
DERWENT
WORLD PATENTS INDEX®

Questel.Orbit online user guide

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1 Introduction

For over fifty years, Thomson Scientific, the world's leading patent information publisher, has been foremost in providing scientific and technical intelligence to business, industry, government and research institutes throughout the world.

Derwent World Patents Index[®] gives you the chance to keep abreast of technological advances by offering you access to thousands of patent documents - issued each week from all over the world in numerous languages - in one database, in one language. Studies have shown that over 70% of the information contained within patents is never published anywhere else, so patents provide a unique source of information on new technology.

Questel.Orbit is an online information service providing access to a wide range of scientific and technical databases, among others *Derwent World Patents Index*, *Derwent World Patents Index Member View*, and *Derwent World Patents Index First View*SM. Questel.Orbit is accessed via the internet or using a communication software package such as Questel.Orbit's own Imagination software.

This User Guide describes the content, coverage and search capabilities of *Derwent World Patents Index* as it is implemented on Questel.Orbit[®]. Following detailed information on database content, separate chapters detail each of the search and display fields available.

For further information concerning *Derwent World Patents Index* and other information services offered by Thomson Scientific, please contact your local office.

2 Customer Service Information

2.1 Customer Technical Support

Expert advice and support is available via our Customer Technical Support staff, to provide a fast and efficient response to all your enquiries. Our experienced Technical Support staff has an in-depth knowledge of the products and services offered by Thomson Scientific and are familiar with the various command languages.

From general customer queries through to technical questions, the Technical Support department is there to help you.

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Your message will automatically be directed to your nearest Support Center

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Customer Support Center

Optimize your use of Thomson Scientific products and services. In our comprehensive Support Center you are just a click away from the reference materials you need.

scientific.thomson.com/support

2.2 Questel.Orbit Addresses

France

Questel.Orbit
4, rue des Colonnes
75082 Paris Cedex 02
France

Tel: +33 (0)1 55 04 52 00
Fax: +33 (0)1 55 04 52 01
Email: clients@questel.fr

<http://www.questel.orbit.com/en/index.htm>

USA

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USA

Tel: +1 703 519 1820
Toll Free: +1 (800) 456 7248
Fax: +1 703 519 1821
Email: help@questel.orbit.com

<http://www.questel.orbit.com/en/index.htm>

2.3 Other Sources of Help and Information

User Guides

To help you search *Derwent World Patents Index* database more effectively, Thomson Scientific provides a comprehensive range of User Guides, all written by specialists in their field. The User Guides listed below include topics relevant to searching the database. The majority of these are available as PDF files on the web site at

scientific.thomson.com/support/userguides

User Guide

Global Patent Sources
Guide to Patent Expiries
Title Terms
Patentee Codes
CPI Manual Codes
EPI Manual Codes
CPI Chemical Indexing User Guide
CPI Chemical Indexing Guidelines
CPI Chemical Code Dictionary
CPI Plasdac Coding Systems
Polymer Indexing Dictionary
Polymer Indexing Reference Manual
Polymer Indexing System Description
Polymer Indexing Thesaurus
Polymer Indexing Hierarchy

Online Sources

Questel.Orbit provides the following source of online help for *Derwent World Patents Index*:

Help	Description
Fact Sheets	Available on the web at http://www.questel.orbit.com/en/customersupport/docindex.htm

Thomson Scientific Web Site

The Thomson Scientific web site (scientific.thomson.com) provides comprehensive reference material for patent information searchers, and is updated daily with product and patent news. The site includes searchable databases for the Patentee and Manual codes, and hundreds of downloadable product samples and user guides. You can also reserve your place on our product training classes, check dispatch details for our printed and CD-ROM products, and monitor country coverage and latest update information for Derwent World Patents Index. Visitors can also sign up to receive a monthly email which highlights new additions to the site.

For the most up-to-date versions of all our available user guides, go to scientific.thomson.com/support/userguides

2.4 Customer Training

Thomson Scientific provides a selection of face-to-face and web-based training for both novice and advanced users of our databases. Our expert trainers can help you get more from your information resources

2.5 Patents Copy and Translation Service

Having completed your search you can order quality copies of patent documents issued around the globe. As holders of the world's largest private collection of international patents, Thomson Scientific provides a fast and efficient service. In addition, through a global network of contacts, Thomson Scientific regularly locates and supplies old and unusual patents.

When you need a patent to be translated into your preferred language, Thomson Scientific provides a full range of services for the IP and legal user.

To make use of these services, simply contact Thomson Scientific Global Document Services.

Thomson Scientific
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United Kingdom

Phone: +44 (0)20 7433 4433
Fax: +44 (0)20 7433 4401
Email: ts.globaldocservices@thomson.com
scientific.thomson.com/products/patenttranslations

2.6 Thomson Scientific Search Services

Our expert searchers have extensive experience in extracting key information from the world's information databases. They possess the skills and know-how to quickly and effectively search

multiple databases to find precisely what you need. Whether examining our unrivalled, global patent database - *Derwent World Patents Index*[®] (DWPI), using our proprietary indexing, or other relevant information rich databases, our searchers are dedicated to providing you with complete and accurate results.

Our Search Services is completely tailored to your specific search needs. Our experts will work with you continuously, making sure they look for and uncover the exact data you require. This partnership, along with our searcher's extensive searching expertise, is what makes Thomson Scientific Search Services the pre-eminent source for research assistance.

Thomson Scientific understands that you want research information fast and in a format that best suits your needs. This is why we deliver your precise search results in print, by fax, or via email in three days or less (depending on search complexity). You decide how and when you want your information, and we'll deliver it. It's that simple.

Rely on our global search expertise for:

ˆ	Patentability/Novelty	ˆ	State-of-the-art
ˆ	Validity/Infringement	ˆ	Patent assignee
ˆ	Patent citation	ˆ	Current awareness
ˆ	Post-Issue actions	ˆ	Competitive intelligence
ˆ	Patent family/English language equivalents		

Thomson Scientific Search Services covers these industries:

ˆ	Pharmaceutical	ˆ	Polymer
ˆ	Chemical	ˆ	Biotechnology
ˆ	Electrical	ˆ	Engineering

For further information on this important Thomson Scientific service, or to request a search or quotation please contact:

Thomson Scientific

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Alexandria, VA 22314
USA

Tel: +1 703 521 1010
+1 800 223 9697
Fax: +1 703 486 0030
E-mail: ts.searchservices@thomson.com
scientific.thomson.com/searchservices

3 Content and Coverage of the Database

Derwent World Patents Index provides access to information from more than 30 million patents, giving details of over 14 million inventions. Each week data is added from more than 20,000 documents from 41 patent-issuing authorities, including the European Patent Office and the World Intellectual Property Organization. Technology Disclosures and Research Disclosures (© Kenneth Mason Publications Limited [2006] (www.researchdisclosure.com)) are also included.

Each record describes a patent family, starting with the new invention (Basic Patent) and adding information about the same invention issued in other countries (Equivalent Patents). The records contain bibliographic data, titles, abstracts, general indexing and, where appropriate, in-depth chemical and polymer indexing assigned by Thomson Scientific. Additionally, electrical and engineering drawings are present in records dating back to 1988, and chemical structure drawings are present in records dating back to 1992.

Each week Thomson Scientific checks the specifications issued to determine whether the inventions described in them are new to Thomson Scientific. If the document relates to an entirely new invention not previously seen by Thomson Scientific, the document is designated as being 'Basic', and a new record is created in *Derwent World Patents Index*. If the document covers the same invention as a Basic that has already been published in another country and has been entered into *Derwent World Patents Index*, the document is designated as being 'Equivalent'. The corresponding Basic record is updated with additional information from the Equivalent document. Together, the Basic and the Equivalent patents form a 'Patent Family' where available.

Two levels of data are available within *Derwent World Patents Index* on Questel.Orbit. The *DWPI* database comprises the 'Patent Family' information such as bibliographic data, value-add title and abstracts and general indexing and, where appropriate, in-depth indexing. The *DWPI* Member View (*DWPIMV*) database allows users to search and display the original source data for each patent family member, where available. Coverage varies by country and may include additional bibliographic information, original titles, abstracts, and main claims.

See Section 13 for full details of the content, search and display options for the Member View database.

3.1 Subject Coverage

The subject coverage of *Derwent World Patents Index* has increased with time. In 1963, Thomson Scientific launched its FARMDOC service covering pharmaceutical and veterinary patents. This now corresponds to Section B as part of the Chemical Patents Index (CPI).

Coverage increased in 1965 to include patents relevant to agriculture and veterinary medicine with the launch of the AGDOC service (now Section C), and further still in 1966 to include plastics and polymers (the PLASDOC service, now Section A).

In 1970, the Chemical Patents Index was introduced, and the service was expanded to include all chemical and chemically-related patents (Sections A-M).

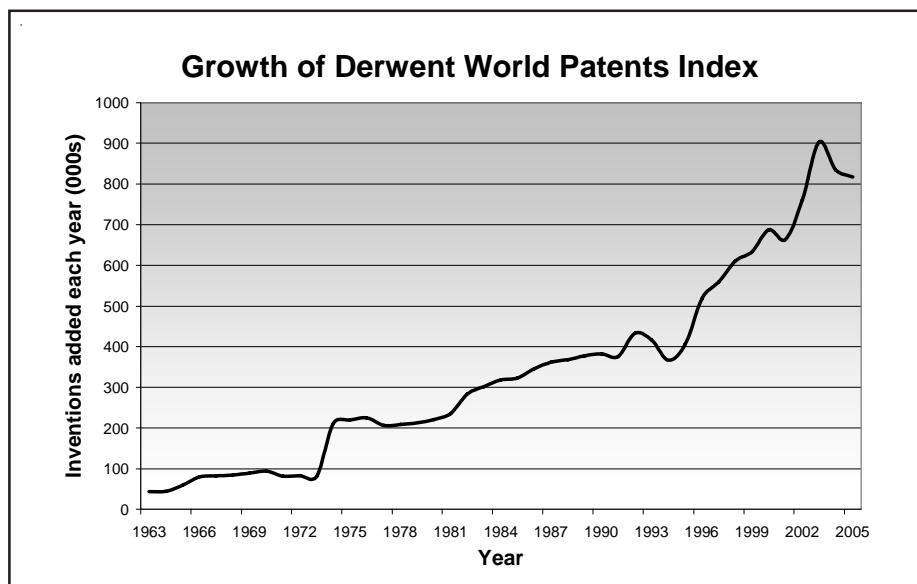
Subject Coverage (1963-1974)

1963	FARMDOC - Section B
1965	AGDOC - Section C
1966	PLASDOC - Section A
1970	Chemical Patents Index (CPI)
1974	<i>Derwent World Patents Index (DWPI)</i>

Since 1974, *Derwent World Patents Index* has included patent specifications irrespective of subject content, and these are divided into three major subject areas:

Subject Coverage (1974 onwards)

CPI	Chemical Patents Index	Sections A-M
EngPI	Engineering Patents Index	Sections P and Q
EPI	Electrical Patents Index	Sections S-X



3.2 Japanese Patents

Since the beginning of 1996, Thomson Scientific has covered all unexamined Japanese patents issued, irrespective of subject content. Previously coverage was selected as detailed below.

Until 1981, Thomson Scientific only covered chemical Japanese patent documents in CPI (Sections A-M).

From 1982, unexamined specifications having an International Patent Classification (IPC) in Section H (Electricity) have also been included for EPI (Sections S-X).

From update 198527, Japanese patents included in CPI having an IPC in Section G (Physics) have also been classified and given Manual Codes in EPI.

Japanese patent documents corresponding to *DWPI* Sections P and Q (EngPI) only were not included in *Derwent World Patents Index* before 1995. During 1995, Japanese coverage was increased, in phases, to give complete coverage of all unexamined patents (Kokai) by the end of 1995.

In 1996, Thomson Scientific began covering Toroku documents, which are granted specifications with a post-grant opposition period. Exact details of Japanese coverage are given in Appendix 16.7

3.3 Sources Covered

41 patent-issuing authorities are now included in the *Derwent World Patents Index*, many of these being added to the service since it commenced in 1963. The date when coverage began is shown in the following table, with both the year and database update (in parentheses) for those authorities added since 1963.

Country/Patent Authority	WIPO Code	Start Date
Argentina	AR	1975 only
Australia	AU	1963 - 1969, 1983 (198301)
Austria	AT	1975 (197515)
Belgium	BE	1963
Brazil	BR	1976 (197601)
Canada	CA	1963
China	CN	1987 (198701)
Czechoslovakia ¹	CS	1975 (197520) - 1994
Czech Republic ¹	CZ	1994 (199417)
Denmark	DK	1974 (197445)
European Patents	EP	1978 (197849)
Finland	FI	1974 (197445)
France	FR	1963
Germany (Democratic Republic)	DD	1963
Germany (Federal Republic)	DE	1963
Germany - Utility Models	DE-U	1996 (199626)
Hungary	HU	1975 (197526)
India	IN	2004 (200531)
Ireland	IE	1963 - 1969, 1995 (199521)
Israel	IL	1975 (197515)
Italy	IT	1966 - 1969 Sect. A, 1978 (197801)
Japan	JP	1963
Republic Of Korea (South Korea)	KR	1986 (198640)
Luxembourg	LU	1984 (198443)
Mexico	MX	1998 (199816)
Netherlands	NL	1963
Norway	NO	1974 (197448)
New Zealand	NZ	1993 (199301)
PCT (World)	WO	1978 (197849)

cont'd

Country/Patent Authority	WIPO Code	Start Date
Philippines	PH	1995 (199511)
Portugal	PT	1974 (197452)
Romania	RO	1975 (197532)
Russian Federation ²	RU	1994 (199406)
Singapore	SG	1995 (199513)
South Africa	ZA	1963
Soviet Union ²	SU	1963 - 1994
Slovakia ¹	SK	1994 (199417)
Spain	ES	1983 (198334)
Sweden	SE	1963
Switzerland	CH	1963
Taiwan	TW	1993 (199324)
United Kingdom	GB	1963
United States	US	1963
Plus:		
Research Disclosures ³	RD	1978 (197809)
International Technology Disclosure	TP	1984 (198408) - 1993 (199351)

Notes

- ¹ At the start of 1993 Czechoslovakia (CS) divided into the Czech Republic (CZ) and Slovakia (SK), both with their own independent patent systems.
- ² The Soviet Union (SU) patent office closed 1 February 1992 and the new Russian Federation (RU) patent office opened.
- ³ Research Disclosures © Kenneth Mason Publications Limited [2006]
www.researchdisclosure.com

3.4 DWPI and DWPIMV

As a result of the enhancements and the inclusion of additional content, the *DWPI* database is now available in two files.

- ⁿ traditional *DWPI*, including content such as patent family, value-add title, abstract and indexing
- ⁿ *DWPI Member View (DWPIMV)*— new additional data from each member (publication) listed in the invention (patent family) part of the record.

***DWPI* – Traditional Invention Level**

The traditional *DWPI* with its family record structure is retained and is searchable as before. Records are created using Thomson Scientific's existing practises to consistently collate and de-duplicate data from the individual member (publication) documents.

The *DWPI* record comprises bibliographic data and value-add title, abstract and indexing, including the newly-available documentation abstracts backfile. The majority of existing display formats and search options remain unchanged, to provide continuity for existing searchers.

***DWPI* Member View**

The *DWPIMV* file focuses on first level patent data (by publication and not family) including original titles, abstracts and main claim (either in English, French or German). Names and addresses are provided for assignees, inventors and agents (representatives) and the file also includes US PCL and historical IPC data.

DWPIMV incorporates some of the existing *DWPI* value-add content such as Thomson Scientific-assigned titles, Abstracts and Technology Focus, plus the ability to focus searches by document type, e.g., Basic, Equivalent or Intellectual.

Coverage varies by data element, patent kind (e.g. applications, granted patents and utility models) and time:

Original title	Australia	from 2004
	EPO	from 1978
	Germany	from 1968
	Japan	from 1975
	PCT (WO)	from 1978
	UK	from 2004
	US	from 1975
Original abstract	EPO	from 1978 (English) from 2000 (French/German)
	Germany	from 2000
	PCT	from 1978
	US	from 1975
First claim	EPO	from 1991
	Germany	from 1968
	UK	updates 198409 to 199751
	US	from 1993
Inventor full name and address	EPO	from 1978
	Germany	from 1968
	Japan	from 1977 (no addresses)
	PCT (WO)	from 1978
	US	from 1975
Original patent assignee and address	EPO	from 1978
	Germany	from 1968
	Japan	from 1977 (no addresses)
	PCT (WO)	from 1978
	US	from 1975
Agent name and address	EPO	from 1978
	Germany	from 1968
	PCT	from 1999
	US	from 1975

3.5 Other Thomson Scientific databases available on Questel·Orbit

The following additional Thomson Scientific databases are available for searching on Questel·Orbit:

- ⁿ *Derwent Biotechnology Abstracts*
- ⁿ *Derwent World Patents Index First View*
- ⁿ *Derwent World Patents Index Member View*
- ⁿ *Derwent World Patents Index - API Indexing (WPAM, WPAMNS)*
- ⁿ *Derwent World Patents Index Manual Codes*
- ⁿ *LitAlert*

For more information on these Thomson Scientific databases, visit www.scientific.thomson.com

4 Accessing *Derwent World Patents Index* on Questel.Orbit

Derwent World Patents Index on Questel.Orbit is available as *DWPI* (open access) and *DWPX* (subscriber only).

To access the database enter the FILE (or FI) command followed by the file name, after the '?' prompt:

File Name	Description
DWPI	Data from 1963 to date (open access)
DWPX	Data from 1963 to date (Subscriber only)
ZWPI	Online training and practice file

Access to *Derwent World Patents Index* is provided by Thomson Scientific via two different pricing structures: rates for Subscribers available in *DWPX* and *DWPI* and a standard rate for all other online customers available in the *DWPI* File.

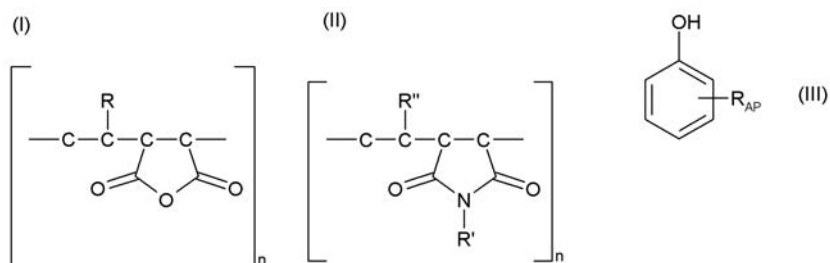
Subscribers may also be entitled to use the following search fields, depending on their level of subscription:

- ⁿ CPI Manual Codes (Section 13.1)
- ⁿ Plasdoc Fragmentation Codes (Section 13.2.1)
- ⁿ Plasdoc Key Serials (Section 13.2.2)
- ⁿ Enhanced Polymer Indexing (Section 13.2.3)
- ⁿ Chemical Codes (Section 13.3.2)
- ⁿ *DWPI* Registry Numbers (Section 13.3.3)
- ⁿ Ring Index Numbers (Section 13.3.4)
- ⁿ *DWPI* Compound Numbers (Section 13.3.5)

All Subscribers entitled to preferential rate access and *DWPI* Indexing (where applicable) must provide Thomson Scientific or its agents, with all their Questel.Orbit User Numbers (not passwords), in order to be provided with the correct rates and level of access on Questel.Orbit. If a Subscriber uses *Derwent World Patents Index* on Questel.Orbit with a User Number that has not been reported to Thomson Scientific, or its agents, access will be at the standard rate and access to the in-depth indexing will be restricted.

5 DWPI Record

1/1 DWPI - (C) The Thomson Corp.- image



AN - 2001-080256 [09]
 AXR - API P200103543
 XA - C2001-022985
 TI - Additive compositions useful as cold flow improvers in distillate fuels comprises an ethylene vinyl acetate isobutylene terpolymer and combined with maleic anhydride alpha-olefin copolymer, polyimide or alkyl phenol
 DC - A17 A95 E14 H06
 PA - (EQUI) EQUISTAR CHEM LP
 IN - BOTROS MG
 NP - 5
 NC - 91
 PN - WO200069998 A1 20001123 DW2001-09 Eng 69p *
 AP: 2000WO-US12199 20000504
 - AU200049860 A 20001205 DW2001-13 Eng
 FD: Based on WO200069998 A
 AP: 2000AU-0049860 20000504
 - US6203583 B1 20010320 DW2001-18 Eng
 AP: 1999US-0311459 19990513
 - EP1194511 A1 20020410 DW2002-32 Eng
 FD: Based on WO200069998 A
 AP: 2000EP-0932078 20000504, 2000WO-US12199 20000504
 - MX2001011511 A1 20040401 DW2004-78 Spa
 FD: Based on WO200069998 A
 AP: 2000WO-US12199 20000504, 2001MX-0011511 20011112
 PR - 1999US-0311459 19990513
 IC - C10L-001/14; C10L-001/18; C10L-001/10
 ICAA - C10L-001/14 [2006-01 A - I R - -]; C10L-001/18 [2006-01 A - I R - -]
 ICCA - C10L-001/10 [2006 C - I R - -]
 PCL - 044347000 044351000 044394000 044395000
 DS - WO200069998
 National States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN
 CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS
 JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO
 NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU
 ZA ZW

Regional States: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE
IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

- EP1194511

Regional States: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI
LT LU LV MC MK NL PT RO SE SI

AB - WO2000069998 A

NOVELTY: An additive combination comprises an ethylene vinyl acetate isobutylene terpolymer, and at least one component from maleic anhydride alpha-olefin copolymer, polyimide or an alkyl phenol.

- DESCRIPTION: Additive composition comprises an ethylene vinyl acetate isobutylene terpolymer (C1), and at least one maleic anhydride alpha-olefin copolymer (C2) of formula (I), a polyimide component (C3) of formula (II) or an alkyl phenol (C4) of formula (III). R = 16-40C hydrocarbon (at least 60 wt.%); n = 2 - 8; R = 20-40C hydrocarbon (at least 60 wt.%); R' = 16-18C hydrocarbon (at least 80 wt.%); RAP = 20-24C hydrocarbon (at least 90 wt.%) and/or 24-28C hydrocarbon (at least 70 wt.%). An INDEPENDENT CLAIM is also included for a distillate fuel composition comprising a major proportion of a distillate fuel and the additive component. - USE: As cold flow improvers for distillate fuel compositions such as middle distillate fuel, number 2 diesel fuel or hard-to-treat fuel (claimed).

- ADVANTAGE: The additives provide improvement in cold flow properties such as cold filter plugging point and pour point depression of distillate fuels.

TF - POLYMERS: Preferred Components: (C1) has a weight average molecular weight (Mw) from about 1,500 - 18,000 (preferably 3000 - 12000), number average molecular weight (Mn) from about 400 - 3000 (preferably 1500 - 2500) and vinyl acetate content from about 25 - 55 wt.%. The ratio of Mw to Mn is from 1.5 - 6. The concentration of terpolymer is from about 10 - 1000 parts per million (ppm) by weight of the distillate fuel. (C2) has a number average molecular weight from about 1000 - 5000. (C2) and (C3) are derived from substantially equimolar proportions of maleic anhydride and alpha-olefin. (C3) has a number average molecular weight from 1000 - 8000.

- ORGANIC CHEMISTRY: Preferred Composition: The distillate fuel composition additionally contains an ethylene vinyl acetate copolymer component (from about 5 - 250 ppm).

EAB - (WO2000069998 A1)

An additive combination for distillate fuels and a fuel composition having improved cold flow properties. The additive combination is incorporated into a major proportion of distillate fuel and is comprised of an ethylene vinyl acetate isobutylene terpolymer in combination with one or more of a maleic anhydride .alpha.-olefin copolymer component, a polyimide component, and an alkyl phenol component each having one or more hydrocarbon substituents within specified carbon number ranges. Optionally, an ethylene vinyl acetate copolymer may also be incorporated as a component therein.

- (US6203583 B1)

An additive combination for distillate fuels and a fuel composition having improved cold flow properties. The additive combination is incorporated into a major proportion of distillate fuel and is comprised of an ethylene vinyl acetate isobutylene terpolymer in combination with one or more of a maleic anhydride .alpha.-olefin copolymer component, a polyimide component, and an alkyl phenol component each having one or more hydrocarbon substituents within specified carbon number ranges. Optionally, an ethylene vinyl acetate copolymer may also be incorporated as a component therein.

- (EP1194511 A1)
An additive combination for distillate fuels and a fuel composition having improved cold flow properties. The additive combination is incorporated into a major proportion of distillate fuel and is comprised of an ethylene vinyl acetate isobutylene terpolymer in combination with one or more of a maleic anhydride .alpha.-olefin copolymer component, a polyimide component, and an alkyl phenol component each having one or more hydrocarbon substituents within specified carbon number ranges. Optionally, an ethylene vinyl acetate copolymer may also be incorporated as a component therein.
- FAB - (WO2000069998 A1)
Cette invention concerne une combinaison d'additif pour carburants distilles et une composition de carburant aux caracteristiques d'ecoulement a froid ameliorees. Cette combinaison d'additif, que l'on integre dans une fraction importante d'un carburant distille, se compose d'un ethylene vinyl acetate isobutylene terpolymere avec un ou plusieurs composants anhydride maleique .alpha.-olefine copolymere, un composant polyimide et un composant alkyl phenol, chacun de ces composants ayant un ou plusieurs substituants d'hydrocarbure avec un nombre determine d'atomes de carbone. Il est egalement possible d'y integrer un composant supplementaire sous forme d'ethylene vinyl acetate copolymere.
- MC - CPI: A04-F05 A04-G01B A05-J01A A07-A02C A07-A04F A12-T03B
E10-E02E1 H06-D05
- UP - 2001-09
- UE - 2001-13; 2001-18; 2002-32; 2004-78
- UE4 - 2006-09

6 Questel.Orbit Search Features

This section gives an overview of some of the search features available on Questel.Orbit. An overview of Questel.Orbit display features can be found in Section 15. Full details of all Questel.Orbit features can be found in documentation available directly from Questel.Orbit.

6.1 Truncation

Truncation allows terms to be searched with one or more characters missing, for example to take into account variations in spelling or plural forms of words.

Right-hand, left-hand and internal truncation is available as shown below:

Symbol	Definition	Where	Example	Retrieves
+	Any number of characters including zero	End	CATALY+	catalytic, catalysis, catalyst, catalysts.....
		Internal	PHOS+ATE	phosphate, phosphorthioate
		Start	+SYNTHETIC+	Asynthetic, Biosynthetic
?	Zero or one character	End	DYE?	dye, dyes, dyer; but not dyeing, dyeable
		Internal	ALUMIN?UM	aluminium, aluminum
??	Maximum number of additional characters equal to the number of ?	End	PLANT??	plant, plants, planter, but not planting, or plantation
#	Represents one character exactly	Internal	SULPHI#E	sulphite, sulphide
		End	ROBOT##	robotic

6.2 Proximity Operators

Proximity operators permit the searching of phrases or concepts expressed by positional relationships of words that represent them. The following proximity operators are available on Questel.Orbit:

Proximity Operator	Definition
(W)	terms adjacent to each other in the specified order
(nW)	terms adjacent (with n or fewer intervening words) in the specified order
(=nW)	terms adjacent within exactly n words in the specified order
(D)	terms adjacent to each other in either order
(nD)	terms adjacent (with n or fewer intervening words) in either order
(=nD)	terms adjacent within exactly n words in either order
(S)	terms occur in the same sentence
(P)	terms occur in the same paragraph
(L)	terms occur in the same subfield, for chemical code searching
(F)	terms occur in the same field

The operators S, P, L and F can be used with NOT if required, e.g. (NOTL)

6.3 PATVIEW

The *DWPIMV* file provides the original source data for each patent family member where available. Users can choose to display the additional bibliographic information, original titles, abstracts, and main claim in the *DWPI* database using the *PATVIEW* display option.

This will display the *DWPI* record followed by the *DWPIMV* records. By default the *PATVIEW* display is *STDR* in both *DWPI* and *DWPIMV* (See Section 15 for details of all display formats).

This facility provides a useful way to quickly display additional data, as required.

PRT PATVIEW	Displays the <i>DWPI</i> record in <i>STDR</i> format followed by the record(s) from <i>DWPIMV</i> <i>STDR</i> format
PRT <format> PATVIEW	Display the <i>DWPI</i> record in a predefined format followed by the records from <i>DWPIMV</i> in <i>STDR</i> format Example: PRT TITL PATVIEW
PRT PATVIEW (<format>)	Displays the <i>DWPI</i> record in <i>STDR</i> format followed by the record(s) from <i>DWPIMV</i> in a predefined format. The 2nd format must be placed between brackets (). Example: PRT PATVIEW (ALL)
PRT <format> PATVIEW (<format>)	Display the <i>DWPI</i> in a predefined format followed by the record(s) from <i>DWPIMV</i> in a predefined format. The 2nd format must be placed between brackets (). Example: PRT BASC PATVIEW (ALL)

6.4 Online Statistical Analysis – ..MEMSort

The ..MEMSort command analyses the contents of a Questel.Orbit search list without the necessity for you to download the data and perform post-processing. Virtually any part of any *DWPI* field can be analysed, but the structure of the fields need to be considered (e.g. sequence of terms, character-length of terms). The total number of customer-defined MEM lists is 150 with a maximum of 100,000 terms in each list

The default extraction is a set 50 randomly-selected records, and extraction from more records than this must be explicitly indicated. The general syntax is shown below:

```
..MEMS [MEM#] [type] [SS x] [y-z] /field1 [param1] [param2] [/field2] [param3]
```

[MEM#]	Store result in MEM1, MEM2 (default), MEM3 or MEM4
[type]	1 Default – frequency, term counted only once per record
	2 OCC – total number, if term appears twice in PN field it will be counted twice
	3 ALPHA – alphabetic listing independent of frequency
[SS x]	Search Statement number – defaults to last SS
[y – z]	Record numbers – defaults to randomly-selected set of 50 records
/field1	Field code – required, applies only to displayable fields
[param]	1 Default – every separate term in field is analysed
	2 PRG x – paragraph number, (PRG * – last paragraph)
	3 SENT y – sentence number, (SENT * – last sentence)
	4 RK z – term (word) number in each sentence, (RK * – last term)
	5 WITH “ab” – only terms containing these characters (up to 16)
	6 NOT “ab” – only terms not containing these characters (up to 16)
	7 LG x – length, the first x characters are kept, (e.g. only the first four characters of the IPC code)
	8 BO x–y – bounded by the x and y character inclusive (e.g. only characters 3–4 of a priority number, the country code)
	9 BO “a” – bounded by character a where a is specific character or number (e.g. up to the hyphen, “–” of an IPC code)
[/field2]	Field code – up to 4 fields can be extracted and ranked

Terms in brackets are optional. The minimum required in the command is:

```
..MEMS /field (e.g. ..MEMS /DC)
```

which would extract all terms from the “/field” of the first 50 records of the last Search Statement.

The first 15 terms can be displayed using the command

```
..LI MEMS [French: ..VI MEMT command]
```

To display all terms in the memory use the format

```
..LI MEMS NONSTOP
```

In addition, the SET parameter enables users to analyze the entire set, up to 100,000 records, e.g:

```
MEMS SET/IC
```

Example of Statistical Analysis of the Country of Application

Extract for analysis, from the entire list of records in the last Search Statement, from the Application field (/AP), characters 3 and 4 (BO 3-4) of the first term (RK 1) in each sentence; list these in order by frequency.

```
** SS 3: Results 343

Search statement 4

?..MEMS 1-343/AP RK 1 BO 3-4;..LI MEMS

Total number of terms extracted: 758
Number of terms now in MEM2 : 25
Memory is of type MEMSORT
(statistical analysis)
#      FREQ  TERM
1      130  JP
2      105  US
3      100  EP
4       49  DE
5       37  GB
6       32  ZA
7       20  ES
8       19  FR
9       16  SU
10      11  DD
11      11  WO
12      10  BE
13      10  NL
14       7  CA
15       4  AU

Continue: Y / N
```

6.5 Crossfile Searching – ..MEM

The ..MEMORY command (abbreviated ..MEM) allows you to extract information from your search results and re-use it without re-keying the data. The ..MEM command is very similar in syntax to the ..MEMSORT command.

Virtually any part of any *DWPI* field can be extracted, but the structure of the fields need to be considered (e.g. sequence of terms, character-length of terms). There are four memories (MEM1, MEM2, MEM3, MEM4) each of which can contain up to 5000 terms. The general syntax is shown below:

```
..MEM[MEM#] [SS x] [y-z] /field1 [param1] [param2] [/field2] [param3] [param4]
```

[MEM#]	Store result in MEM1, MEM2 (default), MEM3 or MEM4
[SS x]	Search Statement number – defaults to last SS
[y – z]	Record numbers – defaults all records
/field1	Field code – required, applies only to displayable fields
[param]	<ol style="list-style-type: none"> 1 Default – every separate term in field is analysed 2 PRG x – paragraph number, (PRG * – last paragraph) 3 SENT y – sentence number, (SENT * – last sentence) 4 RK z – term (word) number in each sentence, (RK * – last term) 5 WITH “ab” – only terms containing these characters (up to 4) 6 NOT “ab” – only terms not containing these characters (up to 4) 7 LG x – length, the first x characters are kept, (e.g. only the first four characters of the IPC code) 8 BO x–y – bounded by the x and y character inclusive 9 BO “a” – bounded by character a where a is specific character or number (e.g. up to the hyphen, “–” of an IPC code)
[/field2]	Field code – up to 4 fields can be extracted

The first 15 terms can be displayed using the command

```
..LI MEM
```

To display *all* terms in the memory use the format

```
..LI MEMS NONSTOP
```

To search the MEM list use the command

```
*MEM x y-z /field1 /field2 /field3 /field4
```

xy-z	Items in the list to be searched
/field1	The field in which the terms are to be searched

RK Option

The RK option is important in that fields containing multiple terms of interest, such as Patent Number and Priority Number, have been divided into ranks (RK) so that each item in the field may be extracted. This is illustrated below for the Patent Number field, and in Section 7 for the Application Number field.

The Patent Number Field is broken down into the following ranks:

RK 1	Patent Number
RK 2	Kind (can extract 1 and 2 digit codes)
RK 3	Publication Date
RK 4	DWPI Update
RK 5	Main International Patent Classification (IPC)
RK 6	Number of pages
RK 7	Document type

Crossfile Search from CAS to DWPI

1. Search for patents on CAS Reg No. 36791-04-5
2. Show the indicated fields from the first record, include the XPR and XPN fields which are normally not displayed. Extract the patent and priority numbers for all records.
3. Change to the DWPI file, save the search strategy, search for the extracted Priority Numbers and Patent Numbers.

```
Selected file: CAS
      CA SEARCH : vol.66/118-12 (1993-03-27)
      Copyright 1990 by The American Chemical Society

Search statement 1
?36791-04-5 and p/dt
** SS 1: Results 72

Search statement 2
?..li ti au pa pt ap pr xpr xpn 1

1/72 - (C) Acs
TI - Treating infectious respiratory diseases with inflammation
inhibitors
AU - Prince G A; Hemming V G
PA - Jackson, Henry M., Foundation for the Advancement of Military
Medicine
PT - WO9219244 A2 921112; PCT
Appl.; 43 pp.
AP - WO92/US3449 920501
PR - US91/694079 910501
XPR - 91US-694079
XPN - WO9219244

Search statement 2

?..mem /xpr/xpn
Total number of terms extracted: 144
Number of terms added to MEM1: 142
First term introduced for extraction:1

Search statement 2

?..fi dwpi sv;*mem /xpr/xpn

CAS - Time (in hours) : 0,047
Selected file: DWPI
DERWENT WORLD PATENT INDEX(DWPI)
Last DERWENT week available:
- basics: 9306; equivalents: 9306
- plasdoc: 9247; chemical codes: 9219
** SS 2: Results 84
```

The search should be continued by extracting, then re-inputting the priority numbers from the retrieved list (i.e. ...MEM/XPR;*MEM/PR) until no new records are found.

6.6 Transferring search results from *DWPIMV* to *DWPI*

After conducting a search in the source data file *DWPIMV*, you may automatically transfer your results to the family file *DWPI* by using the command *XDWPI*.

```
Database : DWPIMV

      1          117  WATER SAFETY
Search statement      2

xdwpi

The memory is empty

Total number of terms extracted:      117
Number of terms added to MEM1 :      117
First term introduced for extraction:      1

File : DWPI

SS  Results
   1          101  *MEM /AN
```


7 Word Searching

7.1 Basic Index

Qualifier

Search Qualifier	–
------------------	---

Content

The Basic Index conveniently gathers all subject words into a single index for general subject searching without the use of search qualifiers. On Questel.Orbit the Basic Index includes:

Subject Word	Definition
Title Words	all words from the value-add <i>DWPI</i> Title
Title Terms	standardised forms of words in the <i>DWPI</i> value-add Title
Novelty Words	words describing the novelty of the invention
Technology Focus	supplementary information from the <i>DWPI</i> value-add Abstract
Compound Numbers	numbers representing specific chemical compounds or families of chemical compounds
Additional Words	words describing concepts not included in the <i>DWPI</i> value-add Title
Abstract Words	all words from the value-add <i>DWPI</i> Abstract, plus all words from the original abstract (where available - German, French or English language)

A “word” is defined as any alphabetic or numeric character(s) separated by a space or non-alphanumeric character.

Searching

British Spelling

Prior to 1999, British spelling is generally used in *DWPI* but American spelling is also present in some of the fields making up the Basic Index. From 1999, American spelling (with British terminology) was adopted. As a precaution, both spellings should be covered in a search strategy to ensure complete retrieval. Alternatively, where appropriate, wildcards can be used, e.g.

?alumin?um/ti

Stop Words

Commonly used words in the Basic Index are not indexed. However, certain ambiguous terms that are capitalised and have additional meanings are indexed, e.g. chemical elements IN, As, the electrical term AND-gate.

It is possible to search for stop words using the STRINGSEARCH (..STRS) command on a pre-existing list.

Abbreviations

Standard abbreviations have been used in the fields that make up the Basic Index. The corresponding non-abbreviated terms are not indexed, and for comprehensive retrieval both the abbreviation and the complete word should be searched.

A listing of all Thomson Scientific standard abbreviations are given in Appendix 15.3.

Restricting Basic Index Searches

It is possible to restrict searches in the Basic Index to specific fields using the following suffixes:

Suffix	Definition
/AB	restricts the search to the value-add <i>DWPI</i> Abstracts (see Section 7.3.1)
/AW	restricts the search to Additional Words (see Section 7.3)
/CN	restricts the search to Compound Numbers
/NV	restricts the search to <i>DWPI</i> Novelty Terms
/TF	restricts the search to <i>DWPI</i> Technology Focus terms
/TI	restricts the search to the value-add <i>DWPI</i> Title (see Section 7.2)
/TT	restricts the search to Title Terms (see Section 7.2.1)
/EAB	restricts the search to the English original Abstract (where available)
/FAB	restricts the search to the French original Abstract (where available)
/GAB	restricts the search to the German original Abstract (where available)

7.2 DWPI Value-add Title

Qualifier

Search Qualifier	/TI
------------------	-----

Content

Thomson Scientific value-add titles are written to highlight the content and novelty of the invention disclosed in the patent specification. They are not based on the original title or its exact translation. All words from the Thomson Scientific-assigned title are searchable in the title index exactly as they are displayed.

Before 1999 each Thomson Scientific title is written in two parts separated by a hyphen (-). The first part of the title gives an overall description of the invention and the second part of the title highlights the novelty element disclosed in the patent application. A new style title was introduced in 1999 comprising a single sentence describing the invention, its applications and novel features.

Searching

Use of the /TI suffix restricts a search further than by searching the entire Basic Index (Section 7.1), but relevance may be higher because of the nature of the Thomson Scientific titles. When searching for a known original title, users should remember that Thomson Scientific does not input the original title or its exact translation, but provides an enhanced, more informative title.

Words in the title field may be searched using proximity operators. Please note however, prior to 1999 titles were written in two parts separated by a hyphen (-). The (W) proximity operator does not work across the hyphen and will search the two parts of the title separately.

In some of the records entered in the database prior to 1971, the titles may be short. Caution is necessary if a search is restricted to Title Words for this period.

Since DWPI Update 197804 until the end of 1998, the @ symbol is used to differentiate between an element or its alloys and compounds of the element, for example:

COBALT@	the element or its alloys
COBALT	compounds of cobalt

The @ symbol is also used to differentiate between the unsubstituted, uncompounded polymer and its copolymers, for example:

POLYETHYLENE@	unsubstituted, uncompounded
POLYETHYLENE	copolymers

From the beginning of 1978 (*DWPI* Update 197804) to the end of 1998, where a monomer is in polymeric form, for example propylene copolymer, Questel.Orbit indexes this as polypropylene. To search for unpolymerised propylene, search PROPYLENE@.

7.2.1 Title Terms, Additional Words

Qualifier

Search Qualifier	/TT,/AW
------------------	---------

Content

Title Terms (/TT) are the preferred forms of words appearing in the Thomson Scientific-assigned titles. They are generated automatically by text-editing software that converts each title word into a preferred form of the word. For example, the title words PAGE, PAGER, PAGING, etc., are converted into the Title Term "PAGE." (For a complete listing see the Thomson Scientific Title Terms User Guide.)

The following words are ignored when titles are scanned by Thomson Scientific to generate title terms:

an	and	are	as	at	be	by	for
from	has	in	into	is	not	of	on
or	the	then	when	where	which		

However, these words are searchable in the Basic Index and title, (as described in Sections 7.1 and 7.2).

Since *DWPI* Update 197804, additional words have been added to the index terms to further enhance the title. Additional words are searchable with /AW as well as in the Basic Index without qualification. These additional words are all included in the Thomson Scientific Title Terms User Guide.

Searching

Title Term searching is a very simple and effective way of subject searching. Precision is usually very high, not only because the title terms are controlled forms of the words, but because the specially written Thomson Scientific title is a highly informative, concise summary for rapid scanning. However, inclusion of the much larger number of words in the abstracts, by defaulting to a Basic Index search, will always give higher recall. For best results, all synonyms and every way of expressing the required concept should be considered when formulating the search strategy.

Title Term searching is particularly valuable when searching non-chemical technology where other forms of indexing and classification are not as exhaustive.

Before 1978, the Title Terms associated with an online record are arranged in alphabetical order. Therefore, proximity operators should not be used with terms restricted by the /TT suffix when searching prior to this time.

Multi-word terms, in use since *DWPI* Update Week 197804, are given in the Thomson Scientific Title Terms User Guide with equal signs linking the individual words, e.g. X=RAY. On Questel.Orbit, replace the “=” with “-” when searching these terms.

Since *DWPI* Update 197804 to the end of 1998 the @ symbol is used to differentiate between an element or its alloys and compounds of the element, for example:

COBALT@	the element or its alloys
COBALT	compounds of cobalt

The @ symbol is also used to differentiate between the unsubstituted, uncompounded polymer and its copolymers, for example:

POLYETHYLENE@	unsubstituted, uncompounded
POLYETHYLENE	copolymers

From the beginning of 1978 (*DWPI* Update 197804) to the end of 1998 where a monomer is in polymeric form, for example propylene copolymer, Questel.Orbit indexes as polypropylene. To search for unpolymerised propylene, search PROPYLENE!.

Title terms do not appear in the conventional pre-defined standard online and offline formats because they are redundant with the actual title. However, they may be displayed in a tailored format with the qualifier TT, e.g. ..LI TT.

```
?/tt cobalt

** SS 8: Results 31.871

Search statement 9

1/31871 MDWPS - (C) The Thomson Corp.
TT - GLASS COATING ELECTRODE PLASMA DISPLAY PANEL CONTAIN SPECIFIED
      AMOUNT COPPER OXIDE CONVERT COBALT
```

7.3 Abstract

Qualifier

Search Qualifier	/ABS
------------------	------

Content

All abstract words are searchable in the basic index without a search qualifier. The /ABS index comprises all abstracts at the Invention and Member Patent Levels, searching all First Level and value-add *DWPI* Abstracts (excluding Documentation Abstracts (Section 7.3.4) and Extension Abstracts (Section 7.3.5)).

See 7.3.1 and 7.3.3-7.3.5 to restrict searches to the value-add *DWPI* Abstracts.

Searching

All abstract words are searchable in the basic index without a search qualifier. Using the suffix /ABS limits the scope of the search to the following abstract fields: AB, NOV, TF, EAB, FAB and GAB. It should be remembered however that many key terms may only appear in the Thomson Scientific assigned title and by restricting to the abstracts only, relevant hits may not be retrieved.

To restrict a search to records that have or do not have abstracts use the LIMIT qualifiers /ABS or /NOABS, or search for the Abstract Field Availability. For example, to restrict answer set SS #3 to records with abstracts:

3 and/AB=yes

and to restrict set SS #3 to records without abstracts:

3 not/AB=yes

7.3.1 *DWPI* Alerting Abstract

Qualifier

Search Qualifiers	/AB
-------------------	-----

Search Format

S term/AB

Content

The majority of records in *DWPI* (88%) have an abstract for the basic patent. Novelty and Technology Focus fields became available from update 199908 onwards. At this time the Basic Abstract was renamed the Alerting Abstract.

The specific /AB index comprises only the abstracts at the Invention Level – the value-add *DWPI* abstracts.

Basic Abstracts for Austria, Brazil and Denmark are only available for chemical basics and are not included for records where the basic patent is from Czechoslovakia, Finland, Italy, Luxembourg and Norway. In all these cases however, an abstract is added to the record when an equivalent from a country with a guaranteed Basic Abstract is added to the family.

Between 1995 and 1999 Documentation Abstracts (an extended form of the Basic Abstract) are available for most CPI records. From update 199908 onwards the Documentation Abstract was replaced by the Extension Abstract. Documentation Abstracts are indexed separately under /DO and so do not form part of the /AB field (see Chapter 7.3.4 for further details on the Documentation Abstract field). Likewise Extension Abstracts are indexed separately under /EX and so do not form part of the /AB field (see Chapter 7.3.5 for further details on the Extension Abstract field).

Documentation Abstracts (Section 7.3.4) and Extension Abstracts (Section 7.3.5) may only be searched and displayed by subscribers in File DWPX.

From 1984 to 1997 abstracts were also prepared for many equivalent members of the patent family. These are available within the Member Patent Level (see Section 7.3.2).

Full details of the treatment of patent documents from all countries can be found in Global Patent Sources, available from Thomson Scientific Technical Support.

Old Style Basic Abstracts

Pre-1999 records may contain an abstract section called the First Section which was based on the claims together with a Use, Use/Advantage or Advantage section.

New Style Alerting Abstracts

In 1999 important changes were made to the structure and content of abstracts. As well as containing improved technical content, the abstracts also include several subheadings to make the description of the invention easier to read:

Subheading	Description
Novelty	Outlines the novelty of the invention.
Detailed Description	Optional paragraph included when it is not possible to summarise the main claims of the invention within the novelty field.
Activity	Used to describe the biological activity of chemical or biological entities.
Mechanism of Action	Covers the biological mechanism of action for chemical or biological entities (where given).
Use	This paragraph is always present, and covers all the uses (applications) of the invention in terms of its different technology areas. If there are no disclosed uses, this is stated.
Advantage	Covers the advantages of the invention as described by the author.
Description of	Explanation of technical drawings included in the record Drawing(s).

Searching

All abstract words are searchable in the basic index without a search qualifier. /ABS searches all First Level and value-add *DWPI* Abstracts. Using the suffix /AB limits the scope of the search to the Alerting Abstract Field. Using /TF limits the search to the Technology Focus Abstract, while /TX will search all abstracts types excluding the Extension Abstract. The search qualifier /NOV will search the novelty section of the abstract (also included in /AB). It should be remembered however that many key terms may only appear in the *DWPI* assigned title and by restricting to the abstract only, relevant hits may not be retrieved.

```
?/ab spleen
```

```
** SS 1: Results 4.312
```

```
Search statement 2
```

```
1/4312 DWPS - (C) The Thomson Corp.
```

```
AN - 2006-559987 [57]
```

```
XA - C2006-174703
```

```
TI - Composition for inhibiting angiogenesis, treating cancer and  
Crohn's disease, comprises antiangiogenic peptide, its analog,  
or salt formulated with an additional compound that stabilizes  
the peptide
```

```
DC - B04 B07
```

```
PA - (ATTE) ATTENUON LLC
```

```
IN - HARRIS S; HEIATI H; LI M; MAZAR AP; SCHRIER J
```

```
NP - 1
```

```
NC - 111
```

```
PN - WO200683906 A2 20060810 DW2006-57 Eng 37p *
```

```
AP: 2006WO-US03461 20060201
```

PR - 2005US-P648391 20050201
IC - A61K-038/04
ICAA - A61K-038/04 [2006-01 A F I B - -]
DS - WO200683906
National States: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY
MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC
SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA
ZM ZW
Regional States: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB
GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO
SD SE SI SK SL SZ TR TZ UG ZM ZW

AB - WO2006083906 A
NOVELTY: A composition comprises an antiangiogenic peptide of specific amino acid sequence, its analog, or salt of the peptide or of the analog, which is formulated with at least one additional compound that stabilizes the peptide, analog or salt against spontaneous tandem dimerization or higher oligomerization.

- DESCRIPTION: A composition comprising a peptide Pro-His-Ser-Cys-Asn, its analog, or salt of the peptide or of the analog, which is formulated with at least one additional compound that stabilizes the peptide, analog or salt against spontaneous tandem dimerization or higher oligomerization. INDEPENDENT CLAIMS are also included for:

(1) an article of manufacture or kit comprising a first container which contains the composition in solution or in lyophilized form, optionally a second container containing a diluent or reconstituting solution for the lyophilized composition, and optionally, instructions for use of the solution or reconstitution and/or use of the lyophilized composition; (2) inhibiting angiogenesis in a subject, comprising administering the composition to the subject, where the peptide or analog is administered in an anti-angiogenic effective amount; (3) treating cancer in a subject by inhibiting angiogenesis, comprising administering the composition to the subject, where the peptide or analog is administered in a cancer-therapeutic effective amount; (4) treating Crohn's disease in a subject by inhibiting angiogenesis, comprising administering the composition to the subject, where the peptide or analog is administered in a Crohn's disease-therapeutic effective amount; and (5) use of the composition in a medicament or for the manufacture of a medicament for administration to a subject to inhibit undesired angiogenesis.

- ACTIVITY: Cytostatic; Antiangiogenic; Antiinflammatory; Gastrointestinal-Gen. Inhibition of spontaneous metastasis in vivo by Pro-His-Ser-Cys-Asn. The rat syngeneic breast cancer system employing Mat BIII rat breast cancer cells was used. Tumor cells, for example, about 10⁶ cells suspended in 0.1 mL phosphate buffered saline (PBS) were inoculated into the mammary fat pads of female fisher rats. At the time of inoculation, a 14-day Alza osmotic mini-pump was implanted intraperitoneally to dispense the test compound. The compound was dissolved in PBS (e.g., 200 mM stock), sterile filtered and placed in the minipump to achieve a release rate of about 4 mg/kg/day. Control animals receive vehicle (PBS) alone or a vehicle control peptide in the minipump. Animals were sacrificed at about day 14. In the rats treated with the compounds, significant reductions in the size of the primary tumor and in the number of metastases in the spleen, lungs, liver, kidney and lymph nodes (enumerated as

discrete foci) was observed. Histological and immunohistochemical analysis revealed increased necrosis and signs of apoptosis in tumors in treated animals. Large necrotic areas were seen in tumor regions lacking neovascularization. In contrast, treatment with control peptides failed to cause a significant change in tumor size or metastasis.

- MECHANISM OF ACTION: Angiogenesis inhibitor; Inhibits, prevents or reverses disulphide bond formation between sulfhydryl groups of Cys residue.
 - USE: The composition is useful for inhibiting angiogenesis, treating cancer and Crohn's disease in a subject and in a medicament or manufacture of a medicament for administration to a subject to inhibit undesired angiogenesis for the treatment of cancer or Crohn's disease (claimed).
 - ADVANTAGE: The composition prevents degradation and spontaneous oxidative dimerization or oligomerization of the peptide. The short peptide avoids the problems associated with using larger protein fragments, which are expensive to produce in large quantities, show poor pharmacological properties and are susceptible to degradation.
- TF - BIOTECHNOLOGY: Preferred Composition: The peptide is capped at its N- and C-termini with an N-terminal and a C-terminal cap, respectively. The N-terminal cap is an acyl group and the C-terminal cap is an amide group, preferably the N-terminal cap is an acetyl group. The additional compound inhibits, prevents or reverses disulfide bond formation between sulfhydryl groups of Cys residues. The additional compound is a biocompatible acid buffer with a pK of about 5. In the presence of the buffer, the pH of the solution is greater than 3.0 and less than, or equal to, 7.5. The acid buffer is citrate, acetate or 2-(N-morpholino)ethanesulfonic acid (MES). The acid buffer is preferably citrate at a concentration of about 25 mM. The buffer is supplemented with glycine as an excipient and bulking agent. The concentration of glycine is 50 mg/ml. The buffer comprises citrate and acetate, and also comprises Tris. The composition comprises the peptide or salt of the peptide or analog, about 50 mM citrate, and about 50 mg/ml glycine. The composition is in a container or vial in lyophilized form having 100 mg peptide or salt of the peptide or analog, 50 mM citrate, 50 mg/ml glycine lyophilized form 2 mL of a pH 5.0 solution. The composition further comprises one or more reducing agents. The reducing agents comprise dithiothreitol, beta-mercaptoethanol or glutathione. The concentration of the reducing agent or agents does not exceed about 10 mM. The composition further comprises a non-thiol biocompatible anti-oxidant, a lyoprotectant present in a lyoprotecting amount. The molar ratio of lyoprotectant to peptide is about 50-600 mole lyoprotectant to 1 mole peptide. The lyoprotectant is one or more sugars, amino acids, methylamines, lyotropic salts, and/or polyols. The lyoprotectant is sucrose or trehalose; monosodium glutamate or histidine; betaine; magnesium sulfate; or a trihydric or higher sugar alcohol. The composition comprises one or more polyols chosen from glycerin, erythritol, glycerol, arabitol, xylitol, sorbitol, mannitol, polyethylene glycol and its combination. The lyoprotectant is a non-reducing sugar. The sugar is trehalose or sucrose. The composition is sterile and formulated for in vivo administration.
- Preferred Article: The article further comprises one or more of another buffer, a diluent, a filter, a needle, or a syringe. The first and optional second container is a bottle, a vial, a syringe or test tube, and is a multi-use container. The composition is in lyophilized form.

The following *DWPI* value-add abstracts are not included in the Basic Index and can only be searched and displayed by subscribers to the DWPX file (/DO for the Documentation Abstract (Section 7.3.4) and /EX for the Extension Abstract (Section 7.3.5)).

7.3.2 Original Abstract

Original abstracts in German, English and French may be available at the Member Patent Level. This data may be available for the following documents:

- ⁿ German applications, granted patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) since 2000
- ⁿ European applications and granted patents (EP-A1/A2, EP-B1/B2) since 1978 (available in English from 1978, German and French from 2000)
- ⁿ US applications and granted patents (US-A, US-A1, US-B1/B2) since 1975
- ⁿ PCT applications (WO-A1/A2) since 1978

Searching

All words from the original author abstracts are indexed under the following:

- ⁿ /EAB English Original Abstract
- ⁿ /FAB French Original Abstract
- ⁿ /GAB German Original Abstract

```
?/FAB SEMELLE AND CHAUSSURE?
** SS 3: Results 760
Search statement 4
```

7.3.3 Technology Focus

Qualifiers

Search Qualifier	/TF
------------------	-----

Content

This new field, introduced from *DWPI* Update 199908 onwards, is designed to enable end-user scientists and engineers, in various sectors, to quickly identify if a patent document is of real interest to them. Separate headed paragraphs describe the invention from different technological viewpoints – immediately bringing home the importance of the patent to a variety of disciplines.

The abstract is used to summarise the dependent claims, i.e. the preferred options for making practical use of the invention, and claims related 'preferred options' taken from the 'disclosure' of the patent. Information from outside the core technology can also be covered, e.g. preferred polymeric materials used in the manufacture of an engineering invention. The abstract is written using separate titled paragraphs, which are used to summarise the practical content of the invention from different technological viewpoints. The paragraph headings are described below.

Heading	Definition
Agriculture	Covers pesticides, herbicides, fungicides, fertilisers, etc, but not their preparation. See Organic Chemistry.
Biology	Covers naturally occurring biological materials (i.e. not engineered), immunoassays, etc.
Biotechnology	Covers genetic engineering (recombinant DNA technology), etc.
Ceramics and Glass	Covers glass, refractories, ceramics, cement, etc.
Chemical Engineering	Covers large scale, industrial processing of chemicals.
Computing and Control	Covers automotive, environmental, manufacturing processes, etc.
Electrical Power and Energy	Covers power generation, nuclear power, radioactivity.
Electronics	Covers electronic circuits and devices.
Environment	Covers pollution control, water treatment, sewage treatment, etc.
Food	Covers human foodstuffs, brewing, animal feed, etc.
Imaging and Communication	Covers imaging technologies, inks, printing, electrophotography, recording media, broadcasting and telecommunications.
Industrial Standards	Used when comparison to industrial standards are made.
Inorganic Chemistry	Covers all inorganic materials, except Ceramics and Glass.
Instrumentation and Testing	Covers chemical analysis, testing, medical equipment.
Mechanical Engineering	Covers polymer processing machinery, mechanical equipment, etc.
Metallurgy	Covers metal treatment/production/refining/working/finishing, alloys, solders, etc.
Organic Chemistry	Covers the preparation of all organic chemicals, including pharmaceuticals and agrochemicals, but not polymers - see Polymers.
Pharmaceuticals	Covers pharmaceutically active compounds and compositions, including veterinary drugs, but not their preparation - see Organic Chemistry.
Polymers	Covers all polymer types, preparation of polymers, etc.
Textiles and Paper	Covers paper/cardboard, natural/synthetic textiles, and their processing.

7.3.4 Documentation Abstract

Qualifiers

Search Qualifier	/DO
------------------	-----

Search Format

Combine single words with Boolean and/or Proximity operators (see Section 6).

Content

The Documentation Abstract is an optional field available for documents from 1995 to 1999 and provides a more in-depth analysis of the invention than the Basic Abstract. The Documentation Abstract therefore bridges the gap between the concise Basic Abstract summary, and the often lengthy, difficult-to-read, full text patent document

Search and display of the DO field (in file DWPX only) is restricted to subscribers with the appropriate level of subscription.

From update 199908 the Documentation Abstract was replaced by the Extension Abstract (see Section 7.3.5 for further details on the Extension Abstract field).

The Documentation Abstract may contain a series of titled paragraphs, described as follows, and was only used for inventions classified in CPI.

Heading	Definition
Activity	Used to describe the biological activity of chemical or biological entities.
Mechanism of Action	Covers the biological mechanism of action for chemical or biological entities (where given).
Administration	Used to cover details of dosages and methods of administration for pharmaceutical/veterinary patents, or rates of application and application methods in agrochemical patents.
Advantage	Covers the advantages of the invention as described by the author.
Biology	Contains biological activity and/or biological data relating to the invention.
Claimed	Contains details of the invention disclosed within the Independent Claims. May comprise a number of "Claimed" headings.
Definition	This paragraph is used to detail the preferred options for Markush chemical formulae defined in the Detailed Description paragraph of the Basic Abstract.
Description	Included when it was not possible to summarise the main claims elsewhere.

cont'd

Heading	Definition
Dosage	Covers pharmaceutical dosages and methods of administration.
Drawing Description	Explanation of technical drawings included in the record.
Embodiment	A more detailed description using information from the disclosure that is not in the claims.
Example	The selected example illustrates the novelty/advantages of the invention.
First Section	Covers all independent claims (except for those dealing with uses and preparations which are covered in their own sections). The novel features of the invention will also be highlighted.
General	Contains information not relating to standard Documentation Abstract sub-sections.
Inorganic Chemistry	Covers inorganic materials.
Starting Materials	When starting materials or their preparation have been claimed or described as new, their preparation is detailed.
More Specifically	Used to narrow chemical Markush definitions that are very broad or vague. This information is available in the claims or disclosure.
Novelty	Outlines the novelty of the invention.
Organic Chemistry	Covers organic materials.
Preferred	Contains a detailed description from the dependent claims. May be split into a number of preferred headings.
Preparation	If the invention contains new compounds, this section is used to describe their preparation.
Specific Substances	When a patent claims a group of compounds covered by a Markush structure, this section is used to give specific examples from this group (claimed examples taking priority).
Technology Focus	Used to summarise the dependent claims, i.e. the preferred options for making practical use of the invention, and claims related 'preferred options' taken from the 'disclosure' of the patent.
Use/Advantage	Some records may contain a combined use/advantage section outlining both the use of the invention and the advantages of the invention as described by the author.
Use	Covers the use of the invention.
Wider Disclosure	Used when the scope and/or novelty of the invention, as defined in the body of the specification, is broader than that of the main independent claim(s). The paragraph will contain those novel features and/or applications which fall outside the definition of the invention, as described in the legal claims.

7.3.5 Extension Abstract

Qualifiers

Search Qualifier	/EX
------------------	-----

Content

The Extension Abstract is an optional field introduced from *DWPI* Update 199908 onwards, only being present when there is sufficient detail in the original patent document, and it should be read in combination with the Alert Abstract and Technology Focus to make complete sense. Like the Alert and Technology Focus Abstracts, the Extension Abstract has separate titled paragraphs, presenting the content of the patent document in a more easily understood form.

Search and display of the EX field (in file *DWPX* only from 199916 onwards) is restricted to Thomson Scientific subscribers with the appropriate level of subscription. When displayed in combination with the Alert and Technology Focus abstracts, the Extension Abstract is ideal for the end-user scientist or engineer who needs a detailed summary of a patent, free from legalistic jargon. This helps the end-user to bridge the gap between the concise Alert Abstract summary, and the often lengthy, difficult-to-read, full text patent document.

The Extension Abstract field also offers additional free text searching possibilities for experienced online searchers. When taken together the Alert, Technology Focus and Extension Abstract fields represent the online implementation of Thomson Scientific's in-depth Documentation Abstracts (previously only available in print and CD-ROM forms).

The Extension Abstract contains series of titled paragraphs, as described below, and is only used for inventions classified in *CPI*.

Heading	Definition
Wider Disclosure	used when the scope and/or novelty of the invention, as defined in the body of the specification, is broader than that of the main independent claim(s). The paragraph will contain those novel features and/or applications which fall outside the definition of the invention, as described in the legal claims. The wider disclosure paragraph is not used for patents which are related to other patents or applications, which have already been published, e.g. United States 'continuation-in-part' documents.
Administration	used to cover details of dosages and methods of administration for pharmaceutical/veterinary patents, or rates of application and application methods in agrochemical patents.
Specific 'Substances'	this is used for specific substances which relate to, or exemplify, the novel features of the invention, and not to cover all specific substances. The information is grouped together under one or more headings selected from a controlled list, depending on the 'substances' being defined, e.g. specific compounds, specific sequences, specific cells specific materials, etc.

cont'd

Heading	Definition
Example	a summary of an example which provides data in support of the advantages of the claimed invention, or details about how the invention is carried out in practice. The paragraph is not included if it does not add any information to that already reported in the Technology Focus Abstract.
Definitions	this is normally immediately followed by the phrase 'preferred definitions:'. The paragraph is used to detail the preferred options for Markush chemical formulae defined in the Detailed Description paragraph of the Alert Abstract.

8 Company and Inventor Searching

8.1 Patent Assignee

Qualifier

Search Qualifier	/PA; /PAN
------------------	-----------

Content

The patent assignee field consists of the full name of the assignee, up to 40 characters in length, and the assignee code. Prior to *DWPI* Update 199216 there was a limit of 24 characters in the assignee name. Both of these limits apply to the overall name, even if the name comprises several words.

Until *DWPI* Update 199216, up to four assignees from the basic patent were recorded. Since this time, this limit has been removed and any number of assignees may be input. From the end of 1976 (*DWPI* Update 197648) additional assignee codes and names appearing on equivalents have also been added.

Approximately 21,000 companies, which regularly file a large number of patent applications, are regarded as “standard” companies and are assigned a unique four letter code. For comprehensive retrieval of patents assigned to these standard companies, it is best to search the Company Code (see Section 8.2).

Searching

Where the exact form of the name is not known it is advisable to look at the appropriate alphabetical section of the Patent Assignee index online in order to identify suitable candidates. Use the `..IND` command with all or part of the name, e.g. `..IND /PA ICI`.

To search the whole name as standardised by Thomson Scientific, or a truncated form of the whole name the `/CC` qualifier may be used (see Section 8.2).

Right-hand truncation can be used with a distinctive fragment of the the full name in order to retrieve all possible variations. Please note that left-hand truncation is *not* available for this field.

Words are taken from the assignee as written, but the name may also be shortened or individual words abbreviated as necessary to fit the 24-character field, e.g. INT for international, MFG for manufacturing.

8.2 Patent Assignee/Company Code

Qualifier

Search Qualifier	/CC
------------------	-----

Search Format

S/CC AAAA	Standard Code
S/CC AAAA-X	Non-standard Code
Where:	AAAA = Company code
	X = Assignee status for non-standard codes (N, I or R)

Content

Since corporate names are not standardised, but rather vary widely according to location and subsidiary, Thomson Scientific assigns a single company code to patentees that are known to be related and that regularly file a large number of patents (“Standard” Companies).

If two organisations (with “Standard” patent assignee codes) merge, the usual policy is to continue to apply the standard patent assignee code for each organisation as long as patents filed under the names of the independent organisations continue to appear. For example, following the merger of Sandoz (SANO) and Ciba (CIBA) to form Novartis, the SANO and CIBA codes continued to be applied to those patents filed under the names of Sandoz and Ciba. These codes may ultimately become dormant if ongoing filings are made under the Novartis name for which a new standard code ‘NOVS’ was created.

Note that Thomson Scientific does not automatically assign a new standard company code when two large companies merge or are involved in takeovers/demergers etc. Each case is assessed individually and the most appropriate action taken. So in the case of Novartis (merger) and Zeneca (demerger from ICI) new codes were created, but with Smithkline Beecham, Bristol-Myers Squibb and Glaxo Wellcome one existing code was retained and the other abandoned.

Patentee codes are not generally changed retrospectively as the assignment of patent rights from one organisation to another are not tracked in *DWPI*.

Until 1992, a maximum of four codes were applied to each record. From *DWPI* Update 199216 however, this restriction was lifted and any number of assignees are recorded. Also since *DWPI* Update 197648, additional assignee codes and names have been added from equivalents if they differ from those of the basic.

Standard Codes

Approximately 21,000 companies, which regularly file a large number of patent applications, are regarded as “standard” companies and are assigned a unique four letter code. For example, BADI is the code for *BASF AG* and associated companies.

Standard patent assignee codes are listed in the Patent Assignee Codes user guide and are searchable on the Thomson Scientific website (<http://www.scientific.thomson.com>). Other useful sources of standard company codes are online records and the results of a RANK command.

Non-standard Codes

Since 1970, “non-standard” codes have been assigned to companies, institutes, and individuals that do not file a large number of patents. These codes are allocated using a set of simple rules (see Patent Assignee user guide) and the letters used in the non-standard codes are often the first four letters of the name. Thus these codes are often not unique and their usefulness in searching is limited.

Non-standard codes are displayed with a suffix indicating assignee status as follows:

	Suffix	Format	
Non-standard Companies	N	AAA-N	(197001-197402)
		AAAA-N	(197403 to date)
Russian (Soviet) organisations	R	AAA-R	(197001-197402)
		AAAA-R	(197403 to date)
Individuals	I	AAA-I	(197001-197402)
		AAAA-I	(197403 to date)

Sort

Search results may be sorted by the first assignee code, for example:

```
..SO SS 2 /PA
```

Note that a frequency distribution of patent assignees can be obtained by use of the ..MEMS command. For example,

```
** SS 1: Results 614
Search Statement 2

?..MEMS 1-150 /PA RK 1

Total number of terms extracted: 194
Number of terms now in MEM2 : 113

Search statement 2

?..li mems
Memory is of type MEMSORT
(statistical analysis)
#      FREQ TERM
1      12  ABBO
2      10  TAIS
3       8  MERI
4       8  OREA
5       5  ELIL
6       4  BEEC
7       4  PFIZ
8       3  ANTI-
9       3  INSC
10      3  TEIK-
11      3  WHIT-
12      2  CELL-
13      2  EAST
14      2  MINA/
15      2  NELR

Continue: Y / N
```

8.3 Patent Assignee – Individual

Qualifier

Search Qualifier	/PAI; PANI
------------------	------------

Search for patents assigned to individuals either with single terms using search operators and truncation or full name using implied adjacency.

```
/PAI GONZALEZ OCHOA C
```

Use /PANI to search patent assignee names as a bound phrase.

If using the NBR, MEM or MEMS commands, use the /PANI index.8.3 Inventor (Author)

8.3 Inventor (Author)

Qualifier

Search Qualifier	/IN; INN
------------------	----------

Search Format

S /IN	Surname A B C
Where:	Surname = family name
	A B C = initials (with spaces)

Content

From 1978 (*DWPI* Update 197804), up to three inventor names were indexed from the basic patent. From 1980, up to eight inventors have been added, with the exception of Soviet basics, for which only three inventor names continued to be indexed. In this time period the family name was limited to 10 characters and the number of initials to 3.

Since *DWPI* Update 199216, any number of inventors may be listed, but the limit on Russian inventors remains. The number of characters for family name has been increased to a maximum of 30 characters and there is no limit on initials.

Inventor names from equivalents and from Japanese basics are not included.

Searching

Inventor names can be searched as single terms or groups of words from the inventor name or as full name using implied adjacency. Use the D proximity operator (Section 6.1) to combine the Family Name and First Name. To search for complete (bound) phrases in the inverted format shown above, use /INN. When searching for single-word family names longer than 10 characters, the 10-character version entered into the file before *DWPI* Update 199216 and the full name entered thereafter have to be included in the search strategy.

```
/IN OPPERMAN D H
```

Names with prefixes like von, van, le, Mac etc. may appear in various forms. For example, VAN DER HEYDEN J could appear as:

```
/IN VANDERHEYD J
```

Names containing punctuation, such as an apostrophe or hyphen, have been entered without the punctuation. However, it has been the practice for some time to input names as they appear in the original documents. For comprehensive retrieval, it is a good idea to search both forms of the name in the name,

```
/IN OBRIEN D E or O'BRIEN D E
```

Names containing an umlaut should be searched two ways: as if there were no umlaut and with an “e” following the letter that has the umlaut.

```
/IN MULLER H K or MUELLER H K
```

It is possible to truncate a name immediately after the family name when initials are not known, but this may decrease precision of the search.

Please note that inventors should also be searched as patent assignee, since if an individual is also listed as the patent assignee, the inventor name may appear only in the PA field. Note also that inventors may only use their first initial.

```
/AU RITTER G+
```

For more precise results use the ..INDEX command to look at the Inventor Name index and select the name(s) required, e.g.

```
..IND /AU RITTER  
1      3      RITTENER  
2      1      RITTENERRU  
3      12     RITTENHOUS  
4      25     RITTENHOUSE  
5      1777   RITTER  
6      3      RITTERBACH  
7      4      RITTERBAND  
8      1      RITTERBEK  
9      6      RITTERBEX  
10     3      RITTERBUSH  
11     1      RITTERDORF  
12     3      RITTERHAUS  
13     1      RITTERHAUSEN  
14     4      RITTERHOFF  
15     1      RITTERHOUSE
```

To avoid confusion between proximity operators and initials, quotes should be used. For example, to search for E.S. Simmons:

```
"SIMMONS E S"/IN
```


9 Patent and Application Details Searching

9.1 Patent Number

Qualifier

Search Qualifier	/PN
------------------	-----

Search Formats

Patent (or publication) numbers are searchable in Thomson Scientific standard format which is also used in all other Questel files in the /XPN field.

There are three categories of patent numbers and each are formatted in a standard way:

- 9.1.1 Numeric series patent numbers
- 9.1.2 Patent numbers that include a year element
- 9.1.3 Chinese, German and Japanese patent numbers

If you are unsure of the search format for a particular patent, use the ..IND command, or consult the table of Patent Number Formats in Section 16.5, which lists the number formats for each country and related document kind(s) included in *DWPI*.

Searching Basic Patents Only

Searches can be restricted to basic patent numbers only using the suffix /PNB

9.1.1 Numeric series patent numbers

Format: /PN CCnnnnnnnn
 Where: CC = WIPO Country Code
 nnnnnnnn = variable number of digits

The following example shows a search for EP patent application 158.

```
?/pn ep158

** SS 4: Results 1

Search statement 5

?prt /pn

1/1 DWPI - (C) The Thomson Corp.
PN- EP----158 A 19790110 DW1979-02 Eng *
  AP: 1978EP-0100176 19780616
- DE2728818 A 19790104 DW1979-02 Ger
  AP: 1977DE-2728818 19770627
- JP54012317 A 19790130 DW1979-10 Jpn
- DE2728818 B 19790830 DW1979-36 Ger
- US4233234 A 19801111 DW1980-48 Eng
  AP: 1978US-0914925 19780612
- EP----158 B 19811014 DW1981-43 C07C-051/41 Ger
  AP: 1978EP-0100176 19780616
- DE2861152 G 19811224 DW1982-01 Ger
- IT1096589 B 19850826 DW1986-48 Ita
- JP87023736 B 19870525 DW1987-24 Jpn
```

Some original patent numbers include letters.

Format	Status Code
USRE29133	E
HUT012790	T
HUH003612	H

US NTIS patent numbers

US government-owned inventions were covered in *DWPI* from 1983-1996. Issued under the jurisdiction of the National Technical Information Service (NTIS), the patent numbers of these inventions comprise the letter “N” between the serial number and the country code. They also have the kind code “N”. For example, USN6142951N.

Original Format	Questel.Orbit Format	Kind Code
US06142951	USN6142951	N

Searching

```
?/pn usn6142951

** SS 33: Results 1

Search statement 34

?prt pn

1/1 DWPI - (C) The Thomson Corp.
PN-   USN6142951 N      19830816   DW1983-45      Eng  *
      AP: 1980US-0142951 19800423
-     US4483582 A      19841120   DW1984-49      Eng
      AP: 1980US-0142951 19800423
```

9.1.2 Patent numbers that include a year element

Format: /PNCC(YY)YYnNNNNN
Where: CC = WIPO Country Code
(YY)YY = Two digit year (pre-2000), four digit year (2000 onwards)
nNNNNN = 5 or 6-digit serial number with zero front fill where necessary

When a year element is included as part of the patent number, the serial number must be front zero-filled to 5 or 6 digits (see Appendix 16.5 for full details by country).

For example Austrian patent 2000/8020 is searched as follows:

```
?/pn AT200008020

** SS 15: Results 1

Search statement 16

?prt pn

1/1 DWPI - (C) The Thomson Corp.
PN- AT200008020 A 20010515 DW2001-34 A47K-003/16 Ger *
AP: 2000AT-0008020 20000404
- AT-408510 B 20011115 DW2001-76 Ger
FD: Previous Publ AT200008020 A
AP: 2000AT-0008020 20000404

?prt full

1/1 DWPI - (C) The Thomson Corp.
AN- 2001-316537 [34]
TI- Load-bearing support, especially for supporting a bathtub
DC- P28
PA- (LAGE/) LAGER K
NP- 2
NC- 1
PN- AT200008020 A 20010515 DW2001-34 A47K-003/16 Ger *
AP: 2000AT-0008020 20000404
- AT-408510 B 20011115 DW2001-76 Ger
FD: Previous Publ AT200008020 A
AP: 2000AT-0008020 20000404
PR- 2000AT-0008020 20000404
IC- A47K-003/16
UP- 2001-34
UE- 2001-76
```

9.1.3 Chinese, German and Japanese Patent numbers

Chinese patent numbers

Before 1989, Chinese patent numbers were derived from an 8-digit application number consisting of a 2-digit year, followed by 1, followed by the 5-digit serial number (e.g. CN88100168)

Since the beginning of 1989 patent numbers have been a numeric series.

In addition Chinese A and C documents have independently running number series which can potentially lead to number clashes. It is advisable to use the patent kind in your search in these cases (see Section 9.3)

German patent numbers

October 1968 to December 1996

Patent applications comprise 7-digit serial numbers prefixed by the letter 'P' (indicating a patent application), followed by a decimal point and a computer check digit.

The first two digits of the 7 digit serial number represent the year of application (obtained by adding 50), and the remaining 5 digits are a serial number beginning at 1 annually. The *DWPI* on Questel.Orbit patent number is derived from this application number by omitting the 'P' and the check digit.

Original	DEP4229047.3	Questel.Orbit Format	DE4229047
----------	--------------	----------------------	-----------

January 1995 to 2004

Patent applications comprise 8-digit serial numbers), followed by a decimal point and a computer check digit. The first digit of the serial number is 1, indicating a patent application, the next two digits are the year and the remaining 5 digits are a serial number beginning at 1 annually. The *DWPI* on Questel.Orbit patent number is derived from the application number by omitting the check digit.

Original	DE 19813012.0	Questel.Orbit Format	DE19813012
----------	---------------	----------------------	------------

From January 2004

Patent applications comprise a 12- digit number. The first two digits indicate the IP right (10 = patent, 20 = utility model etc.) and are followed by a 4-digit year and a 6-digit serial number.

Original	DE102004035364	Questel.Orbit Format	DE102004035364
----------	----------------	----------------------	----------------

Japanese patent numbers

Special formats are used to distinguish between Japanese documents that are unexamined applications (Kokai), old law examined patents (Kokoku), and new law granted patents (Toroku).

Unexamined Japanese applications (Kokai)

Format: /PN JPEENNNNNN or /PN JPYYYNNNNNN

Where: JP = WIPO Country Code for Japan

EE = Two-digit Emperor year

YYYY= four-digit western year (for 2000+ publication years)

NNNNNN = 6-digit serial number with zero front fill where necessary

Before 2000 all are searched using the Japanese Imperial Year (Year of the Emperor) which is derived from the Western year as shown below:

Western Year	Japanese Year of the Emperor
1963 – 1988	Western year minus 25 e.g. /PN JP62014858
1989* – 1999	Western year minus 88 e.g. /PN JP02089643

* The first 3200 documents of 1989 were processed as Western Year minus 25

Unexamined documents applied for in Japan have status code (patent kind) A. Unexamined documents transferred from PCT (World) applications have status code W, X, Y, or Z, (see table of Patent Number Formats in Section 16.5).

The search below is for a Japanese PCT transfer:

```
?/pn JP09511815

** SS 21: Results 1

Search statement 22

?prt stdr

1/2 DWPI - (C) The Thomson Corp.- image
AN- 1997-202490 [18]
XP- N1997-167342
TI- Ciphering data compression method for e.g. information processing
system receiving input data and feeding it to compressor and
ciphering device and also determining amount of data to be
processed so quality of data does not exceed main storage device
capacity
DC- W01
PA- (HITA) HITACHI LTD
IN- HINO Y; OTSU Y; TAKARAGI K; YOSHIURA H
PN- WO9710659 A1 19970320 DW1997-18 H04L-009/06 Jpn 53p *
AP: 1995WO-JP01815 19950913
- AU9534844 A 19970401 DW1997-30 H04L-009/06 Eng
FD: Based on WO9710659 A
AP: 1995AU-0034844 19950913, 1995WO-JP01815 19950913
- EP-851627 A1 19980701 DW1998-30 H04L-009/06 Eng
FD: Based on WO9710659 A
AP: 1995EP-0931399 19950913, 1995WO-JP01815 19950913
- JP09511815 X 19981124 DW1999-06 H04L-009/06 Jpn
FD: Based on WO9710659 A
AP: 1995WO-JP01815 19950913, 1997JP-0511815 19950913
- US6122378 A 20000919 DW2000-48 H04N-001/44 Eng
FD: Based on WO9710659 A
AP: 1995WO-JP01815 19950913, 1998US-0029547 19980305
- US6411714 B1 20020625 DW2002-46 H04L-009/06 Eng
FD: Cont of US6122378 A
AP: 2000US-0645605 20000825, Cont of 1995WO-JP01815 19950913,
Cont of 1998US-0029547 19980305
PR- 1995WO-JP01815 19950913
```

Examined Japanese specifications (Kokoku)

Format: /PNJPYYYYNNNNNN
 Where: JP = WIPO Country Code for Japan
 YY = 4-digit Western year
 NNNNNN = 6-digit serial number with zero front fill where necessary

These documents have status code B (see table of Patent Number Formats in Section 16.5).

This search is for an examined specification from 1992, number 54390 (note the need to zero front fill after the year):

```
?/pn JP92054390

** SS 25: Results 1

Search statement 26

?prt stdr

1/1 DWPI - (C) The Thomson Corp.
AN- 1984-111499 [18]
XA- C1992-143081
TI- Semiconductor device prodn. with insulation layer of MOS
transistor having two-layer gate structure. NoAbstract Dwg 0/4
DC- L03 U11 U12
AW- METAL OXIDE SEMICONDUCTOR
PA- (MATE) MATSUSHITA ELECTRONICS CORP
IN- ASAHI K; FUKUCHI J; TAKEISHI A; UEDA S
PN- JP59052879 A 19840327 DW1984-18 Jpn 15p *
AP: 1982JP-0164664 19820920
- JP92054390 B 19920831 DW1992-39 H01L-027/108 Jpn 7p
FD: Based on JP59052879 A
AP: 1982JP-0164664 19820920
PR- 1982JP-0164664 19820920
```

New Law Granted Japanese specifications (Toroku)

Format: /PNJPNNNNNNN
 Where: JP = WIPO Country Code for Japan
 NNNNNNN = 7-digit serial number with hyphen front fill where necessary

These documents have status code B2 (see table of Patent Number Formats in Section 16.5).

```

?/pn JP2720871

** SS 26: Results 1

Search statement 27

?prt stdr

1/1 DWPI - (C) The Thomson Corp.- image
AN- 1998-141374 [13]
XA- C1998-046291
XP- N1998-112477
TI- Non-directional magnetic steel sheet includes sulphur and
vanadium in very small amount
DC- M27 V02
PA- (NIKN) NKK CORP
IN- HIURA A; ODA Y
PN- JP10018006 A 19980120 DW1998-13 C22C-038/00 Jpn 5p *
AP: 1996JP-0171311 19960701
- JP2720871 B2 19980304 DW1998-14 Jpn 5p
FD: Previous Publ JP10018006 A
AP: 1996JP-0171311 19960701
PR- 1996JP-0171311 19960701

```

Extracting Patent Numbers – ..MEM

Use the Questel.Orbit ..MEM command to extract a list of patent numbers from a specific record or group of records for further searching in DWPI or other Questel.Orbit databases. For example:

```
..MEM SS 2 1-3 /XPN
```

This creates a temporary list of patent numbers from the first three records of list SS 2. Use the *MEM /field command to execute the strategy:

```
*MEM /CT
```

This searches the extracted patent numbers in the cited reference field in other Questel.Orbit databases.

Statistical Analysis – ..MEMSort

Use the Questel.Orbit ..MEMS command to extract a list of patent numbers from a specific record or group of records for subsequent statistical analysis. For example:

```
..MEMS /XPN LG 2
```

This extracts the two-letter country code from all patents in the previous list

```
..LI MEMS
```

Displays the extracted two-letter country codes in ascending order.

Sort

Search results may be sorted by the patent number of the basic. For example, to sort all records in the previous list by basic patent number alphanumerically in ascending order:

```
..SO /PNB
```

9.2 Patent Country

Qualifier

Search Qualifier	/PC or /PN
------------------	------------

Search Format

/PC CC

Where: CC = Two-letter WIPO country code

Content

This field contains the 2-letter WIPO standard country code for the patent country (see Appendix 16.4). The country code is part of the patent number and has been indexed additionally to facilitate limiting the scope of a search and for statistical purposes.

Searching

To search for all New Zealand Patents:

```
?/pc nz
```

```
** SS 33: Results 48.007
```

Comprehensive Country Code Searches

For comprehensive search results by patent country, search the Patent Country field, the Application field and the Designated States field. For example, to retrieve British patents and EP and WO documents designating Great Britain:

```
/PC/DS/APC GB
```

9.3 Patent Kind

Qualifier

Search Qualifier	/KD or /PN
------------------	------------

Search Format

/KD An

/KD CCA_n

Where:

CC = Two-letter WIPO country code

A = single letter of stage of application

n = single digit present in some codes

Content

The Thomson Scientific kind code is based on the WIPO kind-of-document code and is used to distinguish different types of patent documents published by a single country. Fuller definitions of all the status codes used in *DWPI* can be found in Section 16.5.

Searching

Search the status code with or without the appropriate country code. Use iof truncation is necessary to retrieve all variations in the kind code e.g. a, A1 and A2 can all be retrieved by searching for A?

/KD EPB?	retrieves all European granted documents
/KD B?	retrieves all 'B' documents (usually examined or granted)
/KD GBA?	retrieves all British unexamined documents
/KD A1	retrieves all 'A1' documents

```
?/PK EPB?
```

```
** SS 31: Results 794.896
```

```
?/PK A1
```

```
** SS 32: Results 2.650.119
```

9.4 Designated States

Qualifier

Search Qualifier /DS

Search Format

/DS CC

Where: CC = WIPO Standard Country Code

Content

The Designated States field is included for European (EP) and PCT (WO) documents to indicate which states the applicant has designated for protection of the invention. On PCT applications, states are designated as *national* (the application will proceed via a national patent authority) and/or *regional* (the application will proceed via a regional authority, i.e., through the European Patent Office or the African Industrial Property Office). For EP documents, the designated states are always regional.

Searching

Designated states are searched using the WIPO standard country code (see Appendix 16.4).

The designated states can be linked to a specific patent number as follows:

```
/DS WO2000000011 L US
```

9.5 Application Number

Qualifier

Search Qualifier /AP

Content

Historically application numbers have been recorded in *DWPI* since early 1984 (Update 198409) for major country basics and for equivalents from the following sources:

BE, DE, EP, GB, JP, SU, WO and NL (examined).

In addition, application numbers have been recorded for the same period for chemical equivalents from:

FR, NL (unexamined), and ZA

Since *DWPI* Update 199216 however, application numbers have been recorded from all source documents.

Gaps in application data coverage have now been filled where possible using original data from the following sources:

- ⁿ German applications, granted patents, and utility models
- ⁿ European applications and granted patents
- ⁿ US applications and granted patents
- ⁿ PCT applications
- ⁿ Japanese applications

Application kind codes are also recorded as some countries accept both regular and utility model applications, and use identical numeric series differentiated only by the application kind. The application kind code is either A for an application, or U for a utility model application. US provisional applications are indicated with a code P.

9.6 Application Country

Qualifier

Search Qualifier /APC (or /AP)

Search Formats

/AP CC

/APC CC

Where: CC = Two-letter WIPO country code

Content

The Application Country field contains two-character codes (WIPO-standard) for application country names.

The country code is part of the application number for every country, but the application country is indexed additionally in a separate field to ease limiting the scope of a search and for statistical purposes. (A full listing of WIPO standard country codes is given in Appendix 16.4.) Non-priority application data is included from *DWPI* Update 198409.

Some countries have several levels of publication of a document or kinds of document. (A full listing of the kind codes covered in *DWPI* and their definitions are given in Appendix 16.5.)

Searching

Application countries can be searched in direct combination with the exact application dates/years using the link (L) operator, e.g.

```
/APC DE L 1998  
/APC DE L 199810  
/APC DE L 19981005
```

9.7 Priority Application Number

Qualifier

Search Qualifier	/PR
------------------	-----

Search Format

/PRYYYYCC-NNNNNNN

Where:

- YYYY = four digit year
- CC = two letter WIPO country code
- NNNNNN = seven digit serial number possibly containing letters made up to seven digits with leading zeros where necessary

Content

When an inventor applies for a patent in several countries, the first application (the one with the earliest date), regardless of the country in which it was filed, is the priority application. The date of the first application is referred to as the priority date.

All priorities for each patent in the family have been included since the middle of 1977 (*DWPI Update 197729*). Prior to that date, the number of priorities entered was restricted to ten.

In some cases, a patent in one country has broader coverage than a single patent in another country. This situation can result in a patent family having more than one priority application. Multiple priorities can also result when new work is carried out on an invention during the 12 month period between original application filing and priority-based filing abroad. When there are multiple priority applications, the latest priority of the basic patent displays in the Priority Information field, followed by all related priorities. These related priorities may be indexed from the basic patent, equivalent patents in the family, or patents in related families. The latter category includes patents of additions, continuations, continuations-in-part and divisions that are linked to the patent family through their common priorities. This information displays in the table for each patent where applicable.

Searching

Search using the priority number in the above format, for example:

/PR 1997DE-1020719
/PR 1988US-0179406

Or alternatively search by priority date in the formats:

YYYYMMDD	e.g.	19950625/PR
YYYYMM	e.g.	199506/PR
YYYY	e.g.	1995/PR

Utility Model Applications as Priorities

Japanese, German, Spanish, Italian, Chinese and Brazilian Utility Model applications are sometimes listed as priority applications when a patent application is filed in another country. Note that only German Utility Model applications themselves have been covered in *DWPI*, with coverage starting in *DWPI* Update 199543.

Comprehensive Patent Family Searching

When conducting a comprehensive extended patent family search, it is essential to search for all records with related priorities, as these may yield related families.

To link patent applications together into patent families, the priority information is used as the primary key to determine equivalency. Related families, based on earlier priorities and arising from divisions or continuations of applications, have been recorded directly by cross-referencing accession numbers (see Section 11.1.3 for details on extended patent families). All these relationships can be determined online by iterative searching all of the priorities involved.

Example: Search for a US patent family on naproxen starting with a known US patent. Note that there is only one patent in the family.

```
?US4045485/pn
** SS 1: Results 1
  Search Statement 2
?..li

      1/1 DWPI - (C) The Thomson Corp.
AN-   1977-64858Y [36]
TI-   Naphthyl-propion aldehydes and oximes are antiinflammatory,
      analgesic, antipyretic and antipruritic agents
DC-   B05
PA-   (SYNT) SYNTEX CORP
IN-   FRIED JH; HARRISON IT
PN-   US4045485 A      19770830 DW1977-36          Eng *
      AP: 1968US-0741900 19680702, 1969US-0814855 19690409,
      1976US-0739362 19761105
PR-   1976US-0739362 19761105
```

Applying the FAM command - to a patent number, an application number or a priority number - will find all other patents in the family. For example:

```
?fam us4045485/pn

  1 Patent Groups
**SS 1: Results 13
```

Notice that a total of 13 other members of this patent family have been found.

9.8 Language

Qualifier

Search Qualifier /LA

Search Format

/LA = three letter code or full language

Content

The language is indicated for all patents. This is particularly useful for countries that accept documents in more than one language, such as Canada which accepts applications in both English and French.

Searching

The language of the document can be searched using one of the following three-letter codes.

Code	Language	Code	Language
AFR	Afrikaans	ITA	Italian
CHI	Chinese	JPN	Japanese
CZE	Czech	KOR	Korean
DAN	Danish	NOR	Norwegian
DUT	Dutch	POR	Portuguese
ENG	English	RUM	Romanian
FIN	Finnish	RUS	Russian
FRE	French	SLO	Slovak
GER	German	SPA	Spanish
HEB	Hebrew	SWE	Swedish
HUN	Hungarian		
Example:	/LA GER OR FRE		

9.9 Number of Countries

Qualifier

Search Qualifier	NC
------------------	----

Search Format

NC=nnn

NC>nnn etc.

Where: nnn = non-zero filled number, e.g., 4, 33, 121, etc.

Content

The number of countries in a patent family is calculated by summing the number of countries represented by the documents listed in the family, including the designated states in EP and PCT (WO) documents. EP and PCT are not themselves counted as countries. As equivalents from new countries are added to a record, the number of countries field is incremented accordingly. Should there be more than one document from a single country, e.g. DE-A and DE-C, the country is only counted once.

Searching

The following numeric operators can be used: =, <, >, <=, >= , for example:

```
?NC > 10
```

```
** SS 4: Results 1.725.939
```

9.10 Number of Patents

Qualifier

Search Qualifier NP

Search Format

NP=nnn

NP<nnn etc.

Where: nnn = non-zero filled number, e.g. 4, 33, 121, etc.

Content

The Number of Patents field gives a count of the number of documents in the family including EP and PCT (WO). The NP field is incremented accordingly as new equivalents are added to a record, including individual counts for different document kinds, e.g. EP-A2, -A3, and -A4.

It is important to note that this field does not include a count for the number of states designated by a European or PCT (WO) patent (see Designated States). It also does not remove duplicates created when two or more publication levels are covered for one country as is done for UK and German documents. It is therefore of restricted use for statistical purposes. See also Section 9.9 (Number of Countries) which may be more useful for statistical purposes.

Searching

Range-searching and relational operators are available for searching the number of patents in a family.

```
/NP=5 : 10  
/NP=>3
```

10 Date Searching

10.1 Publication Date

Qualifier

Search Qualifier /PN or APD (use numeric operators =, <, >, <=, =>)

Search Format

APD YYYY-MM-DD or YYYYMMDD/PN

APD< YYYY-MM or YYYYMM/PN

APD> YYYY or YYYY/PN

Where: YYYY = four-digit year

MM = two-digit month

DD = two-digit day

Content

Publication dates have been available for both basics and equivalents since the start of 1974 (*DWPI* Update 197401). For documents added to *DWPI* before 1974, the publication date may not be available.

Earlier Publications

Although the Basic patent is normally the earliest published patent in its family, there are cases where the Basic may not be the earliest. Basics from major countries are preferred so that the earliest equivalent from a major country is usually designated the Basic, even though the family includes an earlier published equivalent from a minor country. In these cases, the earlier date and country code for the country where it first appeared is displayed in brackets at the end of the title.

Sorting

Search results may be sorted by the date of the basic patent in the family. For example, to sort all records in answer set by the date of the basic patent in descending order:

```
..SO /PNB - RK 3
```

10.2 Publication Year

Qualifier

Search Qualifier /PN or PD (use numeric operators =, <, >, <=, =>)

Search Format

/PD YYYY or PD=YYYY

Where YYYY = two- or four-digit year

Searching

Searches can be restricted to a single publication year or a range of years. For example, to search for patent documents published in 1991 or 1992:

```
PD=1991 or 1992
```

10.3 Application Date

Qualifier

Search Qualifier /AP or APD (use numeric operators =, >, <, =>, <=)

Search Format

APD=YYYY-MM-DD or YYYYMMDD/AP

APD<YYYYMM or YYYYMM/AP

APD>YYYY or YYYY/AP

Where: YYYY = Two- or four-digit year

 MM = Two-digit month

 DD = Two-digit day

Searching

All application dates in the family are directly searchable in the three formats shown above to avoid the need for truncation. They can also be used for ranging.

Application dates can be searched in direct combination with application countries using the (S) operator, e.g.

```
1990 S DE/AP
198910 S US/AP
19910321 S JP/AP
```

10.4 Priority Date/Year

Qualifier

Search Qualifier /PR or PRD (use numeric operators =, <, >, <=, =>)

Search Format

PRD=YYYY-MM-DD or YYYYMMDD/PR

PRD=YYYY-MM or YYYYMM/PR

PRD=YYYY or YYYY/PR

Where: YYYY = Two- or four-digit year
 MM = Two-digit month
 DD = Two-digit day

Searching

All application dates in the family are directly searchable in the three formats shown above to avoid the need for truncation. They can also be used for ranging.

Where the full date is unknown, or not given on the specification, which often happens when divisional application numbers are added, the day and month are recorded as zeros, e.g.

19760000/PR

10.5 DWPI Update

Qualifier

Search Qualifier /DW or /PN

Search Format

/DW YYYY-WW or YYYYWW/PN

Where: YYYY = four-digit year

 WW = two-digit week

Content

The *DWPI* Update indicates when a particular patent was added to the database and displays in the patent family table. In preparation for the year 2000, all dates are now in the four-digit year format.

Searching

The *DWPI* Update field is range searchable, and can be linked by (L) proximity to the corresponding patent information.

The *DWPI* Update can be used to restrict a search to a particular time period for manual SDI (current-awareness) searches, however, the use of Update Codes (Section 14) is preferable.

The /DW qualifier can be used to search on accession year, which corresponds to the year in which the record entered the Thomson Scientific system and not necessarily the publication year of the basic patent.

10.6 Accession Year

Qualifier

Search Qualifier	AY (use numeric operators =, <, >, <=, =>)
------------------	--

Search Format

AY=YYYY

Where: YYYY = Four-digit year

Content

The Accession Year corresponds to the year in which the record entered the Thomson Scientific system. It is not necessarily the publication year of the Basic document.

Before 1970 the Accession Year was not included in the accession number. Consequently all pre-1970 records have been allocated artificial Accession Years as indicated below:

FARMDOC	1966	Interpret as 1963-1969
AGDOC	1967	Interpret as 1965-1969
PLASDOC	1968	Interpret as 1966-1969
'Pre-CPI' Backlog	1969	So that not all records would be "basics" at the start of CPI, for several months in 1969 experimental input was generated

Searching

It is recommended that the ..UPdate command be used to restrict searches to particular time periods based on acquisition year. For example, to retrieve Basics entered from 1990 to 1993 inclusive:

```
/UP 1990-1993
```

All subsequent search statements are then restricted to this period. Note that the four digit year must be used. To restrict the previously existing search statements, using the ..EXecute command will apply the indicated time period to these searches.

11 Classification Searching

11.1 Accession Numbers

An accession number is an alphanumeric identifier assigned to a record to indicate the order in which it was added to a document collection. There are several types of accession numbers used in *DWPI*:

- 11.1.1 Main *DWPI* Accession Number
- 11.1.2 Secondary *DWPI* Accession Number
- 11.1.3 Cross-Reference/Related *DWPI* Accession Numbers

There are three search qualifiers available for searching the various accession numbers:

Qualifier

/AN	Main <i>DWPI</i> Accession Number only
/XA, /XP	Secondary <i>DWPI</i> Accession Numbers
/XR	Main and Related/Cross Reference <i>DWPI</i> Accession Numbers

11.1.1 Main DWPI Accession Number

Qualifiers

Search Qualifier	/AN
------------------	-----

Search Formats

/AN YYYY-NNNNNN	Main DWPI Accession Number Only
-----------------	---------------------------------

Where: YYYY = Four-digit year

NNNNNN = Six-digit serial number

Content

All new basics are assigned unique accession numbers to indicate the order in which they are added to DWPI. Each number comprises a year element, a hyphen and a six-digit serial but the format has changed slightly over time as described below. The year element of the accession number must be searched using a four digit format.

Currently each year numbering begins at 000001 with the new year prefix. This format has been in use since DWPI update 198327. At DWPI update 198327, re-numbering began at 1983-700001.

From DWPI update 197001 to 198327 chemical basics were assigned accession numbers that indicated the year of entry by a letter at the end of the number rather than the four-digit year prefix, e.g. 45982C. To standardise the format of these accession numbers online, the four-digit year and a hyphen have been inserted before the old format number, e.g. 1980-45982C.

For electrical and engineering basics in this period, a letter was also added to the beginning of the number to distinguish them from chemical records, e.g. 1975-C7954W.

The following letters were used to indicate the year:

Letter	Year	Letter	Year	Letter	Year
R	1970	W	1975	C	1980
S	1971	X	1976	D	1981
T	1972	Y	1977	E	1982 (DWPI updates 198201-198246)
U	1973	A	1978	J	1982 (DWPI updates 198247-198252)
V	1974	B	1979	K	1983 (DWPI updates 198301-198326)

Prior to 1970, accession numbers ended in a letter indicating the printed service where the record appeared. These letters have been assigned artificial year numbers that have been added as prefixes to the accession numbers as follows:

Letter	Service	Year
F	FARMDOC (<i>DWPI</i> Section B)	1966
G or H	AGDOC (<i>DWPI</i> Section C)	1967
P or Q	PLASDOC (<i>DWPI</i> Section A)	1968
Z	'Pre-CPI' Data	1969

The pre-CPI data has not appeared in any printed journal and the pre-1970 accession numbers are not associated with *DWPI* updates - the online file shows these updates as '00'.

Searching

Search for Accession Number using the year and number format, above, for example:

```
?/an 2006-552802

** SS 6: Results 1

Search statement 7

?prt max

1/1 DWPI - (C) The Thomson Corp.- image
AN- 2006-552802 [57]
XR- 1998-490741
XP- N2006-443511
TI- Auto-focussing apparatus for use in e.g. video camera,
calculates vertical direction value from output of high pass
filter
...
```

11.1.2 Secondary *DWPI* Accession Number

Qualifier

Search Qualifier	/XA, /XP
------------------	----------

Search Format

/XACYYYY-NNNNNN	(Chemical sections A-M)
/XPNYYYY-NNNNNN	(Non-chemical sections P, Q, S-X)

Where:

YYYY	= Four-digit year
NNNNNN	= Six-digit serial number
C	= Chemical section
N	= Non-chemical section

Content

Secondary accession numbers have been assigned to all records with abstracts since the start of 1983 (*DWPI* update 198301) for the purpose of identifying records in microfilm and CD-ROM series.

Secondary accession numbers of *CPI* documents (*DWPI* chemical sections A to M) are indexed with a “C” before the year, i.e. CYYYY-NNNNNN. Secondary accession numbers of records classified into the electrical and engineering sections (*DWPI* sections P, Q and S-X) are indexed with an “N” before the year, i.e. NYYYY-NNNNNN. If a record is classified into both chemical and non-chemical sections, it is assigned two document numbers, one in each series.

If a basic is reissued, a new secondary accession number is added within the reissue update. Also if an abstract is added to a record that originally did not have an abstract, a secondary accession number is then added.

11.1.3 Cross Reference/Related *DWPI* Accession Number

Qualifier

Search Qualifier /XR

Search Format

/XR YYYY-NNNNNN

Where: YYYY = Four-digit year
 NNNNNN = Six-digit serial number

Content

In *DWPI*, the priorities are used as the primary key to determine the equivalency of patent specifications. Basic documents have unique priority data at the time of the receipt of the document by Thomson Scientific. A patent document received at a later date which has further but related priorities will usually be made Basic and a new family created. This is not only because of the new priority information but also because there is usually extra information available in the later publication.

Since 1985, when an earlier priority carried by a record has already appeared as unique to previous basic, all priorities have been cross-referenced in the related records.

Before 1985, relationships with families based on earlier priorities were not directly recorded and do not appear in the cross-reference field. These relationships can, however, be determined online by searching all of the priorities involved until no additional records are retrieved.

Occasionally, a patent input as a Basic is later found to be equivalent to an existing record. When this occurs, the relevant patent number is added to its correct patent family and the two records involved are both cross referenced to each other with their respective Accession Numbers.

11.2 Thomson Scientific Classification

Qualifier

Search Qualifier	/DC
------------------	-----

Search Format

/DC A

/DC ANN

Where: A = *DWPI* Section
 NN = Sub-section number

Content

Thomson Scientific classifies all basic patents according to their subject content into one or more of 21 subject areas. These are designated A to M (Chemical), P to Q (Engineering) and S to X (Electrical) and are further divided into three-character classes.

The classification for A-M and S-X is applied by Thomson Scientific subject specialists. Classes for the engineering sections P and Q are derived automatically from the International Patent Classification (IPC) assigned by the issuing patent authorities. Consequently a search of the P and Q series classes is equivalent to a broad IPC search and care should be taken with such searches since IPCs are not consistently applied by the different patent authorities.

For records entered prior to 1970, *DWPI* Classes A (Plasdoc), B (Farmdoc), and C (Agdoc) were assigned at the single-letter section level only. From 1970, the full three-character *DWPI* Class codes are assigned. When equivalents were added to pre-1970 records, the record was normally reclassified and thus some pre-1970 records do have complete *DWPI* Class codes.

A complete list of the *DWPI* Classes is available in the *DWPI* Classification Guide, and a list of the 21 subject areas is given in Appendix 16.2.

Section R

DWPI Class R (electrical section) was replaced by classes S, T, U, V, W and X in 1980. Records in the database no longer contain R classes as superior equivalent S-X classes were added at that time. R should therefore not be searched.

See also Section 11.5 on File Segments and Section 12.1 on Manual Codes.

Searching

Both the full class and single-letter forms of the *DWPI* Classes are directly indexed. Truncation may also be used for searching at levels more specific than the single-letter level but not as specific as the full class level:

```
?/dc q3?

** SS 6: Results 717.807

?prt max

  1/717807 DWPI - (C) The Thomson Corp.
AN-      2006-560152 [57]
XP-      N2006-449553
TI-      Container has rectangular reinforcing rib formation formed by
          joined together horizontal and vertical reinforcing ribs located
          at middle of each end wall
DC-      Q32
...
```

The *DWPI* Class can be used to differentiate between references retrieved by ambiguous keywords. In this example the word valve is restricted to pharmaceuticals using *DWPI* Class B:

```
?valve and b /dc

** SS 9: Results 8.032

?prt max

  1/2669107 DWPI - (C) The Thomson Corp.
AN-      2006-560083 [57]
XA-      C2006-174777
TI-      Oral or parenteral pharmaceutical composition comprises at least
          one active ingredient e.g. modafinil and vanillin dissolved in
          oil phase and at least one solubilizing aromatic agent e.g.
          trans-anethole and ethyl benzoate
DC-      B05 B07
...
```

Use the `..IND` command to review the complete list of *DWPI* Classes available.

```
?..ind /dc a83

1          356    A76
2           1    A80
3         64333  A81
4        104430  A82
5         21169  A83
6         35651  A84
7         241954 A85
8          20719 A86
9          17423 A87
10        117532 A88
11        188496 A89
12           2   A90
13         9171  A91
14        92560  A92
15        91935  A93
```

11.3 Original (Initial) US National Classification

Qualifier

Search Qualifier /PCL

Search Format

/PCL MMMSSSDDDAAA

/PCL MMMSSSDDD

/PCL MMMDDDDAAA

Where: MMM = three digit main class
 SSS = three digit sub-class or DIG for digest
 DDD = three digits
 AAA = 1-3 alpha characters

Content

Both the Main and Secondary Original (Initial) US national classes are indexed in the /PCL field and searches will cover both types of classes.

Each US national class is indexed at the 3, 9 and 12-character level to avoid the need to use extensive truncation in generic searches.

Original (Initial) US national classes as issued on the US document at the time of publication are available for:

- ⁿ US applications and granted patents (US-A, US-A1, US-B1/B2) since 1975

At present US national classes within Derwent World Patents Index are not updated following the regular reclassification cycles at the US Patent and Trademark Office. When this reclassification data is introduced current US national classes will become available within the National Patent Classification field.

Searching

Original US national classes are searchable using the suffix /PCL.

- ⁿ /PCL714
- ⁿ /PCL210DIG017
- ⁿ /PCL714005
- ⁿ /PCL379093150

```
*/pcl 002069000  
  
** SS 12: Results 1.006
```

Use the `..IND` command to review the complete list of US Classes available for searching.

```
..ind /pcl  
  
1      14  002065  
2      14  002065000  
3      19  002066  
4      19  002066000  
5     178  002067  
6     178  002067000  
7      45  002068  
8      45  002068000  
9    1196  002069  
10   1006  002069000  
11   235  002069500  
12    43  002070  
13    43  002070000  
14    15  002071  
15    15  002071000
```

11.4 International Patent Classification (IPC)

Content

The International Patent Classification (IPC) system is a patent classification scheme, administered by the World Intellectual Property Office (WIPO), that has varied in scope and application through a number of editions.

Edition	Scope
1st edition	1 September 1968 - 30 June 1974
2nd edition	1 July 1974 - 31 December 1979
3rd edition	1 January 1980 - 31 December 1984
4th edition	1 January 1985 - 31 December 1989
5th edition	1 January 1990 - 31 December 1994
6th edition	1 January 1995 - 31 December 1999
7th Edition	1 January 2000 – 31 December 2005
8th Edition	1 January 2006 -

The introduction of the IPC in 1968 saw the availability for the first time of a single classification system for patent literature as before then searches had to be conducted across various national patent classification systems, each with differing codes, structures and indexing philosophies.

Since 1968 the IPC has undergone regular revisions to ensure that the indexing system has kept pace with changing technology, with new codes added to reflect technological advances and existing codes sub-divided or discontinued to reflect changes in patenting activity.

Prior to the introduction of the 8th Edition of the IPC, the IPC Reform, revisions of the IPC only became effective from the date of introduction forwards. This limitation of the IPC was compounded by the fact that different patent authorities may have introduced new codes at varying times. This meant that for a full retrospective search it was necessary to use IPCs from all previous editions.

The 8th Edition of the IPC however introduced a radical reform whereby all the documents held within the European Patent Office's Master Classification Database, MCD, are subject to ongoing reclassification with each future revision of IPC codes.

This reclassification aspect of IPC8 should eventually ensure that only one version of the IPC, the current version of IPC8, is required for complete retrieval of all relevant documents, thereby removing one of the major limitations of Editions 1-7 of the IPC.

Thomson Scientific will be applying all IPC8 reclassifications to IPCs as they become available. The Current IPCs for the patent family will be available at the Invention Level. The Current IPCs for each family member will also be available at the Member Patent Level together with the Original IPCs for that document (where available due to historical coverage).

Editions 1-7 of the IPC

The general format of an IPC was ANNA-NNN/NNnnn and was structured in the order left to right:

Component	Definition
A	Section
NN	Class
A	Sub-class
NNN	Main Group
NNnnn	Sub-group

Main, Secondary, Additional (Supplementary) and Index (Complementary) IPCs were assigned by the patent offices.

The IPC Reform

Two levels of IPC, Core and Advanced, are available for use by the patent offices. Advanced IPC codes are generally applied by the larger patent offices with sufficient resources to apply to an advanced level. Core IPC codes are applied by the remaining smaller offices.

The European, United States, Japanese, German and UK Patent Offices have all indicated that they intend to use the Advanced level. As the EPO maintains PCT minimum documentation within the MCD this collection will be searchable using Advanced level IPCs.

Following the initial release of the reclassified MCD in early 2006, quarterly revisions to the Advanced Level IPCs are planned for 2006 with increased frequencies of reclassification planned after this. A three year revision cycle is planned for the Core Level IPCs.

In addition the complete patent document is now classified, with “Inventive” classes applied to inventive features described within the claims and “Additional/Non-Inventive” classes applied to features described within the body of the patent specification.

The general format of an IPC is ANNA-NNNN/NNnnnn and is structured in the order left to right:

Component	Definition
A	Section
NN	Class
A	Sub-class
NNNN	Main Group
NNnnnn	Sub-group

Attributes are associated with each IPC code to provide further details on the application of the IPC:

Attribute	Code	Definition
Version Indicator	YYYYMMDD	IPC version date
Class Level	A	Advanced level
	C	Core level
	S	Subclass level
Position	F	First invention information
	L	Later invention information
Scope	I	Inventive
	N	Non-Inventive/Additional
Action Date	YYYYMMDD	Date the IPC code was applied
Level	B	Original Classification
	R	Reclassification
	V	Modified/Corrected
	D	Deleted
Applied	H	Intellectual Classification
	M	Machine Propagation across a family
	G	Automatic Generation
Office	CC	The country or office code that delivered the classification

Some attributes may not be populated by certain patent offices.

Sample IPC Reform Entry

IPCs of interest can be determined by consulting the WIPO website at:
<http://www.wipo.int/classifications/ipc/en/>

IPCs of interest can also be determined by retrieving a few relevant records using a keyword search and then checking the IPCs by viewing the records in a free-of-charge format.

Searching

Thomson Scientific will be applying all the IPC Reform reclassifications to IPCs as they become available. This means that the Current IPCs for the patent family will be available at the Invention Level within Derwent World Patents Index facilitating improved retrieval of relevant documents.

However due to variations in the publication of the initial IPC Reform reclassifications by the various worldwide patent offices and potential differences in the patent families held within *Derwent World Patents Index* and the European Patent Office's MDC, it is possible that the Current IPCs for a family at the Invention Level in *Derwent World Patents Index* may comprise a combination of IPCs from Editions 1-7 and reclassified IPCs from the IPC Reform.

For example if we consider a patent family comprising patents A, B and C in *Derwent World Patents Index*, this same family in the MDC may only comprise patents A and B due to the European Patent Office's simple patent family rules. If patents A and B have been reclassified as part of the IPC Reform then these revised codes will be present in Derwent World Patents Index. However if patent C has not been reclassified then the Current IPCs for patent C remain the IPCs issued under the IPC edition in force when patent C was published. Thus the Current IPCs for the family in *Derwent World Patents Index* at the Invention Level would comprise the IPC Reform codes for patents A and B and IPC1-7 codes for patent C.

Another scenario is where patents A, B and C were issued with IPC Reform codes. Patents A and B were subsequently reclassified but patent C was not. The Invention Level would consequently comprise the IPC Reform codes with an attribute level of R indicating "reclassification" (from patents A and B) and the IPC Reform codes with an attribute level of B indicating "original/initial classification" (from patent C).

The advent of continual reclassification as part of the IPC Reform means that users who maintain Alerts need to consider the impact of potentially frequent changes to the IPC classifications within their area of technological interest to avoid their Alerts becoming redundant.

In addition the availability of attribute information such as "Inventive" and "Non-Inventive" as part of the IPC Reform enables users to focus on inventions with key features described in the claims or elsewhere within the document if required.

When searching the IPC Reform it should also be remembered that some patent offices only classify to the Core Level and not down to the Advanced level. On the other hand documents classified at the Advanced level will also receive the closest corresponding Core level by autogeneration, but this will only occur as part of one of the regular MCD reclassification releases. IPC classes forming the Core level are also not simply a truncation of classes forming the Advanced level; rather they are a selected sub-set.

This could have serious implications for searches. For example a search in the Core level would give more complete results but would miss recently issued documents classified at the Advanced level but which have not passed through an MCD reclassification cycle and so are still only classified at the Advanced level, whereas a search in the Advanced level, although more precise, would only retrieve results from those patent offices applying to the Advanced level.

In order to help alleviate this problem Thomson Scientific will auto-generate the closest Core level IPC for documents which have been classified to the Advanced level but which do not yet carry the corresponding Core level IPC as they have not been subject to an MCD reclassification cycle. The Core level IPC will be auto-generated using the core predecessor in the IPCR authority file provided by WIPO. To help identify these auto-generated Core level IPCs Thomson Scientific will give them an office attribute (CC) of "98". Users will though still need to use both the Core and Advanced levels to ensure comprehensive worldwide retrieval of relevant subject matter due to the fact that some patent offices will only be applying the Core level.

It should be noted that Thomson Scientific will only generate a Core level IPC if this Core level code differs from the corresponding Advanced level code e.g. where the Core and Advanced codes are not the same.

Depending on user requirements a potential search strategy could be:

- (1) Search at Advanced level to retrieve documents
 - (i) within the scope of the PCT minimum documentation plus
 - (ii) documents classified by patent offices applying the Advanced level plus
 - (iii) the converted MCD back file
- (2) Search the closest Core level to retrieve documents classified by patent offices applying the Core level only
- (3) Deduplicate results obtained in (2) from those already obtained in (1).

Thomson Scientific-assigned IPC Codes

If no IPCs are given by the patent office, or if an invalid IPC is printed, Thomson Scientific will assign its own IPC codes to the subclass level.

Historically Thomson Scientific-assigned IPCs were entered with a 000/01 as the main group and subgroup number, e.g. A23L-000/01. Occasionally, more specific symbols with digits different from 0 may have been assigned. IPCs assigned by Thomson Scientific from January 2006 are given an office attribute (CC) of “99” and are assigned to the subclass level.

Historical Coverage, Editions 1-7

IPCs became available for most Basic documents (new inventions) from 1970. They were not available for unexamined Japanese applications published before April 1975 or for Canadian documents published before 1974 (*DWPI* update 197403).

From early 1974 (*DWPI* update 197403) IPCs from equivalents that differed at the main group level or above from those of the Basic were added.

Until 1980 a maximum of 6 IPCs were recorded from a single document. From 1980 (*DWPI* update 198049) this was increased to a maximum of 12. If IPCs only differed at the subgroup level, only one was entered.

From 1992 (*DWPI* update 199216) the full format of IPCs down to the third or fourth digit of the subgroup were entered and since that point these finer divisions became searchable.

Some patent offices only assigned IPCs to the subclass level. Historically these were entered in *DWPI* with 000/00 as the main group and subgroup number, e.g. A23J-000/00. These entries are now being corrected to remove the 000/00.

In addition there were often inconsistencies at the subgroup level resulting from variations in practice between different patent offices. Consequently more complete, but less specific, retrieval could be obtained by searching at the subclass or main group levels.

With the introduction of the 4th Edition of the IPC at the beginning of 1985, indexing (as opposed to official classification) terms were also assigned by patent offices. These were input in *DWPI* since update 199216 using a hyphen (-) between the main group and subgroup instead of a slash (/) as in true IPCs.

For IPC subgroups published with more than two digits after the second hyphen, only the first two digits were input in *DWPI* before update 199216. However, it is only necessary to truncate for IPCs with 3- or 4-digit subgroups as for example A23J-001-02 does not have any finer divisions beyond "/02" so a direct search of this 2-digit subgroup IPC would retrieve all examples.

IPC Reform

Reclassifications are assigned in *DWPI* as and when they become available. At the Invention Level within *DWPI* all Current IPC Reform IPCs for the Basic document are available.

Current IPC Reform IPCs from equivalent documents are included at the Invention Level if they are considered unique when compared to other IPC Reform IPCs for the family based on a combination of the IPC code and the attributes: Classlevel (Advanced/Core/Subclass), Position (First/Later), Scope (Inventive/Non-Inventive) and Level (Original/Reclassified/Modified/Deleted).

For example an IPC of

- (1) F24F-1/00 Class level = A, Position = F, Scope = I, Applied = M, Level = R, Office = JP

is considered different from

- (2) F24F-1/00 Class level = C, Position = F, Scope = I, Applied = G, Level = R, Office = CN

as in the first example the IPC was applied at the Advanced level compared to the Core level in the second example (the differences in issuing office, JP and CN, and application, M and G are ignored), but the same as

- (3) F24F-1/00 Class level = A, Position = F, Scope = I, Applied = M, Level = R, Office = DE

as the difference in issuing office, JP and DE is ignored.

For this purpose missing attributes are considered significant. For example an IPC of

- (1) F24F-1/00 Class level = A, Position = F, Scope = I, Applied = M, Level = R, Office = JP

is considered different from

- (2) F24F-1/00 Class level = A, Scope = I, Applied = M, Level = R, Office = EP

as the position attribute has not been populated by the European Patent Office. See 11.4.2 for specific search examples.

Several attributes have been omitted from the Current IPCs at the Invention Level as they are meaningless in the context of the compilation rules for Current IPCs from equivalent documents; these are Action Date, Applied, and Office. However all IPCs and their associated attributes are available at the Member Patent Level. In addition Original (Initial) IPCs as published on the patent document are available at the Member Patent Level (subject to the historical availability of IPCs as outlined above).

Inconsistencies

Some patent offices only assign IPCs to the subclass level. These are entered in *DWPI* with 000/00 as the main group and subgroup number, e.g. A23J-000/00.

There are often inconsistencies at the subgroup level resulting from variations in practice between different patent offices. Consequently more complete, but less specific, retrieval is obtained by searching at the subclass or main group levels.

Patent Office Indexing

With the introduction of the 4th edition of the IPC at the beginning of 1985, indexing (as opposed to official classification) terms have also been assigned by patent offices. These have been input in *DWPI* since *DWPI* update 199216 using a hyphen (-) between the main group and subgroup instead of a slash (/) as in true IPCs.

11.4.1 International Patent Classification – versions 1-7

Search Format

Qualifier

Search Qualifier	/IC, /ICM, /ICS
------------------	-----------------

Content

The IC index contains all IPCs (v 1-7) irrespective of their status (e.g. Main and Secondary IPCs, Invention and Member Patent Levels). The IPC code indexes are created from the Invention Level IPCs only. At the Member Patent Level the current and original IPC Reform IPCs for each constituent member patent will be displayed in the IC field (See Chapter 13 for details of the *DWPIMV* Member Patent file).

Searching

To search for 7th (and earlier) Edition IPCs use the existing codes with the /IC prefix.

```
?/IC A01B-001/20

** SS 1: Results 194

?prt ic

      1/194 DWPI - (C) The Thomson Corp.- image
IC-    A01B-001/16; A01B-001/20; A01B-001/22; A01B-045/02; A01B-001/00;
      A01B-045/00
```

New IPC fields have been introduced for the IPC Reform (v8) codes and these fields will also be searchable under the IC index. For details of these codes and how to restrict searches to 8th Edition IPCs only, see Section 11.4.2.

Use ..IND within different areas of the IC index to view and select the appropriate IPC7 and IPC Reform codes.

```
?..ind /ic A01B

1      1  A01A-34/70
2      2  A01A-9/00
3      1  A01A-9/22
4      1  A01A-9/24
5 34396 A01B
6  1612 A01B-/00
7      1  A01B-/00000
8      77 A01B-/01
9  1690 A01B-000
10 1613 A01B-000/00
11  1    A01B-000/00000
12  77  A01B-000/01
13 2258 A01B-001
14  526 A01B-001/00
15  1    A01B-001/01
```

Searches can combine both IPC7 and IPC Reform codes, to ensure maximum retrieval of relevant codes. All codes are searchable in the same format.

For example:

```
?/IC g06k-009/00

** SS 5: Results 20.546

?prt max

1/20546 DWPI - (C) The Thomson Corp.- image
AN- 2006-568924 [58]
XP- N2006-457243
TI- Product authenticity validation method e.g. for clothing, purse,
    involves determining if product identifier received from
    consumer is genuine and if identifier has been previously
    received
DC- T01 T04
PA- (SCHN/) SCHNEIDER J I
    - (VANJ/) VANJANI G W
IN- SCHNEIDER JI; VANJANI GW
NP- 2
NC- 111
PN- WO200678965 A2 20060727 DW2006-58 Eng 26p *
    AP: 2006WO-US02152 20060120
    - US20060165260 A1 20060727 DW2006-58 Eng
    AP: 2005US-0038046 20050121
PR- 2005US-0038046 20050121
IC- G06K-009/00
ICAA- G06K-009/00 [2006-01 A F I B - -]
...
```

The IPCs can be linked using (S) proximity to any of the other data for the same document. However more complete results are achieved with the AND operator as all relevant IPCs are then searched.

Truncation

Each IPC code is indexed at the subgroup, main group and subclass levels to avoid the need to use extensive truncation when very generic searches are required. For example, the single IPC code A23J-001/02 (obtaining protein compositions from meat), consists of the following parts:

		Directly Indexed	Search Format
A	Main Section	×	-
A23	Class Level	×	-
A23J	Subclass Level	×	/IC A23J
A23J-001	Main Group Level	×	/IC A23J-001
A23J-001/02	Subgroup Level	×	/IC A23J-001/02

For IPC subgroups published with more than two digits after the second hyphen, only the first two digits were input to *DWPI* before *DWPI* update 199216. There are now no such limits, as stated above, but care should be taken to account for the various changes when formulating a search strategy. In the example quoted, A23J-001/02, there are no finer divisions beyond “/02” and a direct search of this 2-digit subgroup IPC will retrieve all examples. It is only necessary to truncate where 3- or 4-digit subgroups exist in the International Patent Classification manual.

Main IPC

Searching an IPC with the /IC qualifier retrieves patent families that have been assigned that IPC, whether it was assigned as a Main IPC, a Secondary IPC, or an Additional IPC. To search for Main IPCs only, append the suffix /ICM to the IPC code. This will exclude patent families for which the IPC code in question was a Secondary or Additional IPC.

```
?/ic D01B-001/14
** SS 4: Results 109

?/icm D01B-001/14
** SS 3: Results 40
```

To search for Secondary IPCs only, use /ICS.

11.4.2 International Patent Classification, Reform (version 8)

Search Format

Qualifier

Search Qualifier	/IC, /ICAI, /ICAN, /ICAA, /ICCI, /ICCN, /ICCA
------------------	---

Content

Use the new IPC indexes to search IPCR/8 classification codes only.

A feature of the IPC Reform is the organization of the classification into “core” vs. “advanced” codes. The core codes tend to be more general and are intended for classification use by smaller patent offices. The advanced codes provide greater classification depth and are generally assigned by large patent offices such as USPTO, EPO, and WIPO.

Each IPC Reform classification code is also accompanied by a series of attributes or properties of the classification.

The new IPC fields are:

- ⁿ ICAI IPC Advanced Level (Inventive)
- ⁿ ICAN IPC Advanced Level (Non-Inventive)
- ⁿ ICAA IPC Advanced Index (searches both ICAI and ICAN)
- ⁿ ICCI IPC Core Level (Inventive)
- ⁿ ICCN IPC Core Level (Non-Inventive)
- ⁿ ICCA IPC Core Index (searches both ICCI and ICCN)

All of these fields, as well as the historical IC fields will be searchable using the IC search qualifier (see Section 11.4.1).

These IPC code indexes are created from the Invention Level IPCs only. At the Member Patent Level the current and original IPC Reform IPCs for each constituent member patent will be displayed.

Searching

To restrict searches to IPC Reform Core Codes:

/ICCA G02C-005/18 Core Inventive or Non-Inventive

To restrict searches to IPC Reform Advanced Codes:

/ICAIG02C-005/18 Advanced Inventive

There are differences in codes applied at Advanced and Core levels, for example searching the following in the different IPC indexes will retrieve different results

- ⁿ G02C-005/14/ICCI Core Level Inventive
- ⁿ G02C-005/14/ICCN Core Level Non-Inventive
- ⁿ G02C-005/14/ICAA Advanced Level Inventive or Non-Inventive
- ⁿ G02C-005/14/IC All IPC fields

```
? G02C-005/14/ICCI

** SS 1: Results 31

?prt max

1/31 DWPI - (C) The Thomson Corp.- image
AN- 2006-545439 [56]
XP- N2006-437621
TI- Spectacles frame has position adjustment mechanism with multiple
elastic force fulcra controllers that regulate elastic force
produced by elastic force generator
DC- P81
PA- (HAKU) HAKUGAN KK
IN- SASAKI H
NP- 1
NC- 1
PN- JP2006215055 A 20060817 DW2006-56 Jpn 9p *
AP: 2005JP-0024715 20050201
PR- 2005JP-0024715 20050201
IC- G02C-005/16; G02C-005/12; G02C-005/14; G02C-005/00
ICAA- G02C-005/16 [2006-01 A F I B - -]; G02C-005/12 [2006-01 A L I B
- -]
ICCA- G02C-005/14 [2006 C F I B - -]; G02C-005/00 [2006 C L I B - -]
```

Use ..IND to view and select the appropriate IPC codes.

```
..ind /icaa

1 2 A01B-009/00
2 3 A01B-011/00
3 14 A01B-013/00
4 28 A01B-013/02
5 1 A01B-013/06
6 13 A01B-013/08
7 2 A01B-013/10
8 7 A01B-013/14
9 5 A01B-013/16
10 11 A01B-015/00
11 12 A01B-015/02
12 2 A01B-015/04
13 3 A01B-015/06
14 2 A01B-015/08
15 2 A01B-015/12
```

Attributes

IPC Attributes notations provide supplemental information about an IPCR/8 class code such as the version date, classification level, source and generating country. All attributes are searchable in either the new IPC fields as well as in the IC index using the S proximity operator and can be searched with or without the IPC codes.

The following attributes may be present.

Attribute	Code	Definition
Version Indicator	YYYYMMDD	IPC version date
Class Level	A	Advanced level
	C	Core level
	S	Subclass level
Position	F	First invention information
	L	Later invention information
Scope	I	Inventive
	N	Non-Inventive/Additional
Level	B	Original Classification
	R	Reclassification
	V	Modified/Corrected
	D	Deleted

```

1/1580 DWPI - (C) The Thomson Corp.- image
...
ICAA- G02B-007/36 [2006-01 A F I B - -]; G03B-013/36 [2006-01 A L I B
- -]; H04N-005/232 [2006-01 A L I B - -]

```

11.5 File Segment

Qualifier

Search Qualifier /FS

Search Format

/FS file segment

Content

Since 1974, *Derwent World Patents Index* has included patent specifications irrespective of subject. These are divided into three major subject areas corresponding to the following *DWPI* Class sections:

Title	Full Title and Coverage
CPI	Chemical Patents Index (Sections A-M)
EngPI	Engineering Patents Index (Sections P-Q)
EPI	Electrical Patents Index (Sections R-X)

All references in CPI, EngPI and EPI have been assigned to the appropriate file segment.

Searching

The two file segments can be ANDed to search terms that have alternative meanings in different areas of technology, e.g.

VALVE is used in mechanical and electrical engineering

PLASMA has a meaning in the biological sense as well as in nuclear/electrical technology

When other search criteria do not limit the search to the desired area of technology, inclusion of the appropriate File Segment can restrict the search to the correct area of technology. This technique should only be used when absolutely necessary because each file segment has a very high number of references.

Use to restrict retrieval to CPI, EPI or EngPI records, e.g. FS/CPI

12 Thomson Scientific Indexing

12.1 Manual Codes

Qualifier

Search Qualifier	/MC
------------------	-----

Search Format

MC=ANN(A)-ANNANA	(see below for variations)
Where:	A = Manual code letter
	N = Manual code number

The Chemical Manual Code field is searchable by eligible subscribers only. If you are an eligible subscriber, you must apply to Thomson Scientific to have the correct access conditions applied to each Questel.Orbit User Number.

Electrical and Engineering Manual Codes are open access for all users.

Content

Manual codes are similar to broad descriptors and have a hierarchical structure, with section, subsection, group, subgroup, division and subdivision levels. They are more detailed than the DWPI Class (Section 11.2) and are assigned to basic patents in sections A to M (*Chemical Patents Index*), section Q (*Engineering Patents Index (EngPI)*) and sections S to X (*Electrical Patents Index (EPI)*).

Manual code assignment is based only on the main inventive features of a basic patent, although both the patented matter and the applications are coded.

Manual codes have been applied from the beginning of coverage of each of the sections, with the exception of section Q Transportation manual codes which were introduced at the beginning of 2006. Manual codes for catalysts, which begin with the letter N, have been in use since 1977.

Each code has one of the following formats:

Code Format	Definition
ANN	section letter and subsection number, e.g. B12
ANN-A	group letter added, e.g. B12-G
ANN-ANN	subgroup number added, e.g. B12-G01
ANN-ANNA	division letter added, e.g. B12-G01B
ANN-ANNAN	subdivision number added, e.g. B12-G01B1
ANN-ANNANA	10 characters for some new <i>EPI</i> codes from 199201

Note the need to insert zeros - the subsection and subgroup must always be two-digit numbers, hence B12-G01, but the subdivision number is always single-digit.

Manual Codes and IPCs

Although Manual Codes are similar to IPCs in their application and level of specificity, the two differ in a number of important ways:

- ⁿ IPCs cover a broader range of subject matter than Manual Codes.
- ⁿ IPCs are applied differently by different patent offices around the world, while Manual Codes are assigned consistently by Thomson Scientific Indexers.
- ⁿ Manual Codes have a logical hierarchy.
- ⁿ IPC is assigned for the main aspect of the invention, whereas Manual Codes are assigned for the invention *per se*, and for significant applications.

For further information see Thomson Scientific Online User Guides - *CPI* Manual Codes and *EPI* Manual Codes.

Searching

Since Manual codes are hierarchical in format, truncation can be used to retrieve all codes assigned to an intermediate level as well as the more specific codes below that level. However, truncation should be used with care because very large sets of records can result if Manual Codes are truncated too far to the left.

There are two types of searches whose results are likely to be enhanced by using Manual Codes:

- 1 A broad subject search, choosing an appropriate point at which to truncate after studying the *CPI* or *EPI* Manual Code Manual.
- 2 A specific subject search that will require a specific Manual Code plus general codes to cope with the cases where the original document was not specific, but could be of interest.

12.2 Polymer Indexing

Polymer Indexing is searchable by eligible subscribers only. If you are an eligible subscriber, you must apply to Thomson Scientific to have the correct access conditions applied to each Questel.Orbit User Number.

Since 1966, polymer information has been indexed in *DWPI* for patents classified in Section A: Polymers and Plastics.

The original polymer indexing was the Plasdoc punch code or fragmentation code (qualifier /M0 to /M6), also known as AM codes (Section A Multipunch). These codes were based upon relative positions on a punch card, and concepts were represented by groups of these punch codes. This indexing system was a big step forward, but it still allowed false drops in searches, and relevance was not as high as desired.

In 1978, Key Serial numbers (qualifier /KS) were created from precoordinated groups of punch codes. The obvious benefit of these key serials was the ability to search specifically for those concepts to which they had been assigned. Plasdoc Registry Compounds, with corresponding registry numbers, were incorporated into the system in 1984. These compounds represented the most commonly occurring additives and catalysts in polymers, which, via the registry numbers, could be searched specifically.

In *DWPI* Update 199332, a new system for indexing and searching polymer related information was introduced: Enhanced Polymer Indexing (Section 12.2.3).

This replaced the Plasdoc Fragmentation Codes (Section 12.2.1) and Plasdoc Key Serial Numbers (Section 12.2.2), both of which were discontinued as of update 199501.

Year Ranging

Modifications to the coding system (normally additions) have been made at various times over the years. Consequently, a search frequently is done in stages in order to use the best strategy available during each time period.

To avoid having to use the accession year parameters, the following control codes have been added to all subfields as listed:

Section A Control Codes

01&	1966-mid 1968
01-	mid 1968-1971
012	1972-1976
010	1977
011	1978-1981
013	1982-1983
014	1984- 1993 (DW9331)
017	1993 (DW9332)-1995
018	1996-
2004	2004 -

12.2.1 Plasdoc Fragmentation Codes

Qualifier

Search Qualifier	/AM or /A
------------------	-----------

Search Format

/AM NNX

Where: NN = a number
 X = a number, "-", or "&"

Fragmentation codes are searchable by eligible subscribers only. If you are an eligible subscriber you must apply to Thomson Scientific to have the correct access conditions applied to each Questel.Orbit User Number.

Content

Plasdoc fragmentation codes describe both specific and generic concepts found in patent specifications. Codes are applied to all concepts disclosed or claimed in the specification. Plasdoc fragmentation coding was initially assigned to records that included a basic patent from a major patent-issuing authority and for which an abstract had been published. Basics from other authorities and certain Japanese documents, which had no abstracts, did not have the coding applied until the first appearance of an equivalent from one of the major patent-issuing authorities.

Further details of this coding can be found in the *DWPI Online User Guides - CPI Chemical Indexing User Guide* and *CPI Plasdoc Coding Systems*.

Plasdoc fragmentation codes were discontinued as of *DWPI Update 199501*, and were replaced by the Enhanced Polymer Indexing system (see Section 12.2.3).

Searching

For a single record in the database there is often more than one distinct fragmentation code subfield. Use the (L) operator to specify co-presence, not (NOTL) operator to specify absence of the appropriate codes in a subfield.

```
/AM 014  
/AM 014 S 443
```

12.2.2 Plasdoc Key Serial Numbers

Qualifier

Search Qualifier /KS

Search Format

KS=four-digit code

The Plasdoc Key Serials field is searchable by eligible subscribers only. If you are an eligible subscriber you must apply to Thomson Scientific to have the correct access conditions applied to each Questel.Orbit User Number.

Content

Plasdoc Key Serial Numbers provide a concise mechanism for searching plastics and polymers concepts. Approximately 3,500 key serial numbers are available; e.g. 0248 is used to retrieve polypropylene.

Key serials are present from the beginning of 1978 until the end of 1994. Additional more specific key serials were introduced at the beginning of 1982 and are numbered in the 3,000 series.

Indexing with Plasdoc Key Serials was discontinued from *DWPI* Update 199501, having been replaced by Enhanced Polymer Indexing.

Key serial numbers were initially assigned to basic patents from major patent-issuing authorities that included abstracts. Basics from other authorities and certain Japanese documents that had no abstracts did not have key serials applied until the appearance of an equivalent, with an abstract, from a major patent issuing authority.

Searching

Key serials are searched with the qualifier /KS and their respective 4-digit numbers.

/KS 3210

12.2.3 Enhanced Polymer Indexing

Qualifier

Search Qualifier	/PI
------------------	-----

Search Format

/PI polymer indexing (see below)

The Enhanced Polymer Indexing field is searchable by eligible subscribers only. If you are an eligible subscriber you must apply to Thomson Scientific to have the correct access conditions applied to each Questel.Orbit User Number.

Content

Enhanced Polymer Indexing was introduced in *DWPI* Update 199332 to replace the Plasdoc Fragmentation Codes (Section 12.2.1) and Plasdoc Key Serial Numbers (Section 12.2.2), both of which were discontinued as of *DWPI* Update 199501.

This indexing is a hierarchical system divided into facets, each facet containing codes with a specific format:

Facet	Code Format
Polymer Formers	Generic Codes Gnnnn,
Specific Compound Numbers	Rnnnnn
Polymer Types	Pnnnn
Natural Polymers	Generic Codes Gnnnn,
Specific Compound Numbers	Rnnnnn
Modified Polymers	Mnnnn
Chemicals	Gnnnn, Rnnnnn
Chemical Aspects	Dnn, Enn, Fnn, symbols for elements and groups of periodic table, Dnnn, Fnnn
Novelty Descriptors	NDnn
Universal Terms	Knnnn
Polymer Descriptors	Hnnnn
Shape & Form	Snnnn
Additives	Annn
Catalysts	Cnnn
Chemical Processes	Lnnnn
Physical Operations	Nnnnn
Equipment	Jnnnn
Properties	Bnnnn
Applications	Qnnnn

Where: n represents a single digit

DCR numbers (see Chapter 12.3.1) are also available for search and display within the PS field. These *DCR* numbers have been autogenerated from the corresponding Specific Compound Numbers present in Enhanced Polymer Indexing.

Polymer Indexing is applied to all polymer concepts from the claims and claim-related examples in the specification. The indexing is initially assigned to records that include a basic patent from a major patent-issuing authority, and for which an abstract is published. Basics from other authorities and certain Japanese documents, which do not have abstracts, do not have the indexing applied until the first appearance of an equivalent from one of the major patent-issuing authorities.

For details about the content of and indexing in each facet see the following User Guides:

- ⁿ Polymer Indexing Dictionary
- ⁿ Polymer Indexing Hierarchy
- ⁿ Polymer Indexing Thesaurus
- ⁿ Polymer Indexing System Description
- ⁿ Polymer Indexing Reference Manual

Searching

To improve retrieval, Linking Groups and Linking Levels are used to associate related concepts. Within a record there will be one or more linking groups, each representing a polymer or family of polymers and all concepts related to that polymer or family of polymers.

Within each Linking Group there are three levels of linking each with its own proximity operator:

	Proximity	Operator
Level 1	to chemically describe a substance	S
Level 2	to link the substance to its function	P
Level 3	to link other related terms to the substance	F

Level 1

The proximity operator S (same sentence) is used to link chemical aspects to generic terms and to specific compounds (terms typically found between semicolons). For example, to search for chlorine-containing monoolefinic vinyl ethers:

```
?/PI CL S G0588

** SS 13: Results 126

?prt tico

1/126 DWPI - (C) The Thomson Corp.
...
PI01- [001] 2004;G0577 G0566 G0022 D01 D12 D10 D51 D53 D58 D63 F41 F89
      D19 D18 D31 D76 D89;G0044 G0033...
```

Level 2

The proximity operator P is used to associate a chemical or compound with its function or use, such as homopolymer or additive. For example, to search for calcium carbonate filler:

```
? /PI R01278 P A237  
  
** SS 14: Results 8.184
```

Level 3

The proximity operator F is used to link concepts such as properties and applications to a compound or group of compounds. For example:

```
?/PI P1741 F N6144  
  
** SS 17: Results 992
```

Parentheses should be used to ensure correct processing. The “AND” operator is used to search between linking groups within a record.

In the sample from a record displayed below, [008] and [009] are from different linking groups. Codes shown between semicolons are linked together at level 1 (searchable with the S operator). Sets of codes marked *001*, *002* etc. are linked at level 2 (searchable with the P operator). The linking groups are marked here as [008] and [009] and the F operator searches within each linking group. The AND operator searches across both [008] and [009].

```
[008]  
*001* 018; R24001 G0282 G0271 G0260 G0022 D01 D12 D10 D26 D51 D53  
D58 D61 D83 F36 F35 Na 1A; H0000; A999 A782; A999 A624-R A566;  
P0088  
  
[009]  
*001* 018; R00123 G1821 D01 D50 D81 F78; H0011-R; P0259-R P0226  
D01; A999 A782; A999 A157-R  
*002* 018; R00859 G1809 G1649 D01 D23 D22 D31 D45 D50 D76 D83 F19  
F10 F07; H0011-R; P0259-R P0226 D01; A999 A782; A999 A157-R
```

12.3 Chemical Indexing

12.3.1 Fragmentation Codes, Sections B, C, E

Qualifier

Search Qualifier	/M0, /M1, /M2, /M3, /M4, /M5, /M6, /MALL
------------------	--

Search Formats

/Mn=ANNN

/Mn=AN

Where: n = digit from 0 to 6
 ANNN = chemical fragmentation code
 AN = negation code

Fragmentation codes are searchable by eligible Subscribers only. If you are an eligible Subscriber you must apply to Thomson Scientific to have the correct access conditions applied to each Questel.Orbit User Number.

Content

Thomson Scientific devised the chemical coding system in 1963, long before the arrival of more precise Markush graphical search systems (ca. 1987). Consequently, chemical code searching is the ONLY method of searching the widest disclosure of many chemical patents published between 1963 and 1987. In many cases, such patents will remain valid well past the year 2000, making chemical code searching an important element in any serious search effort involving chemical patents.

The chemical coding system (applicable to *DWPI* sections B, C, E) describes both single and Markush compounds found in patent specifications on the basis of the structural fragments found in these compounds. Thus, chemical code indexing is more traditionally known as “fragmentation coding.” Fragmentation codes are assigned to disclosed applications and activities of the compounds being indexed, thus they provide an in-depth and comprehensive means of retrieving both structural and non-structural information relating to both specific and generic chemicals.

It is possible for many compounds to be disclosed or claimed in one specification. For specific compounds, the fragments are separately displayed, i.e. one subfield per specific compound. For Markush structures, all the permutations of a core structure are placed in the same subfield. The subfields used for the fragmentation codes are listed below, along with the chemistry classes they are used to describe, and the years of availability.

The Fragmentation Codes are searched using the search qualifiers listed below:

Qualifier	Definition	Year
M0=	Pre-1970 Non-steroid (sections B,C)	1963-1969 (B) 1965-1969 (C)
M1=	Natural Products and Polymers (sections B,C)	1970 onwards
M2=	General Chemical (sections B,C)	1970 onwards
M3=	General Chemical (section E)	1970 onwards
M4=	Dyes (section E)	1970 onwards
M5=	Steroids (sections B,C,E)	1963 onwards (B) 1965 onwards (C) 1970 onwards (E)
M6=	Galenic (section B)	1976 onwards

Chemical coding is initially assigned to records that have a basic from a major patent-issuing authority and for which an abstract is published. Basics from other authorities and certain Japanese documents, which do not have abstracts, do not have the coding applied until the first appearance of an equivalent from one of the major patent-issuing authorities.

Searching

For a single record in the database, there is often more than one distinct fragmentation code subfield. Use the (L) operator to specify co-presence, or (NOTL) operator to specify absence of the appropriate codes in a subfield.

Questel.Orbit offers an advantage over other vendors in that an operator need be specified *only once* at the beginning of a list of linked codes which are then separated by commas, e.g.,

```
/M0 L G040,H342,J431,J451,J471,J331,J371,(J521 or J561),J581,J231,V010
```

Fragmentation Codes can also be linked to Compound Numbers.

/M2P140LR00123 searches for the P140 code linked to the exact compound number R00123

/M2*MDNSAIDL P822 searches in the M2 field for the compounds retrieved in a Markush DARC search linked to the activity code P822

If you frequently search the same groups of codes in different BCE Fragmentation Codes fields it may be advantageous to define a format which is synonymous with these fields. This can be done using the ..FORmat command, e.g.,

```
..FOR M M0 M2 M3
```

This creates a custom format “M” which includes M0, M2, and M3

```
/M L G040,H342,J431,J451
```

This searches the indicated codes in the M0, M2, and M3 fields

```
..FOR US
```

Displays all User defined FORMats

Note that searching multiple code fields using this technique can cause a search to slow considerably, and in extreme cases, it may not process at all. In these cases it is advisable to search the fields individually.

Another technique involving the ..FORmat command can be used to expedite the execution of multi-line search strategies against individual fields. This approach involves redefinition of a format and execution of a saved search strategy.

```
..FOR M M0
SS 1 /M L .....
SS 2 /M L .....
...
SS 6 /M OR .....
..SV SE BENOM
..FOR M M2
..EX BENOM
...
6 OR X OR .....
```

Year Ranging

Modifications to the coding system (normally additions) have been made at various times over the years. Consequently, a search frequently has to be done in stages in order to use the best strategy available during each time period.

To avoid having to use the accession year parameters, the following control codes have been added to all subfields as listed:

M900 for M0 and M5	1963-1969
M901 for M1 to M5	1970-1971
M902 for M1 to M6*	1972-1981
M903 for M1 to M6	1981 (8127) -

12.3.2 Chemistry Resource Numbers

Qualifier

Search Qualifier	/DCR
------------------	------

Content

The *Chemistry Resource (DCR)* is an index of specific structures designed to allow users to search the chemical content of Thomson Scientific data.

The indexing of chemical compounds was phased in by technology and by patent country during 1999. The *DCR* index complements the existing Fragmentation Code (B, C, E) indexing and enables both proficient and novice chemical information searchers to obtain precise recall of information within their field of interest.

DCR numbers provide the unique identification label for specific chemical compounds.

Searching

DCR numbers are available within the Keywords field, searchable using /KW. These *DCR* numbers have been auto-generated from the corresponding Specific Compound Numbers.

```
261918/DCR

** SS 3: Results 1

Search statement 4

?PRT DCR

1/1 DWPI - (C) The Thomson Corp.- image
DCR- 261918-K 261918-U 261908-K 261908-U 261907-K 261907-U 211413-K
      211413-U 211405-K 211405-U 261906-K 261906-U 211430-K 211430-U
```


12.3.4 Ring Index Numbers

Qualifier

Search Qualifier /RR

Search Format

RR=NNNNN

Where: NNNNN = five-digit ring code

Ring Index Numbers are searchable by eligible subscribers only. If you are an eligible subscriber, you must apply to Thomson Scientific to have the correct access conditions applied to each Questel.Orbit User Number.

Content

Ring Index Numbers (RINs), available from 1972, are used to index specific ring systems that are not uniquely described by a chemical code. These numbers can be found in the “Patterson Ring Index” (2nd edition, and its supplements). Ring systems encountered in patent documents but not found in the “Patterson Ring Index” are assigned to RINs by *DWPI* numbering from 40,000 onwards.

Although the “Patterson Ring Index” is used as a guide, not all of the Ring Index Numbers are used, since Thomson Scientific does not distinguish between levels of unsaturation or different tautomers.

In the same field “Rarer Fragment Numbers” are included. They were used during the period 1972-1975 to describe less common chemical fragments and were given numbers from 70,000 onwards.

Searching

Ring Index Numbers should be used in conjunction with Section B, C, E, Fragmentation Codes (Section 12.3.1). They should be added to the search logic after separating out the pre-1972 records. Since *DWPI* Update 198601, they have been specifically linked to the respective code subfield (M0 – M6). Furthermore, the RINs are displayed with the codes in their respective subfields.

For details about searching RINs with chemical codes, consult the Chemical Indexing User Guide.

```
?/RR 00138 L 62634

** SS 1: Results 59

Search statement 2

?PRT RR

1/59 DWPI - (C) The Thomson Corp.
RR- 00133 00138 01455 45763 45764 45765 45766 46047 47529 47530 47794
     47804 47807 47809 47813 62634 66905 66906 68954 69267 69268 74339
     90002 07541 05479
```

12.3.5 Compound Number

Qualifier

Search Qualifier	/CN
------------------	-----

Search Formats

/CNYWW-CCCS	Markush Compound Number
-------------	-------------------------

/CNYWW-CCCS-A	
---------------	--

/CN RNNNNN	Specific Compound Number
------------	--------------------------

/CN RNNNNN-A	
--------------	--

Where:	YY = Two-digit year
	WW = DWPI Update
	CCC = Document identifier
	SS = Number, 01-99, sequentially assigned within a record
	NNNNN = Five-digit serial number
	A = Role letter

The DWPI Compound Number field is searchable by eligible subscribers only. If you are an eligible subscriber, you must apply to Thomson Scientific to have the correct access conditions applied to each Questel.Orbit User Number.

Content

A compound number is assigned to each structure from a patent that has been graphically indexed for the Merged Markush Service (MMS). Markush indexing began with *DWPI* Update 198701 for pharmaceutical, agrochemical and general chemical compounds (*DWPI* sections B, C and E). The compound number is normally given a single role qualifier to express the primary function of the compound(s) in the patent, but may have more than one role.

The following roles are used with generic and specific *DWPI* compound numbers:

Roles

A	Substance Analysed/Detected
C	Catalyst
D	Detecting Agent
M	Component of a Mixture
N	New Compound
P	Known Compound Produced
Q	Product Defined in Terms of Starting Materials
R	Removing/Purifying Agent
S	Starting Material
U	Use of a Single Compound
X	Substance Removed
Z	Miscellaneous

Searching

Lists of Compound Numbers from Markush DARC searches in MMS can be processed using the *MDARC (or *MD) command. The lists can also be processed linked to role indicators. Note that this does *not* involve the (L) operator, but instead uses the listname followed by a period and the role indicator, e.g.,

*MD NSAID.P.U	searches the CNs in the Markush DARC list “NSAID” linked to the role indicator “P” or “U”)
*MD NSAID/S	searches the CNs in the Markush DARC list “NSAID” with display of the individual CNs

Compound Numbers can also be linked to Fragmentation Codes but the search must be conducted in the relevant M1 – M6 Fragmentation Codes with which they display.

13 DWPI Member View

Each record within *Derwent World Patents Index* describes a patent family, starting with the new invention (Basic Patent) and adding information about the same invention issued in other countries (Equivalent Patents).

Each week Thomson Scientific checks the specifications issued to determine whether the inventions described in them are new to Thomson Scientific. If the document relates to an entirely new invention not previously seen by Thomson Scientific, the document is designated as being 'Basic', and a new record is created in *Derwent World Patents Index*. If the document covers the same invention as a Basic Patent that has already been published in another country and has been entered into *Derwent World Patents Index*, the document is designated as being 'Equivalent'. The corresponding Basic record is updated with additional information from the Equivalent document. Together, the Basic and the Equivalent patents form a 'Patent Family'.

Two levels of data are available for *Derwent World Patents Index* on Questel.Orbit:

- (1) The Invention Level comprises the 'Patent Family' information such as bibliographic data, value-add title and abstracts and general classification and, where appropriate, Thomson Scientific in-depth indexing. Thomson Scientific applies various algorithms to collate and deduplicate the data from the individual member patents when creating this 'Patent Family' (Invention Level) view.
- (2) The Member Patent Level (or Member View) on the other hand allows users to search and display bibliographic data and general indexing information associated with individual documents that make up the patent family Invention Level. This can allow very specific searching of individual documents. Additional data elements such as original titles and abstracts, claims, addresses and agent information are also present at the Member View.

The Invention Level or Patent Family is the traditional view of the data within *Derwent World Patents Index* meaning that no additional search or display qualifiers are required. To search the original data for Patent Family members it is necessary to use the *Derwent World Patents Index Member View (DWPIMV)* file. Some data elements within DWPI are also searchable within DWPIMV and it is possible to transfer search results from DWPIMV into DWPI (see Section 6.6).

13.1 The *DWPIMV* File

The *DWPIMV* Member View file contains the first level data on which the *DWPI* file is based, as well as the value-added *DWPI* titles, abstracts, Technology Focus and standardized assignee codes applied by Thomson Scientific to the identified basic family member.

Additional *DWPIMV* content includes:

- ⁿ First level patent data including titles, abstracts, main claim (English, French or German)
- ⁿ Names and addresses for assignees, inventors and agents (representatives)
- ⁿ Classifications: US and historical IPC data
- ⁿ *DWPI* titles, abstracts, Technology Focus, company codes
- ⁿ Document type, such as Basic, Equivalent, or Intellectual family
- ⁿ Records in publication stage format and not by family

13.2 Basic Index

Qualifier

Search Qualifier -

Search Format

? term

Search for single words without the use of search qualifiers, possibly combined with Boolean and/or phrases using implied adjacency

Content

The Basic Index conveniently gathers subject words into a single index for general subject searching without the necessity of using search qualifiers.

The Basic Index contains single words from the fields listed below, without punctuation.

A “word” is defined as any alphabetic or numeric character(s) separated by a space or non-alphanumeric character.

Subject Word	Definition
TI	value-add <i>DWPI</i> Title
TT	Title Terms - standardised forms of words in the value-add <i>DWPI</i> Title
ET	English Original Title*
FT	French Original Title*
GT	German Original Title*
OTI	Original Title, Other Language*
AB	value-add <i>DWPI</i> Abstract
EAB	English Original Abstract
FAB	French Original Abstract
GAB	German Original Abstract
NOV	Novelty - words describing the novelty of the invention (included in AB)
TF	Technology Focus - supplementary information to the value-add <i>DWPI</i> Abstract
MCLM	English Original Main Claim*
FCLM	French Original Main Claim*
GCLM	German Original Main Claim*
	* where available

13.3 Titles

Both original Titles and *DWPI* value-add Titles are searchable in the *DWPI* file.

13.3.1 Original Titles

Content

Original author titles in German, English and French may be available at the Member Patent Level. All words from the original author titles are indexed and searchable.

This data is be available for the following documents:

- ⁿ German applications, granted patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) since 1968
- ⁿ European applications and granted patents (EP-A1/A2, EP-B1/B2) since 1978 (available in English, German and French)
- ⁿ US applications and granted patents (US-A, US-A1, US-B1/B2) since 1975
- ⁿ PCT applications (WO-A1/A2) since 1978
- ⁿ Japanese applications, (JP-A) (Machine Assisted Translations) since 1975
- ⁿ Australian applications (AU-A) since 2004
- ⁿ United Kingdom granted patents (GB-B) since 2004

Compound words containing hyphens, commas, etc. are broken into single words at all non-alphanumeric characters and punctuation is removed.

Searching

Original Titles can be searched using the qualifiers listed below. Words in the original title fields may be searched using Boolean and/or proximity operators.

- ⁿ /ET Original Titles, English (WO, EP, US, GB, AU, JP)
- ⁿ /FT Original Titles, French (WO, EP)
- ⁿ /GT Original Titles, German (WO, EP, DE)
- ⁿ /OTI Original Titles, Other Language

Examples:

```
/ET FOOTWEAR SOLE  
/FT SEMELLE AND CHAUSSURE?  
/GT SOHLE AND SCHUHWERK  
/OTI CILINDRO AND BORJAS
```

It should be remembered that original titles may often be very concise so users should consider searching them in combination with the Thomson Scientific value-add title as an additional means to retrieve relevant subject matter (see 13.2.1).

13.3.1 DWPI value-add Title & Title Terms

DWPI value-add titles are written to highlight the content and novelty of the invention disclosed in the patent specification. They are not based on the original title or its exact translation.

These titles are searchable using /TI. See Section 7.2.1. for full details of the *DWPI* value-add Title.

Title Terms (/TT) are the preferred forms of words appearing in the *DWPI* value-add Titles. These are searchable in *DWPIMV* using /TT. See Section 7.2.3 for full details of Title Terms.

13.4 Abstracts

Qualifier

Search Qualifier	/ABS
------------------	------

Content

All abstract words are searchable in the basic index without a search qualifier. The /ABS index comprises all First Level and value-add *DWPI* Abstracts.

Searching

All abstract words are searchable in the basic index without a search qualifier. Using the suffix /ABS searches the following abstract fields: AB, NOV, TF, EAB, FAB and GAB.

13.4.1 Original Abstracts

Content

Original abstracts in German, English and French may be available at the Member Patent Level. This data is available for the following documents:

- n German applications, granted patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) since 2000
- n European applications and granted patents (EP-A1/A2, EP-B1/B2) since 1978 (available in English from 1978, German and French from 2000)
- n US applications and granted patents (US-A, US-A1, US-B1/B2) since 1975
- n PCT applications (WO-A1/A2) since 1978

Searching

Original Abstracts can be searched using the qualifiers listed below. Words in the original Abstract fields may be searched using Boolean and/or proximity operators.

- ⁿ /EAB Original Titles, English (WO, EP, US)
- ⁿ /FAB Original Titles, French (WO, EP)
- ⁿ /GAB Original Titles, German (WO, EP, DE)

Examples:

```
/EAB ROTAT+ AND TOOL  
/FAB ECHANG+ 3D THERMIQUE?  
/GAB SCHUHWERK
```

13.4.2 DWPI value-add Abstract

Content

Thomson Scientific adds value to the information sourced from the original patent application through a process of rigorous classification, abstracting and indexing. The majority of records in *DWPI* (88%) have an abstract for the basic patent. Novelty and Technology Focus fields became available from update 199908 onwards.

The specific /AB index comprises only the value-add *DWPI* abstracts. The /TF index comprises the Technology Focus fields and /NOV comprises the Novelty fields (also covered in /AB).

For full details of the *DWPI* value-add Abstracts, see Sections 7.3.1 and 7.3.3-7.3.5.

13.5 Claims

Qualifier

Search Qualifier	/MCLM, /ECLM, /FCLM, /GCLM
------------------	----------------------------

Content

Original first claims in German, English and French may be available at the Member Patent Level. This data is available for the following documents:

- ⁿ German applications, granted patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) since 1968
- ⁿ European applications and granted patents (EP-A1/A2, EP-B1/B2) since 1991 (available in English, German and French)
- ⁿ US applications and granted patents (US-A, US-A1, US-B1/B2) since 1993
- ⁿ Japanese applications, (JP-A) (Machine Assisted Translations) since 1975
- ⁿ United Kingdom granted patents (GB-B) 1984-1997

Searching

Searching the Claim field restricts a search further than by searching the entire Basic Index (Section 7.1) and so use of this field may give fewer results. Words in the Claim field may be searched using Boolean and/or proximity operators.

```
/MCLM DISPENSING AND SHUT+  
/FCLM DISTRIBUT+ AND OBTUR+  
/GCLM AUSGABE VERSCHLUSSMITTEL
```

13.6 Original Patent Assignee

Qualifier

Search Qualifier	/PA
------------------	-----

Original patent assignees and associated address information may be available for the following documents:

- ⁿ German applications, granted patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) since 1968
- ⁿ European applications and granted patents (EP-A1/A2, EP-B1/B2) since 1978
- ⁿ US applications and granted patents (US-A, US-A1, US-B1/B2) since 1975
- ⁿ PCT applications (WO-A1/A2) since 1978
- ⁿ Japanese applications, (JP-A) since 1977 (no address information)

Original patent assignees have been indexed as bound phrases and single words. These equate to the non-standardised version of the patent assignee as appearing on the patent document. See Section 8 for details of the Thomson Scientific standardised version of the patent assignee.

The original patent assignees are not updated with any subsequent changes in ownership of the invention and so merely reflect the information present on the document at the time of publication.

Due to the wide variation in formatting and punctuation of patent assignees and addresses in original author data it is useful to review the appropriate index to ensure that all relevant data is considered.

?.ind /pa b	
1	1 BAACKES
2	6 BAAD
3	1 BAADARANI
4	18 BAADE
5	2 BAADEGAARD
6	1 BAADEHAVNSGADE
7	4 BAADEISHIE
8	1444 BAADER
9	1 BAADERSTASSE
10	3 BAADERSTR
11	10 BAADERSTRASSE
12	1 BAADJOU
13	11 BAADSGAARD
14	1 BAADSHAUG
15	1 BAAENSC

Some: numbers / Continue: Y / None: N

You may search /PA for Patent Assignee and addresses using:

- single terms using Boolean or proximity operators.
- phrases using implied adjacency.

/PA Isernhagen

To search for Patent Assignee Country, use the country code in your search query:

/PAC JP

13.7 Original Inventor

Qualifier

Search Qualifier	/IN0
------------------	------

Content

Original inventor full names and associated address information is available for the following documents:

- ⁿ German applications, granted patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) since 1968
- ⁿ European applications and granted patents (EP-A1/A2, EP-B1/B2) since 1978
- ⁿ US applications and granted patents (US-A, US-A1, US-B1/B2) since 1975
- ⁿ PCT applications (WO-A1/A2) since 1978
- ⁿ Japanese applications, (JP-A) since 1977 (no address information)

Searching

/IN0= restricts searches to the complete inventor name from original filings only. These Inventor full names (IV=) have been indexed as bound phrases including punctuation (Surname First Name) and single words.

Due to the wide variation in formatting and punctuation of original inventor full names and addresses in original author data it is useful to review the appropriate index to ensure that all relevant data is considered.

```
..ind /IN0 h
1      1 HAACHIOJI
2      4 HAACHITABA
3      2 HAACHOT
4      1 HAACHSHARAT
5     109 HAACHT
6      3 HAACHTSEBAAN
7      2 HAACHTSESTEENWEG
8     324 HAACK
9     111 HAACKE
10     6 HAACKER
11     1 HAACKZEILE
12     1 HAAD
13     2 HAADAA
14     7 HAADARIM
15     1 HAADAYAI
Some: numbers / Continue: Y / None: N
```

If entering names directly, it is a good idea to truncate after the first initial.

You may search /IN0 for Inventors and addresses using:

- single terms using Boolean or proximity operators.
- phrases using implied adjacency.

```
/IN0 SlagelseE
```

To search for Inventor Country, use the country code in your search query:

```
/INC DK
```

13.8 Representative

Qualifier

Search Qualifier	/REP
------------------	------

Content

Patent Agent (Legal Representative) and associated address information is available for the following documents:

- ⁿ German applications, granted patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) since 1968
- ⁿ European applications and granted patents (EP-A1/A2, EP-B1/B2) since 1978
- ⁿ US applications and granted patents (US-A, US-A1, US-B1/B2) since 1975
- ⁿ PCT applications (WO-A1/A2) since 1999

Searching

Representatives (/REP) and addresses have been indexed as bound phrases and single words.

Due to the wide variation in formatting and punctuation of patent agents and addresses in original author data it is useful to review the appropriate index to ensure that all relevant data is considered.

```
..ind /rep mor
1      1  MOREANO
2      19 MOREAU
3      2  MOREAULT
4      1  MOREE
5      3  MOREHEAD
6     4595 MOREHOUSE
7     229 MOREIRA
8      2  MOREIRAS
9     101 MOREL
10    329 MORELAND
11     1  MORELL
12     7  MORELLA
13    791 MORELLE
14     1  MORELLEX
15    81  MORELLI
Some: numbers / Continue: Y / None: N
```

You may search /REP for Representatives and addresses using:

- ⁿ single terms using Boolean or proximity operators.
- ⁿ phrases using implied adjacency.

```
/REP MORRISON AND FORRESTER
```

REP can be used with IND, MEM and MEMS commands.

13.9 Document Type

The Document Type field is only available within *DWPIMV*. Search using the following keywords:

- ⁿ Basic
- ⁿ Equivalent
- ⁿ Intellectual

Example:

DT/Basic

14 Updates

Qualifier

Search Qualifiers /UP, /UB, /UE, /UA, /UC, /UALL

Search Format

/Update code YYYY-WW

Where: YYYY = Year
 WW = update number

Content

Update codes are assigned to all records to indicate when a new record is added to the database or when additional information is added to an existing record. The latest update codes are displayed in the *DWPI* banner message.

Basic Update (/UP)

All new basics added to *DWPI* on a weekly basis are given an update code to indicate the *DWPI* Update in which they were added to the file. Use of this code will restrict a search to the most recent references of new inventions only.

Equivalent Update (/UE)

This code is added to a record each time an equivalent family member is added. It is retained even when new equivalents are added with a subsequent update. Equivalents are added to *DWPI* Update weekly.

If a basic and equivalent are added to a record in the same week, the record is assigned both UP and UE update codes.

Update Corrections (/UC)

This code is added to a record each time a correction is made to the record.

All Update Codes (/UALL)

The search qualifier will search for all types of update modifications.

Subscriber Indexing Updates

The following Update Codes are available to subscribers only. If you are a subscriber you must apply to Thomson Scientific to have the correct access conditions applied to each Questel.Orbit User Number.

Until mid-1997 subscriber indexing followed a few weeks after the Basic Update. Reengineering of Thomson Scientific's editorial processes, currently in progress, will greatly improve the timeliness of the indexing and it will be added to *DWPI* at the same time as the basic record is created. Since August 1997 indexing has been available simultaneously with the bibliographic data for British patents. Other patent authorities are being phased in to this new process and by the end of 1999 all indexing will be updated at the same time as the bibliographic data.

Chemical Indexing Update (/UB)

Chemical Indexing Update Codes are added to records in *DWPI* that have had new B,C, or E (M0-M6) Fragmentation Codes assigned to them. (*DWPI* Registry Numbers and/or Ring Index Numbers are not included with this update code.)

Polymer Indexing Update (/UA)

Polymer Indexing Update Codes are added to records in *DWPI* that have had new Polymer Indexing assigned to them.

All Update Codes (/UALL)

The search qualifier will search for all types of update modifications.

Current Awareness – SDI Profiles

The Profile (SDI) is a current awareness service that helps you track information on a particular topic, track a patent family's growth or track a company's patent activity. Each time the database is updated, your search is run automatically, with the results delivered to you or to a recipient whose address you specify via email or by post.

Once established, your Profile will run automatically and deliver the latest information that matches your search criteria.

Use the following sequence of steps to create a current awareness profile on Questel.Orbit:

- 1 Enter File *DWPI* .
- 2 Specify your preferred delivery address and/or email address, where you would like the search results to be sent.
- 3 Conduct your search in the usual way
- 4 After running the search, save the Profile (SDI), and specify the display format, delivery route and name for the profile.
- 5 Review what Profiles are currently running, and check that the latest profile has saved correctly, use the SHOSDI command.
- 6 As well as running automatically each update, Profiles can be activated at any time. This is done in exactly the same way that a saved search is run, using the Execute (EX) command.

The profile will now deliver regular updates directly to your chosen address. If you need to cancel the Profile for some reason, you would use the PURGESDI command.

15 Display Options

15.1 Predefined Formats

Popular predefined formats for displaying *DWPI* records are listed below. To view the *DWPI* records, use the PRT command format:

```
PRT SS number Format Number Item Number(s)
```

Format

TITL	Displays <i>DWPI</i> title and accession number
STDR	Display the <i>DWPI</i> title, patent number and priority information
TR	Displays the title terms, accession number and patent classification information
TI, AN, IMG	Displays <i>DWPI</i> title, accession number and full graphic image
BRF	Displays <i>DWPI</i> title and <i>DWPI</i> basic abstract
BASC	Displays basic patent information and basic abstract
MAXR	Displays full record including Manual codes plus original Abstracts
MAX IMG	Displays full record including Manual codeas and graphic image
FULL	Displays full record including Manual Codes

Subscribers with access to Extension Abstracts can include them in user-defined formats and an example of how to set up such a format us given below.

Users can create a user defined format that includes all the fields of the basic index plus the Extension Abstracts. The name chosen for the user defined format must be 4 characters or less and it needs to be unique as these user defined formats are defined globally across all Questel.Orbit databases. As long as no database field has the same name as the format name, the search engine will treat a search that is qualified to that user defined format as a catalog and search all the fields defined for it.

For example:

1. In DWPX, enter the unique user-defined format name of your choice:

```
for sab ti tt aw ab fab gab eab nov tf ex
```

(Sab is the name chosen for the user-defined format)

2. Confirm that the format is created:

```
for user
SAB  <--  TI    TT    AW    AB    FAB    GAB    EAB    NOV    TF    EX
```

3. Enter your search:

```
/sab juice and us20060183856/pn

Frequency  Term
1953      JUICE/TF
12778     JUICE/AB
0         JUICE/AW
4557      JUICE/TI
4824      JUICE/TT
935       JUICE/EAB
0         JUICE/FAB
0         JUICE/GAB
4037      JUICE/EX  ß  the EX field/index is searched.
4681      JUICE/NOV
1         US20060183856/PN

** SS 1: Results 1

Search statement  2

KWIC AN

1/1 DWPX - (C) The Thomson Corp.
AN- 2006-577453 [59]
EX-
1.2
...hermetically sealed glass bottles without ground glass
stoppercontaining commercial orange ***juice***; and tested for orange
***juice*** flavor compounds. After testing, it was found that the
limonene has a partition coefficient in the test composition is 1...

PN- ***US20060183856*** A1 20060817 DW2006-59 Eng 25p *
AP: 2006US-0403446 20060413, Provisional 2002US-P432523
20021210, Div Ex 2003US-0672297 20030925
```

16 Appendices

16.1 Display Formats

Some of the most popular pre-defined formats are summarised in the table below.

Format	TT	TEST	STDR	FULL	MAX	ABST	CODE
Basic <i>DWPI</i> Abstract (AB)				X	X	X	X
Plasdoc Multipunch (AM)							X
Accession Number (AN)		X	X	X	X	X	X
Additional Words (AW)	X	X	X	X	X	X	X
Compound Numbers (CN)							X
<i>DWPI</i> Classes (DC)		X	X	X	X	X	X
English Original Abstract (EAB)						X	
File Segment (FS)		X					
French Original Abstract (FAB)						X	
German Original Abstract (GAB)						X	
International Patent Classification Codes (IC)				X	X		X
Standardised Inventors (IN)			X	X	X	X	
Plasdoc Key Serials (KS)							X
Keyword Index Terms (KW)							X
Manual Codes (MC)				X	X		X
Chemical Codes (M0-M6)							X
Number of Countries (NC)		X		X	X	X	X
Number of Patents (NP)		X		X	X	X	X
Patent Assignee (PA)			X	X	X	X	
Polymer Indexing (PI)							X
Patent Number (PN)			X	X	X	X	

cont'd

Format	TEST	TT	STDR	MAX	ABS	CODE	FULL
Priority Number (PR)			X	X	X	X	
Ring Index Numbers (RR)							X
DWPI Title (TI)			X	X	X	X	
Title Terms (TT)	X	X					X
Update Polymers (UA)							X
Update Chemical Codes (UB)							X
Update Equivalents (UE)				X	X		
Update Basics (UP)				X	X		
Secondary Accession Number (XA)		X	X	X	X	X	X
Secondary Accession Number, Non-CPI (XP)		X	X	X	X	X	X
Related Accession Number (XR)		X	X	X	X	X	X

In addition to the pre-defined formats, each data field can be displayed using the two-letter search code, or other two-letter code, as listed on the Questel.Orbit fact sheet for *DWPI*. For example:

```
..LI SS 1 AN TI
```

displays the *DWPI* Accession Numbers and Titles of all records from SS 1

Accession Year (AY), Filing Details (FD), Language (LA) and Standardized Number (XPN, XAP, XPR) fields are not included in any display format. To display these items enter the field name with the PRT command. For example:

```
..PRT XPR
..PRT MAX PLUS XPR
```

Application Data (AP) and Designated States (DS) are included in the Patent Number (PN) field. Additional IPC Codes (ICA), IPC Index Terms (ICB), Linked IPC Codes (ICL), Primary IPC Codes (IC1) and Secondary IPC Codes (IC2) are included in the International Patent Classification Codes (IC) field.

..FORmat

Using the *..FOR*mat command allows you to create a customised format for search and display. For example, to create a format 'PATS1' consisting of Accession Number, Title, Patent Number and Priority fields:

```
..FOR PATS1 AN TI PA PN PR
```

16.2 DWPI Classification

Each DWPI record is classified according to the subject matter in one or more of the following sections:

A-N: Chemical (CPI)		Q: Mechanical (EngPI)	
A	Polymers and Plastics	Q1	Vehicles, general
B	Pharmaceuticals	Q2	Special vehicles
C	Agricultural Chemicals	Q3	Conveying; packaging; storing
D	Food; Detergents; Water; Biotechnology	Q4	Buildings; construction
E	General Chemicals	Q5	Engines; pumps
F	Textiles and Paper-Making	Q6	Engineering elements
G	Printing; Coating; Photography	Q7	Lighting; heating
H	Petroleum		
J	Chemical Engineering		
K	Nucleonics; Explosives; Protection		
L	Refractories; Electro(In)Organics		
M	Metallurgy		

P: General (EngPI)		S-X: Electrical (EPI)	
P1	Agriculture; Food; Tobacco	S	Instrumentation, Measuring and Testing
P2	Personal; Domestic		
P3	Health; Amusement	T	Computing and Control
P4	Separating; Mixing	U	Semiconductors and Electronic Circuitry
P5	Shaping Metal		
P6	Shaping Non-Metal	V	Electronic Components
P7	Pressing; Printing	W	Communications
P8	Optics; Photography; General	X	Electric Power Engineering

Section R

R:	Electrical
R1	Measuring, Testing
R2	Computing, Control
R3	Display, Recording
R4	Basic Electrical Elements
R5	Electric Power, Communications

This classification was used prior to the introduction of the S-X classes in 1981. Since then, Thomson Scientific no longer assigns these R classes, although they can still be seen in records as they are automatically assigned by computer when input in the database. The R classes have been converted to S-X back to 1974.

16.3 Thomson Scientific Standard Abbreviations

Thomson Scientific has abbreviated many commonly occurring words in titles and abstracts (Basic Index) over time. Since 1998 it has been policy not to abbreviate where possible and thus for comprehensive results the abbreviation should be searched together with the corresponding full term.

	Abbreviation		Abbreviation
Definition	Abbreviations	liquid	liq.
addition(s)	addn. or addns.	manufacture	mfr.
administration	admin.	manufactured	mfd.
amount(s)	amt. or amts.	manufacturing	mfg.
apparatus	appts.	maximum	max.
aqueous	aq.	melting point	m.pt.
atmosphere	atmos.	minimum	min.
boiling point	b.pt.	mixture(s)	mixt. or mixts.
coefficient(s)	coefft. or coeffts.	molecule(s)	mol. or mols.
composition(s)	compsn. or compsns.	Non-aqueous	Non-aq.
compound(s)	cpd. or cpds.	obtained	obtd.
concentrated	conc.	optionally	opt.
concentration(s)	concn. or concns.	oxidation	oxidn.
containing	contg.	particularly	partic.
corresponding	corresp.	parts by weight	pts.wt.
degrees	deg.	parts per million	ppm.
derivative(s)	deriv. or derivs.	precipitate(s)	ppte. or pptes.
determination	determn.	precipitated	pptd.
diameter	dia.	precipitation	pptn
dilute	dil	preferably	pref.
distillation	distn.	preferred	prefd.
equivalent(s)	equiv. or equivs.	preparation	prepn.
especially	esp.	prepared	prepd.
evaporation	evapn.	primary	prim.
extraction	extn.	product(s)	prod. or prods.
for example	e.g.	production	prodn.
gram molecule(s)	mole or moles	purification	purificn.
group(s)	gp. or gps.	quaternary	quat.
insoluble	insol.	reduction	redn.

cont'd

Abbreviation		Abbreviation	
saturated	satd.	substituted	substd.
secondary	sec.	temperature(s)	temp. or temps.
separated	sepd.	tertiary	tert.
separating	sepg.	that is	i.e.
separation	sepn.	volume	vol.
solution(s)	soln. or solns.	weight	wt.
substituent(s)	substit. or substits.	with respect to	w.r.t.

Other standard abbreviations for units of measurement, electrical and engineering elements, chemical groups and chemical formulae are also used in abstracts.

16.4 WIPO Country Codes

Assignment of standard codes is governed by ISO Standard and WIPO committee acceptance.

A			
AD	Andorra	BY	Belarus
AE	United Arab Emirates	BZ	Belize
AF	Afghanistan	C	
AG	Antigua and Barbuda	CA	Canada ¹
AI	Anguilla	CD	Democratic Republic of the Congo
AL	Albania ⁴	CF	Central African Republic ⁵
AM	Armenia	CG	Congo ⁵
AN	Netherlands Antilles	CH	Switzerland ^{1,3}
AO	Angola	CI	Cote d'Ivoire ⁵
AP	African Regional Ind. Property Organization (ARIPO)	CK	Cook Islands
AR	Argentina ¹	CL	Chile
AT	Austria ^{1,3}	CM	Cameroon ⁵
AU	Australia ¹	CN	China ¹
AW	Aruba	CO	Colombia
AZ	Azerbaijan	CR	Costa Rica
B		CS	Czechoslovakia ²
BA	Bosnia and Herzegovina	CU	Cuba
BB	Barbados	CV	Cape Verde
BD	Bangladesh	CY	Cyprus ³
BE	Belgium ^{1,3}	CZ	Czech Republic ¹
BF	Burkina Faso ⁵	D	
BG	Bulgaria	DD	German Democratic Republic ²
BH	Bahrain	DE	Germany, Federal Republic of ^{1,3}
BI	Burundi	DJ	Djibouti
BJ	Benin ⁵	DK	Denmark ^{1,3}
BM	Bermuda	DM	Dominica
BN	Brunei Darussalam	DO	Dominican Republic
BO	Bolivia	DZ	Algeria
BR	Brazil ¹	E	
BS	Bahamas	EA	Eurasian Patent Organisation
BT	Bhutan	EC	Ecuador
BV	Bouvet Island	EE	Estonia
BW	Botswana	EG	Egypt
BX	Benelux Trademark & Design Offices		

EH	Western Sahara
EP	European Patent Office ¹
ER	Eritrea
ES	Spain ^{1,3}
ET	Ethiopia
F	
FI	Finland ^{1,3}
FJ	Fiji
FK	Falkland Islands
FO	Faroe Islands
FR	France ^{1,3}
G	
GA	Gabon ⁵
GB	United Kingdom ^{1,3}
GD	Grenada
GE	Georgia
GH	Ghana ⁶
GI	Gibraltar
GL	Greenland
GM	Gambia ⁶
GN	Guinea ⁵
GQ	Equatorial Guinea
GR	Greece (Hellenic Republic) ³
GS	S. Georgia & S. Sandwich Islands
GT	Guatemala
GW	Guinea Bissau
GY	Guyana
H	
HK	Hong Kong Special Admin. Region of the PRC
HN	Honduras
HR	Croatia
HT	Haiti
HU	Hungary ¹
I	
IB	International Bureau of WIPO
ID	Indonesia
IE	Ireland ^{1,3}
IL	Israel ¹

IN	India
IQ	Iraq
IR	Iran (Islamic Republic of)
IS	Iceland
IT	Italy ^{1,3}
J	
JM	Jamaica
JO	Jordan
JP	Japan ¹
K	
KE	Kenya ⁶
KG	Kyrgyzstan
KH	Cambodia
KI	Kiribati
KM	Comoros
KN	Saint Kitts and Nevis
KP	Korea, Democratic People's Republic of
KR	Korea, Republic of ¹
KW	Kuwait
KY	Cayman Islands
KZ	Kazakhstan
L	
LA	Laos
LB	Lebanon
LC	Saint Lucia
LI	Liechtenstein ³
LK	Sri Lanka
LR	Liberia
LS	Lesotho ⁶
LT	Lithuania ⁴
LU	Luxembourg ^{1,3}
LV	Latvia ⁴
LY	Libyan Arab Jamahiriya
M	
MA	Morocco
MC	Monaco ³
MD	Moldova, Republic of
MG	Madagascar
MK	The former Yugoslav republic of Macedonia ⁴

ML Mali⁵
MM Myanmar
MN Mongolia
MO Macau
MP Northern Mariana Islands
MR Mauritania⁵
MS Montserrat
MT Malta
MU Mauritius
MV Maldives
MW Malawi⁶
MX Mexico¹
MY Malaysia
MZ Mozambique

N

NA Namibia
NE Niger⁵
NG Nigeria
NI Nicaragua
NL Netherlands^{1,3}
NO Norway¹
NP Nepal
NR Nauru
NZ New Zealand¹

O

OA African Intellectual Property
Organization (OAPI)
OM Oman

P

PA Panama
PE Peru
PG Papua New Guinea
PH Philippines¹
PK Pakistan
PL Poland
PT Portugal^{1,3}
PW Palau
PY Paraguay

Q

QA Qatar

R

RO Romania^{1,4}
RU Russian Federation¹
RW Rwanda

S

SA Saudi Arabia
SB Solomon Islands
SC Seychelles
SD Sudan⁶
SE Sweden^{1,3}
SG Singapore¹
SH St. Helena
SI Slovenia⁴
SK Slovakia¹
SL Sierra Leone
SM San Marino
SN Senegal⁵
SO Somalia
SR Suriname
ST Sao Tome and Principe
SU USSR²
SV El Salvador
SY Syria
SZ Swaziland⁶

T

TC Turks and Caicos Islands
TD Chad⁵
TG Togo⁵
TH Thailand
TJ Tajikistan
TM Turkmenistan
TN Tunisia
TO Tonga
TP East Timor⁷
TR Turkey
TT Trinidad and Tobago
TV Tuvalu
TW Taiwan, Province of China¹
TZ Tanzania, United Republic of

U

UA	Ukraine
UG	Uganda
US	United States ¹
UY	Uruguay
UZ	Uzbekistan

V

VA	Vatican City State (Holy See)
VC	Saint Vincent and the Grenadines
VE	Venezuela
VG	Virgin Islands (British)
VN	Viet Nam
VU	Vanuatu

W

WO	World Intellectual Property Organization (WIPO) ¹
WS	Samoa

Y

YE	Yemen, Republic of
YU	Yugoslavia

Z

ZA	South Africa ¹
ZM	Zambia
ZW	Zimbabwe ⁶

Additional Codes used by Thomson Scientific:

RD	Research Disclosure ⁷
TP	Technology Disclosure ⁸

Notes:

- ¹ Countries covered in *DWPI*
- ² Countries covered in *DWPI* that no longer exist
- ³ Member countries of EPO (European Patent Office)
- ⁴ Extension countries of EPO (will become members)
- ⁵ Member countries of OAPI (African Intellectual Property Organisation).
- ⁶ Member countries of ARIPO (African Regional Industrial Property Organisation).
- ⁷ Research Disclosures © Kenneth Mason Publications [2006]
www.researchdisclosure.com
- ⁸ TP is used for Technology Disclosure in *DWPI*

16.5 Patent Number Formats and Kind Codes

Unless otherwise indicated by a *DWPI Update* reference, the patent number formats illustrated in the table are used throughout the entire database. Two-character status codes begin with *DWPI Update 199216*.

Abbreviations used in the table:

NTIS - National Technical Information Service

OPI - Open for Public Inspection

PCT - Patent Cooperation Treaty

CC - Country Code

CC	Questel.Orbit Format	Status	Covered in <i>DWPI</i>
AR	AR-203725	A	Patent [1974 - 1976 only]
AT	AT8500819	A	OPI application without examination
	AT200008014	A	
	AT--395582	B	Examined granted patent (from 199303)
AU	AU8423025	A	OPI application without examination
	AU200010028	A	
	AU--634440	B	Examined and accepted patent (from 199308)
BE	BE-893309	A	Unexamined granted patent
	BE1000974	A0	Unexamined granted patent
	BE1003730	A3-A5	Based on application - searched but not examined
	BE1003729	A3	Initial text with search report
	BE1003780	A4	Changed/corrected text with search report
	BE1003497	A5	Text with amended claims and search report
	BE1003750	A6	6-Year patent of invention - not searched or examined
	BE1003736	A7	Corrected 6-year patent of invention
	BE1005374	B3	Patent of invention, 2nd publication with search report
	BE1005196	B5	Patent of invention, 2nd publication
	BE-----93	T	Transfer to BE national patent from EP application

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CC	Questel.Orbit Format	Status	Covered in DWPI
BR	BR8200174	A	OPI application - not searched or examined
	BR200000595	A	
	BR-1100685	A3	Pipeline patent application
CA	CA1134551	A	Examined granted patent before 16.10.90 (old law) or OPI application from 16.10.90 (new law)
	CA1270584	B	Reissue (old law)
	CA1275151	C	Granted patent (old & new law)
	CA1302705	E	Reissue patents granted after 01.10.89 (old & new law)
CH	CH-632885	A	Granted unexamined patent or examined application
	CH-681267	A3	OPI application - searched and preliminary examined (from 1978)
	CH-681338	A5	Granted without examination
	CH-630505	B	Examined accepted specification
	CH-680330	B5	Granted with examination
CN	CN88105901	A	OPI application (before 1989)
	CN1054343	A	OPI application
	CN1026996	C	Examined patent application
CS	CS8101239	A	Examined accepted specification
	CS9103400	A2	Patent application (from 199232)
	CS-276791	B	Granted patent (from 199301)
CZ	CZ9702871	A3	OPI before examination (from 199417)
	CZ200100251	A3	
	CZ--283344	B6	Granted patent (from 199417)
DD	DD-156461	A	Examined granted patent
	DD-299207	A5	Patent specification (exclusive patent)
	DD-299147	A7	Patent specification (exclusive and searched)
	DD-302008	A8	Addition of exclusive patent
	DD-302031	A9	OPI application published from 1 May 1992
	DD-147014	B	Re-examined after grant
	DD-271492	B1	Economic patent, searched and examined
	DD-275484	B3	Exclusive patent, searched and examined
	DD-302031	B5	Patent specification following an A7 after an objection
	DD-279420	C	Examined granted patent
DD-294274	C4	Granted examined exclusive patent	

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CC	Questel.Orbit Format	Status	Covered in DWPI
DE	DE3223281	A	OPI application before examination (from 1968)
	DE2165422	A	Examined accepted specification (pre 1974)
	DE4229047	A1	OPI application before examination (from 199301)
	DE2829631	B	Examined accepted specification (from 1974 - 1981)
	DE3136278	C	Granted patent from 1981 (from 198138)
	DE4119823	C1	Examined patent - first publication (from 199252)
	DE4109215	C2	Examined patent - second publication (from 199252)
	DE68902278	E	Granted EP in English or French assigned 8-digit DE number (from 199216)
	DE3161384	G	Granted EP assigned DE number prior to 1989
	DE58900386	G	Granted EP in German assigned DE number (from 198901 - 199215)
	DE3249155	T	PCT transfer to DE
DE29700012	U1	Utility Model (from 199626)	
DK	DK8104311	A	OPI application
	DK200100466	A	
	DK--165583	B	Granted patent (from 199301)
EP	EP-140267	A	OPI application
	EP-488479	A1	OPI application with search report (from 199220)
	EP-500371	A2	OPI application without search report (from 199221)
	EP-347038	A3	Examiner's search report only for A2 (from 199221)
	EP-764489	A4	Supplementary search report
	EP1134734	A8	Corrected title page of an A document
	EP1083183	A9	Complete reprint of A document
	EP---7694	B	Examined granted specification (pre 199220)
	EP1188588	B1	Examined granted specification (from 199220)
	EP-768220	B2	Amended specification (from 199220)
	EP-806304	B8	Corrected title page of B document
EP1533892	B9	Complete reprint of B document	
ES	ES8500742	A	Unexamined granted patent
	ES2018120	A	OPI application from 1987 (2000000+)
	ES9200006	A1	Unexamined granted patent (<2000000)

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CC	Questel.Orbit Format	Status	Covered in DWPI
ES	ES2111447	A2	Certificate of addition
	ES2027897	A6	OPI application without search report
	ES2020008	B	Granted patent published with search report
	ES2105966	B1	Granted patent published with search report
	ES2026835	T1	Translation of claims with drawings of EP application
FI	ES2028461	T3	Translation of EP granted
	FI8201863	A	OPI application
	FI200100249	A	
	FI--88240	B	Examined patent application (from 199302)
FR	FI-100915	B1	Granted patent (new law) (from 199733)
	FR1464005	A	Granted patent (until 1969)
	FR2504772	A	OPI application (from 1969)
	FR2670849	A1	OPI application
	FR2668972	A2	Application for certificate of addition
	FR2670250	A3	Application for certificate of utility
	FR--95386	E	Certificate of addition (until 1969)
	FR---2435	M	Medicament (until 1979)
GB	FR----272	M	Medicament addition (until 1979)
	GB1593412	A	Examined granted specification (<2000000)
	GB2019743	A	OPI application (2000000+)
HU	GB2421969	B	Examined granted specification
	HU-213591	A	OPI application - examination requested or deferred
	HU9601092	A1	Unexamined patent application
	HU9601003	A2	Examined patent application
	HU200002481	A2	
	HU--59276	T	Examined accepted specification
	HU---3612	H	OPI application
IE	HU-207183	B	Granted patent
	IE6900457	A	Patent specification (1963 - 1969 only)
	IE--77149	B	Granted patent (from 199517)
IL	IE--77774	B3	Short patent (from 199617)
	IL--61670	A	Application for patent of invention

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CC	Questel.Orbit Format	Status	Covered in DWPI
IN	IN200502490	I1	Pre-grant application from Delhi
	IN200500848	I2	Pre-grant application from Kolkata
	IN200501580	I3	Pre-grant application from Mumbai
	IN200501562	I4	Pre-grant application from Chennai
	IN200301634	P1	National phase PCT application from Delhi
	IN200301145	P2	National phase PCT application from Kolkata
	IN200300913	P3	National phase PCT application from Mumbai
	IN200401796	P4	National phase PCT application from Chennai
	IN195175	B	Pre opposition granted application
IT	IT1230497	B	Patent of invention - 2nd publication
JP	JP63012394	A	OPI application
	JP2000000005	A	OP application
	JP04281830	A	OPI application
	JP92074295	B	Examined application
	JP2654733	B2	Examined application (from 199404 to 199618) Registered granted patent (from 199626)
	JP04501316	W	PCT transfer (origin abroad)
	JP2000513578	W	PCT transfer (origin abroad)
	JP03513251	X	PCT transfer (origin Japan)
	JP04500003	Y	PCT transfer to Utility Model (origin abroad)
JP61600004	Z	PCT transfer to Utility Model (origin Japan)	
KR	KR9007728	A	Application
	KR2000001661	A	Application
	KR9002995	B	Examined patent specification
	KR9305210	B1	Examined patent specification (from 199252)
LU	LU--85505	A	Unexamined granted patent
MX	MX-183636	A	Patent of invention (from 199816)
	MX9602708	A1	Published patent application (from 199816)
	MX2000000073	A1	Published patent application (from 199816)
	MX9605530	A2	Anticipated publication of patent application
	MX-183905	B	Granted patent (patent law 1991) (from 199816)

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CC	Questel.Orbit Format	Status	Covered in <i>DWPI</i>
NL	NL8501512	A	OPI application
	NL-175138	B	Examined accepted specification
	NL1005213	C2	20-year new law granted patent (from 199608)
	NL1007567	C6	6-year new law petty patent
NO	NO8901308	A	OPI application
	NO200004853	A	OPI application
	NO-171500	B	Granted patent (from 199301)
	NO-302461	B1	Granted patent
NZ	NZ-233812	A	Examined application (from 199301)
PH	PH--27230	A	Patent application (from 199511)
PT	PT--76934	A	Application for patent of invention
RD	RD-343123	A	Scientific literature disclosure (Research Disclosure) (c) Kenneth Mason Publications Limited [2006] www.researchdisclosure.com
RO	RO--86035	A	Examined granted patent
	RO-112552	B	Granted patent according to 1992 law
	RO-112553	B1	Granted patent according to 1992 law
RU	RU1022622	C	Granted patent of invention
	RU2090021	C1	Granted patent of invention
SE	SE8702558	A	OPI application
	SE200100253	A	OPI application
	SE-467494	B	Examined accepted specification (from 198701)
	SE-506689	C2	Granted patent (new law)
SG	SG9400549	A	Registration (from 199513)
	SG--45465	A1	Patent application (from 199613)
SK	SK-9600868	A3	Patent application
	SK-200000011	A3	Patent application
	SK--278702	B6	Granted patent
SU	SU-1002359	A	Examined granted patent
	SU-1712770	A1	Inventor's Certificate
	SU-1712600	A2	Addition to Inventor's Certificate
	SU-1711687	A3	Patent
	SU-1679967	A4	Patent of Addition
	SU-845271	B	Reissued patent

cont'd

CC	Questel.Orbit Format	Status	Covered in DWPI
TP	TP--119202	A	Scientific literature disclosure (International Technology Disclosure)
TW	TW--323366	A	Unexamined patent application
US	US4398634	A	Examined granted patent
	USN6322144	N	NTIS-published invention application
	USN7187804	N	NTIS-published invention application
	US20020034019	A1	OPI application (from 02.01.2001)
	US2001002378	A2	2nd or subsequent publication of Patent Application from 02.01.2001
	US4726193	A9	Correction publication Patent Application from 02.01.2001
	US2001002378	A1	Application from 02.01.2001
	US3713099	B	Re-examination certificate (prior to 02.01.2001)
	US5579669	B1	Re-examination certificate (prior to 02.01.2001)
	US4366382	B1	Utility patent grant (from 02.01.2001) - no pre-grant publication
	US5381524	B2	Re-examination certificate (prior to 02.01.2001)
	US4366382	B2	Utility patent grant - with pre-grant publication (from 02.01.2001)
	US4913396	B3	Re-examination certificate (prior to 02.01.2001)
	US6007003	C1	First re-examination certificate (from 02.01.2001)
	US4726193	C2	2nd Reexamination publication from 02.01.2001
	USRE37415	E	Reissue
	USH002011	H	Defensive specification
	USH001942	H	Statutory Invention Registration
WO	WO-9001382	A	OPI application
	WO--20001594	A	OPI application
	WO-9207455	A1	OPI application with search report (from 199220)
	WO-9213379	A2	OPI application without search report (from 199220)
	WO-200000166	A2	Search report for A2 (from 199220)
	WO-9745996	A3	Search report for A2 (from 199220)
ZA	ZA-8909975	A	Unexamined accepted specification
	ZA-200100168	A	specification
	ZA-9501302	AA	Second application with same number

16.6 Application/Priority Number Formats

CC	Questel.Orbit Format	Notes
AR	1990AR-0318198	
AT	1991AT-0002405	
AU	1991AU-0004146	
BE	1992BE-0701101	
BR	1992BR-0000108 1991BR-U000711	
CA	1990CA-0049485 1991CA-2034163	
CH	1991CH-0003636	
CN	1991CN-0100015 1991CN-U225158 2005CN-10134579	
CS	1991CS-0002474	
CZ	1993CZ-0001000	
DD	1991DD-0336107	
DE	1992DE-4200008 1998DE-1034455 2000DE-2001664	
DK	1991DK-0000105	
EP	1992EP-0904679 2000EP-0102309	
ES	1992ES-0000144 1992ES-U001791	
FI	1997FI-0000393 1992FI-U000023	
FR	1992FR-0009166 2000FR-0013835	
GB	1992GB-0000027	Where a filing date is quoted associated with a number from an earlier year, the earlier year is entered, not the filing date.
HU	1991HU-0000306 1979HU-FE01046 2005HU-0000188	Numbers assigned prior to 1980 comprise two letters from the patentee's name and up to five digits, entered as such, provided initial letters are known. Current serial numbers comprise only digits.

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CC	Questel.Orbit Format	Notes
IE	2002IE-0000683	
IL	1991IL-0097973	
IN	2005IN-MU00085 2005IN-DE02490	The regional office is included in the application number
IT	1990IT-0093369 2002IT-SA00017 1991ITUDO00214	From 1 January 1991 a two-letter city code is included in the application number.
JP	1992JP-0163744 2002JP-U000375 2001JP-0003379	
KR	2005KR-U004944	
LU	1997LU-0090008	
MX	1995MX-0000286	
NL	1992NL-0000447	
NO	1992NO-0000059	
NZ	1996NZ-0280346	
PH	1996PH-0014494	
PT	1991PT-0096995	
RD	1992RD-0334012	(Research Disclosure)
RO	2003RO-0000396	
RU	1995RU-0113104 2000RU-01190226	
SE	1992SE-0000031	The year and final check digit are removed from the application number.
SG	1995SG-0000013	
SK	1997SK-0000010	
SU	1989SU-4747284	
TP	1992TP-0029201	(Technology Disclosure)
US	1992US-0493916	
WO	1992WO-FI00009 1992WO-EP00011 2001WO-US00496	The full format from the document is PCT/CCYY/NNNNN (CC=country code of the receiving office; YYYY=year of application; and NNNNN=up to five-digit serial number)
ZA	1990ZA-0008527	

16.7 Japanese Coverage

Since the end of 1995 (*DWPI* Update 199548) *DWPI* has included all Japanese Kokai applications (JP-A documents). Until mid 1995 (*DWPI* Update 199528), coverage was restricted to chemical and electrical technologies based on the International Patent Classification (IPC).

In the period from *DWPI* Update 199528 to *DWPI* Update 199548, coverage was phased in online until complete coverage was attained as indicated below:

Subject Area	International Patent Classification	<i>DWPI</i> Update
Automotive	B60, F01, F02N, F02P, F16, F17, B65-B68	199528
Computing	G06, G11, B02-B09	199532
Machine Tools	B21-B28, B30-B32, B41-B44, F21-F41	199536
Construction	E01-E21, F02-F15, B61-B64	199540
Instrumentation	G01-G12	199544
Agriculture	A01-A47, A61-A63	199548

The coverage of Japanese patents before *DWPI* Update 199528 is shown in the following table by IPC. IPC other than those shown have a coverage of less than 10%.

Those indicated with an asterisk (*) may have abstracts if they have additional IPC's in other groups.

Coverage before DWPI Update 199528

IPC Section	IPC Covered	% Covered	Abstracts
A Human Necessities (A01,A21-A24, A41-A47, A61-A63)	A01N,A21,A22,A23,A61K	100	Yes
	A61L,A61M,A62D	50-99	Yes
	A01H, A01J, A01K, A24D, A41B, A41C, A41D, A44B, A47J, A47K, A47L, A61B, A61C, A61F	25-49	Yes
	A01G, A01M, A24B, A41F, A41G, A45D, A61J, A62C	10-24	Yes
B Performing Operations Transporting B01-B09, B21-B32, B41-B44, B60-B68	B01,B29	100	Yes
	B21B, B21H, B21K, B22, B23K	50-99	No*
	B27K, B60C	50-99	Yes
	B03, B04, B05, B07B, B32, B65H	25-49	Yes
	B21C, B21J, B41D, B41M, B41N	10-24	Yes
C Chemistry C01-C14, C21-C23, C25-C30	C	100	Yes
D Textiles and Paper D01-D07, D21	D	100	Yes
E Fixed Constructions E01-E06, E21	E21B	50-99	Yes
F Mechanical, Lighting, Heating, Explosives F01-F04, F15-F17 F21-F28, F41-F42	F17C, F42B	50-99	Yes
	F25,F27	25-49	Yes
	F22B,F26,F28	10-24	Yes
G Physics G01-G12, G21	G21,G01N31-33	100	Yes
	G03C,G03G	50-99	Yes
H Electrical	Just Kokai since 1982	100	No*

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