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Research on the Construction of Search Database Patent Platform for Intelligent Industrial Robots

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Abstract

Since the 20th century, 90 years, the number of patent applications for intelligent industrial robots worldwide continues to grow rapidly, new technical items are emerging, related technology more and more attention by the world, related research and development is rapidly developing. Patent literature is a very important source of scientific and technological information, whether it is to apply for patents, declare the subject, or the development of new products, dealing with patent infringement disputes, are inseparable from the patent literature search. With the continuous development of network technology, patent search system after another. Ordinary users want to accurately select the database, fast, comprehensive and accurate access to the required patent information, need to master the scope of the respective database included and understand the advantages and disadvantages of each database. Intelligent industrial robots patent search platform in the field of patent data in the screening, cleaning, finishing, processing, to form a database of thematic patents. The patent database includes basic data, enhanced data and technical field data, and with the software platform to install the service to the local.

Keywords: Intelligent Industrial Robots; Patent search; Database platform; Patent database; Basic data; Enhanced data;

1. Introduction

Currently, the use of patent data from all over the world to build patent database has become the hotspot and trend of domestic patent information service. The national intellectual property bureau system and social patent information service agencies have taken the initiative to develop or commissioned by the user developed a variety of thematic patent database platform system.

The majority of the existing national thematic patent databases are patent databases based on the extraction and collation of the basic patent data of the seven countries and two organizations. Compared to foreign commercial patent database and supporting related services, they generally have the following problems:

- 1) The quality of the patented data source is poor, lack of high-level deep processing patent database, the lack of dynamic real-time data maintenance, data integrity and reliability are not guaranteed.
- 2) The database was not planned before, the integration of information resources is not high. After the completion

of the database information resources are still scattered, Low-level duplication of databases, and cross-building in serious condition, it is not conducive to comprehensive and quick access to competitive intelligence information.

3) Because the retrieval and analysis system function is backward, therefore can not satisfy the specialized retrieval analysis request. Due to the lack of advanced search technology and auxiliary translation software, the ordinary technical personnel to search for patent information caused great obstacles.

4) The platform can not really achieve long-term operation of rolling development goals due to the operation mode of the IP information service platform is not clear.

5) Because of the lack of "one-stop" patent information service model, can not effectively guide our enterprises to face their own types of intellectual property issues to find a suitable solution.

2. To solve the key technology

1) This platform uses the Internet network technology, the user logs on to the Web through the network. And then send a service instruction to the central server of the system software. Online users are more cases, such as more than 50 users, will have a greater load on the server, and take up a larger server space and transmission bandwidth. Select the appropriate network architecture and programming methods to achieve faster response and processing power, and the center server bandwidth resources in the case of limited, able to handle a certain user's request instructions, at the same time must ensure the accuracy and stability of the treatment.

2) Different databases of raw data collection, statistics, norms is a major difficulty. There are a large number of garbage patents and patents with the family due to the advanced level of technology and the different application mechanisms. Combined with the actual demand of intelligent industrial robots, screening and collection of patent data worldwide. The difficulty of project implementation is to ensure that check the whole, accurate and the basic processing of these data, classification and so on. So the data collection capacity and processing capacity will directly affect the platform to promote the industrialization and service capabilities. The use of the world's authoritative organizations and service agencies of the database and processing tools, such as the European patent database, PatBase database, can reduce the risk of data collection, improve data integrity and compatibility and to better ensure that the patent information is correct and authoritative.

3. Database platform construction situation

Intelligent industrial robots patent search platform in the field of patent data in the screening, cleaning, finishing, processing, to form a database of thematic patents. The patent database includes basic data, enhanced data and technical field data, and with the software platform to install the service to the local.

3.1. Technical field decomposition

Intelligent industrial robots patent search platform technology is divided into three levels. This section shows Level 1 and Level 2. The details are shown in Table 1.

No.	Level 1 technical branch	Level 2 technical branch
1		Base
2		Joint
3	Manipulator	Mechanical arm
4	(the main mechanical unit)	End effector
5		Connections between components
6		Reducer
7	Control System	Control hardware
8		Control software
9		Cylinder
10	Drive mechanism	Oil cylinder
11		Motor

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