

STN[®]

Are You Sure?

Kerry G. Stanley — CAS

CAS is a division of the American Chemical Society

Session Agenda

- Overview of a *patent family*
- How producers define a patent family
- Comparative examples from multiple files
- Comprehensive patent family searches

Session Agenda

- Overview of a *patent family*
 - What is a patent family
 - What a patent family is not
 - Why search for patent families
 - What is covered in and how timely are patent family files
- How do producers define a patent family
- Comparative examples from multiple files
- Comprehensive patent family searches

A patent family is ...

- ✓ A list of patent publications from around the world describing the same invention
- ✓ A list of patent publications quoting a common priority number and date
- ✓ A method of summarizing the global legal protection sought by a patent applicant
- ✓ A time-saving convenience

A patent family is not ...

- ✗ An easy-to-understand concept
- ✗ Defined uniformly
- ✗ A legal concept

Why search for patent families?

- Support marketing concerns
 - Due diligence
 - Scope of protection sought
- Provide legal guidance
 - Actual granted inventions
 - FTO in desired country
 - Filing status



**Are you sure you have all
patent family members?!**

Use multiple patent family files to be sure

- CAplusSM
- WPI (WPINDEX, WPIDS, WPIX)
- INPADOC

All three provide complementary coverage due to different publication and historical coverage.

CPlus from CAS covers >45 issuing authorities

- Chemical and life sciences
- Journal literature, technology disclosures, meeting abstracts, dissertations
- Enhanced abstracts and titles
- CAS subject indexing and CAS RNs
- International and US classifications
- 1907–present



CAplus is the most timely source for patent family data from 7 authorities:

- Core patent authorities: US, WO, EP, DE, JP, and most recently GB and FR
- Bibliography online within **2 days**, including title and abstract for the basic patent
- Full indexed within 27 days

WPI from Derwent covers 40 issuing authorities

- Enhanced abstracts and titles
- Derwent classification and subject indexing
- International classification
- Patent assignee codes
- From 1963–present

WPI *equivalents* from core authorities are typically added within 7 days

- *Basic patent* timeliness varies greatly
 - PCT timeliness in chemical subjects is 65 days (June 2003)
- WPI records are added only after abstracting and indexing are completed
- WPI retains some timeliness benefits over CAS non-core authorities, e.g. CA, KR, ZA

INPADOC from EPO covers 71 issuing authorities

- International Patent Documentation Center
- Legal status for 33 authorities
- Author abstracts for 25 authorities
- International, national, and EPO classifications
- From 1968–present

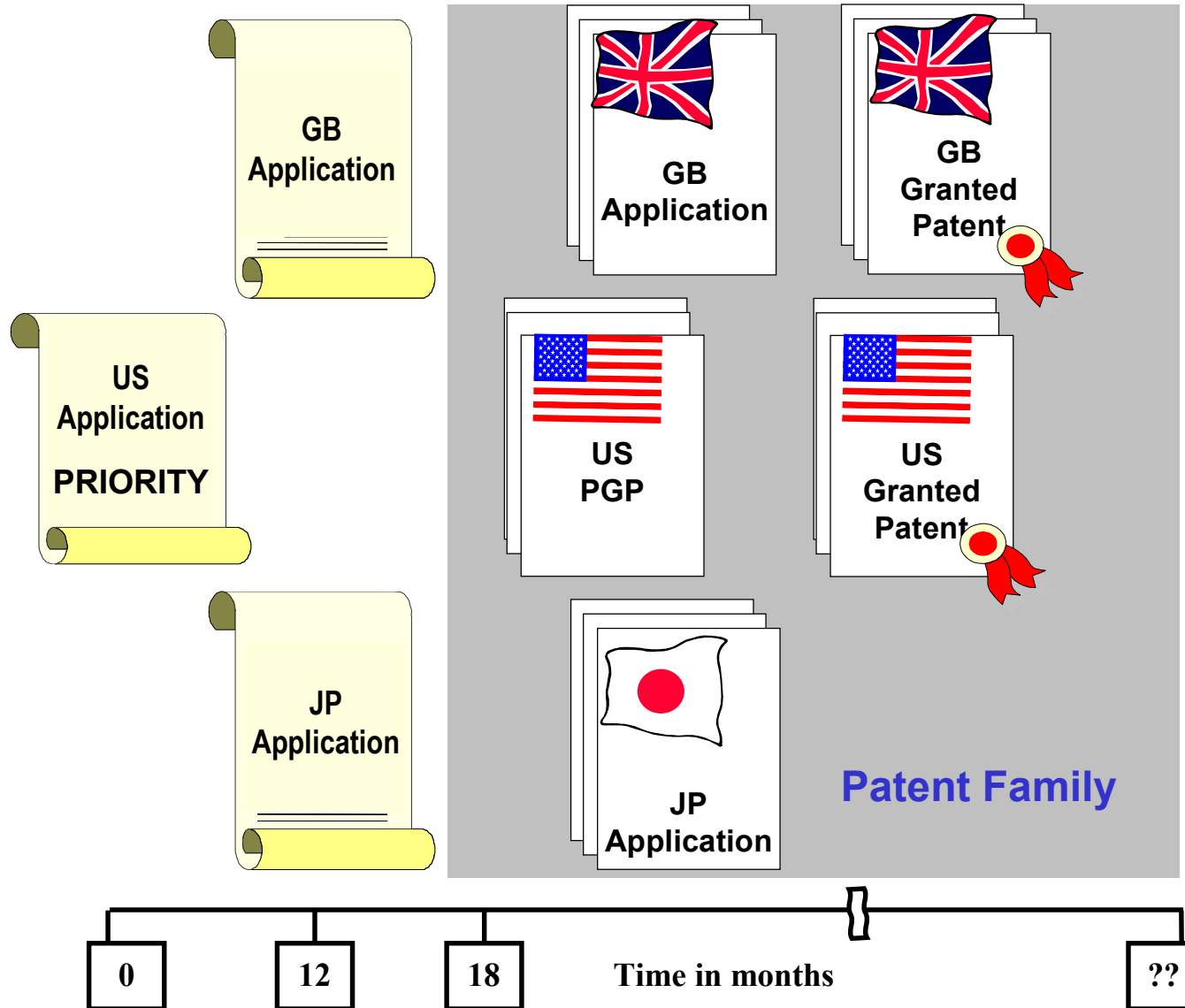
INPADOC does retain some timeliness benefits

- Records are typically added to the file 1-4 weeks after publication, e.g. PCT 25 days
- Often significantly more timely than Derwent WPI for *Derwent basic patents*
- Typically less timely than Derwent WPI for *Derwent equivalent patents*
- Retains some timeliness benefits over CA non-core authorities, e.g. CA, KR, ZA

Session Agenda

- Overview of a *patent family*
- How producers define a patent family
 - Publication history
 - File definitions
 - Theoretical construction of families
- Comparative examples from multiple files
- Comprehensive patent family searches

Publication history leads to a family



The publication history may be quite complex

- Multiple priorities created by divisions, continuations, or continuation-in-part filings
- Multiple priorities from different countries

Database producers may create multiple records to capture the technology.

Are you sure you have all the records?

INPADOC defines patent family based on links to *any* priority number

- ALL publications directly or *indirectly* linked by any priority number
- Families are reassembled each time a “family” display format is used

WPI defines patent family based on a link to the basic patent

- Equivalent publications are linked by priority numbers in common with the basic
- Families *are not* reassembled in light of new priority relationships – PN typically in one record only
- Related records are cross-referenced (CR accession number field)

CPlus defines patent family dynamically, in light of new relationships

- Equivalent publications are linked by priority numbers in common with the basic
- Families *are* reassembled in light of new priority relationships – PN may be in more than one record
- Related records are linked (FAN family accession number)

Three theoretical family definitions

FAMILY P1			
Document D1	Priority P1		
Document D2	Priority P1	Priority P2	
Document D3	Priority P1	Priority P2	
Document D4		Priority P2	Priority P3
Document D5			Priority P3

Time

INPADOC

WPINDEX

CAPLUS

STN[®]

Session Agenda

- Overview of a *patent family*
- How producers define a patent family
- Comparative examples from multiple files
 - Relatively simple patent family
 - INPADOC family display formats
 - Complex “extended patent family”
 - CAplus family display formats
- Comprehensive patent family searches

Comparing patent family records for a simple patent family

Compare the WPI, CAplus, and INPADOC records for EP 1130059, a relatively simple patent family.

WPI record in IBIB format

L1 ANSWER 1 OF 1 WPINDEX (C) 2
 ACCESSION NUMBER: 2002-019162 [03]
 DOC. NO. CPI: C2002-005642
 TITLE: Colorless highly
 blend useful for the production ...

PNs are arranged based on the
 Derwent Week of entry to the file.
 Also note the addition of
 equivalent data – PA and IPC.

INVENTOR(S):

BUEHLER, F S; BUHLER, F S

PATENT ASSIGNEE(S):

(INVE) EMS-CHEM AG; (BUHL-I) BUHLER F S

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 1130059	A1	20010905	(200203)*	GE	13	C08L077-02
R: AL AT BE CH CY DE DK ES FI FR GB GR						• • •
DE 10009756	A1	20010913	(200203)			C08L077-00
US 2001031805	A1	20011018	(200203)			C08K005-34
JP 2001310999	A	20011106	(200206)		9	C08L077-00
EP 1130059	B1	20021127	(200279)	GE		C08L077-02
R: DE GB IT NL						
DE 50100062	G	20030109	(200305)			C08L077-02
US 6528560	B2	20030304	(200320)			C08K005-34

WPI record (cont'd):

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1130059	A1	EP 2001-104187	20010221
DE 10009756	A1	DE 2000-10009756	20000301
US 2001031805	A1	US 2001-796907	20010228
JP 2001310999	A	JP 2001-55733	20010228
EP 1130059	B1	EP 2001-104187	20010221
DE 50100062	G	DE 2001-500062	20010221
		EP 2001-104187	20010221
US 6528560	B2	U	

This family is based on a single DE priority application.

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 50100062	G	Based on EP 1130059

PRIORITY APPLN. INFO: DE 2000-10009756 20000301

CAplus record in IBIB format

L1 ANSWER 1 OF 1 CAPLUS COPYR
 ACCESSION NUMBER: 2001:654715
 DOCUMENT NUMBER: 135:211791
 TITLE: Colorless, blends resistant to stress-cracking
 INVENTOR(S):
 PATENT ASSIGNEE(S):
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PNs are arranged based on the filing application date. Hence all EP and US publications are grouped together.

Buehler, Friedrich Severin

EMS-Chemie A.-G., Switz.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1130059	A1	20010905	EP 2001-104187	20010221
EP 1130059	B1	20021127		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU,				
DE 10009756	A1	20010913	DE 2000-10009756	20000301
US 2001031805	A1	20011018	US 2001-796907	20010228
US 6528560	B2	20030304		
JP 2001310999	A2	20011106	JP 2001-55733	20010228

PRIORITY APPLN. INFO.: DE 2000-10009756 A 20000301

INPADOC record in BIB.M format

L2 ANSWER 1 OF 1 INPADOC COPYRIGHT 2003 EPO on STN

LEVEL 1

AN 157314019 INPADOC ED 2001091
TI COLOURLESS, HIGHLY TRANSPARENT
IN BUEHLER, FRIEDRICH SEVERIN, D
INS BUEHLER FRIEDRICH SEVERIN DR
PA EMS-CHEMIE AG
PAS EMS CHEMIE AG

BIB.M displays multiple stages of publication if available. Additional information includes publication type and links to CAplus and WPI.

PIT EPA1 PUBL. OF APPLICATION WITH SEARCH REPORT

PI EP 1130059 A1 20010905

DS R: DE GB IT NL

AI EP 2001-104187 A 20010221

PRAI DE 2000-10009756 A 20000301

OSCA 135:211791

OSDW 2002-019162

ICM (7) C08L077-02

ICS (7) C08L077-06; (7) C08K003-32; (7) C08K005-49

EPC C08L77/00+BN4; C08L77/06+BN4

INPADOC record (cont'd):

LEVEL 2

AN 157314019 INPADOC ED 20021202 EW 200248 UP 20021202
TI COLOURLESS, HIGHLY TRANSPARENT POLYAMIDE BLENDS WITH ●●●
IN BUEHLER, FRIEDRICH SEVERIN, DR.RER.NAT., DIPL.-CHEM.
INS BUEHLER FRIEDRICH SEVERIN DR R
PA EMS-CHEMIE AG
PAS EMS CHEMIE AG
PAA CH
TL English; French; German
LA German
DT Patent
PIT EPB1 PATENT
PI EP 1130059 B1 20021127
DS R: DE GB IT NL
AI EP 2001-104187 A 20010221
PRAI DE 2000-10009756 A 20000301
ICM (7) C08L077-02
ICS (7) C08L077-06; (7) C08K003-32; (7) C08K005-49
EPC C08L77/00+BN4; C08L77/06+BN4

LEVEL 2 was the second publication, the EP grant.

So, where are the additional family equivalents in INPADOC?

- INPADOC records are based upon a single application number from a single authority
 - Stages of publication indicated by LEVEL
 - Stages identified by Patent Information Publication Type (PIT) and patent kind code
- The complete *multi-record* patent family is shown using a dynamic “family” display

INPADOC has a wide choice of family display formats

Use this format	To display...
CFAM	A table of publication numbers only
FAM	A table of priority, application and publication numbers
FFAM	Full bibliographic detail and available legal status



=> HELP FORMAT

INPADOC FAM display

L1 ANSWER 1 OF 1 INPADOC COPYRIGHT 2003 EPO on STN
 TI COLOURLESS, HIGHLY TRANSPARENT POLYAMIDE BLENDS WITH ●●●
 PATENT FAMILY INFORMATION
 AN 157314019 INPADOC

+-----PRAI-----+			+-----AI-----+		
DE 2000-10009756	A	20000301	DE 2000-10009756	A	20000301
			DE 2001-50100062	A	20010221
			EP 2001-104187	A	20010221
			JP 2001-55733	A	20010228
			US 2001-796907	A	20010228
DE 2001-50100062	A	20010221	DE 2001-50100062	A	20010221
+-----AI-----+			+-----AI-----+		
DE 2000-10009756	A	20000301	DE 10009756	A	20000301
DE 2001-50100062	A	20010221	DE 50100062	A	20030109
EP 2001-104187	A	20010221	EP 1130059	A1	20010905
			EP 1130059	B1	20021127
JP 2001-55733	A	20010228	JP 2001310999	A2	20011106
US 2001-796907	A	20010228	US 2001031805	AA	20011018
			US 6528560	BB	20030304

The 5 applications imply there are 5 records in INPADOC.

2 priorities, 5 applications, 7 publications

Comparing patent family records for an extended patent family

Compare the WPI, CAplus, and INPADOC records for WO 9829539, a more complex patent family.

Multiple records may be created for a complex filing history

- Multiple records are created to allow abstracting and indexing of additional information
- Multiple records are linked through accession numbers in WPI and CAplus
- This “extended patent family” must be reviewed for all publications

WPI record in IBIB format

L1 ANSWER 1 OF 1 WPINDEX (C) 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 1998-388121 [33] WPINDEX [Full-text](#)

CROSS REFERENCE: 1998-388120 [33]

DOC. NO. CPI: C1998-117527

TITLE: New fragments of

INVENTOR(S): PHILIPPSSEN, P;

PATENT ASSIGNEE(S): (BADI) BASF A

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK
-----------	------	------	------

WO 9829539 A2 19980709 (199833)* GE 13 C12N015-00

RW: AT BE CH DE DK EA ES FI FR GB GR IE IT LU MC NL PT SE

W: AL AU BG BR BY CA CN CZ GE HU ID IL JP KR KZ LT LV MX

AU 9857643 A 19980731 (199849) C12N015-00

EP 951538 A2 19991027 (199950) GE C12N015-00

R: AT BE CH DE DK ES FI FR GB GR IE IT LI NL PT SE

JP 2001508289 W 20010626 (200140) 17 C12N015-09

• • •
PRIORITY APPLN. INFO: CH 1997-16 19961231

- The CR field indicates there is a related record for this invention.
- The JP kind code may vary between files.
- Here only one priority is listed.

WPI record (cont'd):

L2 ANSWER 1 OF 1 WPINDEX (C) 2003 THOMSON DERWENT on STN

ACCESSION NUMBER: 1998-388120 [33] WPINDEX [Full-text](#)

CROSS REFERENCE: 1998-388121 [33]

TITLE: New gene for adenylate cyclase from Ashbya ●●●

INVENTOR(S): ALTHOFER, H; ALTMANN-JOHL, R; PHILIPPSSEN, P

PATENT ASSIGNEE(S): (BADI) BASF AG; (NOVS) NOVARTIS AG;
(SYNG-N) SYNGENTA PARTICIPATIONS AG

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	
WO 9829538	A2	19980709	(199833)	
EP 866129	A2	19980923	(199842)	
AU 9862916	A	19980731	(199849)	
JP 11225770	A	19990824	(199944)	838 C12N015-09
EP 953044	A2	19991103	(199951)	GE C12N015-00
US 6239264	B1	20010529	(200132)#	C07H021-04
JP 2001509012	W	20010710	(200144)	38 C12N015-09
US 6489147	B1	20021203	(200301)	C12P017-12

This second record relates back to the first.

A US non-convention was added and is marked with a #.

PRIORITY APPLN: CH 1997-16 19961231; US 1997-998416 19971224

CAplus record in IBIB format

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1998:485167 CAPLUS [Full-text](#)
DOCUMENT NUMBER: 129:106485
TITLE: Partial sequences of genes of purine ...
INVENTOR(S): Philippsen, Peter; Demmeius, Markus ...
PATENT ASSIGNEE(S): BASF A.-G., Ge
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 9829539	A2	19980709	WO 1997-EP7312	19971229 <--
WO 9829539	A3	19981112		

W: AL, AU, BG, BR, BY, CA, CN, CZ, GE, HU, ID, IL,
...

PRIORITY APPLN. INFO.: CH 1997-16 A 19961231
WO 1997-EP7312 W 19971229

- The FAN.CNT indicates there is a related record for this invention.
- Here two priorities are listed.

CAplus has two family display formats

Use this format	To display...
FAM	Title and patent information from the record and patent information from any related records
FBIB	Full bibliographic detail from the record and patent information from any related records

CAplus FAM display

L3 ANSWER 1 OF 1 CAPLUS COPYRIG
 AN 1998:485167 CAPLUS [Full-text](#)
 DN 129:106485
 TT Partial sequences of genes of

FAN.CNT 2

	PATENT NO.	KIND	DATE	AP
PI	WO 9829539	A2	19980709	WO 1997-EP7312 19971229
	WO 9829539	A3	19981112	
	EP 866129	A2	19980923	CH 1997-16 A 19961231
	AU 9857643	A1	19980731	EP 1997-811020 19971224
	EP 951538	A2	19991027	CH 1997-16 A 19961231
	JP 2001508289 T2		20010626	WO 1997-EP7312 W 19971229
				AU 1998-57643 19971229
				CH 1997-16 A 19961231
				WO 1997-EP7312 W 19971229
				EP 1997-953928 19971229
				CH 1997-16 A 19961231
				WO 1997-EP7312 W 19971229
				JP 1998-529618 19971229

- The FAM format list all numbers for each record.
- The priorities are listed for each publication.
- Note a WO A3 and a differing JP kind code.

All related CAplus records display

PATENT FAMILY INFORMATION:

FAN 1998:485166

	PATENT NO.	KIND	DATE
	-----	----	-----
PI	WO 9829538	A2	19980709
	WO 9829538	A3	19981210
	EP 866129	A2	19980923
	AU 9862916	A1	19980731
	EP 953044	A2	19991103
	JP 2001509012	T2	20010710
	US 6489147	B1	20021203

- The patent information for the second record is automatically displayed.
- Again, a WO A3 is listed.
- EP 866129 is listed in both records because of the dynamic family file building.

CH	1997-16	A	19961231
AU	1998-62916		19971229
CH	1997-16	A	19961231
WO	1997-EP7309	W	19971229
EP	1997-954977		19971229
CH	1997-16	A	19961231
WO	1997-EP7309	W	19971229
JP	1998-529616		19971229
CH	1997-16	A	19961231
WO	1997-EP7309	W	19971229
US	1999-331403		19990621

INPADOC record in FAM FFAM format

L4 ANSWER 1 OF 1 INPADOC COPY
PATENT FAMILY INFORMATION
AN 47448519 INPADOC

- The FAM format provides the complete listing of numbers.
- The summary indicates there are a total of 12 records for this invention.

...

+-----AI-----+				+-----PI-----+			
AU	1998-57643	A	19971229	AU	9857643	A1	19980731
AU	1998-62916	A	19971229	AU	9862916	A1	19980731
EP	1997-811020	A	19971224	EP	866129	A2	19980923
EP	1997-953928	A	19971229	EP	951538	A2	19991027
EP	1997-954977	A	19971229	EP	953044	A2	19991103
JP	1998-529616	A	19971229	JP	2001509012	T2	20010710
JP	1998-529618	A	19971229	JP	2001508289	T2	20010626
...							
WO	1997-EP7312	A	19971229	WO	9829539	A2	19980709
				WO	9829539	A3	19981112

5 priorities, 12 applications, 14 publications

Each application leads to a “member”

MEMBER 12

LEVEL 1

AN 47448519 INPADOC EW 199830 UP 20000019 UN 200021
TI PARTIAL SEQUENCES OF PURINE BIOSYNTHESIS GENES FROM...
IN PHILIPPSSEN, PETER; POMPEJUS, MARKUS; SEULBERGER, HARALD
INS PHILIPPSSEN PETER; POMPEJUS MARKUS; SEULBERGER HARALD
PA BASF AKTIENGESELLSCHAFT; PHILIPPSSEN, PETER; POMPEJUS,
MARKUSSEULBERGER, HARALD
PAS BASF AG; PHILIPPSSEN PETER; POMPEJUS MARKUS; SEULBERGER
PIT WOA2 PUBL.OF THE INT.APPL. WITHOUT INT.SEARCH REP.
PI WO 9829539 A2 19980709
AI WO 1997-EP7312 A 19971229
PRAI CH 1997-16 A 19961231
OSCA 129:106485
OSDW 98-388121

FFAM provides complete detail for each record or “member”, including all stages of publication and any legal status.

LEVEL 2 ●●●

Session Agenda

- Overview of a *patent family*
- How producers define a patent family
- Comparative examples from multiple files
- Comprehensive patent family searches
 - System features to retrieve and group records
 - System features to analyze family members
 - A search example

System features to retrieve and group patent records by invention

Use this feature	To...
FSORT	Group records into invention families defined by a common AP, PRN, or PN number
FSEARCH	Retrieve additional records containing a common AP, PRN, or PN number, finishing with an FSORT

System features to analyze patent family members

Use this feature	To...
DUPLICATE IDENTIFY	Merge records from multiple files into one L-number
ANALYZE	Identify the list of patent numbers describing the family

A comprehensive patent family search example

Identify all possible family equivalents to EP 1045897, a patent describing phosphoramidate therapeutic agents.

Steps to take in creating a *comprehensive* patent family

1. Select relevant patent family files.
2. Search iteratively for all family records.
using FSEARCH, or use a family format
3. Display records.
4. Option: Merge answer sets for display
and/or analysis.

Locate patent family records in the HCAplus file

```
=> S EP1045897/PN  
L1          1 EP1045897/PN  
=> FSE EP1045897/PN
```

```
SEA EP1045897/PN  
L2          1 EP1045897/PN  
FSE
```

```
*** ITERATION 1 ***
```

```
SEL L2 1- PN,APPS  
L3          SEL L2 1- PN APPS :
```

```
SEA L3  
L4          2 L3
```

FSEARCH re-searches using all available numbers

Two records are automatically retrieved, compared to one in L1.

HCAplus search (cont'd):

*** ITERATION 2 ***

SEL L4 1- PN,APPS

L3 SEL L2 1- PN APPS : 35 TERMS

SEA L3

L4 2 L3

FSORT L4

L5 2 FSO L4

FSEARCH is an iterative process.

Let's try for 3 records!! The system continues until no additional records are retrieved. Or for 4 iterations.

1 Multi-record Family

Answers 1-2

0 Individual Records

0 Non-patent Records

Display each record in a bibliographic format

=> D IBIB 1-2

L5 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN **FAMILY 1**
ACCESSION NUMBER: 2003:455061 HCAPLUS
DOCUMENT NUMBER: 139:7127
TITLE: Preparation, cytotoxicity, antitumor ...
INVENTOR(S): Shepard, H. Michael; Vaino, Andrew Rein;
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 58 pp., **Cont.-in-part**
of U.S.Ser. No. 782,721.
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

The source field may provide a hint on why this invention is covered in two HCAplus records.

Display (cont'd) – patent information:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 2003109697	A1	20030612	US 2002-119927	20020409
EP 1167972	A2	20020102	EP 2001-120242	19990122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6339151	B1	20020115	US 1999-235961	19990122
JP 2001220397	A2	20010814	JP 2000-339831	20001108
JP 3265304	B2	20020311		
US 2001034440	A1	20011025	US 2001-782721	20010212

PRIORITY APPLN. INFO.:

US 1998-72264P P 19980123
US 1998-76950P P 19980305
US 1998-108634P P 19981116

•••

OTHER SOURCE(S):

MARPAT 139:7127

Display (cont'd) – second record:

L5 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN **FAMILY 1**
ACCESSION NUMBER: 1999:487370 HCAPLUS
DOCUMENT NUMBER: 131:111426
TITLE: Method for drug screening and enzyme-
activated phosphoryl or phosphoramidate
prodrugs and their synthesis and use in
inhibition of cell proliferation
INVENTOR(S): Shepard, H. Michael; Groziak, Michael P.
PATENT ASSIGNEE(S): **Newbiotics, Inc., USA**
SOURCE: PCT Int. Appl., 113 pp.
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

The title is substantially different. There is a patent assignee listed on this record.

Display (cont'd) – patent information:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 2003109697	A1	20030612	US 2002-119927	20020409
WO 9937753	A1	19990729	WO 1999-US1332	19990122
W: AL,	AM, AT, AU, AZ,		BA, BB, BG, BR, BY, CA, ...	
CA 2317505	AA	19990729	CA 1999-2317505	19990122
AU 9924646	A1	19990809	AU 1999-24646	19990122
AU 753155	B2	20021010		
BR 9907736	A	20001017	B	
EP 1045897	A1	20001025	E	
EP 1045897	B1	20020130		
R: AT,	BE, CH, DE, DK,		ES, FR, GB, GR, IT, LI, LU,	
NL,	SE, MC, PT, IE, FI			
US 6245750	B1	20010612	US 1999-235809	19990122
	...			
HK 1030624	A1	20020614	HK 2001-100891	20010208

From the patent information table for this second record a CA and HK publication are noted.

Locate patent family records in the WPI file

=> FSE EP1045897/PN

SEA EP1045897/PN

L6 1 EP1045897/PN

FSE

*** ITERATION 1 ***

SEL L6 1- PN,APPS

L7 SEL L6 1- PN APPS : 34 TERMS

SEA L7

L8 1 L7

DEL L8- Y

FSORT L6

L8 1 FSO L6

0 Multi-record Families

1 Individual Record Answer 1

In this case, FSE does not retrieve any additional records. It stops after one iteration.

Display the record in a bibliographic format

=> D IBIB

L8 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2000

ACCESSION NUMBER: 2000-105519 [09] W

DOC. NO. CPI: C2000-031579

TITLE: New method of identifying potential therapeutic agents For inhibiting and treating pathology characterized by •••

DERWENT CLASS: B03 B04 D16

INVENTOR(S): GROZIAK, M P; SHEPARD, M H; SHEPARD, H M •••

PATENT ASSIGNEE(S): (NEWB-N) NEWBIOTICS INC; (NEWB-N) NEWBIOTIC INC; (NEWB-N)NEW BIOTICS INC; (GROZ-I) GROZIAK M P; (SHEP-I) SHEPARD H M; (LEHS-I) LEHSTEN D M; (VAIN-I) VAINO

COUNTRY COUNT: 85

PATENT INFORMATION:

Patent assignees from multiple equivalents are listed.

Display (cont'd) – patent information:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9937753	A1	19990729	(200009)*	EN	114
RW:	AT BE CH CY DE DK EA ES FI FR				
W:	AL AM AT AU AZ BA BB BG BR BY				
AU 9924646	A	19990809	(200009)		
EP 1045897	A1	20001025	(200055)		
R:	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU ...				
BR 9907736	A	20001017	(200056)		
US 6245750	B1	20010612	(200135)		
CN 1291228	A	20010411	(200140)		
...					
MX 2000006993	A1	20010501	(200227)		
ES 2172303	T3	20020916	(200270)		
AU 753155	B	20021010	(200279)		
US 2003109697	A1	20030612	(200340)		

From the patent information table for this record a MX publication is noted.

Locate patent family records in the INPADOC file

=> S EP1045897/PN

L9 1 EP1045897/PN

=> D CFAM FFAM

L9 ANSWER 1 OF 1 INPADOC COPYRIGHT 2003 EPO on STN

PATENT FAMILY INFORMATION

AN 138214579 INPADOC

Optionally include FFAM for no additional cost.

+-----PI-----+

AT 212661	E 20020215
AU 753155	B2 20021010
AU 9924646	A1 19990809
BR 9907736	A 20001017
CA 2317505	AA 19990729
CN 1291228	T 20010411
DE 69900841	C0 20020314
DE 69900841	T2 20021002

The family formats will dynamically display the information for each equivalent

Display (cont'd) – CFAM display:

DK 1045897	T3 20020513
EP 1045897	A1 20001025
EP 1045897	A4 20001025
EP 1045897	B1 20020130
EP 1167972	A2 20020102
ES 2172303	T3 20020916
HK 1030624	A1 20020614
IL 137164	A0 20010724
JP 2001220397	A2 20010814
JP 3265304B	B2 20020311
JP 2002500880	T2 20020115
PT 1045897	T 20020731
US 6245750	BA 20010612
US 6339151	BA 20020115
US 2001034440	AA 20011025
US 2003109697	AA 20030612
WO 9937753	A1 19990729

25 publications

From the CFAM
patent information
table a PT publication
is noted.

25 total publications
include multiple stages
of publication for one
application.

Display (cont'd) – FFAM display:

...

MEMBER 20

LEVEL 1

AN 111688551 INPADOC ED 19990818 /17

TI ENZYME CATALYZED THERAPEUTIC AGENTS.

IN SHEPARD, H., MICHAEL; GROZIAK, MICHAEL, P.

INS SHEPARD H MICHAEL; GROZIAK MICHAEL P

PA NEWBIOTICS, INC.; SHEPARD, H., MICHAEL; GROZIAK,

PAS NEWBIOTICS INC; SHEPARD H MICHAEL; GROZIAK MICHAEL P

TL English; French

LA English

DT Patent

PIT WO/1 PUBL.OF THE INT.APPL. WITH INT.SEARCH REPORT

FDT with international search report

PI WO 9937753 A1 19990729

There were 20 total records for this invention in INPADOC, represented by 25 publications

Merge answer sets for display and/or analysis

- Each file may have identified unique family members for EP 1045897
- ANALYZE may be used to create a merged multi-file list of PN's
- Before using ANALYZE, it is necessary to actually retrieve all the individual INPADOC records using FSEARCH

Retrieve all individual INPADOC records

=> FSE L9

*** ITERATION 1 ***

SEL L9 1- PN,APPS

L10 SEL L9 1- PN APPS : 6 TERMS

SEA L10

L11 20 L10

*** ITERATION 2 ***

FSEARCH re-searches using all available numbers

SEL L11 1- PN,APPS

L10 SEL L9 1- PN APPS : 45 TERMS

SEA L10

L11 20 L10

FSORT L11

L12 20 FSO L11

FSE has retrieved the 20 records identified from the CFAM FFAM display.

1 Multi-record Family Answers 1-20

Merge all answer sets together

=> SET DUPORDER FILE

=> DUP IDE L5 L8 L12

L13 23 DUP IDE L5 L8 L12 (INCLUDES 2 SETS OF DUPLICATES)

ANSWERS '1-2' FROM FILE HCAPLUS
ANSWER '3' FROM FILE WPINDEX
ANSWERS '4-23' FROM FILE INPADOC

SET DUPORDER FILE
maintains records in file order
after the DUPLICATE
command.

Analyze the merged answer set for a total list of publication numbers

=> ANALYZE L13 1- PN

L14 ANALYZE L13 1- PN : 24 TERMS

=> D 1-24 ANS

L14 ANALYZE L13 1- PN : 24 TERMS

TERM #	# OCC	# DOC	% DOC	PN
1	7	3	13.04	EP1045897 (ANS: 2,3,20)
2	4	4	17.39	EP1167972 (ANS: 1,2,3,11)
3	4	4	17.39	JP2001220397 (ANS: 1,2,3,17)

ANS includes the answer numbers from which the term was extracted.

Recall answer numbers:

CAplus	1-2
WPINDEX	3
INPADOC	4-23

JP 2001220397 is covered in all three files.

Publications not available in all files

16	2	2	8.70	AT212661 (ANS: 2,14)
17	2	2	8.70	CA2317505 (ANS: 2,22)
18	2	2	8.70	CN1291228 (ANS: 3,19)
19	2	2	8.70	HK1030624 (ANS: 2,9)
20	1	1	4.35	DK1045897 (ANS: 12)
21	1	1	4.35	IL137164 (ANS: 18)
22	1	1	4.35	JP3265304B (ANS: 17)
23	1	1	4.35	MX2000006993 (ANS: 3)
24	1	1	4.35	PT1045897 (ANS: 7)

CAplus and
INPADOC only.

WPI and
INPADOC only.

WPI only.

INPADOC only.

Summary

- Be sure!!!
- For comprehensive retrieval consider 3 sources – CAplus, WPI and INPADOC
- There is no set definition for a patent family
- For a comprehensive search consider using
 - Multiple files
 - FSEARCH to retrieve related records
 - Family display formats