NDI RECOGNITION SYSTEMS

Talon ANPR / ALPR Engine

Serious about ANPR. Serious about Service.

Powerful high performance ANPR / ALPR software engine with Neural Network Technology

The Talon™ Automatic Number / License Plate (ANPR / ALPR) engine, since its first deployment almost 20 years ago, has been constantly improved and enhanced and now provides one of the highest accuracy number plate recognition software engines in the world.

Talon™ runs on any modern PC platform running the Windows Operating System (including laptops) equipped with a suitable frame grabber. The engine supports multiple camera systems allowing simultaneous multi-lane capture and optimum recognition performance for stationary, low or high speed traffic within milliseconds.

With embedded Neural Network technology in its design, Talon provides among the highest accuracy and recognition speeds in the industry. Incorporating complex algorithms for image manipulation and clustering analysis, Talon's neural network technology is able to recognise poorly defined, distorted and dirty characters during all weather conditions with high and continuously improving recognition accuracy. Due to the use of gray-scale character matching the Talon engine provides finer discriminations than binary or OCR methods thus ensuring a high confidence level in the accuracy of results.

Talon can be configured to distribute the captured data by a number of methods, which enables the system to store in a SQL Database where it could be cross referenced or matched against multiple hotlists to generate visual and audible alarms, audited, transmitted via LAN/WLAN/GPRS or 3G, archived or further interrogated.

Using sophisticated probabilistic context checking techniques, Talon ANPR can be configured for multinational number plate recognition allowing rapid deployment into new countries and territories.

Talon can be supplied as a standalone plate recognition engine or can be embedded into third party applications. NDI Recognition Systems also offers a full suite of application software for policing and public safety, access control, and intelligent transportation systems.

Key Features:

- Neural Network Technology
- NAAS compliant
- High recognition accuracy and speed
- 24hr / 365 day performance
- High performance automatic 'in picture' trigger
- International plate reading capability
- Accurately reads different sized plates, small or large, near or far
- Automatically reads both normal and inverse plates or rectangular and square plates
- Operates on various PC platforms
- Number plate image capture and color overview image

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Specifications

Supported Operating System	Windows XP, Windows 7
Recognition Engine	Neural Network Technology
Trigger Process	Automatic in picture video trigger - no need for external trigger devices. If required, external triggers such as inductive loops or lasers can be supported.
Recognition Accuracy	Typically 98% (depends on the image quality).
User Interface	Graphical User Interface (GUI), keyboard mouse or touch screen.
Additional Tools	Software Development Kit (SDK) for easy integration. Simple to use.NET C# sample code is provided.
Type of Plates Recognised	Recognition is country dependent, includes European, Middle Eastern, North and South America and Asian plates. A full list is available on request. Talon's neural network technology can be trained to recognise most international plate formats.
Plate Types Recognised	Rectangular, square, normal and inverse polarity .
Plate Rotation	High performance automatic detection and correction up to +/- 30 degrees. At higher plate rotation angles, plate recognition will still be effective but performance may be reduced.
Plate Skew	Correction of character skewing (italicisation) to +/- 20 degrees. At higher plate skew angles, plate recognition will still be effective but performance may be degraded.
Image Input	Supported frame grabbers including: PCI, PCIe or USB Frame Grabbers. Talon is also capable of taking digital images direct from files for recognition processing - ideal for back office applications. Talon is capable of taking digital images direct from files for recognition processing - ideal for back office applications.
File Types	BMP, JPEG.
Video Formats	8 bit monochrome (Grayscale), RGB24, YUV.
Image Size	PAL /NTSC standard sizes.
Typical Processing Time	200ms.
Output	Including but not restricted to: Plate number in ASCII / Recognition confidence level Plate position / Country Date and Time / GPS position Lane Number / Camera number Plate patch image /Overview image
Documentation	Reference Manual in electronic format
System Requirements (min)	1.8 GHz CPU – Intel Core 2 Duo 2 GB RAM Free PCI / PCIe / USB port for supported frame grabbers

Applications

- Mobile and Fixed Sites
- Policing and Law Enforcement
- Access Control
- CCTV Integration
- Car Park & Traffic Management
- Enforcement
- Bespoke Applications
- Road User Charging
- Journey Time Analysis
- Waste Sites Control

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