Patent Map (PM)

WIPS Co., Ltd.

1. Patent Analysis
2. Patent Map
3. The process of patent map
4. What advantages can be taken from Patent Map?
5. The Kinds of Patent Map Results
6. Examples
7. Patent map tool : PM-manager
8. Exercise

Analyzing Patent Information

1. Quantitative Analysis

The method understanding and analyzing patent through numerical statistic of patent information. Most usable data comes from bibliographical information including the number of patent applications, assignees, inventors, or patent classification codes, etc

1) Quantity-based Analysis

2) Time-Based Analysis

3) Ranking Analysis, etc.

2. Qualitative Analysis

The method understanding and analyzing the content of patent. Generally, this analysis method is performed by the inter-relationship of technology content or patent classification code, assignee, application date, etc

1) Selection of core patent

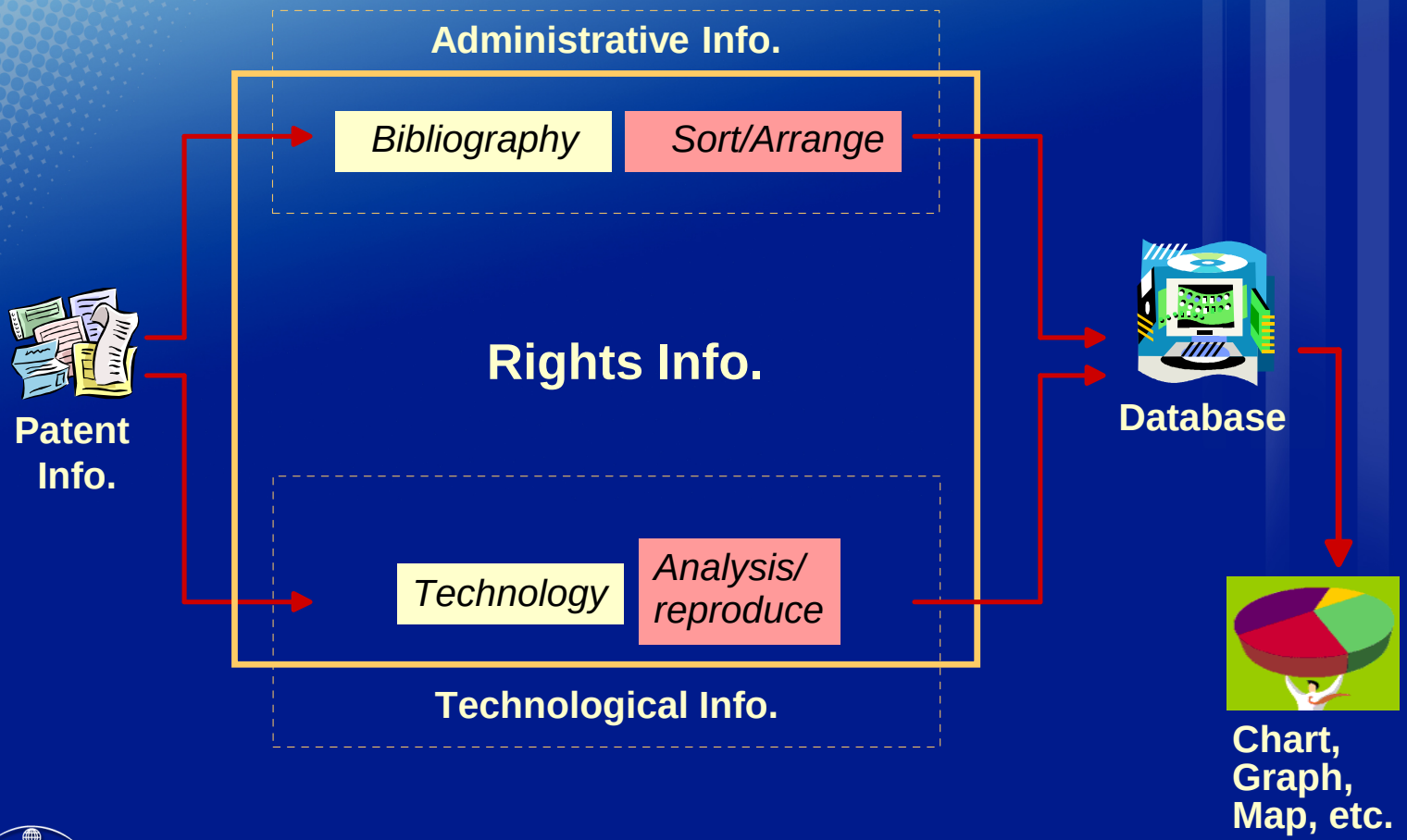
2) Technology development map, etc.

Patent Map (Technology Road Map)

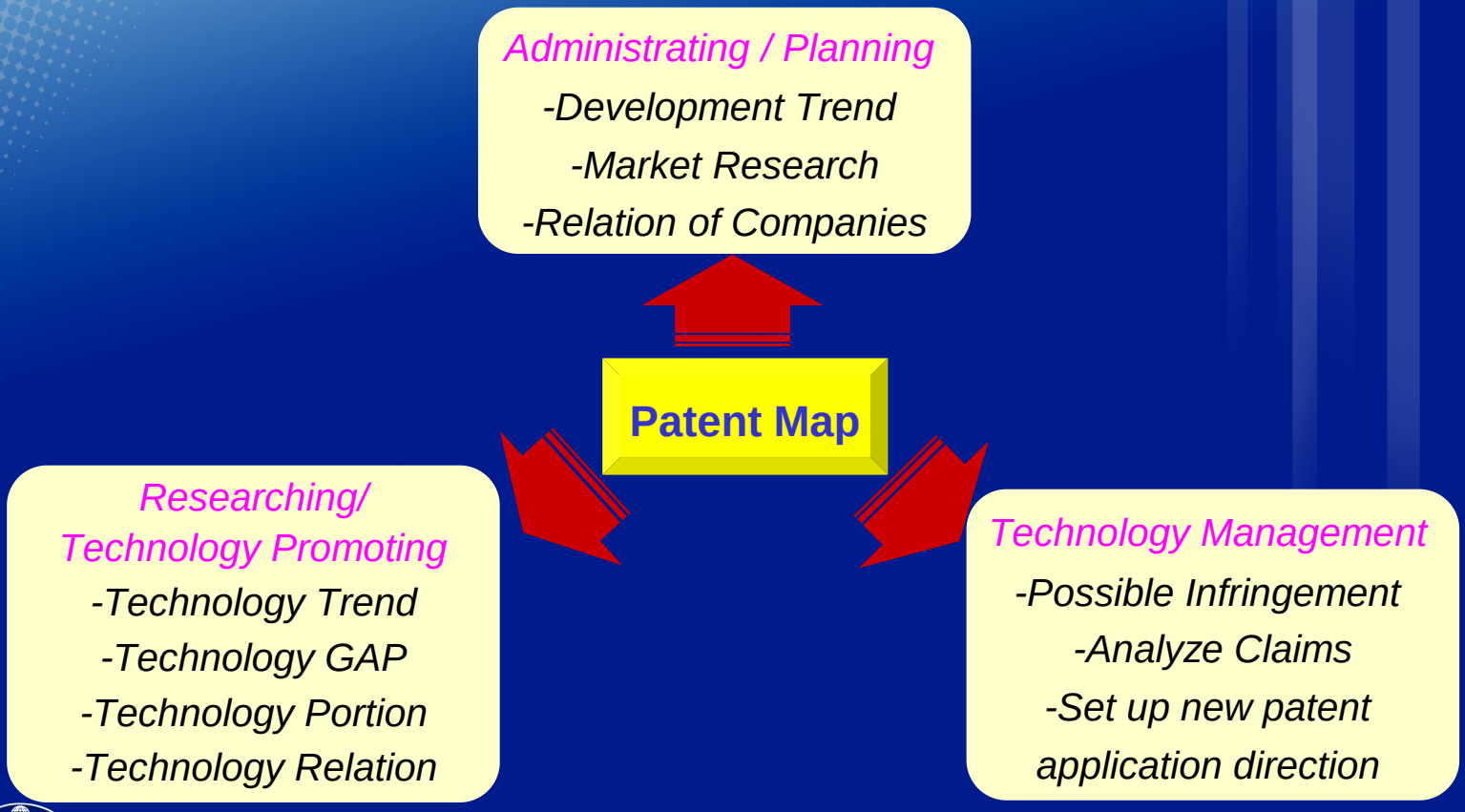
Patent Map is the visualized expression of total patent analysis results to understand complex and various patent information easily and effectively.

The patent map is produced by gathering related patent information of a target technology field, processing, and analyzing it.

The Process of Patent Map



What advantages can be taken from Patent Map?



The Kinds of Patent Map Results

Quantitative Analysis Map
(Statistical Analysis Map)

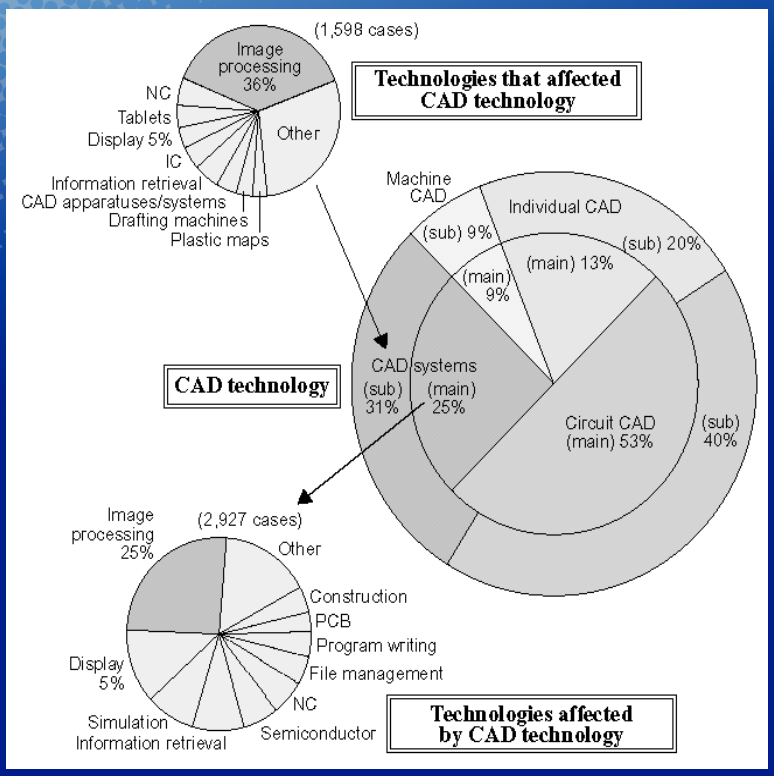
- ***Rate Map***
- ***Number Map***
- ***Trend Map***
- ***Relation Map***
- ***Radar Map***
- ***Portion Map, etc.***

Qualitative Analysis Map

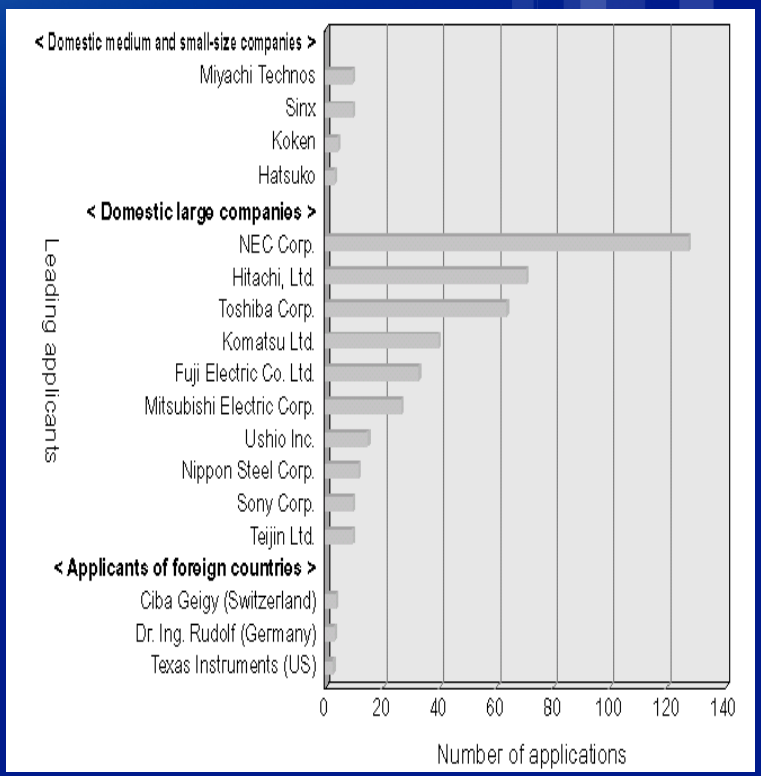
- ***List Map***
- ***Matrix Map***
- ***TEMSET Map***
- ***Development Map***
- ***Problems Vs. Solutions Map, etc.***

The Examples of Quantitative Analysis (1)

1. Portion rate Map

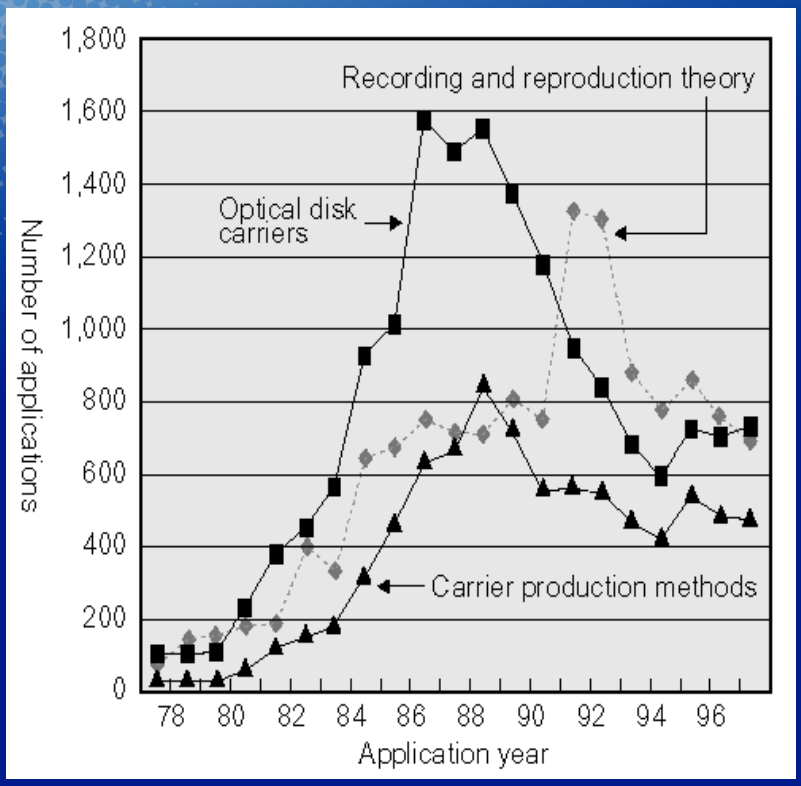


2. Ranking Map

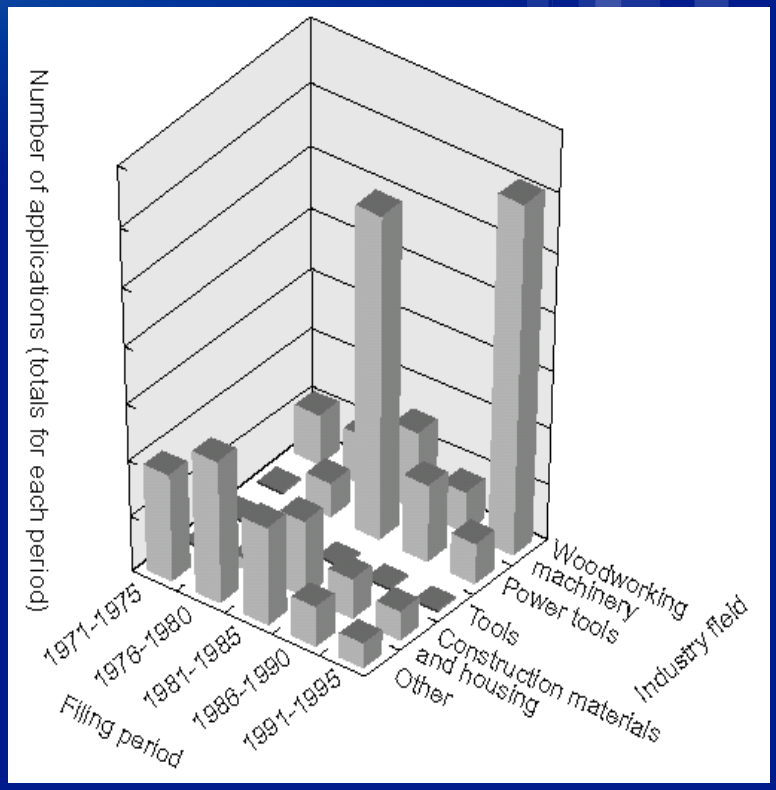


The Examples of Quantitative Analysis (2)

3. Trend Map (2D)

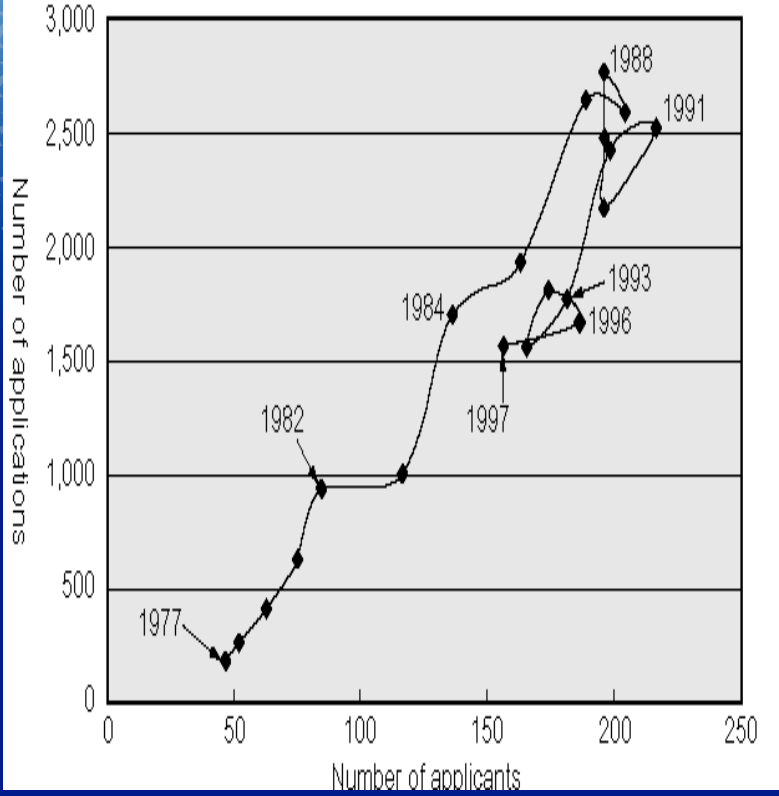


4. Trend Map (3D)

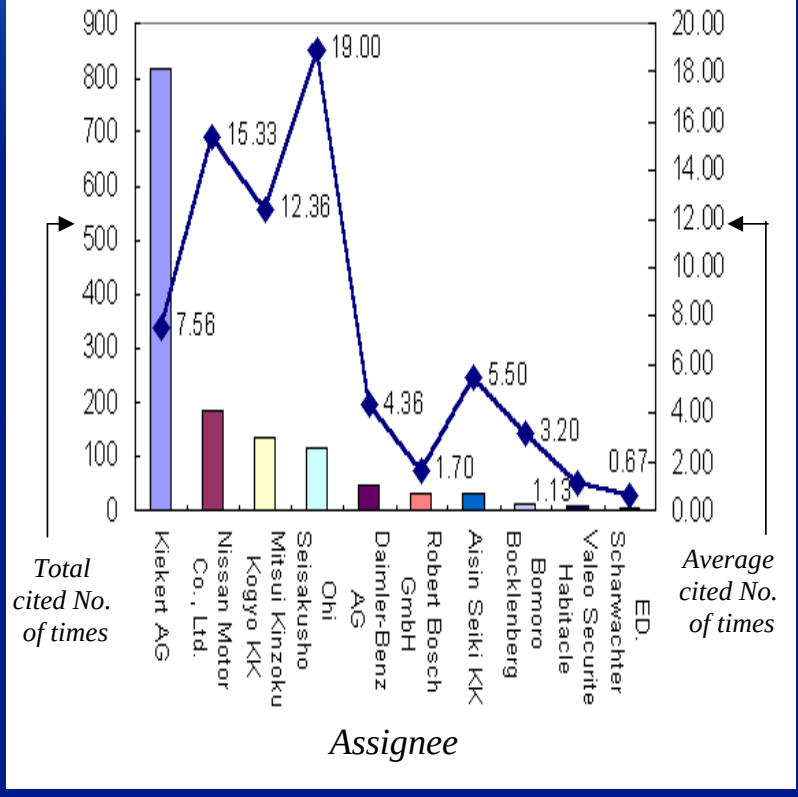


The Examples of Quantitative Analysis (3)

5. Portfolio Map



6. Citation Statistical Analysis



The Examples of Qualitative Analysis (1)

1. Matrix Map

Matrix map shows the correlation between technical elements (such as purpose and technical item) obtained from patent information in the form of matrix.

It helps to find important problems affecting the development of a technology field. Moreover, with the addition of a time axis, trends in problems affecting technological development can also be observed.

Purpose	Dioxin decomposition only					Cost reduction					Improved maintenance					Accommodation to fluctuations of refuse type and volume					Heat recovery and others				
Technical item \ Application year	84-86	87-89	90-92	93-95	96-98	84-86	87-89	90-92	93-95	96-98	84-86	87-89	90-92	93-95	96-98	84-86	87-89	90-92	93-95	96-98	84-86	87-89	90-92	93-95	96-98
Fluid bed combustion characteristics		●●●●●●	●●●	●●●●●●						●			●			●			●●●	●●				●	●
Secondary combustion temperature control		●●●	●●●	●	●			●										●	●					●	
Secondary combustion mixing control		●●●●●	●●●●●	●●				●					●						●						
Secondary combustion retention time		●●	●●	●																					

● represents one patent.

The Examples of Qualitative Analysis (2)

2. TEMPST Map (1)

TEMPST Map shows the technology analysis or classification based on different points of analysis views.

(Treatment, Effect, Materials, Process, Products, and Structure)

The point of Analysis view		Examples
T	Treatment	Temperature, Velocity. Time, Frequency, Pressure, etc
E	Effect	Purpose, performance, Efficiency, etc
M	Material	Material, Component, Compound, Addition, etc.
P	Process	Manufacturing Methods, System, Procedure, etc.
P	Product	Product, Parts, Results, Outputs, etc.
S	Structure	Structure, Form, Device, Component, Circuit, etc.

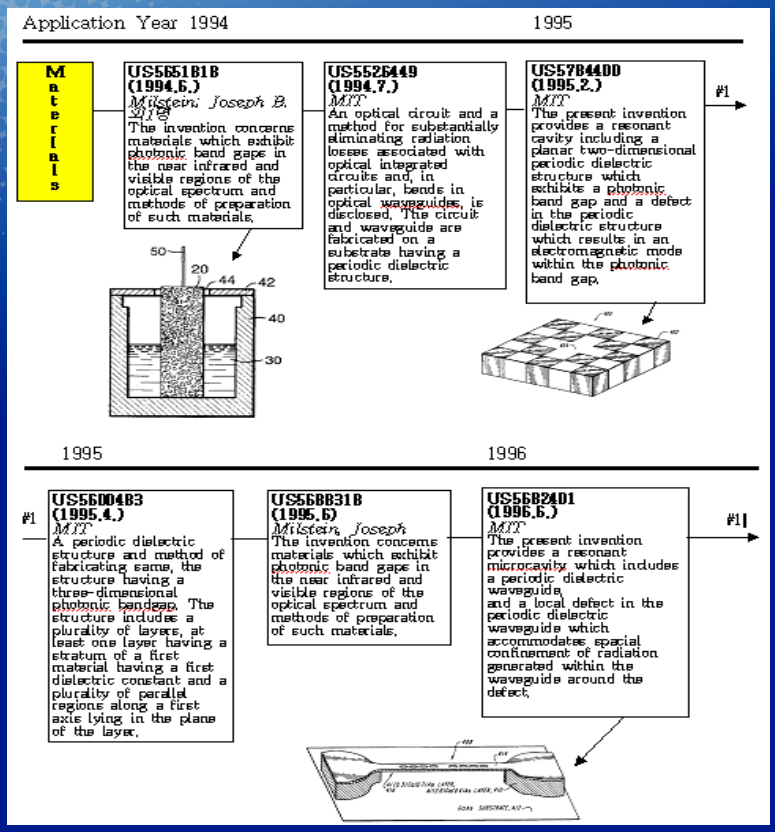
The Examples of Qualitative Analysis (3)

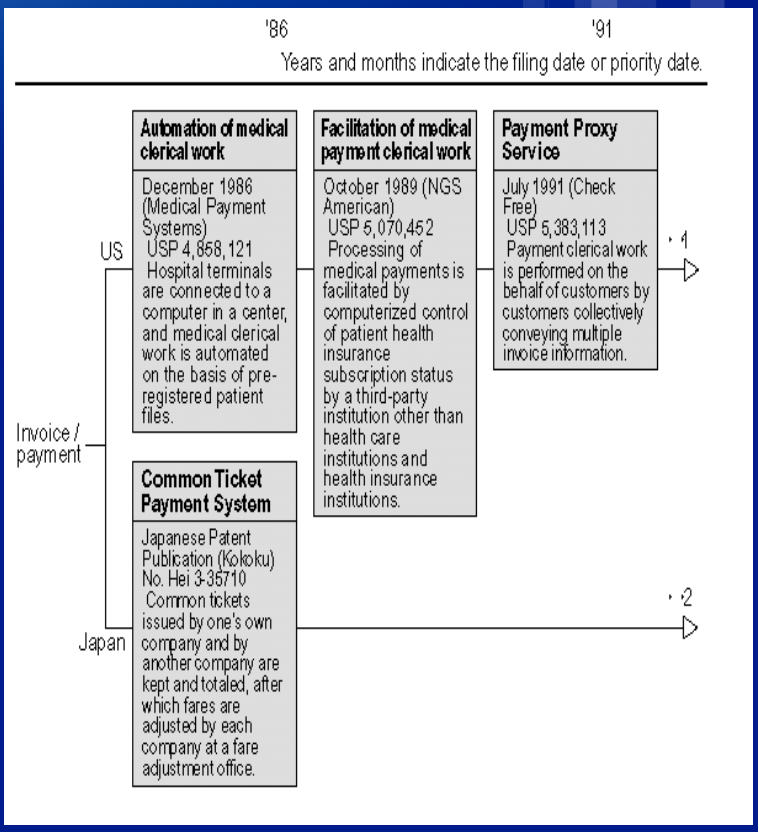
3. TEMPST Map (2)

Patent No.	TEMPST						Technology
	T	E	M	P1	P2	S	
55-10855				O			METHOD OF MANUFACTURING COMPOSITE ROTOR
58-153775		O		O			PREPARATION OF THIN FILM
60-89530				O			PRODUCTION OF COMPOSITE SUPERCONDUCTIVE COMPOUND WIRE ROD
60-210531	O			O			PRODUCTION OF THIN FILM OF SCHEVREL PHASE COMPOUND BY REACTION METHOD ON SUBSTRATE
60-216592						O	LEAD-OUT DEVICE FOR SUPERCONDUCTIVE COIL

The Examples of Qualitative Analysis (4)

4. Technology Development Map

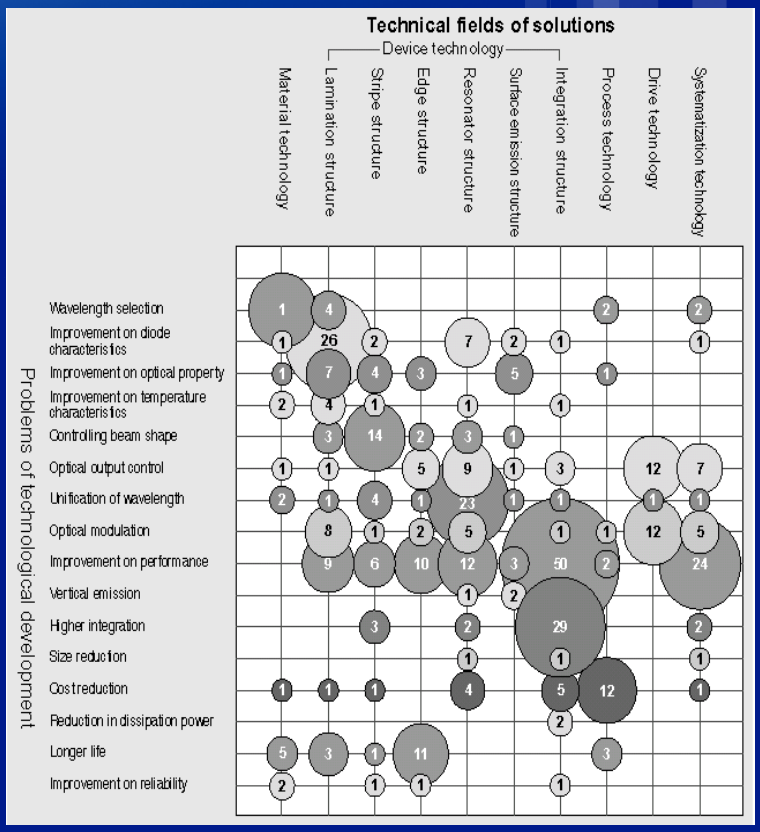




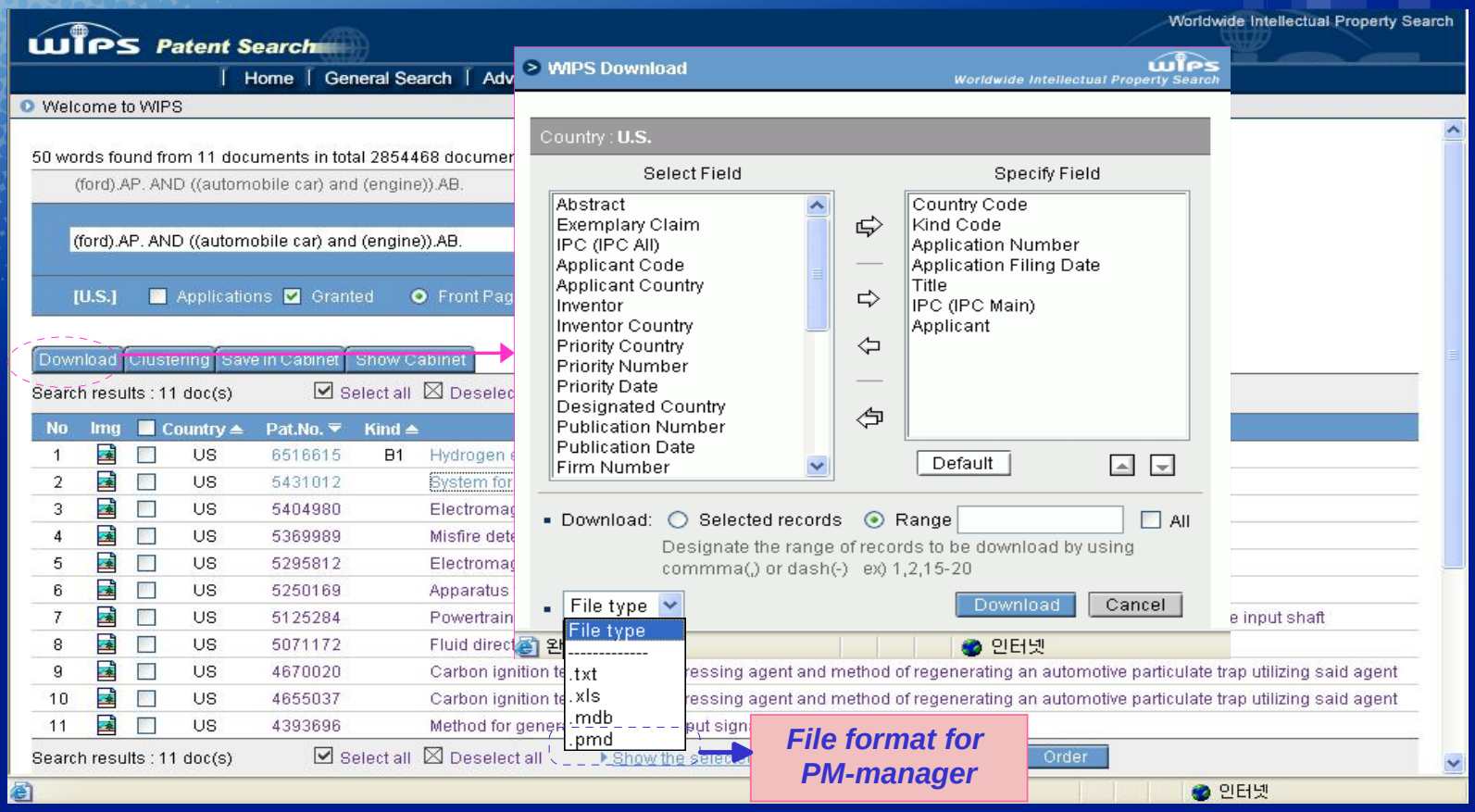
The Examples of Qualitative Analysis (5)

5. Problems vs. Solutions Map

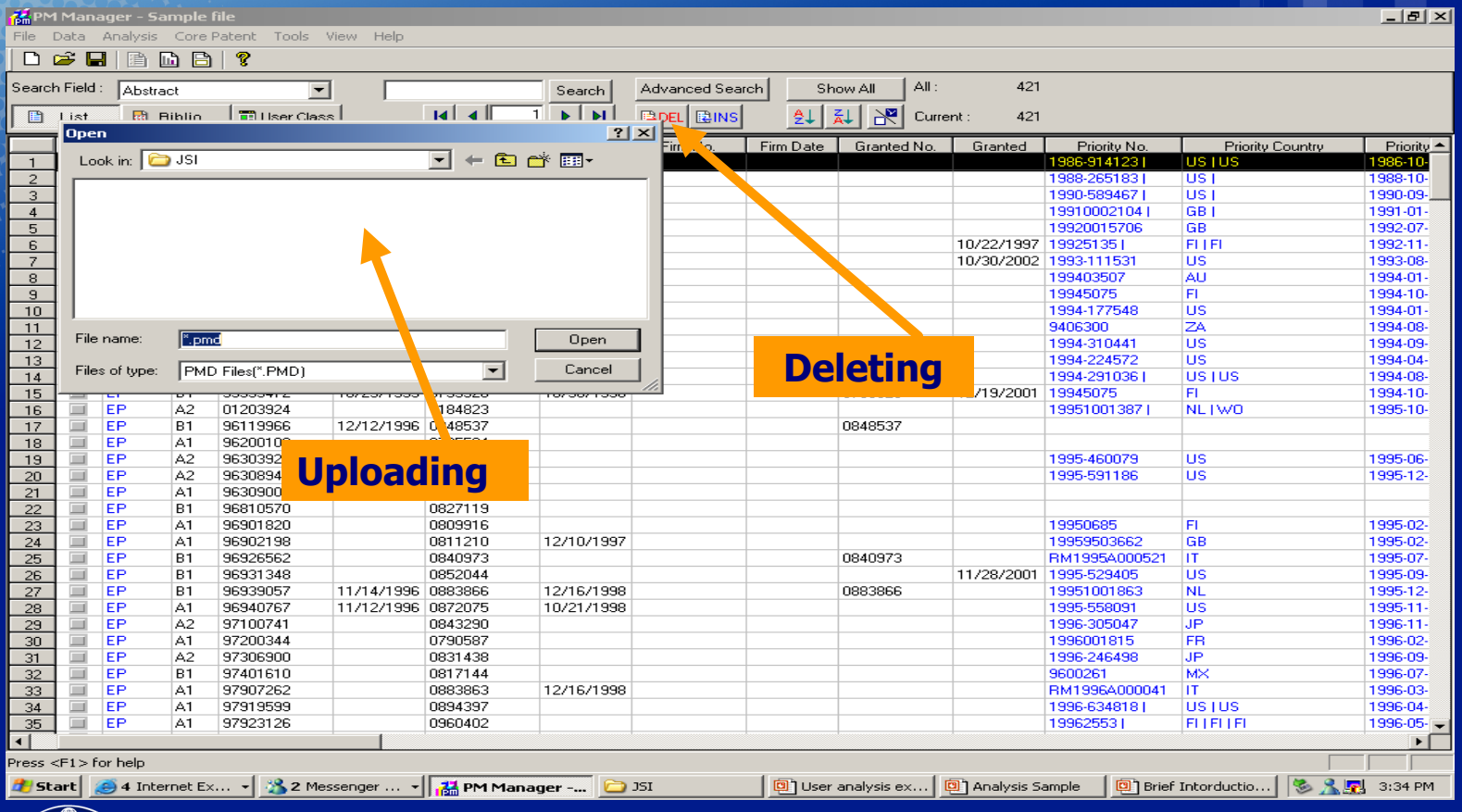
	Problem of invention		Solutions	Patents
	Problem	Specific problem		
Recording	High-density recording	To improve high-density recording by a multiplex recording system	Plural wavelengths are used for storing address information by using an optical disk medium whose optical property changes according to the wavelength of a laser beam.	Jap. Pat. Publn. (Kokoku) No. Hei 7-82645
			In wavelength-multiplex recording, signals are prerecorded on a part of an optical disk medium with lights of individual wavelengths to be used, and at the time of signal recording or reproducing, the signals are read from the part and the wavelength of a light source is tuned to the individual wavelengths.	Patent No. 2505790
			A recording medium having plural recording films and a reflection film is used, and one of the recording films is selected by utilizing the phenomenon such that as a laser beam is supplied from the recording film side, it interferes with reflected light from the reflection film to thereby produce a light intensity distribution, and utilizing the phenomenon that the intensity distribution differs according to the wavelength of the laser beam.	Patent No. 2810185
		To improve high-density recording by a multi-value recording system	Writing of a 3-value reflectance according to the amorphous state, the crystal state and the Au deposited state becomes possible by irradiating laser beams of two intensities on an optical disk medium which has a thin alloy film of Au and Si.	Patent No. 2532068
			With phosphorus used for a recording material, heat application turns white phosphorus to red phosphorus. Changing the degree of the heat causes a continuous or stepwise change in thickness, thus improving the recording density.	Patent No. 2601266
			Stable multi-value reproduction levels by comparing a preset pattern signal with its reproduced signal level, controlling a modulation circuit according to the comparison result to thereby control the laser emission condition, such as the recording power or the recording pulse width, and setting the optimal recording	Patent No. 2634827
			Multiplex recording is ensured by forming multiple status-varying portions with different crystallinities and sizes in a phase change recording medium in accordance with the energy of a laser beam.	Patent No. 2642422
			A single recording marker is allowed to contain multiple pieces of information by reducing reflected light at the time of reproduction by narrowing the edge portions of first and second recording markers and the width of the second recording marker.	Jap. Pat. Publn. (Kokoku) No. Hei 8-7882



PM-Manager (1)- Data Download



PM-Manager (2) – Data Uploading & Deleting

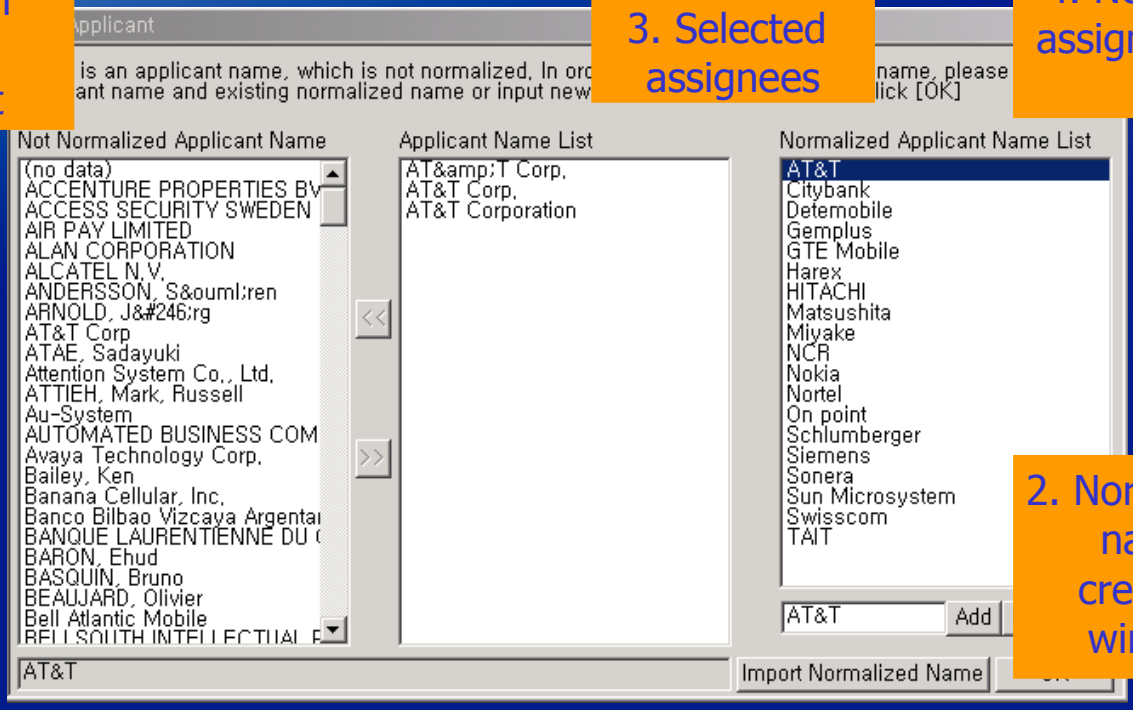


PM-Manager (3) – Normalizing Assignee Name

1. Original assignee Name list

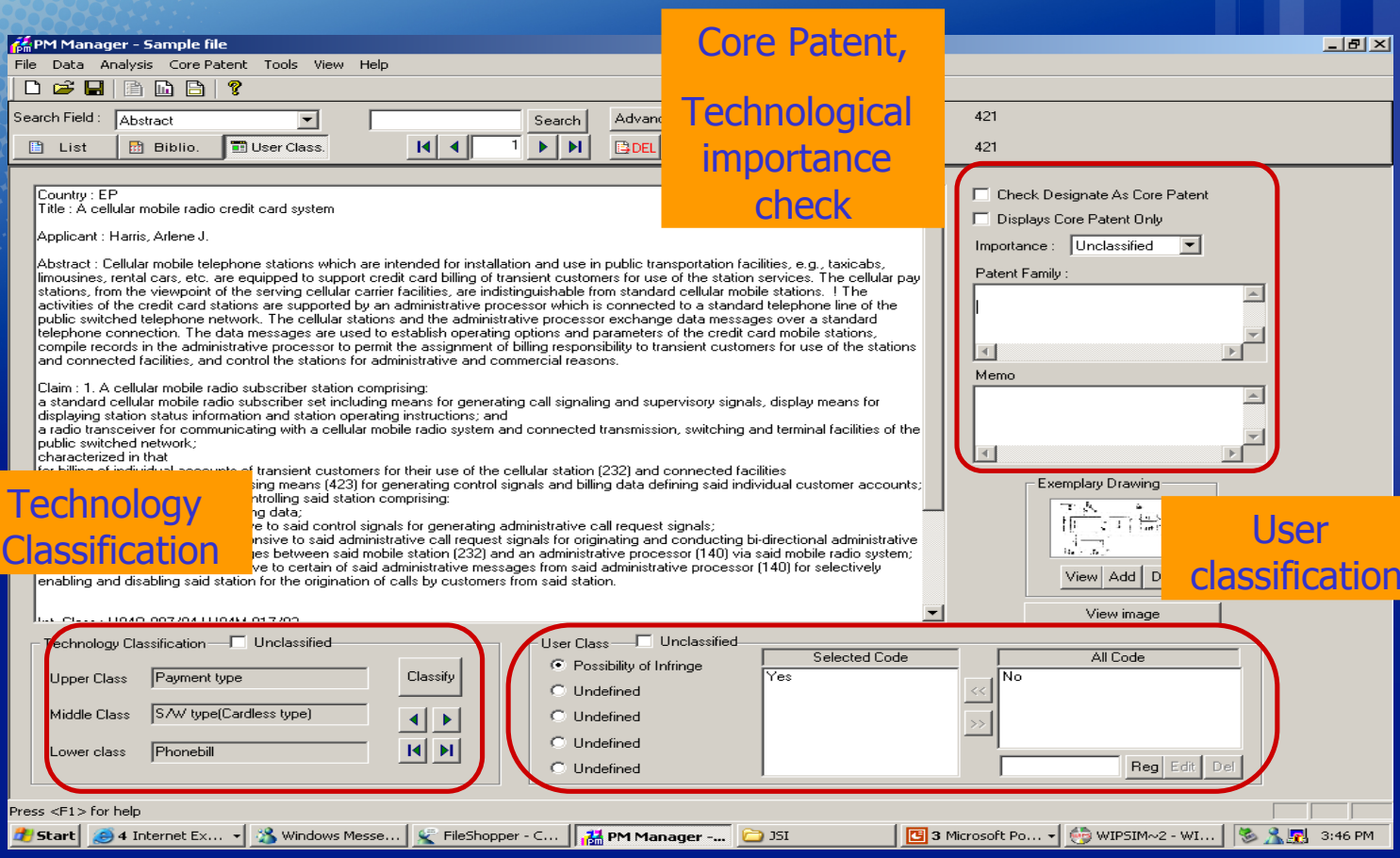
3. Selected assignees

4. Normalized assignee name list

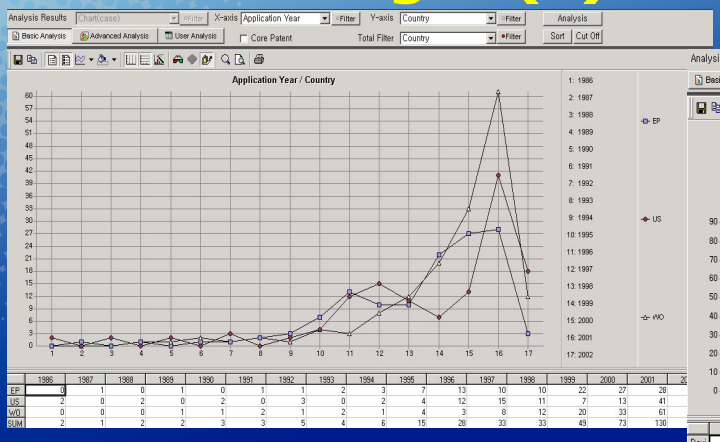


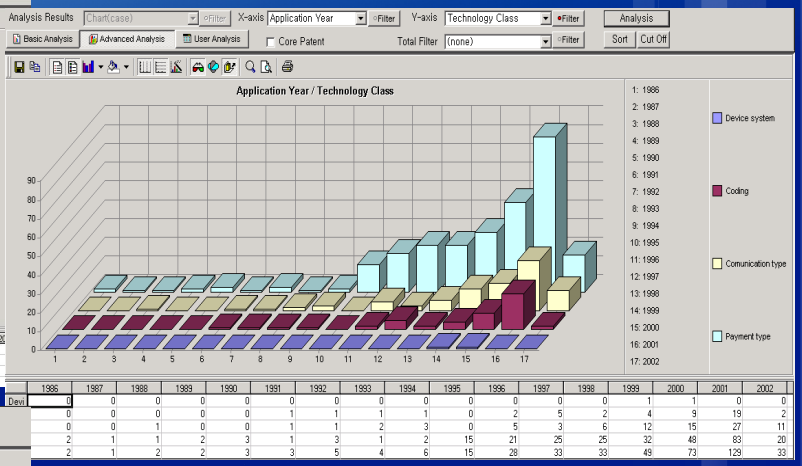
2. Normalized name creation window

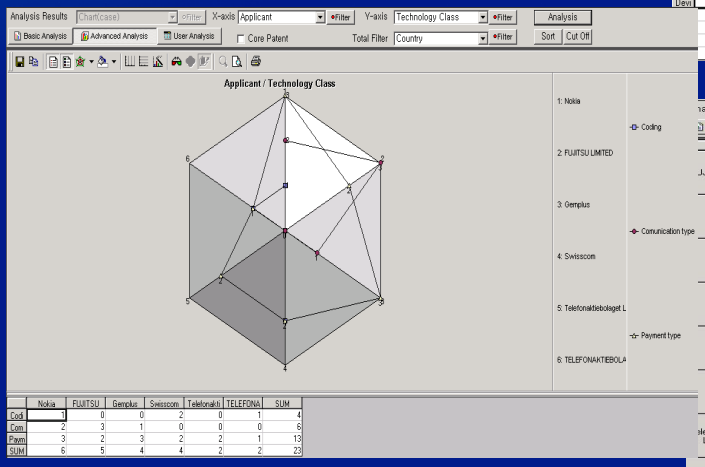
PM-Manager (4) – Classification

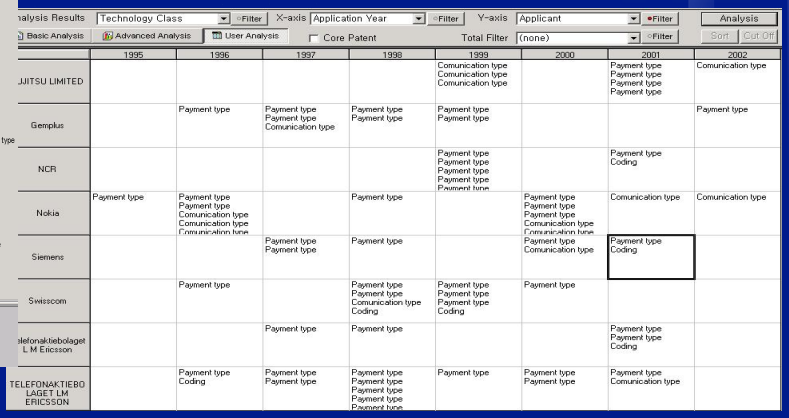


PM-Manager (5) – Analysis

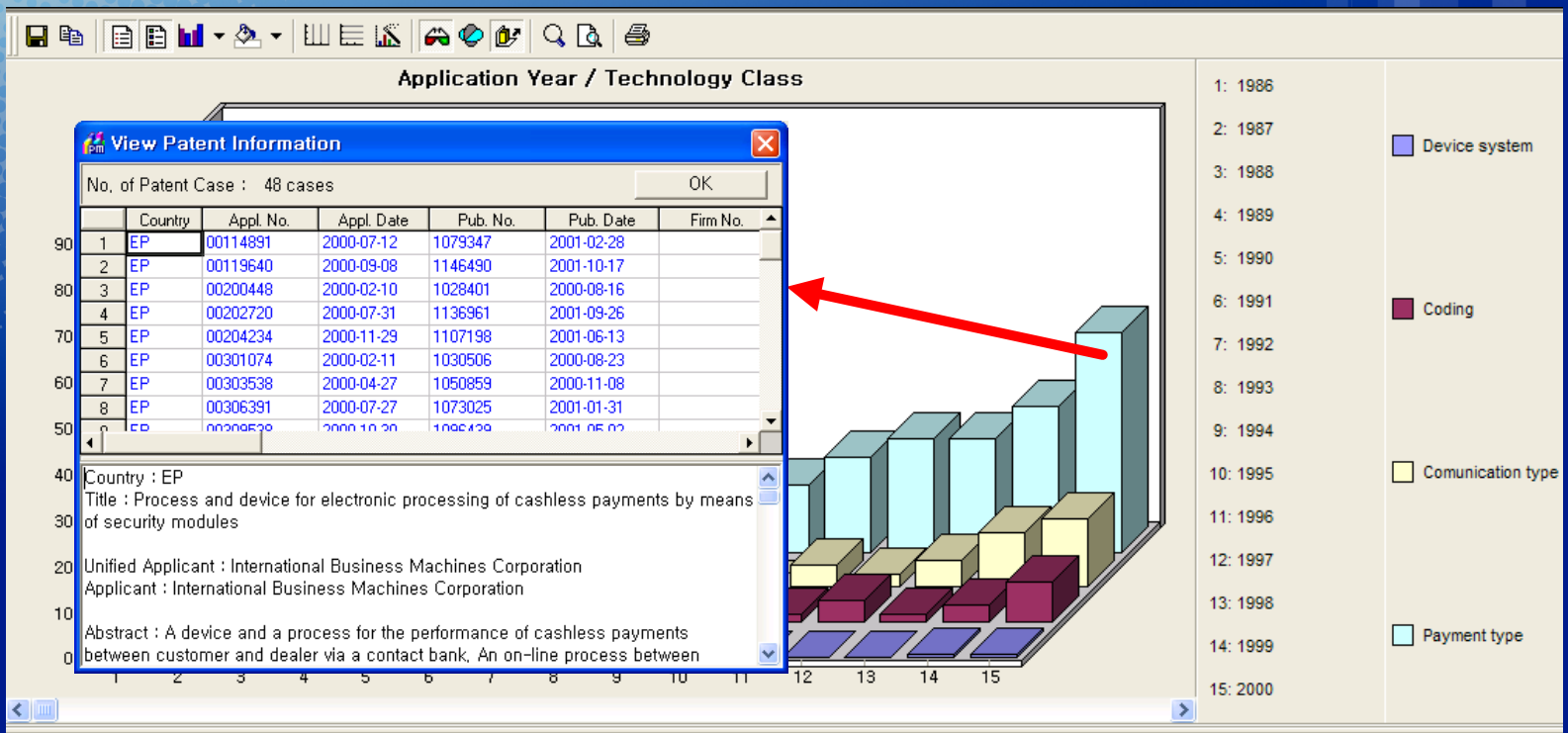








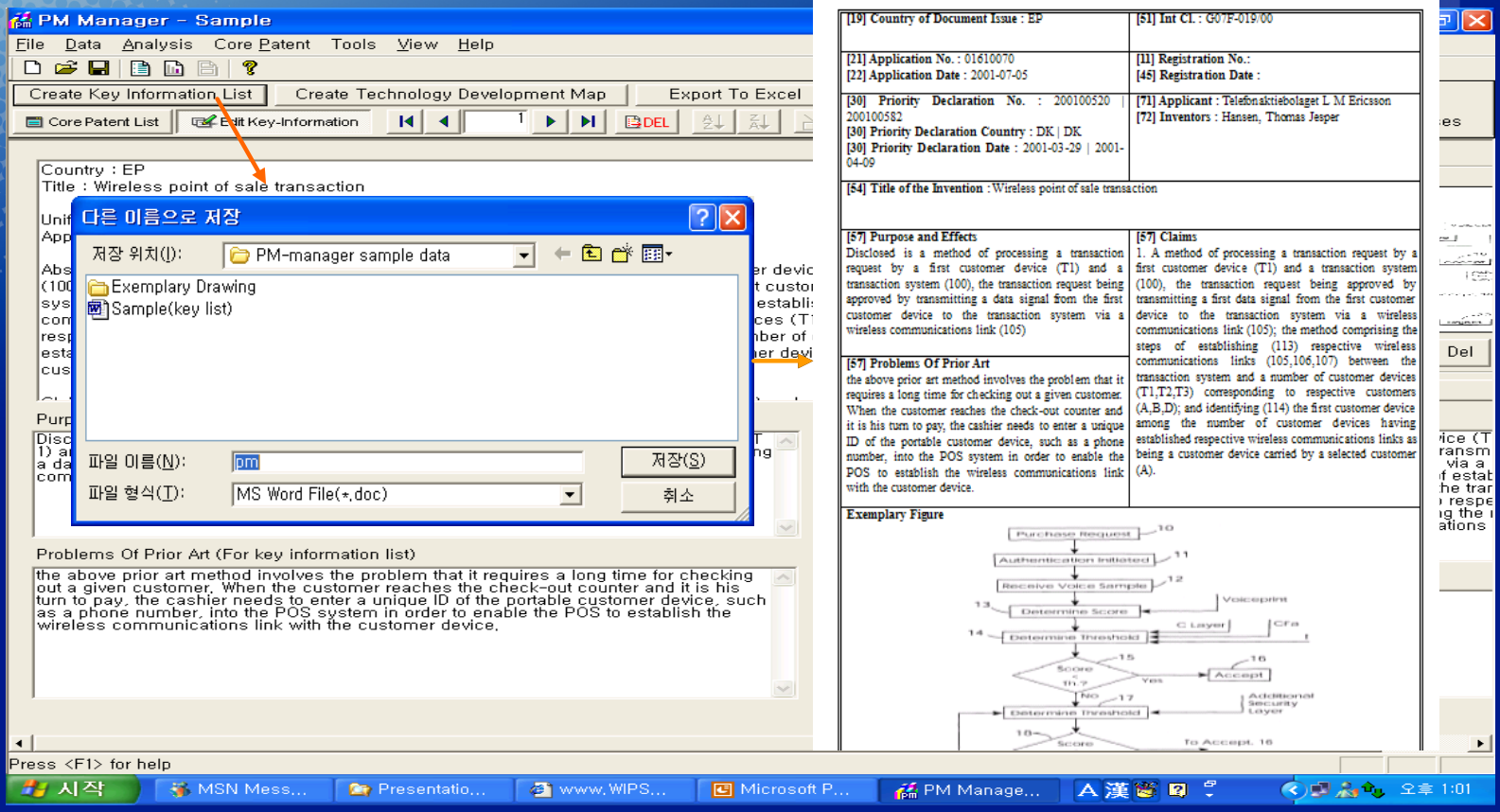
PM-Manager (6) – Direct link to Abstract in Graph



Country	Appl. No.	Appl. Date	Pub. No.	Pub. Date	Firm No.
EP	00114891	2000-07-12	1079347	2001-02-28	
EP	00119640	2000-09-08	1146490	2001-10-17	
EP	00200448	2000-02-10	1028401	2000-08-16	
EP	00202720	2000-07-31	1136961	2001-09-26	
EP	00204234	2000-11-29	1107198	2001-06-13	
EP	00301074	2000-02-11	1030506	2000-08-23	
EP	00303538	2000-04-27	1050859	2000-11-08	
EP	00306391	2000-07-27	1073025	2001-01-31	

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Devi	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Codi	0	0	0	0	0	1	1	1	1	0	2	5	2	4	9
Com	0	0	1	0	0	1	1	2	3	0	5	3	6	12	15
Paym	2	1	1	2	3	1	3	1	2	15	21	25	25	32	48
SUM	2	1	2	2	3	3	5	4	6	15	28	33	33	49	73

PM-Manager (7) – Automatic Report Creation for Core Patents



[Key Information List]

[19] Country of Document Issue : EP	**[51] Int Cl.** : G07F-019/00
[21] Application No. : 01610070 **[22] Application Date** : 2001-07-05	**[11] Registration No.**: **[45] Registration Date** :
[30] Priority Declaration No. : 200100520 | 200100582 **[30] Priority Declaration Country** : DK | DK **[30] Priority Declaration Date** : 2001-03-29 | 2001-04-09	**[71] Applicant** : Telefonaktiebolaget L M Ericsson **[72] Inventors** : Hansen, Thomas Jesper
[54] Title of the Invention : Wireless point of sale transaction	
[57] Purpose and Effects Disclosed is a method of processing a transaction request by a first customer device (T1) and a transaction system (100), the transaction request being approved by transmitting a data signal from the first customer device to the transaction system via a wireless communications link (105)	**[57] Claims** 1. A method of processing a transaction request by a first customer device (T1) and a transaction system (100), the transaction request being approved by transmitting a first data signal from the first customer device to the transaction system via a wireless communications link (105); the method comprising the steps of establishing (113) respective wireless communications links (105,106,107) between the transaction system and a number of customer devices (T1,T2,T3) corresponding to respective customers (A,B,D); and identifying (114) the first customer device among the number of customer devices having established respective wireless communications links as being a customer device carried by a selected customer (A).
[57] Problems Of Prior Art the above prior art method involves the problem that it requires a long time for checking out a given customer. When the customer reaches the check-out counter and it is his turn to pay, the cashier needs to enter a unique ID of the portable customer device, such as a phone number, into the POS system in order to enable the POS to establish the wireless communications link with the customer device.	
Exemplary Figure	

Thank you for your Attention

Continue to Patent Map Exercise