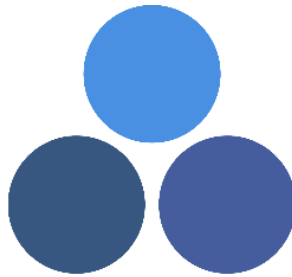




Home Office



National ANPR Service

National ANPR Service Technical Specifications

Version 3.1
May 2021

Definitions

Acronym	Description
ANPR	Automatic Number Plate Recognition
ANPR system	A collection of cameras, readers components linking to NAS
CCTV	Closed Circuit Television
CAMERA	The device used to capture an ANPR read
CAPTURE RECORD	The record of a vehicle recorded by NAS for a vehicle passing an ANPR camera including the ANPR READ, associated images and meta data.
COMMUNICATIONS LINKS	The connections between the camera, any local infrastructure and the NAS
CONTROLLER	The competent authority which alone or jointly with others determines the means and purposes of the processing of personal data. Part 3 data Protection Act 2018
CPIA	Criminal Procedure and Investigations Act 1996 and the CPIA Code of Practice
DPA	Data Protection Act 2018
FOI	Freedom of Information Act 2000
GDPR	General Data Protection Regulations
GSC	Government Security Classifications – (formerly the Government Protective Marking Scheme (GPMS))
GPS	Global Positioning System
HIT	The report of a match of a vehicle registration mark (VRM) READ with a VRM that is included on a vehicle of interest list (VOI)
ISO	Information Security Officer – The member of staff with responsibility for ensuring compliance with requirements for IT security
ITHC	IT Health Check – The process for ensuring that security provisions for IT are appropriate and in compliance with requirements that are current at the time of the check.
JCA	Joint Controller Agreement under provisions of the Data Protection Act 2018

Acronym	Description
JPEG	Joint Photographic Expert Group image format
LEA	Law Enforcement Agency – Includes police forces and other agencies undertaking law enforcement activities. For the purpose of this document, LEAs shall only include those organisations listed at Annex A.
MIDAS	Motor Insurance Bureau (MIB) data of uninsured vehicles
MOPI	Code of Practice for the Management of Police Information
NAC	<p>National ANPR Capability includes:</p> <ul style="list-style-type: none"> • the NAS which is a single national system consisting of the functionality to enable use for operational response, investigation and intelligence purposes and a single national store of data, and, • the National ANPR Infrastructure (NAI) which is a network of ANPR cameras, communications links, firewalls and other related supporting components, that are the responsibility of LEA, that connect to the NAS.
NAI	A network of ANPR cameras, communications links, firewalls and other related supporting components
NAS	National ANPR Service
NASP	National ANPR Standards for Policing first version published in 2013 and replaced by NASPLE recognising the applicability to all law enforcement agencies that access the NAS
NASPLE	National ANPR Standards for Policing and Law Enforcement.
National VOI List	Nationally circulated lists that include stolen vehicles, vehicles requiring an operational response and vehicles within Schengen circulations
NAPS	National Accreditor for Police Systems – Responsible for confirming that police IT systems are in accordance with security requirements and authorising connection to national systems.
Network Connections	The IT links between components of the NAC
NPCC	National Police Chiefs' Council

Acronym	Description
NPCC Vetting Policy	The NPCC standards for vetting of staff for access to police information
PERSONAL DATA	<p>Means any information relating to an identified or identifiable living individual.</p> <p>'identifiable living individual' means a living individual who can be identified directly or indirectly, in particular by reference to_</p> <ul style="list-style-type: none"> a) an identifier such as name, an identification number, location data or an online identifier, or b) One or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of the individual <p>Data Protection Act 2018</p>
PNC	Police National Computer
READ	The interpretation of a VRM by an ANPR system
RIPA	Regulation of Investigatory Powers Act 2000
RIPSA	Regulation of Investigatory Powers (Scotland) Act 2000
Schengen	The Schengen Information System will enable the authorities of signatory countries to have access to reports on persons and objects for the purpose of border checks and controls and other police and customs checks
SMS	A Standards format for text messaging
VOI	The details of a vehicle that are of interest to law enforcement for operational response or investigation purposes that is included on a list to enable it to be READ and for authorised staff to receive a report of that READ.
VRM	Vehicle Registration Mark

1 Introduction

This document prescribes the technical specifications for data within the National ANPR Service ([NAS](#)). National ANPR Standards for Policing and Law Enforcement ([NASPLE](#)) set out the standards that are required for the National ANPR Capability ([NAC](#)) to ensure compliance with relevant legislation in the operation and use of law enforcement [ANPR](#). The information within this document is intended to support compliance and consistency in the operation and management of [NAS](#) by the police and other law enforcement organisations (hereafter referred to as [LEA](#)).

2 ANPR Read Records

2.1 System Testing

The only number that may be entered into any component of the [NAS](#) for the purpose of testing connectivity is QQ111QQQ.

2.2 Core Data Components

2.2.1 Vehicle Registration Mark (VRM) (Mandatory)

Where a camera has the capability to record images of vehicles passing within the field of view where no [VRM](#) is identified by the system, 'QQQQQQQ' must be recorded within the [VRM](#) field.

The required format must conform to the Standard Coding Format UTF-8 character set. The [VRM](#) must contain no spaces.

2.2.2 Time (Mandatory)

Recorded and synchronised using standard time source techniques to Greenwich Mean Time (GMT) plus 0 (+0) at least once every 10 minutes, with accuracy to stratum level 3.

The required format is 'dd/mm/yyyy hh:mm:ss', in 24 hour format.

2.2.3 Location (Mandatory)

[ANPR](#) data must place a read in a location, accurate to within 10 metres. This location should have been ascertained through a Global Positioning System ([GPS](#)) device. In addition, all fixed-site [ANPR](#) cameras must have their [GPS](#) co-ordinates accurately recorded to within 5 metres.

The required format for recording a location is latitude and longitude in decimal degrees.

When a mobile [ANPR](#) system is unable to deliver an accurate [GPS](#) coordinate for a read, the [GPS](#) field must be populated with N0000000 E0000000.

2.2.4 Supporting imagery

Plate patch – showing the number plate only, (Mandatory for systems under ownership or control of an [LEA](#)).

A plate patch must be in JPEG format, 120x60 pixels and be no more than 3kB in size.

Overview – showing the vehicle in the context of the read zone (Optional).

An overview image must be in JPEG format, no more than 25kB in size.

Where images obtained by a camera exceed 3kB for a plate patch or 25kB for an overview, these must be adjusted prior to forwarding to the [NAS](#).

‘Geo Tagging’, if an accurate [GPS](#) Geo Location is available, then this detail may be added to images using Exif (Exchangeable image file format) (Optional

Other metadata

Column	Format	Mandatory	Details
Feed ID	Numeric	Yes	2 character code as used by the Police National Computer (PNC) Also known as ‘Force ID’
Source ID	Numeric	Yes	Short integer (range 1 to 9999)
NRD ID	Numeric	Yes	Short integer (range 0 to 9999) (NRD ID zero (0) must be used to denote VRMs entered manually by an administrator of the ANPR system.)
Lane ID	Alphanumeric	No	Optional text description
‘Alias’ ID	Alphanumeric	No	Optional textual description that does not disclose the exact location of a NRD
Username	String	Yes	Username of operator using the ANPR system. When deployed in other circumstances, use ‘Unattended’.
Preset ID	Integer	No	Short integer Default value is 0 Used to indicate direction of travel on multi-lane CCTV cameras.

3 Data storage and management

3.1 Data loss and resilience

The [NAS](#) must not allow any data loss and be configured to provide to provide resilient capability.

3.2 Local system retention and deletion

Local components of [NAC](#) must be configured to enable retention of any data received from a camera at more than 7 days for a maximum of 48 hours and for deletion of that data within the following 24 hours.

3.3 Mobile Data Transfer

Local capability must be in place to support transfer of data from mobile [ANPR](#) units to the [NAS](#) within 48 hours of capture by the camera within the mobile system.

4 National Databases

The [NAS](#) must have the technical capability to run the following national databases, as a minimum - [PNC](#); Includes 'Fast Track' 'Extract', '[Schengen](#)' and 'MMC' data.

PNC Extract File

The [PNC](#) Extract File is available to forces at least three times every 24 hours and should be loaded onto the mobile systems opportunity following receipt. All [ANPR](#) reads must match against the [PNC](#) Extract File should the live link to the [PNC](#) be unavailable.

5 Vehicle of Interest (VOI) Lists

VOI lists in NAS will be referenced to the LEA that creates and manages the list. In order to support the display of symbols within vehicle mounted systems the file name will be in accordance with the reference list at Annex A.

The following character mapping is to be used. All lists of VOI must conform to the following template, (**Mandatory elements shown in bold text**):

NB: Entries in 'Standard Words' section must match **exactly those in the template for uploading into NAS**

Column	Description	Standard Words	Comment
1	VRM		No spaces, Alphanumeric characters only

Column	Description	Standard Words	Comment
2	MAKE		
3	MODEL		
4	COLOUR		
5	ACTION	<p>Stop</p> <p>Assess</p> <p>No Alert</p>	<p>Action can include a requirement to STOP the vehicle and take action as described</p> <p>Or</p> <p>To assess in the context at the time the vehicle comes to notice to determine action.</p> <p>Or</p> <p>No Alert only to be used when a VOI list is submitted for monitoring purposes with no intention that any action is taken when the vehicle comes to notice</p>

Column	Description	Standard Words	Comment
7	REASON	Intel Serious Crime Cloned Low Crime Drugs Intel Sexual Intel Low Crime Offender Management Impaired Driving Documents Disqualified Other No Insurance DO NOT USE No MOT – Do NOT USE No Tax – Do NOT USE No Keeper – Do NOT USE LEA P1 LEA P2 LEA P3 LEA P4 LEA P5 LEA P6	Only one reason code per entry No Insurance, No MOT, No Tax and No Keeper MUST NOT be used as a REASON to create a VOI list entry. If intelligence relates to one of these categories, then DOCUMENTS must be used. They are included in the template solely for the use of nationally populated lists to support NAS functionality.
8	INTEL 3X5X2		Enter grading without X or spaces
9	INFORMATION/ ACTION	Free Text – Maximum of 198 characters including spaces and punctuation. Carriage return must not be used	Brief free text sufficient to add extra value and detail for the person dealing with activation.
10	LEA AND AREA		Include Force Name/ Area (BCU/Division letter/ other LEA ref
11	START DATE	Provide date in format [dd/mm/yyyy]	
12	WEED DATE	Provide date in format [dd/mm/yyyy];	Entries will be weeded on date specified
13	PNC ID		
14	GSC marking	OFFICIAL (or) OFFICIAL-SENSITIVE	Only one marker to be used
15	CAD		
16	CONTACT	Provide details of 24hour point of contact for enquiries if vehicle stopped	

6 Real Time Matching

The [NAS](#) must provide real-time matching to [PNC](#) and other lists of [VOI](#) for all [ANPR](#) reads.

The system response time from a Vehicle Registration Mark ([VRM](#)) being captured by a camera to the hit notification response being delivered to a specific operator must not exceed 4 seconds for static, moveable, dual lane and [CCTV](#) Integrated systems, and 6 seconds for mobile [ANPR](#) systems.

To allow for this end-to-end performance requirement, the camera must deliver [ANPR](#) reads to the [NAS](#) within 2 seconds of capture for static, moveable, dual lane and [CCTV ANPR](#) Integrated systems and within 4 seconds of capture for mobile [ANPR](#) systems.

The [NAS](#) must process that read against the [PNC](#) and other [VOI](#) databases and deliver any resultant match notification to the operator within 2 seconds of receipt of the read by the [NAS](#) for all systems.

7 Real Time Delivery of Data

Local [LEA ANPR](#) infrastructure must clearly display the current state of connectivity to the [NAS](#) and/or any time when data is not being sent to the [NAS](#). In the event of a communications or systems failure, the [LEA](#) infrastructure must buffer that read data and deliver it to the [NAS](#) once the communications or failed systems have been restored. The real-time delivery of data is a priority and the delivery of any buffered data should take place in addition to delivery of real-time data.

8 Search and Export of Data

The [NAS](#) must provide for the identification and export of data to enable identification using any of the following criteria:

- Vehicle Registration Mark ([VRM](#));
- Date and time parameters;
- by camera identification;
- by location co-ordinates;
- by 'geo plotting'
- direction of travel (desirable)

9 Interoperability

Systems must enable interoperability between [LEAs](#) and the [NAS](#) to allow:

- Real-time matching of reads against lists of [VOI](#) and the real-time delivery of hits
- Remote research in accordance with prevailing researching guidelines
- [NAS](#) read searching for national data searches and data mining in accordance with the [NAS](#) Business Rules, as defined within current [NASPLE](#)
- Distribution of lists of vehicles of interest to the [NAS](#)
- Transfer of data and all associated images between [LEA ANPR](#) Infrastructure and the [NAS](#).

Vehicle of Interest List (VOI) Naming Convention

In order to display the name of the organisation creating the VOI list within symbols in vehicle mounted systems, character mapping is required. A VOI list file name will begin with the organisations PNC ID followed by an underscore (for example 07_Cheshire VOI List); the agreed force abbreviation will be displayed in the bottom 'white' section of the VOI symbol (in this example CHESH would be displayed). The following character mapping is to be used:

<i>Character at start of VOI File name followed by underscore</i>	<i>Display in bottom white section of VOI symbol</i>
52	A&S
40	BEDS
93	BTP
35	CAMBS
07	CHESH
48	COLP
59	CNC
17	CLEV
03	CMBRIA
30	DERBYS
50	D&C
55	DORSET
94	DVLA
201	DVSA
11	DURHAM
63	DPP
42	ESSEX
53	GLOS
06	GMP
61	GWENT
44	HANTS
41	HERTS
88	LEA
16	HUMB
46	KENT
04	LANCS
33	LEICS
32	LINCS
05	MERPOL
02	METPOL
24	MOD
36	NFOLK
60	NWP
12	NYP
34	NHANTS
10	NORPOL
31	NOTTS
90	PSOS

Character at start of VOI File name followed by underscore	Display in bottom white section of VOI symbol
98	PSNI
62	SWP
14	SYP
21	STAFFS
37	SFFOLK
45	SURREY
47	SUSSEX
43	TVP
23	WARWCK
22	WMERCA
20	WMIDS
13	WYP
54	WILTS
LEA	LEA
TUTELAGE	TULAGE
MIDASGOLD	MIBGLD
TRIVIUM	TRVIUM

Document Revisions

Version 2.1	May 2021	Minor revision of VOI template in line with Reg 109 requirements



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