recommendation is the following:

- Main body;
- Annex I – Example of a definition file;
- Annex II – Text File (TXT);
- Annex III – XML schema (XSD); and
- Annex IV – Data Type Definition (DTD).

7. The Task Force completed and submitted to the CWS/5 for approval a proposed new WIPO Standard for an authority file of published patent documents (main body) along with its Annexes I and II.

8. Annex III and Annex IV define an XML Schema Definition (XSD) and a Data Type Definition (DTD) formats, respectively. As Annex II defines the text (TXT) format for data exchange of authority files, which is currently the most used among industrial property offices (IPOs), the Task Force considered that the proposed Standard meets the minimum requirements for adoption by the CWS.

## ROADMAP

9. The Task Force continues its work on two additional data format representations for an authority file: an XML Schema (XSD) and a Data Type Definition (DTD) to extend the number of formats recommended for of an authority file in the proposed Standard. It is planned to present them for consideration by the CWS at its next session to be held in 2018. Once approved, these documents will be incorporated in the recommendation for an authority file as Annexes III and IV.

[Annex II follows]

## STANDARD ST.37

### RECOMMENDATION FOR AN AUTHORITY FILE OF PUBLISHED PATENT DOCUMENTS

#### Final Draft

*Proposal presented by the Authority File Task Force for consideration and adoption at the CWS/5*

#### INTRODUCTION

1. This Standard defines data elements to constitute an authority file of patent documents, as well as its structure and format.
2. The primary purpose of the authority file generated by an industrial property office (IPO) is to allow other IPOs and other interested parties to assess the completeness of the available patent documentation.
3. In order to allow consistency checks, the authority file should contain the list of all publication numbers assigned by the IP office. This may include publication numbers for which no published document is available – this can be the case for applications withdrawn shortly before the publication or for destroyed documents – as well as publication numbers for which the publication contains only bibliographic data.

#### DEFINITIONS

4. For the purposes of this Standard:
  - a) the term “patent documents” includes patents for inventions, plant patents, design patents, inventors’ certificates, utility certificates, utility models, patents of addition, inventors’ certificates of addition, utility certificates of addition, and published applications therefor. “Documents” means patent documents, unless otherwise stated;
  - b) the terms “publication” and “published” are used in the sense of making available:
    - (i) a patent document to the public for inspection or supplying a copy on request; and
    - (ii) multiple copies of a patent document produced on, or by, any medium (e.g., paper, film, magnetic tape or disc, optical disc, online database, computer network, etc.); and
  - c) according to certain national industrial property laws or regulations or regional or international industrial property conventions or treaties, the same patent application may be published at various procedural stages. For the purpose of this standard, a “publication level” is defined as the level corresponding to a procedural stage at which normally a document is published under a given national industrial property law or under a regional or international industrial property convention or treaty.

#### REFERENCES

5. References to the following Standards are of relevance to this Recommendation:

WIPO Standard ST.1	Recommendation Concerning the Minimum Data Elements Required to Uniquely Identify a Patent Document
WIPO Standard ST.2	Standard Manner for Designating Calendar Dates by Using the Gregorian Calendar
WIPO Standard ST.3	Recommended Standard on Two–Letter Codes for the Representation of States, Other Entities and Intergovernmental Organizations
WIPO Standard ST.6	Recommendation for the Numbering of Published Patent Documents
WIPO Standard ST.10/C	Presentation of Bibliographic Data Components
WIPO Standard ST.16	Recommended Standard Code for the Identification of Different Kinds of Patent Documents
WIPO Standard ST.36	Recommendation for the Processing of Patent Information Using XML (eXtensible Markup Language)
WIPO Standard ST.96	Recommendation for the Processing of Industrial Property Information Using XML (eXtensible Markup Language)

## RECOMMENDATIONS

6. An authority file is generated by the IPO and contains a list of all patent documents published by that IP office from the first publication onwards. It should also include document numbers which were allocated but for which no published document is available (see paragraphs 22 to 25 below).

7. For practical reasons, an authority file may not include documents published during certain period (not longer than two months) before the date when the authority file was generated by the IP office. This period depends on the document processing practices of the IP office and, should an IP office submit a definition file as laid down in paragraphs 33 and 34 below, then it is recommended to indicate there the date of the publication of the latest document listed in the authority file.

## DATA ELEMENTS

8. For each publication, the authority file should contain the following minimum data elements to uniquely identify all types of patent documents as originally published by the IP office:

- a) Two-letter alphabetic code of the IPO publishing the document (publication authority);
- b) publication number;
- c) kind code of the patent document (kind-of-document code); and
- d) publication date.

9. In addition to the elements listed above, the authority file may contain the following data elements:

- a) publication exception code (to indicate, for example, withdrawn or missing documents);
- b) priority application identification of the corresponding publication, which should contain the following sub-elements:
  - i. two-letter alphabetic code of the IPO publishing the priority application;
  - ii. priority application number;
  - iii. kind-of-document code of the priority application; and
  - iv. filing date of the priority application.
- c) application identification of the corresponding publication, which should contain the following sub-elements:
  - v. two-letter alphabetic code of the IPO publishing the application;
  - vi. application number;
  - vii. kind-of-document code; and
  - viii. filing date.

10. Publication exception code (as per paragraph 9(a) above) should be always included for the documents, for which the complete publication in machine-readable form is not available (see paragraphs 22 to 25 below). Otherwise, the data element "publication exception code" should not be populated.

11. The provision of the optional data elements indicated in paragraphs 9(b) and 9(c) above remains within the discretion of the IPO generating the authority file.

12. The list of documents in the authority file should be sorted firstly by publication number, secondly by type of document (kind code), thirdly by publication date and (optionally) fourthly by publication exception code and fifthly by priority number.

13. For the cases where a publication number has been allocated but no document has been published, data elements "kind code" and "publication date" may not be populated.

### Field formatting

14. All elements and sub-elements listed in paragraphs 8 and 9 above must be recorded in separate fields.

15. Examples of text format and XML file structures are provided in Annexes II to IV.

### Publication Authority

16. The two-letter alphabetic code for the publication authority – country or region of the IPO generating the authority file – should follow recommendations of WIPO Standard ST.3.

#### Publication Number

17. Any non-alphanumeric characters – for example, those used as separators, such as dots, commas, dashes, slashes, spaces – should preferably be removed from the publication number, while generally the publication number should be following the recommendations of WIPO Standard ST.6.

#### Kind Code

18. Different kinds of patent documents should be identified following the recommendations of WIPO Standard ST.16. If the IP office uses kind-of-document codes which do not follow the recommendations of WIPO Standard ST.16, the definitions of such codes should be provided in the definition file (see paragraphs 33 and 34 below).

19. If no kind of patent document code was allocated or it is unknown, the corresponding data element “kind code” may not be populated.

#### Publication date

20. The publication date should be presented in accordance with paragraph 7(a) of WIPO Standard ST.2. For example, ‘20170602’ for ‘June 2, 2017’.

21. If the publication date is unknown to the IP office generating the authority file, the corresponding data element “publication date” may not be populated.

#### Publication exception code

22. The publication exception code should be used for publication numbers for which the complete publication is not available in machine-readable form.

23. The following single-alphabetic letter codes should be used to indicate the reason why the complete published document, for which the corresponding number is assigned, is not available:

C	Defective documents.
D	Documents deleted after the publication.
E	EuroPCT applications which have not been republished. An Euro-PCT application is an international (PCT) patent application that entered the European regional phase.
M	Missing published documents.
N	Not used publication number, for example, when publication numbers have been issued, but for some reason have not been allocated to any publication. See also paragraph 24 below.
P	Documents available on paper only.
R	Reissued publications.
U	Unknown publication numbers, for example, when during compilation of the authority file certain publication numbers have been found in the database, but the corresponding documents are missing without known cause. Typically this code can indicate a database error that requires further analysis.
W	Applications (or patents), which were withdrawn before the publication; this can include lapsed or ceased patents and might depend on national patent law regulations.
X	Code available for individual or provisional use by an IPO.

24. It is recommended to list only the numbers assigned by the IPO, but in case of small gaps in the numbering sequence (less than 1000 consecutive publication numbers), the IPO may use the publication exception code “N” to identify the numbers, which were not used.

25. The use of codes “N”, “W” and “X” should be described in the definition file (see paragraphs 33 and 34 below).

#### Priority application identification

26. The recommendations for data elements, as indicated in paragraphs 16 to 21 above, should be applied mutatis mutandis to all sub-elements of “priority application identification” element.

27. Priority application numbers should be indicated in accordance with paragraphs 12 and 13 of WIPO Standard ST.10/C.

#### Application Identification

28. The recommendations for data elements, as indicated in paragraphs 16 to 21 above, should be applied mutatis mutandis to all sub-elements of “application identification” element.

29. Application numbers should be provided in the same format as it appeared on the original patent publication issued by the IP office.

## RECOMMENDED STRUCTURE AND FORMAT OF THE AUTHORITY FILE

30. It is recommended to provide a single file for all publication numbers listed in the authority file.
31. If generating a single file proves impractical due to the resulting file size, the IP office may generate several files, dividing the list of publication numbers based on one of the following criteria:
- Publication date (file per year or several years);
  - Publication level (applications, granted IP rights); and
  - Types of patent documents (file per kind-of-document code).
32. To improve file handling, IPO may generate an update file which includes data for the current year and the last calendar year and a static file including all older data.

### Definition File

33. If some of the records included in the authority file contain information, which is not evident or easily understandable, it is recommended to provide a definition file in addition to the authority file. For example, in the definition file the IP office may:
- describe specific criteria for building the authority file(s);
  - describe the use of publication exception codes, in particular codes “N”, “W” or “X”;
  - describe the use of kind-of-documents codes (see paragraph 18 above) or provide a reference to Part 7.3 of the WIPO Handbook if up-to-date information on kind-of-documents codes is already described in Part 7.3 of the WIPO Handbook;
  - indicate the date of the most recent document listed (see paragraph 7 above); and
  - describe the numbering systems used or provide a reference to Parts 7.2.6 and 7.2.7 of the WIPO Handbook if up-to-date information on the numbering systems used is already described in Parts 7.2.6 and 7.2.7 of the WIPO Handbook.
34. To assist other IP offices and interested parties in a first assessment of the completeness of the available patent documentation, the definition file may also include an overview of the data coverage, for example indicate the number of publications per year by kind code or by publication level. Annex I contains an example of a definition file to assist IP offices in drafting their definition files.

### File Format

35. The file must be encoded using Unicode UTF-8.
36. With the aim to harmonize, as much as possible, the current practices to exchange and parsing of authority files, two file formats are recommended:
- XML (eXtensible Markup Language) format – to identify the content of data fields of an authority file (see paragraphs 8 and 9 above) using XML tags within an instance, either in an XML schema (as defined in Annex III) or a Document Type Definition (DTD) (see Annex IV) format; and
  - Text format (file extension TXT) – to identify the content of minimum data fields and the optional publication exception code element using a single text coded list, where the elements are separated by commas (preferred), tabs or semicolons and a “Carriage Return” (CRLF character) to represent the end of each record (as defined in Annex II). Text files are smaller in size than XML files.
37. XML is the preferred format for the purpose of this Standard, as it provides clear data element contents and allows automatic validation of its structure and type. IPOs may use text format for simple authority files, which contain minimum data elements (as per paragraph 8 above) and, if applicable, publication exception code only; the content of each data field should be obvious.

### File name

38. The name of the authority file generated by an IPO should be structured as follows:
- for a single file (see paragraph 30 above) – CC\_AF\_YYYYMMDD, where “CC” is the ST.3 code of the IP office, “AF” means “authority file” and “YYYYMMDD” – date of the generation of the authority file.  
  
For example,  
EP\_AF\_20160327 – single authority file generated by the EPO on March 27, 2016; and
  - for each one of multiple files (see paragraph 31 above) CC\_AF\_{criterion information}\_KofN\_YYYYMMDD, where “CC” is the ST.3 code of the IPO, “AF” means “authority file”, {criterion information} is a place-holder and K is the index number of this file, N is the total number of files generated and “YYYYMMDD” – date of the generation of the authority file.



For example,

EP\_AF\_A-documents\_1of2\_20160327 – first of two parts of the authority file generated by the EPO on March 27, 2016, this part covers applications only;

EP\_AF\_B-documents\_2of2\_20160327 – second of two parts of the authority file generated by the EPO on March 27, 2016, this part covers granted patents only.

#### IMPLEMENTATION OF THE AUTHORITY FILE

39. In order to ensure efficiency of the data exchange, authority files in XML format must be structured according to the XML schema (XSD) or the data type definition (DTD) file as specified in Annex III and Annex IV, respectively.

40. The update frequency for the authority file should be at least annual.

41. It is recommended that IPOs generate and make available authority files covering all assigned document numbers, no later than two months after the last covered publication date. For example, an authority file with data coverage until the end of 2017 should be made available before March 1, 2018.

42. If an error is discovered in an authority file, a replacement file should be provided by the IP office as soon as possible.

[Annex I to ST.37 follows]

## ST.37 - ANNEX I

### EXAMPLE OF A DEFINITION FILE

#### DEFINITION FILE FOR XX AUTHORITY FILE

This definition file relates to the following authority file: XX\_AF\_20170322

#### Date of production

2017-03-22

#### Data coverage

Public XX documents from 1974-01-01 to 2016-12-31.

The XX authority file lists all XX patent and XX utility model publications

Coverage according to document type and kind-of-document code (see [Part 7.3 of the WIPO Handbook](#) for details on kind codes):

Type	Kind Code	Total
Patent Application	A1	125.568
Patent Application	A2	96.430
Patent Granted	B1	144.879
Utility Model Application	U	24.332
Utility Model Examined	Y1	18.445

A detailed (annual) data-coverage can be found online at <http://www.XX-office.org/coverage>.

#### Used options

- Application information is provided where available
- Priority data not included
- Publication Exception Codes used are the following:

Publication Exception Code	Definition
<b>D</b>	Documents deleted after the publication.
<b>E</b>	EuroPCT applications which have not been republished
<b>M</b>	Missing published documents
<b>R</b>	Reissued publications
<b>U</b>	Unknown publication numbers
<b>X</b>	Bibliographic details of filed patent applications, as announced in the Gazette published by the office
<b>W</b>	Applications (or patents), which were withdrawn before the publication

#### Remark:

R – Reissued publication

Before 2001-01-01 correction requests from applicants and proprietors at the XX office were registered and executed, but not recorded in necessary electronic formats. Therefore these so-called reissued publications are only available with bibliographic data but not as published documents.

#### Numbering Formats:

For details on the numbering systems used by XX office see the corresponding entries in Parts [7.2.6](#) and [7.2.7](#) of the WIPO Handbook.

[Annex II to ST.37 follows]

## ST.37 - ANNEX II

### TEXT FILE (TXT)

1. The authority file text structure lists the minimum data elements and the optional publication exception code element (see paragraphs 8 and 9) for each publication record in one line, separated by a comma (preferred), tab or semicolon and a "Carriage Return" (CRLF character) to represent the end of each record.
2. Data structure: <publication authority>,<publication number>,<kind-of-document code>,<publication date>,<publication exception code><CRLF>.
3. This example illustrates an authority file represented using a TXT structure where the data elements are separated by a comma:

```
...  
EP,2363052,A1,20110907,W<CRLF>  
EP,2363053,A2,20110907,M<CRLF>  
EP,2540632,A1,20130102,P<CRLF>  
EP,2540632,B1,20151202,<CRLF>
```

[Annex III to ST.37 follows]

**ST.37 - ANNEX III**

XML SCHEMA (XSD)

This Annex is under preparation by the Authority File Task Force. It is planned that the proposal will be presented for consideration and approval at the sixth session of the Committee on WIPO Standards to be held in 2018.

[Annex IV to ST.37 follows]

**ST.37 - ANNEX IV**

DATA TYPE DEFINITION (DTD)

This Annex is under preparation by the Authority File Task Force. It is planned that the proposal will be presented for consideration and approval at the sixth session of the Committee on WIPO Standards to be held in 2018.

[End of Annex IV and of Standard]

[End of Annex II and of document]