

# STN<sup>®</sup>

THE CHOICE OF PATENT EXPERTS<sup>™</sup>



The concept of  
the new STN platform

Jan Baur, ICIC 2013



## Agenda

- System architecture
- Project-oriented workflow
- Command line searching with intuitive user interaction
- “No limits” search architecture and high performance

## Rebuilding of the STN architecture is important to meet the current and future needs of STN users

- STN is revitalizing its platform to address changing technology and customer needs
  - Deliver new functionality and content requested by customers
  - Help users harness the growing volume of available information
  - Provide innovative information delivery workflows
- STN is focused on retaining what customers expect
  - Precision and comprehensiveness
  - Expert level control
  - Premium, value-added content
  - Excellent customer support

# STN is being redesigned from the ground up to accomplish these goals

	1984 →		2012 →
	<b>Classic STN</b>		<b>New STN</b>
 Interface	Desktop client	→	Web-based
 Processing	Serial	→	Parallel
 Analysis	On-the-fly	→	Pre-compilation
 Workflow	Sequential	→	Integrated

## New STN is project oriented to provide workflow continuity

- Users real work is centered around projects
  - Queries, search results and history stored in a project
  - Searches are reusable and expandable
  - New project can be opened from existing query
- Housekeeping is done automatically
  - Project elements are saved on the fly and indefinitely, e.g. text or structure queries, current results, settings, etc.

<https://www.stn.org/stn>

Version One

STN<sup>®</sup>

THE CHOICE OF PATENT EXPERTS<sup>™</sup>

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### About STN

The new STN platform is being developed in versions. Version One focuses on the core search and retrieval functionality and most essential content, combining the complete CAS Registry and Chemical Abstracts content along with Thomson Reuters' Derwent World Patents Index.

The first version is recommended for preliminary searches in the following areas:

- Chemistry and general technology research
- Intellectual property, such as basic novelty and prior art
- Due diligence
- First pass Freedom to Operate

# Landing page gives project overview

STN® Projects

Welcome, Jan Baur Settings STN Help Contact Us Sign Out

Projects +

1-25 of 44 page 1 of 2

Welcome to STN!

Projects +

Name	Modified	Created	L#	Count	Saved
<a href="#">Al Dehydrogen...</a>	10-SEP-2013	09-SEP-2013		2	0
<a href="#">All C containing</a>	29-AUG-2013	29-AUG-2013		1	0
<a href="#">test dwpi</a>	22-JUL-2013	22-JUL-2013		10	0
<a href="#">orientation ver...</a>	18-JUN-2013	18-JUN-2013		12	0
<a href="#">test</a>	13-MAI-2013	13-MAI-2013		1	1
<a href="#">wb, chapt 1</a>	12-MAI-2013	10-MAI-2013		9	3
<a href="#">(s), (p)</a>	12-MAI-2013	23-APR-2013		18	0
<a href="#">numbers</a>	12-MAI-2013	16-JAN-2013		42	2
<a href="#">(u), (d)</a>	12-MAI-2013	11-JAN-2013		11	0
<a href="#">DCR 6+</a>	09-JAN-2013	08-JAN-2013		46	0

Submit an enhancement suggestion or provide feedback via [Contact Us](#).

developed in versions.  
 Search and retrieval  
 content, combining the  
 ical Abstracts content  
 event World Patents

for preliminary searches

ology research  
 basic novelty and prior art

## unities

en completely redesigned  
 and increase efficiency.  
 have been created to help  
 us and feel, and transition  
 new STN platform. Training

on demand, Help provides  
 client details, and is  
 desired.  
 and recorded sessions are  
 ing your skills to the new  
 st with a one-hour  
 session available on-  
 access to all new STN  
 One.

## Feedback?

Submit an enhancement suggestion or provide feedback via [Contact Us](#).

## Combining the command line and GUI enhances the usability

- See 3 things at a time: query, results, history
- Information Professionals need to have a command line
  - New STN is first of all aimed at information professionals
  - Command line and retrieval language retained
  - Harmonization of retrieval language across databases
- Graphical user interface flattens the STN learning curve
  - But Shortcuts still need to be there for keyboarders
  - Filters allow for a quick analysis of results
  - Integrated HELP facilitates on-the-fly user support



# Query, history and results are visible at the same time

The screenshot displays the STN software interface. At the top, the STN logo is on the left, and navigation links for 'Projects', 'Working On - Untitled2', 'Welcome, Jan Baur', 'Layout', 'Settings', 'STN Help', 'Contact Us', and 'Sign Out' are on the right. Below the navigation bar, there are two main panels. The left panel is divided into three sections: a 'Query Builder panel' at the top, a 'Submit' button, and a 'History panel' at the bottom. The right panel is labeled 'RESULTS' and contains a 'Results panel'. The interface also shows a 'Select Databases' button and a 'COUNTS' button.

STN® Projects Working On – Untitled2

Welcome, Jan Baur Layout Settings STN Help Contact Us Sign Out

Select Databases

COUNTS RESULTS

Query Builder panel

Submit

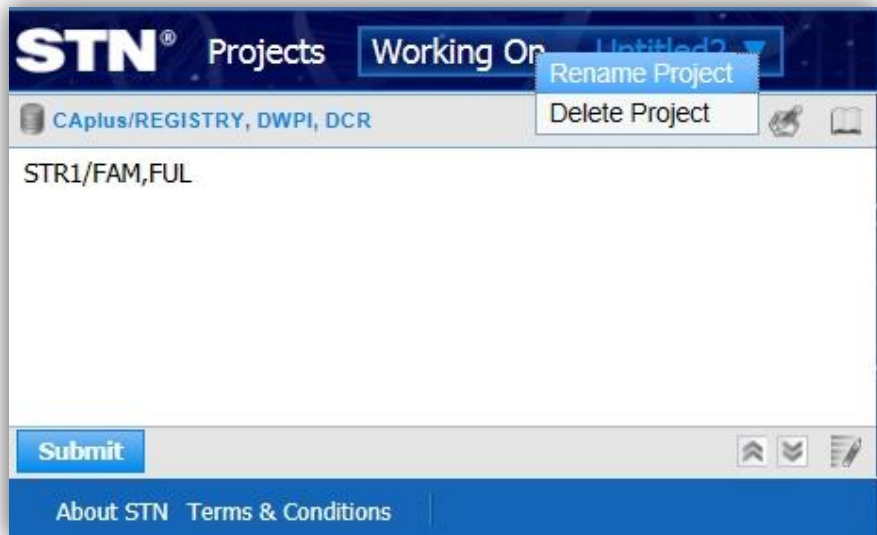
QUERIES (0) STRUCTURES (0) SAVED (0)

Expand All Collapse All

History panel

Results panel

## Query and History panel



- Query builder panel
  - Enter query
  - Open databases
  - Open structure editor
  - Open term explorer

The screenshot shows the STN interface with a history panel. The top bar includes 'QUERIES (3)', 'STRUCTURES (1)', and 'SAVED (1)'. Below this, there are links for 'Expand All' and 'Collapse All'. The main area contains a table with two sections: 'L1 Coprine/CN' and 'L2 REFX (L1)'. Each section lists databases and their corresponding counts.

Section	Database	Count
L1 Coprine/CN CAPLUS/REGISTRY, DWPI, DCR	CAPLUS	
	REGISTRY	1
	DWPI	
	DCR	1
L2 REFX (L1) CAPLUS/REGISTRY, DWPI, DCR	CAPLUS	31
	REGISTRY	
	DWPI	5
	DCR	

- History panel
  - Condensed search protocol
  - Tabs: queries, structures and saved answers

# Results panel

- Overview retained by document preview
  - Full record on request
- COUNTS show postings if required
- Filters auto-analyze answer sets
  - One-click user refinement
  - Create separate answer sets if desired
- SORT on the fly

The screenshot shows the STN database interface. At the top, there are tabs for 'COUNTS' and 'RESULTS'. Below that, a filter bar shows 'CAPLUS (31)' and 'REGISTRY'. A 'Filters' dropdown is open, showing a list of sorting options: 'Accession Number', 'Publication Year', 'Priority Year, Basic', 'Application Year, Basic', 'Patent Country, Basic', 'Priority Application Country, Basic', 'Application Country, Basic', 'Country of Author', and 'Patent Kind Code, Basic'. The 'Priority Year, Basic' option is selected. Below the filter bar, there is a list of results. The first result is '25191-16-6, Polyglucose' with a description: 'Biological Study (BIOL) Pharmacological Activity (PAC) (1,3-β-D-Oligoglucan; chem.-chem. interaction was useful in predicting biol. functions of compds.)'. The second result is '37361-00-5, 1,6-β-D-Glucan' with a description: 'Biological Study (BIOL) Pharmacological Activity (PAC)'. A note at the bottom states: 'Only the first 5000 index entries are displayed.'

# System limits do not influence query building

The screenshot shows a search interface for 'Cetirizine'. The search query is displayed as a long string of terms: (\*CETIRIZINE\* OR ALERCET OR ALERID OR ALERLISIN OR CESTA OR CETIRIZ OR CETRAK OR CETRINE OR CETRIZET OR CISTAMINE OR EPIRIZINE OR FORMISTIN OR HISTAZINE\* OR LEVOCETIRIZINE\* OR NOSEMIN OR P071 OR P(W)071 OR REACTINE OR RIZTEC OR RYZEN OR SANCOTEC OR SELITEX OR TOMAZINE OR TRIZ OR UCB28556 OR UCB(W)28556 OR UCB(W)P071 OR UCB(W)P(W)071 OR VIRLIX OR XUSAL OR XYZAL OR XYZALL OR ZERAN OR ZIRTEC OR ZIRTEK OR ZIRTEK OR ZIRTIN OR ZYRLEX OR ZYRTEC OR ZYRZINE OR 130018-76-7 OR 130018-77-8 OR 130018-82-5 OR 130018-86-9 OR 130018-87-0 OR 163837-48-7 OR 246870-46-2 OR 744169-44-6 OR 773815-45-5 OR 83881-51-0 OR 83881-52-1 OR 869359-93-3 OR CIRBUS OR SM12800 OR SM(W)12800 OR ZYNOR OR ZYRTECCIN)/BI. A chemical structure of Cetirizine is overlaid on the query text. A red box highlights the query text, with a label 'Documents indexed with RNs from structure search' pointing to it. Another red box highlights the text 'Keyword terms for Cetirizine' pointing to the same query text. Below the query, a 'Submit' button is visible. The search results are displayed in a table with columns for document ID, title, and score. The first result is '2. Journal 2013 High refringence liquid crystals' with a score of 4.029. The second result is '6. Journal Temperature and pH dual-responsive POEGMA-based coatings for protein adsorption' with a score of 4.029. The chemical structure of Cetirizine is shown as a 2D ball-and-stick model.

Caplus/REGISTRY, DWPI

Cetirizine

(\*CETIRIZINE\* OR ALERCET OR ALERID OR ALERLISIN OR CESTA OR CETIRIZ OR CETRAK OR CETRINE OR CETRIZET OR CISTAMINE OR EPIRIZINE OR FORMISTIN OR HISTAZINE\* OR LEVOCETIRIZINE\* OR NOSEMIN OR P071 OR P(W)071 OR REACTINE OR RIZTEC OR RYZEN OR SANCOTEC OR SELITEX OR TOMAZINE OR TRIZ OR UCB28556 OR UCB(W)28556 OR UCB(W)P071 OR UCB(W)P(W)071 OR VIRLIX OR XUSAL OR XYZAL OR XYZALL OR ZERAN OR ZIRTEC OR ZIRTEK OR ZIRTEK OR ZIRTIN OR ZYRLEX OR ZYRTEC OR ZYRZINE OR 130018-76-7 OR 130018-77-8 OR 130018-82-5 OR 130018-86-9 OR 130018-87-0 OR 163837-48-7 OR 246870-46-2 OR 744169-44-6 OR 773815-45-5 OR 83881-51-0 OR 83881-52-1 OR 869359-93-3 OR CIRBUS OR SM12800 OR SM(W)12800 OR ZYNOR OR ZYRTECCIN)/BI

Documents indexed with RNs from structure search

Submit

Keyword terms for Cetirizine

2. Journal 2013 High refringence liquid crystals

Document ID	Title	Score
L11	REFX(STR3/FAM,FUL) OR (*CETIRIZINE* OR ALERCET OR ALERID OR ALERLISIN OR CESTA OR CETIRIZ OR CETRAK OR CETRINE OR CETRIZET OR CISTAMINE OR EPIRIZINE OR FORMISTIN OR HISTAZINE* OR LEVOCETIRIZINE* OR NOSEMIN OR P071 OR P(W)071 OR REACTINE OR RIZTEC OR RYZEN OR SANCOTEC OR SELITEX OR TOMAZINE OR TRIZ OR UCB28556 OR UCB(W)28556 OR UCB(W)P071 OR UCB(W)P(W)071 OR VIRLIX OR XUSAL OR XYZAL OR XYZALL OR ZERAN OR ZIRTEC OR ZIRTEK OR ZIRTIN OR ZYRLEX OR ZYRTEC OR ZYRZINE OR 130018-76-7 OR 130018-77-8 OR 130018-82-5 OR 130018-86-9 OR 130018-87-0 OR 163837-48-7 OR 246870-46-2 OR 744169-44-6 OR 773815-45-5 OR 83881-51-0 OR 83881-52-1 OR 869359-93-3 OR CIRBUS OR SM12800 OR SM(W)12800 OR ZYNOR OR ZYRTECCIN)/BI	4.029

6. Journal Temperature and pH dual-responsive POEGMA-based coatings for protein adsorption  
Poly(oligo(ethylene glycol)ethyl ether methacrylate (POEGMA246) coatings were successfully fabricated using novel approach via polymn. from oligoperoxide grafted to premodified glass substrate.Wettability, ...

- Powerful chemical structure searches
- Substructure highlighting available
- Truncation extended
- Line limits erased
- Combined structure and text queries

## New approaches to search strategies due to lifted system limits

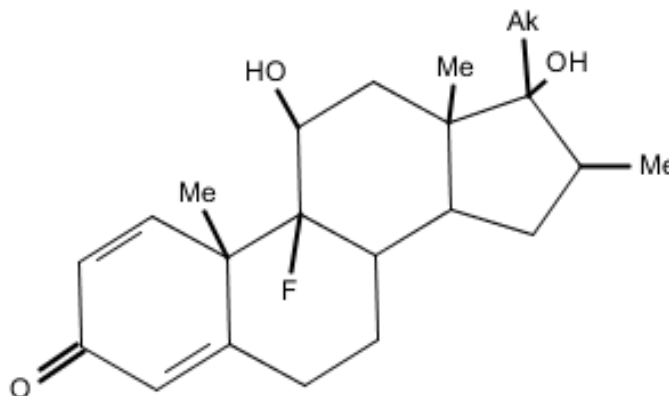
**Example:** Use of polymers with the given general structure in controlled-release of compounds exhibiting anti-inflammatory activity.

Substance classes

Structure search

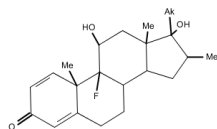
Classification search

Controlled vocabulary



# Substances can be searched with the help of CAPLUS and DWPI indexing

All polymers  
Polymer class terms  
Derwent Classes



Controlled release drug delivery  
+  
Anti-inflammatory drugs

View: Full 1 of 3,394,506

1. Herbicidal composition used for preventing and killing weeds in wheat field, comprises 2-methyl-4-chlorophenoxyacetic acid and 3,6-dichloro-2-methoxybenzoic acid

**Invention** Individual Patent Publication Information

**Invention**

▶ Title Extensions

▼ Document Identification

**Accession Number** 2013-M96758 [201358]

**Entry Date** 20130911

**Derwent Class** A97, C03

▼ Bibliography

**Inventor(s)** CHEN Q; GUO T; HOU Y; LI Z; LIU Q; LIU Y; SHEN J; SONG J; SUN G; WU Y; XU L; YUAN L

**Assignee(s)** (SHAN-N) SHANDONG WEIFANG RAINBOW CHEM CO LTD

**Country Count** 1

▼ Patent Information

Patent Number	Patent Kind	Date	Update	Type	Lang	Pages	Drawings
CN102715157	A	20121010	201358	*	zh	12	0

Diethylene glycol bis(allyl carbonate) polymer (0)

Dowex 50W-X8 (0)

Ethylene-ethylidenebornene-propylene copol

Ethylene-maleic anhydride copolymer (0)

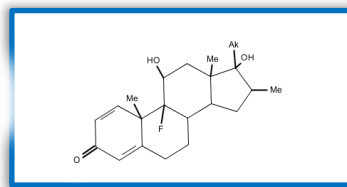
Ethylene-vinyl acetate copolymer (0)

**Apply to Query**

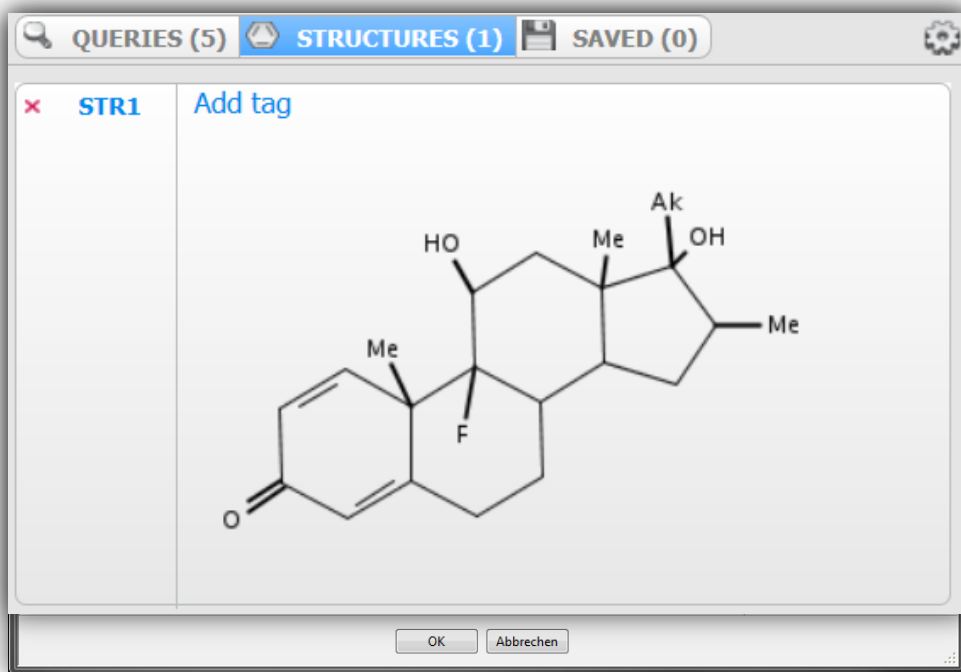
- Search for Polymers in REGISTRY
- Obtain bibliographic results in CAPLUS
- Explore terms of the CT thesaurus
- Combine REGISTRY and CAPLUS hits
- Use DWPI coding to retrieve Polymers

# Structure can be searched simultaneously in DCR and REGISTRY

**All polymers**  
Polymer class terms  
Derwent Classes



Controlled release drug delivery  
+  
Anti-inflammatory drugs



QUERIES (5) STRUCTURES (1) SAVED (0)

× STR1 Add tag

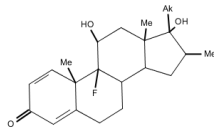
Chemical structure of a complex steroid-like molecule with multiple rings, hydroxyl groups, methyl groups, and a fluorine atom.

OK Abbrechen

- Draw Structure in the intuitive Editor
- Tag structure to keep an overview
- Structure and bib searching in one step
- Combine search results

# Classifications and thesauri more easily accessible

**All polymers**  
Polymer class terms  
Derwent Classes



Controlled release drug delivery  
+  
Anti-inflammatory drugs

CAplus/REGISTRY, DWPI, DCR

A61K/IPC, CPC, FCL OR ((DRUG(3A)DELIV\* OR PHARMACEUT\*) AND (ONTROL\* OR SUSTAIN\* OR SLOW OR TIME\*)(3A)RELEAS\*)

Submit

Enteric-coated drug delivery systems (2624)

CAplus/REGISTRY, DWPI, DCR

(ANTIINFLAMM\* OR ANTI(W)INFLAMM\*) (2A) (DRUG OR AGENT OR SUBSTANCE) OR (INFLAMM\* (2A) INHIBIT\*) OR (ARTHRITIS OR BRONCHITIS OR DERMATITIS) (U) INHIBIT\*)

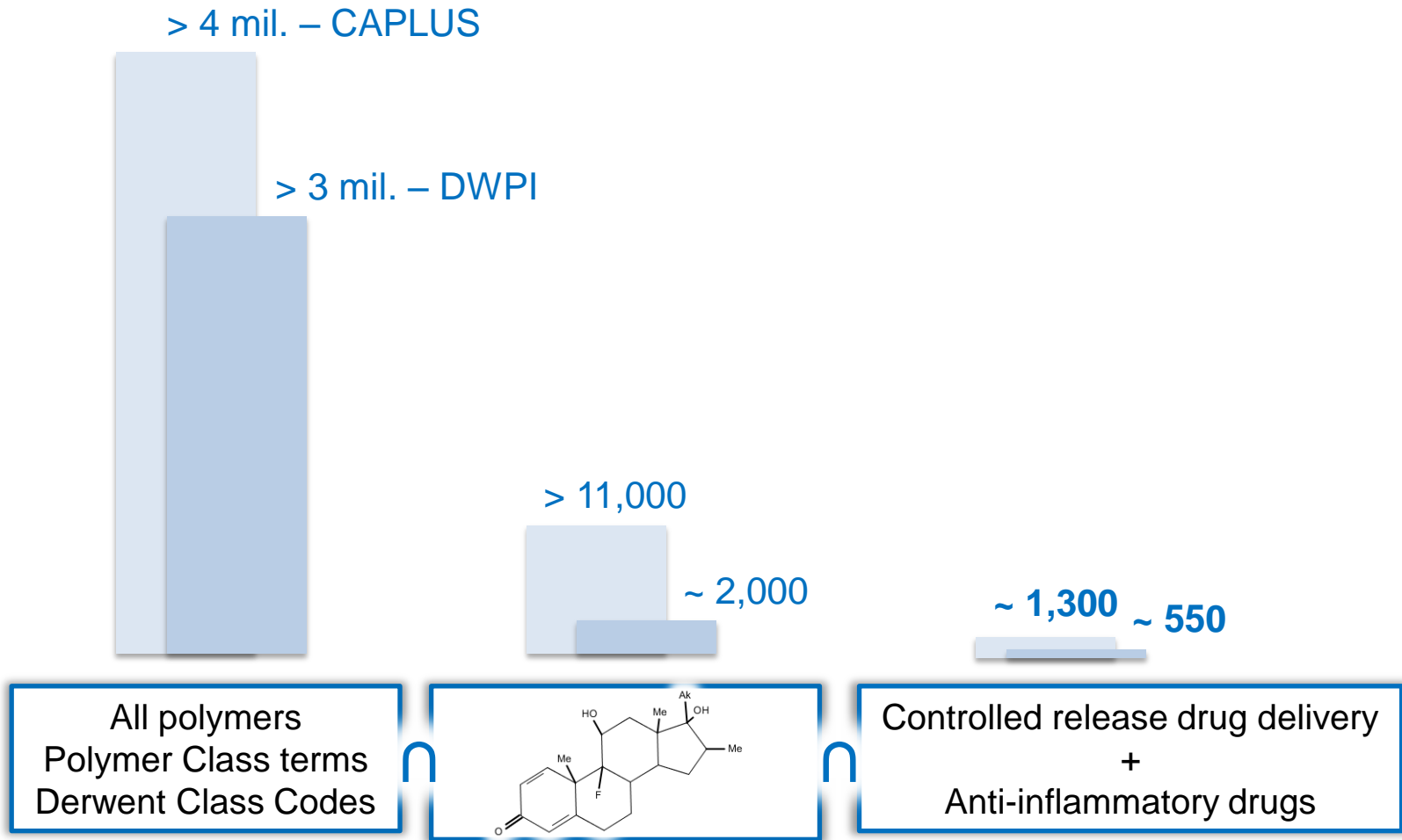
Submit

- Term explorer: controlled vocabulary
- Create Query based on CAPLUS CT and add patent and proprietary classifications
- Combine previous answer sets with controlled release drug delivery + anti-inflammatory

Final results in CAPLUS and DWPI



# Less system limits allow for starting broad



## Outlook: Next items in the development pipeline

- Patent full-text databases and the bibliographic part of INPADOC
- Patent family sort and display across multiple sources
- Create and manage term-lists from results to use them across multiple databases
- Manage update results
- Enhanced attribute panel in structure editor



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**Thank you for your attention.**

For more information ...

CAS

[help@cas.org](mailto:help@cas.org)

Support and Training:

[www.cas.org](http://www.cas.org)

FIZ Karlsruhe

[helpdesk@fiz-karlsruhe.de](mailto:helpdesk@fiz-karlsruhe.de)

Support and Training:

[www.stn-international.de](http://www.stn-international.de)