

Exercises Topic 3 – Exercises on patent families

We are going to use following freely accessible databases offering patent family information, patent status data and file inspection:

EPO Espacenet: <http://worldwide.espacenet.com/>

Espacenet also permits access to the EPO Register which permits file inspection of applications pending at the EPO (note the similar look of the Register and Espacenet interfaces):

EPO Register: <https://register.epo.org/espacenet/regviewer>

EPO CCD: <http://www.trilateral.net/ccd>

WIPO Patentscope (no explicit family information but information on selected PCT national phase entries, some of them being linked to the respective national registers):

<http://www.wipo.int/patentscope/search/en/search.jsf>

US-PAIR (only information on US national families, e.g. continuations):

<http://portal.uspto.gov/external/portal/pair>

DPMA Register: <http://register.dpma.de/DPMAregister/Uebersicht?lang=en>

The objective of these exercises is to familiarize ourselves with patent families (such with and without priorities) and the online resources permitting access to family information.

Task 1: [WO2011074782](http://www.espacenet.com/patent/detail.jsp?id=WO/2011/074782) in Espacenet

Q: Are the simple and extended families different?

A: Yes, the extended family (Inpadoc) comprises an additional KR publication KR...336.

Q: How many domestic families are included in the extended family?

A: The extended family includes four domestic families: two of them have two publications as members and the other two have only one publication as member (EP-A2, EP-A4; KR...831A; KR...336A; WO-A2, WO-A3).

Q: Compare the priorities of all members. How many are there? Which one is shared by all members of the extended family?

A: There are two KR priorities (KR..698, KR..035) for the WO-A2/A3 and the corresponding simple family. The EP-A2 shows an additional third priority in the HTML view. However the PDF copy of the EP-A2 shows only the two KR priorities. The third priority shown in the HTML view is the application number of the corresponding WO application. The EP-A2 is only a publication of the national phase entry. This third priority is therefore not representing a different additional Paris Convention priority document. The KR..698 priority is also present in the KR document which is not part of the simple family.

Q: Check the family information of the same document in the CCD; can you view domestic families?

A: (To open the CCD view, click on the CCD link in the top line when you view the Inpadoc family listing. To see only the members of each family without citations, click on "compact view".) The CCD, as a default, shows the simple family in the left hand table; the second simple family can be loaded by clicking a link in the lower margin.

The CCD displays in the left window only application numbers, no publication numbers and no domestic families. The different publication stages WO-A2 and A3 are therefore not shown in the left hand table. They become only visible through the extra small drop down menu that appears in the heading "bibliographic data" in the inspector window after selecting an application number in the left hand table. This extra drop down menu appears always if the domestic family associated with the

selected application number has more than one member. Thus, the domestic families can only be viewed by subsequently clicking on each application number in the simple family. Espacenet therefore more easily permits the spotting of publications of granted applications.

Task 2: Search all three following publications in one search, i.e. search in the publication number field: WO2011093769, WO9319764, WO9942115

Then search all four following publications: US2008213888, US7968337, DE19756864, JP4090692.

Q: Do you need to combine them with the OR operator? How many hits do you get in each case? Why?

A: No, the OR operator is the default in the publication number field. In the first case the result list shows 3 hits, in the second case only one hit. The explanation for the latter result is that all publications are in the same simple family. Because of the automatic family reduction of the search result list, you see a single hit which represents this simple family.

Task 3: Try to find an international application that claims the priority of an earlier international application.

A: Search in Patentscope for WO as country code of the publication number, and with IB as priority country. E.g., [WO2014124815](#) claims the priority of an earlier filing PCT/IB2013/000426 which itself was never published.

Task 4: [DE19833712](#) in Espacenet

Q: How many domestic families are included in the extended (Inpadoc) family of DE19833712 ? How many offices have granted a patent?

A: To see all domestic families, view the Inpadoc family in Espacenet. 5 domestic families are shown: DE-A1/B4/B8, FR-A1/B1, 2x JP-A/B2, US-A1/B2; i.e. there is one additional JP domestic family in comparison to the simple family. All domestic families include B publications which are publications of grants.

Q: Which domestic family is not part of the simple family and why?

A: The domestic family comprising JP2007304109A & JP4179389B2; compare the Inpadoc family with the equivalents shown under "also published as" (i.e. the simple family), or see the family information in the CCD. The DE, FR and US claim the priority of the other JP application which in turn claims an earlier JP priority. The latter one is also claimed by the JP..109A and therefore this domestic family is also part of the extended family.

Q: How many domestic families are therefore included in the simple family of DE19833712?

A: 4 domestic (DE, FR, JP, US), see the field "also published as".

Q: How many family members has the extended family, including all domestic family members, and the simple family?

A: The extended family has 12 (DE-A1, DE-B4, 2xDE-B8, FR-A1, FR-B1, 2x JP-A, 2x JP-B2, US-A1, US-B1) and the simple has 10 members, respectively; when one mentions the number of family members, one usually means all publications, including the subsequent ones included in each domestic family; the CCD however counts domestic families when indicating the family size.

Q: How many JP national families are there in the extended family?

A: Just one national family but two domestic JP families; both domestic families are linked through the priority of the older JP application which is claimed for the younger JP application and therefore build a national family.

Q: Check the family information of the same document in the CCD; how can you tell that the extended and simple families are different?

A: To open the CCD view, click on the CCD link in the top line when you view the Inpadoc family listing. The left hand table then initially shows the simple family of the document searched. The lower line of the left hand table however reads "simple families: 2" which means that the extended family of the document searched comprises two different simple families. To get the extended family you need to click on link "Get all family members" which has to read as 'Get all Inpadoc family members'. After clicking this button the left hand table includes all application numbers belonging to the extended (Inpadoc) family. In this view, the simple families comprised by the extended family are separated by "+" signs. If you want to see all domestic families included in the extended family you have to select "Sort by country"; note that, with this sorting, simple families are not displayed.

Task 5: [DE102004051671A1](#), [AU5314899A](#), [US6565803](#), in Espacenet and CCD

Q: Check the size of the families. Can you count or guess how big the Inpadoc families are? Are the simple families smaller or equal in size? Try to compare the different inventions being part of a large extended like the one of the AU example.

A: The family size is indicated for the Inpadoc families in the left upper corner of Espacenet; and the lower line of CCD.

DE102004051671A1: The simple and extended families are of same size (7 domestic families, 9 publications in total).

AU5314899A: This example illustrates that there may be very big extended families:

- simple family: 15 domestic families
- Inpadoc family: 151 domestic families (according to Espacenet); 46 simple families (according to the CCD; error may occur when retrieving all members; according to the CCD there should be 146 domestic families)

Note that there are two EP domestic families in the simple family which constitute one national family (subsequent publications being part of a particular domestic family need to have the same application number; here, application numbers are different).

Many extensions, i.e. big simple families comprising many domestic families, are evidence that these inventions are commercially quite important and have a global market. That is typical for medicines.

Family members of such huge extended families which belong to different simple families may relate to different inventions that only have the area of technology in common:

- e.g., AU6158700A, which is not part of the simple but only of the extended family of AU...899A, refers to a vaccine for prostate cancer while AU..899A refers to a composition and method for diagnosis and therapy of prostate cancer;
- note that AU..700A also has additional applicants, and claims 11 different priorities while AU..899A claims 8 different priorities. Both applications have not a single of these priorities in common, i.e. both applications are not in the same complex family.

US6565803: This is an example for an apparent data error. It shows that family information should not be used without checking its plausibility.

The simple family comprises 14 domestic families according to Espacenet and the CCD.

The number of domestic families in the extended families is 582 according to Espacenet.

According to the CCD there are 202 simple families in the extended family.

When sorting the CCD display according to countries, the extended family seems to comprise, e.g., 199 (!) Australian domestic families. In the Espacenet view of the extended family, these AU domestic families have different titles, different applicants and different inventors though they are all in the medical field. It is not straightforward to analyze the reason for that; but most likely a data error like a mistyped priority number has occurred and linked many different applications into the same extended family.

Task 6: Sample of technical family

Q: Search [TWM419879U](#) and [CN202432530](#); are they representing the same invention?

A: Yes, by comparing the drawings it is apparent that both filings cover the same invention. The titles are similar. The inventor names are spelled differently but seem to represent the same inventor. The same invention was also filed in Cambodia with the inventor and applicant name of the TW application. The title is again slightly different 'furnace with slag push cleaning device (KH)', 'Stove with cinder pushing device (TW)', 'stove possessing slag delivery device'(CN)'.

Q: Was the same invention also filed in the Philippines?

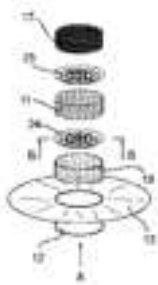
Task 7: Sample of technical family ("Nargileh")

This is a real case. The patent office of "O" received an application from a foreign inventor in English language for which no priority was claimed. The foreign nationality of the applicant and the submission of the application in English are indicators that the application may have been filed elsewhere and that examination results may be available.

Inventor name: SHRAIBER Michael

Title: Tobacco cartridge for narghiles

Drawing:



Q: Check whether there are similar applications which constitute a **technical family** together with the "O" application. Search for the inventor name Shraiber.

A: A short Espacenet search for the inventor name Shraiber returns several applications with similar titles. Subsequent comparison of drawings shows that the application filed with "O" is similar to an application filed with the USPTO which was granted by the USPTO on 17.8.2010 as [US7775218B2](#). Furthermore, an EP patent [EP1702525B1](#) belonging to the same simple family was granted and published on 28.10.2009, i.e. almost one year earlier.

For those applications the inventor used his first name Mickey instead of Michael, which he used for filing with "O". However, since both names are similar and since the title is similar you needed to check all the drawings and other parts of the application (not included here) which then confirm their identity.

When you search both first and given name ("SHRAIBER Michael") as inventor name you would not find the proper documents. You would find only the other similar applications filed in AU, CA, MA and MY where he used the name Michael. They are also relevant but less interesting since no patent was granted and no search report is available. Moreover, these applications also appear to be identical with the US application, but they were filed without claiming the US priority. Most likely Shraiber filed there the same application that he filed in "O".

Task 8: More technical families

Q: The table below represents real cases of applications filed with the patent office of "X" for which "X" requested support by WIPO's ICE service. "X" provided the below table including the title, applicant and inventor names. Priorities were not claimed in "X". Are there technical families for these applications?

Title	Applicant	Inventor(s)
Method for making betel nut flavor chewing gum	Liu, Yen-Hsun	
Il-17ra-il-17rb antagonists and uses thereof	AMGEN INC	1)BUDELSKY ALISON L 2)COMEAU MICHAEL R 3)Tocker Joel
Liposome composition	Eisai R & D Management Co., Ltd	
Insecticidal polymermatrix Comprising PBO and DM	Vestergaard Frandsen SA	
Pumping device	DJERASSEM Le Bemadjel	
Audio decoder an decoding method using efficient down mixing	Laboratories licensing Corporation; and Dolby International AB	
A Screw capable of rapidly drilling and cutting	TAIWAN SHAN YIN INTERNATIONAL CO.,LTD	
Mesoionic pesticides	E.I. DU PONT DE NEMOURS	PAHUTSKI THOMAS FRANCIS JR
A fan system with light assembly and emergency power supply	ALPHA HOME APPLIANCES SDN BHD	

A: The search for applicant names and titles is straightforward. The below table indicates if and which family members exist; it provides evidence that the vast majority of applications filed in developing countries by foreign applicants without the claiming of a foreign priority are members of a technical family and that relevant patent information is accessible through the internet free of charge:

Title	Applicant	Inventor(s)	Family member
Method for making betel nut flavor chewing gum	Liu, Yen-Hsun		TW201138646
Il-17ra-il-17rb antagonists and uses thereof	AMGEN INC	1)BUDELSKY ALISON L 2)COMEAU MICHAEL R 3)Tocker Joel	WO2009136976A3 WO2009136976A3
Liposome composition	Eisai R & D Management Co., Ltd		WO2010113984A1
Insecticidal polymermatrix Comprising PBO and DM	Vestergaard Frandsen SA		WO2010015257A3
Pumping device	DJERASSEM Le Bemadjel		WO2010093267A3
Audio decoder an decoding method using efficient down mixing	Laboratories licensing Corporation; and Dolby International AB	Thesing, Robin Silva, James Andersen, Robert	WO2011102967A1
A Screw capable of rapidly drilling and cutting	TAIWAN SHAN YIN INTERNATIONAL CO.,LTD	Su, Kuo Tsair Su, Yu Jung	EP2444678A1
Mesoionic pesticides	E.I. DU PONT DE NEMOURS	PAHUTSKI THOMAS FRANCIS JR	WO2012092115A1
A fan system with light assembly and emergency power supply	ALPHA HOME APPLIANCES SDN BHD	Yeo, Peng Lian	No family member in Espacenet

Task 9: [WO2007008499](#)

Q: Check the titles of the Inpadoc family members and the applicant names; what do you notice?

A: The Inpadoc family is much bigger than the simple family (domestic families), however partly due to a data error. Some titles are quite different ("Zosuquidar,..."; "Content presentation optimizer") and also the respective applicant names (Kanisha; THX LTD); the inventions appear to be in quite different areas of technology (compare the IPC codes). This is another sample for data errors that sometimes occur; different inventions are mixed, most likely because of a typo in a priority information; note also the various inventor names.