



Software for  
Business Intelligence

# BizInt Smart Charts

Patents & IP Sequences | Clinical Trials | Drug Pipelines

## Detecting Significant Updates in Patent Search Results

*John Willmore, VP Product Development*

EPO PIC 2019, Bucharest, Romania, 30 October 2019

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# The Problem

- When you revisit a search, how do you know which families are new and which you have seen before?
- How can you determine which publications are new since the last search?

# Typical Scenarios for Updating Reports

- Integrating weekly/monthly alert results with an existing report
- Reviewing filing/grant activity since the last project milestone
- Tracking changes for a complex search using multiple search technologies / platforms (e.g. classifications, semantic search, chemical structure, gene sequences)

# Challenges in Detecting Changes

- Limiting search by publication date reduces the volume of results to review by removing unchanged families
- Limiting analysis by latest publication date can help, but what if a new CPC symbol is applied to an old publication?
- What can you do if the results are coming from multiple databases?
- Can you find the changes if the database returns a different family member?



# An updated report

PatBase: Natamycin_Update									
	Title	Row Status	Patent Family			Priority Data		Applications	
			Patent	Kind	Date	Number	Date	Application	Date
2	SUBMICRON NATAMYCIN PARTICLE	Added	WO 15044465	A2	2015-04-02	EP20140167408	2014-05-07	WO2015EP50647	2015-01-15
			WO 15044465	A3	2015-05-21	EP20140192514	2014-11-10	WO2015EP50647	2015-01-15
3	COMPOSITION COMPRISING A PESTICIDAL TERPENE MIXTURE AND A FUNGICIDE	Updated	WO 14020109	A1	2014-02-06	EP20120179145	2012-08-03	WO2013EP66178	2013-08-01
			AU 2013298562	AA	2014-02-06	WO2013EP66178	2013-08-01	AU20130298562	2013-08-01
			CA 2880671	AA	2015-01-30			CA20132880671	2013-08-01
			AR 091953	AA	2015-03-11			AR2013P102729	2013-08-01
			KR 20150041638	A	2015-04-16			KR20157004997	2013-08-01

# In this workshop

- How Update works in BizInt Smart Charts
- The Row Status column
- Identifying New Publications
- Update in Reference Rows

# Updating reports

- File | Update
- All charts need to be open before updating.
- The “key” chart is your baseline - your existing report, against which new data is compared
- Rows are compared when both the database and the accession number are the same.

# Updating reports

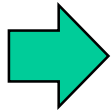
- File | Update
- Rows from the baseline are copied, in order, to the new chart
- New records added at bottom of the new chart
- Rows that have new data remain in their position from the baseline chart



# Updating reports

- Added charts in an update can be a set of new records (as in an alert, or date limited search)
- This only reports Added and Updated rows.

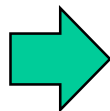
Select the operation you would like to perform:



- Update chart with partial results**  
Useful for alerts and other date limited searches.
- Update chart with a complete new set of results.**  
Flags any records from the key chart not found in updates.
- Update combined chart with new results from one database.**  
Changes update status for one database only.

# Updating reports

- Added charts can also be a complete set of data (as in exporting a workbook after new records added)
- In this case, you could use the “Update with complete set of results” option, which will report any rows which were no longer in the set.



Select the operation you would like to perform:

- Update chart with partial results**  
Useful for alerts and other date limited searches.
- Update chart with a complete new set of results.**  
Flags any records from the key chart not found in updates.
- Update combined chart with new results from one database.**  
Changes update status for one database only.

# Updating reports with multiple new sets

- Combine all new charts into one and update key chart with this new chart
- -or-
- Update key chart by adding charts from all sources
- Change detection is for the last update, so you want to do the update in one step.

# Row Status (family oriented)

- “Added” means this is a new family in this report
- “Updated” means the family was seen before but has new/changed information
- “Unchanged” means the family has not changed from the baseline
- Row Status reflects what happened to the record at that row.

# Row Status (publication level)

- “Added” means this is a new publication in this report
- “Updated” means the publication has been changed (typically added indexing)
- “Unchanged” means the publication has not changed from the baseline



# Sorting updated reports

PatBase: Natamycin_Update						
	Title	Row Status	Patent Family			Priority Dat
			Patent	Kind	Date	Number
1	PROCESSED EDIBLE PRODUCT COMPRISING A POLYELE AND AN COMPOU	Unchanged	WO 15034360	A1	2015-03-12	EP20130183018
2	SYNERGI COMPOS LACTOP					

Sort Rows

Columns:

- Abstract
- Application Date
- Application Number
- Citations
- Claims
- CPC
- Designated States
- ECLA Class
- Forward Citations
- Full Text Link
- International Patent Class
- Inventor(s)
- Inventor(s) (Non-standardized)
- Latest Legal Status
- Legal Status

Sort Order:

Row Status

Sort

Cancel

Help...

Alternate row shading when primary sort key changes

**Sort Row Status (descending) to bring new content to top, followed by changes**

# Example: Update a PatBase Search

# New Publications column

- Automatically created during update if there is a Patent Family column present.
- Lists publications found in new records but not in the “key” chart.
- Reflects publications not in the key chart during the last update operation only.

# New Publications column

- New in version 5.3

PatBase: Updated Mousetraps						
	Title	Row Status	Patent Family			New Publications
			Patent	Kind	Date	
1	Mousetrap	Updated	US 2006185223 US 7231738 AU 2005200789	A B AA	2006-08-24 2007-06-19 2006-09-07	US 7231738 B
2	Source: CN1762213A The invention provides a mouse trap without bait comprising: main ...	Unchanged	CN 1762213	A	2006-04-26	

# New Publications column

- In Added rows, all publications are “New”

PatBase: Updated Mousetraps						
	Title	Row Status	Patent Family			New Publications
			Patent	Kind	Date	
37	Falle zum Fangen von Maeusen und aehnlichen Kleintieren; Trap to catch mice and other small rodents has two housing parts one open at the top and pivotably positioned on an other open a	Added	DE 102004053106	B3	2006-03-30	DE 102004053106 B3
38	Safety disposable mouse trap	Added	US 2006064922 US 2007151140 WO 06036767 WO 06036767	A A A2 A3	2006-03-30 2007-07-05 2006-04-06 2006-09-14	US 2006064922 A US 2007151140 A WO 2006036767 A2 WO 2006036767 A3



# Summary Record export from an Update

## Updated Mousetraps

+

1. **Title:** Mousetrap

**Row Status:** Updated

**Patent Family:**

Patent	Kind	Date
<a href="#">US 2006185223</a>	A	2006-08-24
<a href="#">US 7231738</a>	B	2007-06-19
AU 2005200789	AA	2006-09-07

**New Publications:** US 7231738 B

**Patent Assignee:** RECKITT BENCKISER NV; RECKITT BENCKISER AU PTY LTD

**Inventor(s):** WATSON DUNCAN MCLEOD; WATSON DUNCAN M; RODGERS BRENDYN MURRAY; RODGERS BRENDYN M

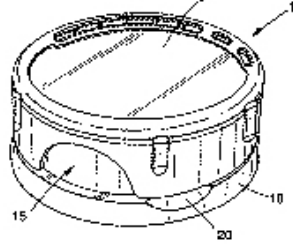
**International Patent Class:** A01M23/00; A01M23/02; A01M23/16; A01M23/00

**Abstract:** Source: US2006185223AA; With reference to a preferred embodiment as depicted in Fig. 4 the present invention provides a mousetrap comprising a first part (5) and a second part (10) that together define an enclosure wherein the first part (5) and the second part (10) are operably connected to a first biasing means (60). [CONT.]

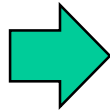

**Image:**

Parent Application Publication: App. 24,289; Sheet 1 of 2 15-2006-0185223 A1

**Fig. 1.**



**Fig. 2.**



# Multiple records per family

- Reports combining results from several family-oriented databases  
e.g. Orbit and CAplus
- Reports built from publication level databases  
e.g. Derwent Innovation
- Reports with a mix of family and publication level databases  
e.g. CAplus, USFULL, EPFULL, PCTFULL

# Introducing Reference Rows

- One or more record in each family
- Records grouped based on “Common Family”
- Selection for each field is based on rules
- Special rules for the Row Status and New Publications columns

# Tools | Identify Common Patent Family

Database	Common Family	Patent Family		
		Patent	Kind	Date
Derwent World Patents Index	US 2014356956	US20140356959	A1	20141204
Derwent World Patents Index	US 2014356956	US20140356956	A1	20141204
		WO2014197568	A2	20141211
		WO2014197568	A3	20150312
		CA2914638	A1	20141211
FAMPAT	US 2014356956	US 2014356956	A1	2014-12-04
		US 2014356959	A1	2014-12-04
		US 9287133	B2	2016-02-23
GQPAT Gold+ Proteins	US 2014356956	US20140356959		20141204
GQPAT Gold+ Proteins	US 2014356956	US20140356956		20141204
PatBase	US 2014356956	US 2014356959	A	2014-12-04
		US 2014356956	A	2014-12-04
		AU 2014274939	AA	2014-12-11
		WO 14197568	A2	2014-12-11
		WO 14197568	A3	2015-03-12
		CA 2914638	AA	2015-12-04
		KR 20160014036	A	2016-02-05

# Row Status in Reference Rows

- “Added” means this **group** of related records (family) is new in this report
- “Updated” means the baseline had the family before, but has new/changed information, possibly from added records
- “Unchanged” means the family has not changed from the baseline
- Row Status reflects what happened to the family at that row.



# New Publications in Reference Rows

- A new publication in one record might already have been present in another record for the same family.
- Reference Rows attempts to detect publications which are truly new for all the records grouped by Common Family
- **New Publications shows publications which are new in the group during the most recent update.**

# Use Case: Orbit + PatBase

	Title	Database	Row Status	Patent Family			New Publications
				Patent	Kind	Date	
5 .1	Fermented fruit solutions for cleaning compositions ✓	FAMPAT	Unchanged ✓	WO 201540442	A1	2015-03-26	
				WO 201540506	A1	2015-03-26	
				WO 201540444	A1	2015-03-26	
5 .2	SOFTENING COMPOSITIONS INCLUDING FERMENTED FRUIT SOLUTIONS AND METHODS FOR MAKING AND USING THE SAME	PatBase	Added	WO 15040506	A1	2015-03-26 ✓	WO 2015040506 A1 ##
				WO 15040445	A1	2015-03-26	WO 2015040445 A1
				WO 15040444	A1	2015-03-26	WO 2015040444 A1
				WO 15040442	A1	2015-03-26	WO 2015040442 A1
6 .1	Processed edible product comprising a polyelectrolyte complex and an antimicrobial compound ✓	FAMPAT	Unchanged ✓	WO 201534360	A1	2015-03-12 ✓	
6 .2	PROCESSED EDIBLE PRODUCT COMPRISING A POLYELECTROLYTE COMPLEX AND AN ANTIMICROBIAL COMPOUND	PatBase	Added	WO 15034360	A1	2015-03-12	WO 2015034360 A1 ##

- Update an old report from one database with equivalent search from a new system

# Use Case: Orbit + PatBase

	Title	Database	Row Status	Patent Family			New Publications
				Patent	Kind	Date	
6 .1	Processed edible product comprising a polyelectrolyte complex and an antimicrobial compound ✓	FAMPAT	Unchanged ✓	WO 201534360	A1	2015-03-12 ✓	
6 .2	PROCESSED EDIBLE PRODUCT COMPRISING A POLYELECTROLYTE COMPLEX AND AN ANTIMICROBIAL COMPOUND	PatBase	Added	WO 15034360	A1	2015-03-12	WO 2015034360 A1 #

- ‘360 application is in our original Orbit record
- Marked as “New” in PatBase record

# Use Case: Orbit + PatBase

6.	Processed edible product comprising a polyelectrolyte complex and an antimicrobial compound	WO 201534360	6.1 FAMPAT   <a href="#">link</a> 6.2 Patbase   <a href="#">link</a>	Updated	WO 201534360	A1	2015-03-12	6.1 FAMPAT	6.1 FAMPAT
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- Group identified as “Updated”, indicating that we’ve seen the family before but there are possible changes
- Combined result shows no new publications

# Use Case: Orbit + PatBase

	Title	Database	Row Status	Patent Family			New Publications
				Patent	Kind	Date	
5 .1	Fermented fruit solutions for cleaning compositions ✓	FAMPAT	Unchanged ✓	WO 201540442	A1	2015-03-26	
				WO 201540506	A1	2015-03-26	
				WO 201540444	A1	2015-03-26	
5 .2	SOFTENING COMPOSITIONS INCLUDING FERMENTED FRUIT SOLUTIONS AND METHODS FOR MAKING AND USING THE SAME	PatBase	Added	WO 15040506	A1	2015-03-26 ✓	WO 2015040506 A1 #
				WO 15040445	A1	2015-03-26	WO 2015040445 A1
				WO 15040444	A1	2015-03-26	WO 2015040444 A1
				WO 15040442	A1	2015-03-26	WO 2015040442 A1

- PatBase record shows four “new” publications
- Original Orbit record had three of these



# Use Case: Orbit + PatBase

5.	Fermented fruit solutions for cleaning compositions	WO 201540442	5.1 FAMPAT   <a href="#">link</a>	Updated	WO 201540442	A1	2015-03-26	WO 2015040445 A1
			5.2 Patbase   <a href="#">link</a>		WO 201540506	A1	2015-03-26	
					WO 201540444	A1	2015-03-26	

5.1 FAMPAT

5.1 FAMPAT

- Only the '445 application, which was only present in the new PatBase record, is listed as a New Publication

# Sorting Row Status in Reference Rows

- In Reference Rows, the sort is performed on the results of the Reference Rows rule
- New families (“Added”) appear at top
- Then changes (“Updated”)
- Followed by unchanged rows
- Remember - sort in Descending order

# Use Case: Derwent Innovation

- Each record represents a publication
- Publications might include related Derwent family data
- As new publications are published, your search results might include new publications from families you've already seen

# Example: Update on Derwent Innovation

# Use Case: Derwent Innovation

- Row status rolls up individual publication status to a family level

	Title	Common Family	Row Status	Database	Row Status Summary		
					Basic Patent Number	Row Status	
1.	Agricultural product used for e.g. controlling plant disease and treating fungal diseases caused by fungi such as Fusarium semitectum comprises polyene antifungal compound and antifungal compound from family of strobilurin fungicides	EP 2680698	Updated	1.1 DWPI   <a href="#">link</a>	WO 2012117049 A1	Unchanged	1.1
				1.2 Innov   <a href="#">link</a>	US 9034792 B2	Updated	1.2
				1.3 Innov   <a href="#">link</a>	EP 2680698 B1	Updated	1.3
				1.4 Innov   <a href="#">link</a>	EP 2680698 A1	Updated	1.4
				1.5 Innov   <a href="#">link</a>	WO 2012117049 A1	Updated	1.5
				1.1 DWPI			
2.	Treating/preventing occurrence/recurrence of Clostridium difficile infection by administering composition comprising two purified bacterial populations comprising bacteria having 16S ribosomal RNA sequence identical to reference bacterium	US 20140147425	Updated	2.1 DWPI   <a href="#">link</a>	US 20140199281 A1	Unchanged	2.1
				2.2 DWPI   <a href="#">link</a>	US 20140147425 A1	Updated	2.2
				2.3 DWPI   <a href="#">link</a>	US 20150190435 A1	Added	2.3
				2.4 Innov   <a href="#">link</a>	US 9028841 B2	Updated	2.4
				2.5 Innov   <a href="#">link</a>	US 8906668 B2	Updated	2.5
				2.6 Innov   <a href="#">link</a>	US 20140147425 A1	Updated	2.6
				2.7 Innov   <a href="#">link</a>	US 9533014 B2	Added	2.7
2.1 DWPI							

# Use Case: Derwent Innovation

- New Publications limited to publications not previously listed in a record for that family

	Title	Common Family	Row Status	Database	Patent Family			New Publications
					Patent	Kind	Date	
1.	Agricultural product used for e.g. controlling plant disease and treating fungal diseases caused by fungi such as <i>Fusarium semitectum</i> comprises polyene antifungal compound and antifungal compound from family of strobilurin fungicides	EP 2680698	Updated	1.1 DWPI   <a href="#">link</a>	WO 2012117049	A1	2012-09-07	
				1.2 Innov   <a href="#">link</a>	US 20130324402	A1	2013-12-05	
				1.3 Innov   <a href="#">link</a>	EP 2680698	A1	2014-01-08	
				1.4 Innov   <a href="#">link</a>	CN 103402360	A	2013-11-20	
				1.5 Innov   <a href="#">link</a>	EP 2680698	B1	2015-01-28	
					US 9034792	B2	2015-05-19	
				1.1 DWPI	1.1 DWPI			
2.	Treating/preventing occurrence/recurrence of <i>Clostridium difficile</i> infection by administering composition comprising two purified bacterial populations comprising bacteria having 16S ribosomal RNA sequence identical to reference bacterium	US 20140147425	Updated	2.1 DWPI   <a href="#">link</a>	US 9028841	B2	2015-05-12	CA 2892297 A1 AU 2013347805 A1 SG 11201503966 A1 CN 104955466 A EP 2953472 A1 KR 2015108357 A JP 2015537042 A MX 2015006491 A IN 201503613 NZ 709392 A EP 2953472 A4 HK 1218836 A0 US 2015190435 A1 US 9533014 B2 HK 1218836 A1 IL 238973 RU 2015124366 A
				2.2 DWPI   <a href="#">link</a>	AU 2013347805	A1	2015-07-09	
				2.3 DWPI   <a href="#">link</a>	CA 2892297	A1	2014-05-30	
				2.4 Innov   <a href="#">link</a>	CN 104955466	A	2015-09-30	
				2.5 Innov   <a href="#">link</a>	EP 2953472	A1	2015-12-16	
				2.6 Innov   <a href="#">link</a>	EP 2953472	A4	2017-03-01	
				2.7 Innov   <a href="#">link</a>	HK 1218836	A1	2017-03-17	
					IL 238973	D0	2015-07-30	
					JP 2015537042	A	2015-12-24	
					KR 2015108357	A	2015-09-25	
					MX 2015006491	A	2015-12-03	
					NZ 709392	A	2016-10-28	
					RU 2015124366	A	2017-01-10	
					SG 11201503966	A1	2015-06-29	
	US 20140147425	A1	2014-05-29					
	US 20140199281	A1	2014-07-17					
	US 20150190435	A1	2015-07-09					
	US 8906668	B2	2014-12-09					
	US 9533014	B2	2017-01-03					
	US 20140199281	A1	2014-07-17					





**Thank you...**  
**Questions???**