

Recent Developments in Information Assistance Systems in IP Practice



CHINESE TAIPEI Feb. 27, 2024



1. Patent Document Assistance and Error Detection System

Assist applicants in reducing textual errors in their applications

Reduce the workload on examiners, improving the quality of examination...

In 2021, Automated Patent Examination System for **Utility Models**

In 2022, Automated Patent Examination System for **Invention Patents**

In 2023, **Patent Document Assistance and Error Detection System**

Available on September 28, 2023  <https://www.youtube.com/watch?v=-04NsJgdLv4>



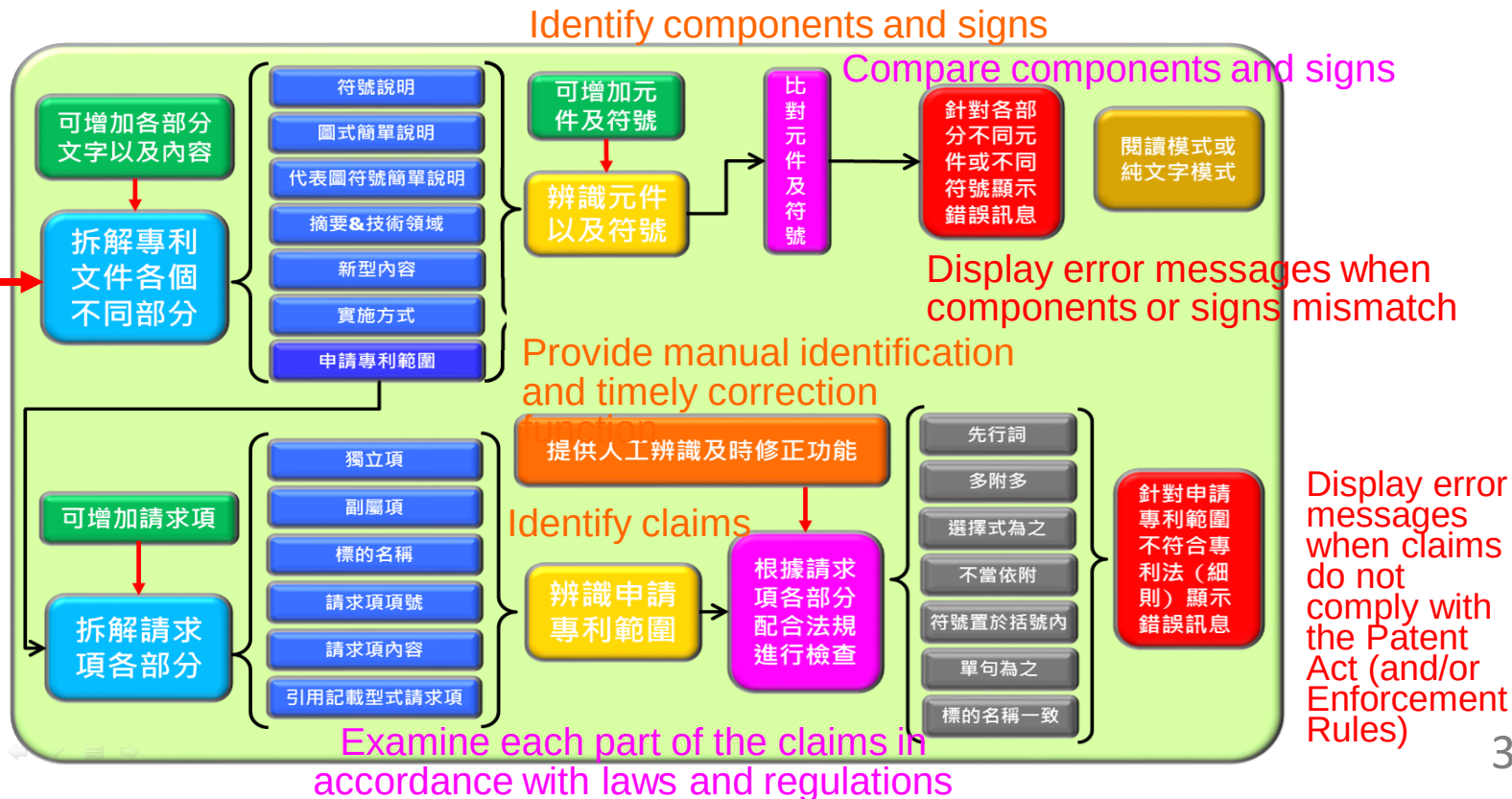
1. Patent Document Assistance and Error Detection System

System Operation Block Diagram

Break down patent document into different parts

Word files

Break down claims into different parts



1. Patent Document Assistance and Error Detection System

System Interface

Component Names, Signs, and Brief Descriptions in Diagrams

元件名稱與符號		
新型名稱：滑鼠		
符號說明		
符號	元件名稱	狀態
1	下殼體	已被主要代表圖使用
2	中框	已被主要代表圖使用
3	上殼體	已被主要代表圖使用
4	彈簧機構	未被主要代表圖使用
5	滾輪	已被主要代表圖使用
6	耐磨墊	未被主要代表圖使用
10	連接件	已被主要代表圖使用
11	環形凹槽	未被主要代表圖使用
21	避讓槽	未被主要代表圖使用
22	第三避讓孔	已被主要代表圖使用
23	第五避讓孔	未被主要代表圖使用

專利申請文件輔助偵錯系統

儀表板 摘要&技術 新型內容 實施方式 申請專利範圍

實施方式【0027】

✓ 元件名稱 & 符號正確:

磁片41 驅動元件42 第一磁鐵43 第二磁鐵44 中框2 上殼體3 第一避讓孔411

✗ 元件名稱 or 符號錯誤:

彈簧機構4

✓ 引用正確之圖式:

✗ 引用錯誤之圖式:

圖2A

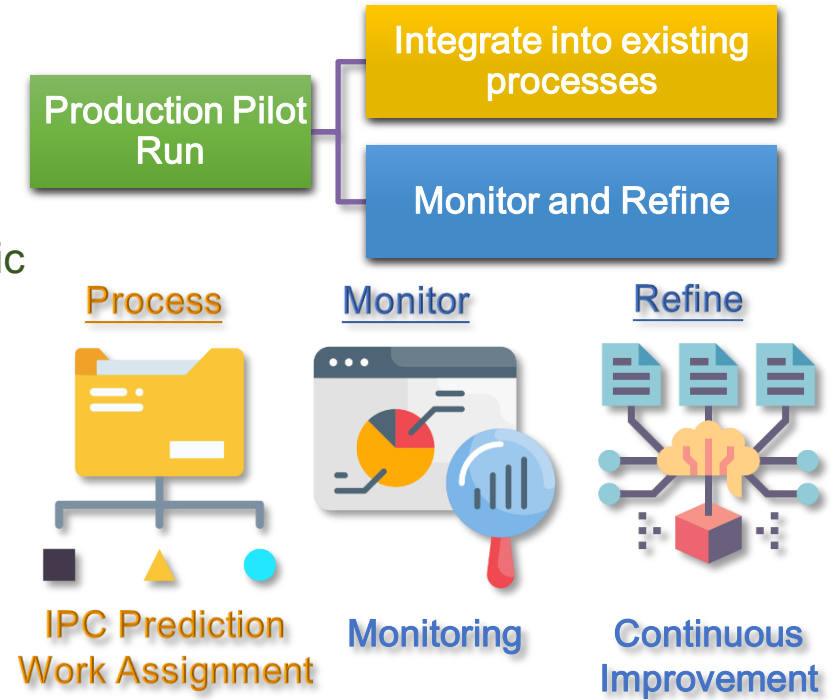
【0027】如圖2A所示，彈簧機構4包括磁片41、驅動元件42、第一磁鐵43以及第二磁鐵44。其中，結合圖2-4所示，第一磁鐵43位於中框2上並且位於磁片41下方，第二磁鐵44固定於上殼體3上並且位於磁片41上方。需要說明的是，第一磁鐵43與第二磁鐵44同軸相對，位於第一磁鐵43和第二磁鐵44之間的磁片41上設有第一避讓孔411，第一避讓孔411的大小可以根據需要設定。進一步地，磁片41與驅動元件42連接，使得驅動元件42可以驅動磁片41在第一位置和第二位置之間移動（結合圖12-13所示）。

Content of Patent Documents Abstract, Technical Field, Prior Art, Description of Utility models, Implementation Methods, Claims

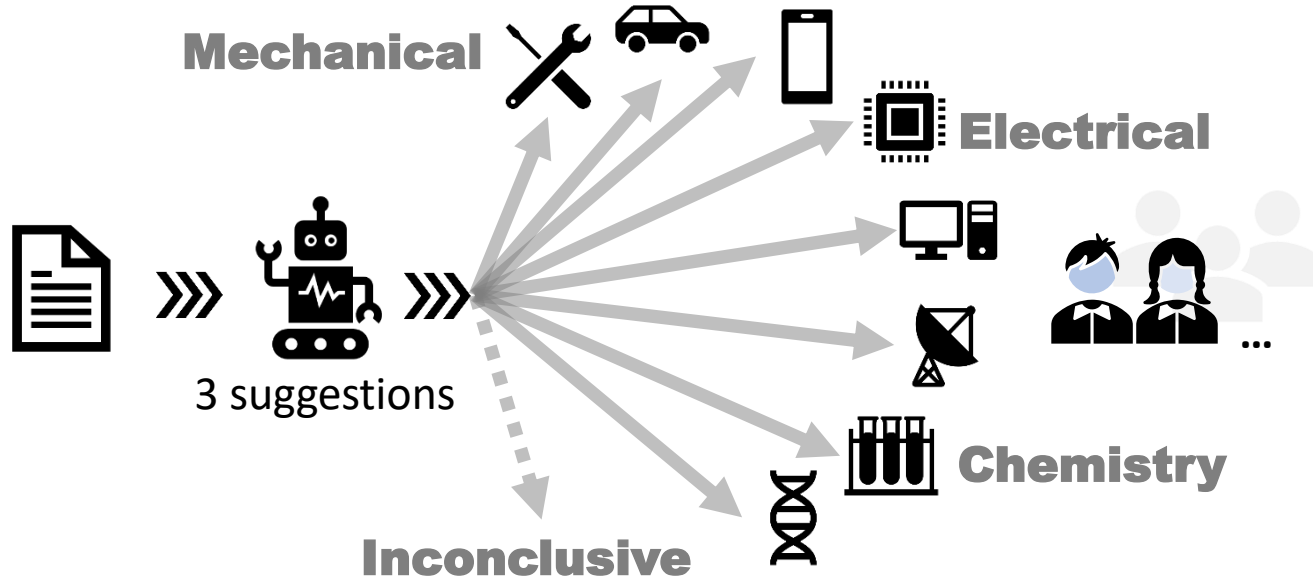
2. IPC Automatic Classification

In 2017, TIPO **launched** the IPC Automatic Classification POC (proof of concept)

In 2020, it was continuously **updated** and integrated into the existing examination processes (Production Pilot Run)



2. IPC Automatic Classification



In 2022, it **automatically** assigns applications to the examiner of the classification based on the IPC automatic classification prediction results

2. IPC Automatic Classification

In 2023, TIPO developed a **new** automatic classification module using the BERT algorithm

The subclass **accuracy** stands at approximately 87%, while the accuracy for the top 10 main groups is around 85%. The overall accuracy is measured at 64.8%

In 2024, TIPO plans to **integrate** this module into the existing examination process



Provides 3 suggestions for each application

TIPO

儀表板

清單

個人待辦案件

待辦案件2

當月已辦案件

退辦程序案件

通知申復案件

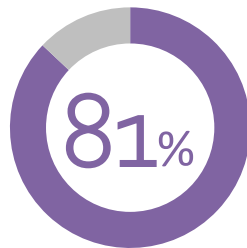
移轉其他承辦人/群組

項次	公開準備日	案號	專利名稱	建議三階	申請人
1	109/03/28	108147070	治療掌蹠膿疱症之抗#####	A61K	百靈佳股格翰國際股份有限公司
2	109/06/30				

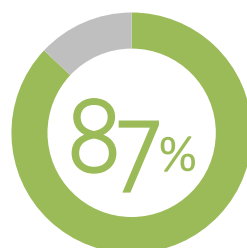
顯示第 1 到第 2 項記錄，總共 2 項記錄

案號	預測模組	IPC排序	IPC部類碼	準確率
108147070	1	1	A61K	60%
108147070	1	2	A61P	30%
108147070	1	3	G01N	35%

Sklearn-MLP Classifier



Transformer-BERT



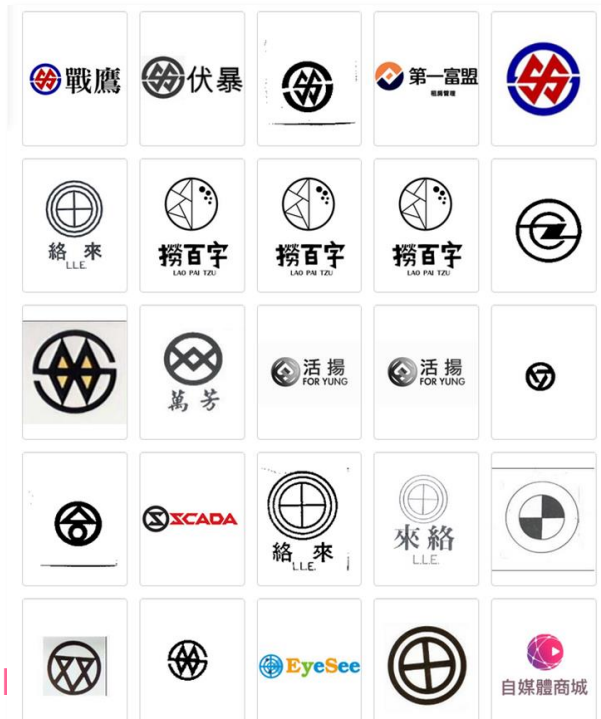
3. Trademark Image Search



Query image



Query image

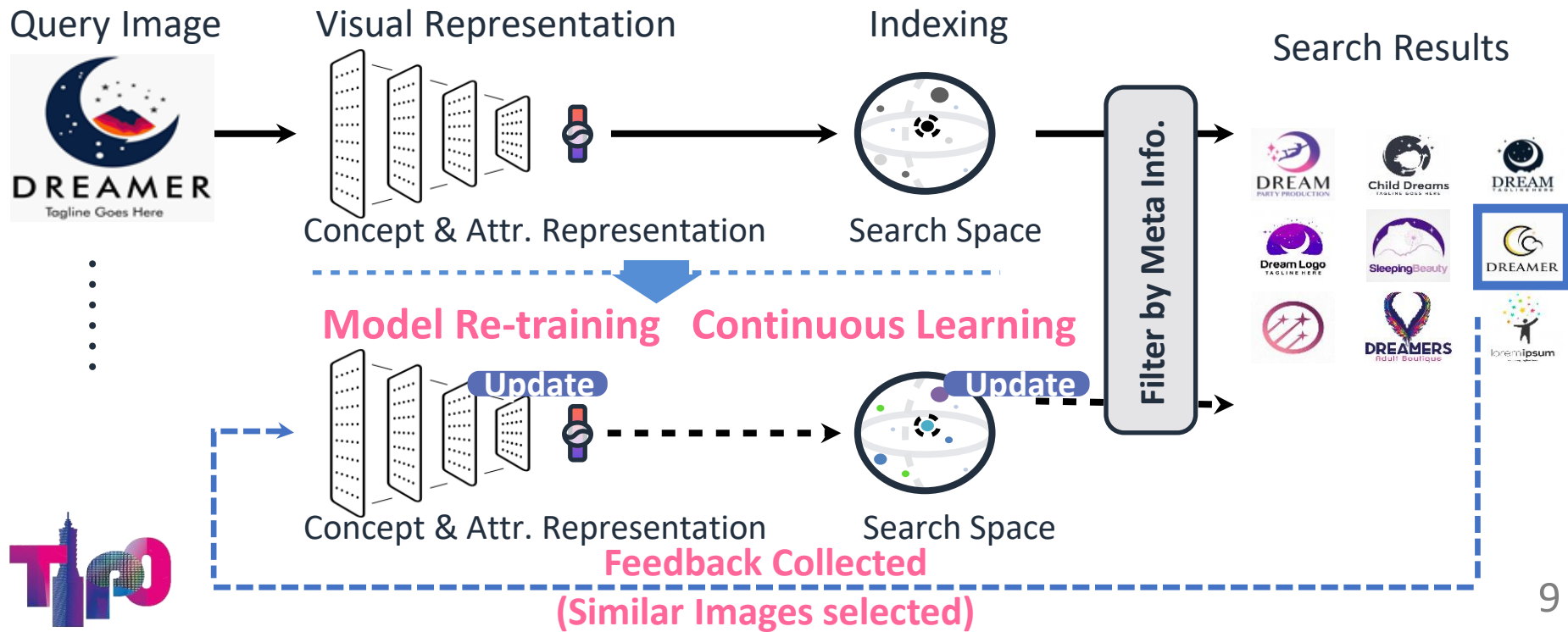


In 2020, TIPO **launched** the Trademark Image Search POC (proof of concept)

In 2022, the **Beta** version of the construction was successful completed

3. Trademark Image Search

Further Task: Continuous Learning



3. Trademark Image Search

Implementation: Evaluator's feedback for Further



Images marked with the “-” feedback will have their rank moved backward after re-training AI model

Images marked with the “+” feedback will have their rank moved forward after re-training AI model

3. Trademark Image Search



Local feature index model

In 2023, TIPO integrated the AI identification **local feature index model**

Within the **first 1,000** retrievals, the detection rate is approximately **64%**

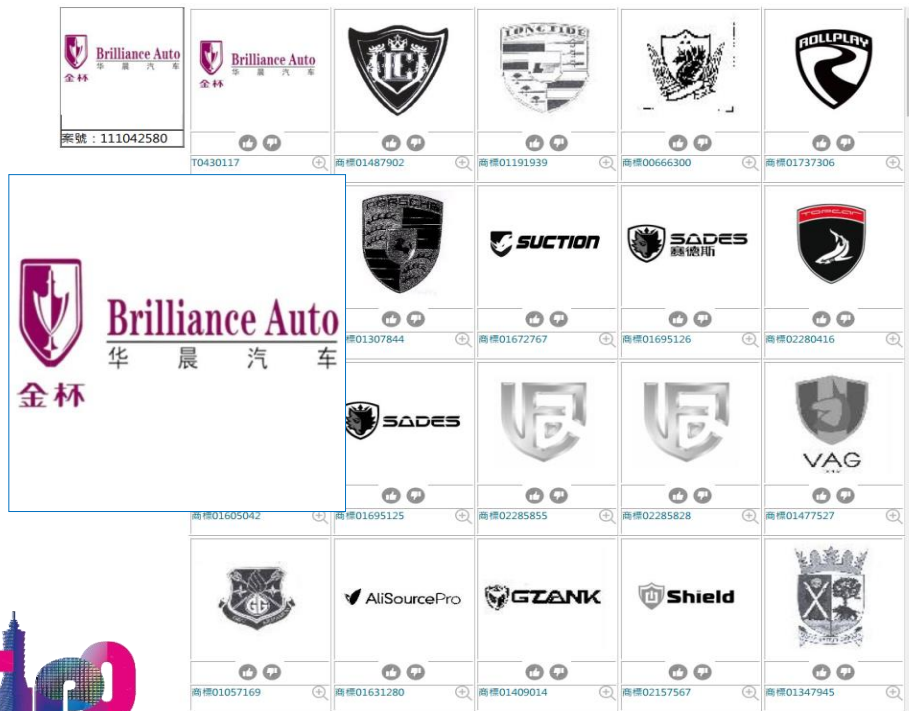
Within the **first 5,000** retrievals, the detection rate is approximately **72%**



3. Trademark Image Search

AI module without local feature identification

Rank: 1-20



Rank: 21-40

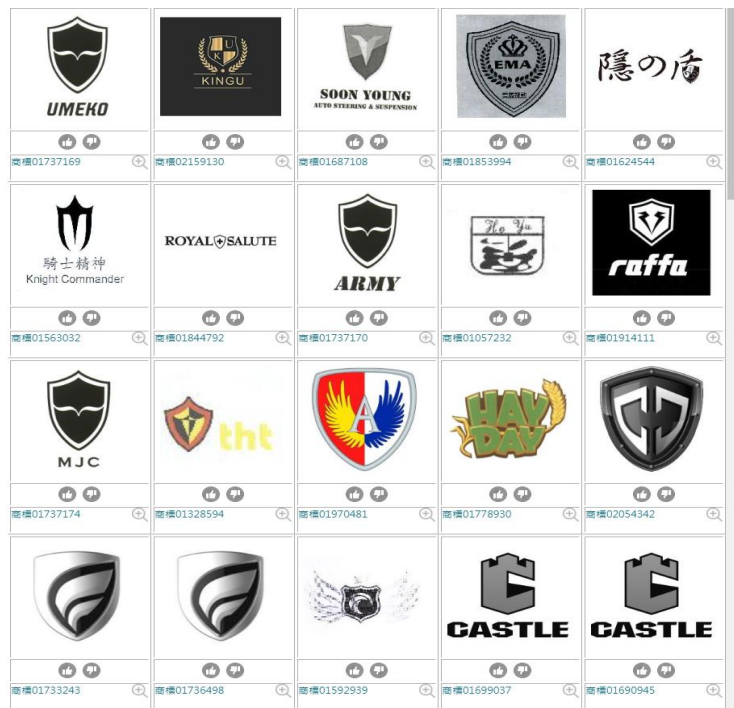
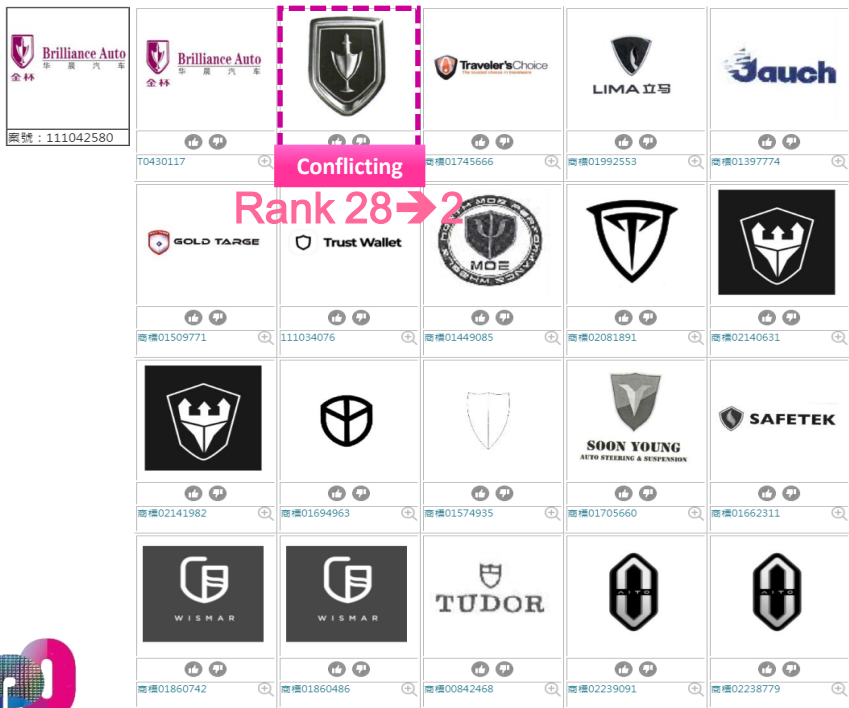


3. Trademark Image Search

AI module with local feature identification

Rank: 1-20

Rank: 21-40





Thank you for your attention!

