

Performance and Registration Information Systems Management (PRISM)



IRP Cab Card and Bar Code Specifications

Version 3.3

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**U.S. Department of Transportation
Federal Motor Carrier Safety Administration
400 Seventh Street S. W.
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<i>Title: PRISM IRP Cab Card Bar Code Specifications</i>		
Modification History since Version 3.2 Baseline issued January 15, 2007:	Effective Date	Rev. No.
Section 1 has been modified to include a reference to Section 3.4 for Cab Card requirements.	June 2007	3.3
Section 3.4 has been modified to include requirements for printing on cab cards	June 2007	3.3
Section 3.2.1 and 3.2.2 have been modified to standardize on the concept that a data element is comprised of a data element separator character, a three character field identifier and the data field value if one is provided.	June 2007	3.3
Section 3.2.2 added a definition of the data field value that should be used for Enforcement Date data element.	June 2007	3.3
Appendix A modified to include CodeCorp bar code scanners as PRISM certified hardware	June 2007	3.3

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1. INTRODUCTION

This edition of this document supersedes all previous editions of IRP Cab Card Specifications and the PRISM Best Practices for Bar Code Structure and Usage.

The purpose of publishing Specifications is so that all PRISM States will produce a Cab Card with a PDF 417 Bar Code that contains, at a minimum, the same, basic format. The cab card can be read by scanners and can be used by law enforcement to reduce the handwriting required for vehicle inspections, citations, inspection reports and other documents.

Sections 7.1.2 and 7.5.2 of the PRISM Procedure Manual (May 2006 or later version) and Section 3.4 of this Specification should be consulted to determine the requirements for data to be printed on the Cab Card. Data contained in the bar code must match the data contained on the cab card.

2. SCOPE

This document is applicable to all PRISM States when creating a bar code for their cab card.

3. FORMAT OF PRISM CAB CARD BAR CODE

3.1 Header

The Header will contain the following fields:

Component	Field Identifier & Description	Picture	Picture		Comments
			From	To	
Header	Compliance Indicator	X (01)	0	0	@ sign indicates compliance with standards. (ASCII/ISO646 Decimal "64") (ASCII/ISO646 Hex "40")
	Data Element Separator	X (01)	1	1	The data element separator is the Line Feed Character (ASCII/ISO646 Decimal "10") (ASCII/ISO646 Hex "0A")
	Record Separator	X (01)	2	2	The record separator character (ASCII/ISO646 Decimal "28") (ASCII/ISO646 Hex "1C")
	Segment Terminator	X (01)	3	3	The segment terminator is the carriage return character (ASCII/ISO646 Decimal "13") (ASCII/ISO646 Hex "0D")
	File Type	X (05)	4	8	AAMVA
	Jurisdiction Code	X (06)	9	14	Received from AAMVA
	Version Number	X (02)	15	16	01
	Number of SubFile Entries	X (02)	17	18	02

Each State must retrieve their "**Jurisdiction Code**" from AAMVA.org/Standards/Current and Developing Standards/ISO Issuer Identification Numbers.

Each PRISM State must use the Version Number "01" to be in compliance with the Specifications.

The PRISM Cab Card Bar Code will consist of two Subfiles, the Motor Carrier (MC) Subfile and the Registrant (IR) Subfile. If a PRISM State desires to have additional data elements above those defined in these Specifications, they must be placed in ZAA through ZZZ data elements which will not be defined in this Header. See Section 3.3 for ZAA through ZZZ data elements.

The location of where data elements begin for each Sub file and the total length of the Subfile must be contained in the "offsets" defined for each Subfile. PRISM States are reminded that while the data will fill many of the fields, several fields such as Name,

Street Address, and City will frequently not fill the field. In those cases padding is not required, however, when the data contained within the body of the bar code is variable, the offset must be calculated for each bar code. Offsets must be calculated using relative **zero** positioning meaning that the first character position of the header is considered **0** (zero) not 1 (one).

3.2 Subfiles and Data Elements

3.2.1 Motor Carrier (MC) Subfile

The Motor Carrier (MC) Subfile is always required and must contain the following required data elements in the following order.

- The USDOT Number of the motor carrier responsible for safety.
- The Name of the motor carrier responsible for safety.
- The “mailing address” of the motor carrier responsible for safety including the “Street Address”, “City”, “Jurisdiction Code”, and “Postal/Zip Code”.
- If the motor carrier responsible for safety is expected to change during the registration period, the Motor Carrier (MC) SubFile, the data element separator, and the correct three character field identifier must be included, **however, no data field shall be included.**

Additional data element considerations:

- Each of the data elements in the Motor Carrier Subfile must contain a data element separator character, the correct three character field identifier, and the data field (except as stated above).
- The last field in the Motor Carrier Subfile must be a segment terminator character. The segment terminator character must be included in the SubFile length calculations.

3.2.2 Registrant (IR) Subfile

The Registrant (IR) Subfile must contain the following required data elements in the following order.

- The name of the Registrant.
- The “physical” address of the registrant including the “street address”, “city”, “jurisdiction”, and “postal/zip Code”.
- The unit number of the vehicle, if used by the jurisdiction.
- The vehicle identification number (VIN) of the vehicle.
- The model year of the vehicle.
- The vehicle make.
- The type of vehicle.
- The number of seats (for buses) or axles of the vehicle. **One** of these two values, but not both must be included in the bar code. Blank data in this field will not be accepted.
- The registration year for which IRP registration was issued
- The issue date of the IRP registration.
- The license plate number of the IRP registration.
- The decal number of the IRP registration, if decal numbers are captured by the jurisdiction.

- The enforcement date of IRP registration expiration. If the jurisdiction has a grace period, it should be applied to the IRP expiration date and entered in the data field, unless a different date or period is established by State legislation.. Otherwise, the data field should equal the IRP expiration date.
- The IRP expiration date of the IRP registration.
- The gross vehicle weight of the vehicle.
- The base state registered weight of the vehicle.

Additional data element considerations:

- If a data element is not used by a PRISM State the data element must still be included.
- All dates will be in the CCYYMMDD format.
- Each of the data elements in the Registrant Subfile must contain a data element separator character, the correct three character field identifier and the data field. When the unit number or the registration decal is not used, no data field shall be included.
- The last field in the Registrant Subfile must be a segment terminator character. The segment terminator character must be included in the SubFile length calculations.

3.3. ZAA-ZZZ Data Elements

If additional data elements are desired by any PRISM States they will be properly defined as ZAA-ZZZ data elements. As shown in the MC and IR SubFiles, each data element should begin with a data element separator, the field identifier and three character code, followed by the data.

ZAA-ZZZ data elements should be placed after the Segment Terminator for the IR SubFile. The ZAA-ZZZ data elements will not be analyzed by PRISM personnel and should be defined strictly according to specifications prepared by the State.

3.4 Certification of PRISM Cab Card and Bar Code

PRISM States are required to have their cab card and bar code certified to ensure that it complies with all requirements of the PRISM Cab Card and Bar Code Specifications. In order to receive the initial certification, each PRISM State should email three cab cards in the PDF format to PRISMTechnicalSupport@volpe.dot.gov for initial certification.

1. The registrant and the carrier responsible for safety are the same and the carrier responsible for safety *is not* expected to change during the period of registration.
 - The MC Subfile is required and will contain data for the carrier responsible for safety.
 - The IR Subfile is required and will contain registrant and vehicle data.
2. The registrant and the carrier responsible for safety are not the same and the carrier responsible for safety *is not* expected to change during the registration period.
 - The MC Subfile is required and will contain data for the carrier responsible for safety.
 - The IR Subfile is required and will contain registrant and vehicle data.
3. The registrant and the carrier responsible for safety are not the same and the carrier responsible for safety *is* expected to change during the registration period.
 - The MC Subfile, the data element separator, the correct three character field identifier must be included; however, no data field shall be included.
 - The IR Subfile is required and will contain registrant and vehicle data.

Once the cab card and bar code is initially certified and the programs are placed in production, PRISM States must email three cab cards from their production system, containing the same data as outlined above for final certification. This step is necessary to ensure that the production version of cab cards and bar codes are the same as approved prior to production.

PRISM States must create their IRP Cab Cards to ensure that:

- The Taxpayer Identification Number (TIN) is not printed on the cab card.

- The Registrant data on the cab card is clearly identified.
- The Registrant's USDOT Number is not printed on the cab card.
- The Carrier Responsible for Safety data on the cab card is clearly identified.
- The Carrier Responsible for Safety data is only printed on the cab card when the Carrier Responsible for Safety is not expected to change during the registration period.

4. PRISM Cab Card Bar Code Format

Component	Field Identifier & Description	Picture	Picture		Comments
			From	To	
Header	Compliance Indicator	X (01)	0	0	@ sign indicates compliance with standards. (ASCII/ISO646 Decimal "64") (ASCII/ISO646 Hex "40")
	Data Element Separator	X (01)	1	1	The data element separator is the Line Feed Character (ASCII/ISO646 Decimal "10") (ASCII/ISO646 Hex "0A")
	Record Separator	X (01)	2	2	The record separator character (ASCII/ISO646 Decimal "28") (ASCII/ISO646 Hex "1C")
	Segment Terminator	X (01)	3	3	The segment terminator is the carriage return character (ASCII/ISO646 Decimal "13") (ASCII/ISO646 Hex "0D")
	File Type	X (05)	4	8	AAMVA
	Jurisdiction Code	X (06)	9	14	Received from AAMVA
	Version Number	X (02)	15	16	01
	Number of SubFile Entries	X (02)	17	18	02
Motor Carrier	MC SubFile Designator				
	SubFile Type (MC)	X (02)	19	20	
	Subfile Offset	X (04)	21	24	
	Subfile Length	X (04)	25	28	
Registrant	IR Subfile Designator				
	SubFile Type (IR)	X (02)	29	30	
	Subfile Offset	X (04)	31	34	
	Subfile Length	X (04)	35	38	
Motor Carrier	Motor Carrier Data				
	SubFile Type (MC)	X (02)	39	40	
	Data Element Separator	X (01)			
	Bar Code Identifier (MAN)	X (03)			
	US DOT Number of the carrier responsible for safety	X (12)			

Component	Field Identifier & Description	Picture	Picture		Comments
			From	To	
Registrant	Data Element Separator	X (01)			
	Bar Code Identifier (MAA)	X (03)			
	Name of the carrier responsible for safety	X (35)			
	Data Element Separator	X (01)			
	Bar Code Identifier (MAK)	X (03)			
	Mailing Address, Street 1	X (35)			
	Data Element Separator	X (01)			
	Bar Code Identifier (MAL)	X (03)			
	Mailing Address, City	X (20)			
	Data Element Separator	X (01)			
	Bar Code Identifier (MAI)	X (03)			
	Mailing Address, Jurisdiction	X (02)			
	Data Element Separator	X (01)			
	Bar Code Identifier (MAO)	X (03)			
	Mailing Address, Postal/Zip Code	X (11)			
	Segment Terminator	X (01)			
	Registrant Data				
	Subfile Type (IR)	X (02)			
	Data Element Separator	X (01)			
	Bar Code Identifier (RBC)	X (03)			
Registrant Name	X (35)				
Data Element Separator	X (01)				
Bar Code Identifier (RBI)	X (03)				
Physical Address, Street 1	X (35)				
Data Element Separator	X (01)				
Bar Code Identifier (RBK)	X (03)				
Physical Address, City	X (20)				

Component	Field Identifier & Description	Picture	Picture		Comments
			From	To	
Registrant (IR)	Data Element Separator	X (01)			
	Bar Code Identifier (RBL)	X (03)			
	Physical Address, Jurisdiction	X (02)			
	Data Element Separator	X (01)			
	Bar Code Identifier (RBM)	X (03)			
	Physical Address, Postal/Zip Code	X (11)			
	Registrant (IR) Vehicle Data				
	Data Element Separator	X (01)			
	Bar Code Identifier (IEG)	X (03)			
	Unit Number	X (09)			
	Data Element Separator	X (01)			
	Bar Code Identifier (VAD)	X (03)			
	Vehicle Identification Number (VIN)	X (17)			
	Data Element Separator	X (01)			
	Bar Code Identifier (VAL)	X (03)			
	Vehicle Model Year – Format=YY	X (02)			
	Data Element Separator	X (01)			
	Bar Code Identifier (VAK)	X (03)			
	Vehicle Make	X (04)			
	Data Element Separator	X (01)			
Bar Code Identifier (VBB)	X (03)				
Vehicle Type	X (02)				
Data Element Separator	X (01)				
Bar Code Identifier (RAP/VBC)	X (03)				
Number of Seats/Axles	X (02)				
Data Element Separator	X (01)				
Bar Code Identifier (RBT)	X (03)				
Registration Year – Format CCYY	X (04)				

Component	Field Identifier & Description	Picture	Picture		Comments
			From	To	
	Data Element Separator	X (01)			
	Bar Code Identifier (IFJ)	X (03)			
	IRP Registration Issue Date – Format=CCYYMMDD	X (08)			
	Data Element Separator	X (01)			
	Bar Code Identifier (RAM)	X (03)			
	IRP License Plate Number	X (09)			
	Data Element Separator	X (01)			
	Bar Code Identifier (RAD)	X (03)			
	IRP Registration Plate Decal	X (10)			
	Data Element Separator	X (01)			
	Bar Code Identifier (RAF)	X (03)			
	Enforcement Date – Format=CCYYMMDD	X (08)			
	Data Element Separator	X (01)			
	Bar Code Identifier (RAG)	X (03)			
	IRP Registration Expiration Date – Format=CCYYMMDD	X (08)			
	Data Element Separator	X (01)			
	Bar Code Identifier (VAT)	X (03)			
	Gross Vehicle Weight	X (09)			
	Data Element Separator	X (01)			
	Bar Code Identifier (RAU)	X (03)			
	Base State Registered Weight	X (09)			
	Segment Terminator	X (01)			

APPENDIX A

PRISM Approved Bar Code Readers

Approved Scanners

- Hand Held Products Scanner Model: 4600SR051C-0F00 4600 Standard Range, USB Kit PDF, 1D, 2D, Image Capture, USB Cable, Green Aimer, User Guide
- PSC Inc. Scanner Model: Powerscan 7000 2D HD
- CodeCorp bar code scanners

Cabled Readers

- CR2 with 6ft USB cable
- CR2012G-HX-B0-RX-C0, CR2 with battery blank and USB cable
- CR3(menu screen) with 6ft USB cable
- CR3312G-HX-B0-RX-C0, CR3 with battery blank and USB cable

Bluetooth enabled Wireless Readers

- CR2 USB cable can be used to charge the battery
- CR2012G-HX-B2-R0-C0, CR2 with 1950 mAh battery, class 1 Bluetooth Radio, and USB cable.
- CR3(menu screen) USB cable can be used to charge the battery
- CR3312G-HX-B2-R0-C0, CR3 with 1950 mAh battery, class 1 Bluetooth Radio, and USB cable

Note: CodeCorp scanners utilize onboard Java applets that may require additional license costs and vendor assisted software initialization. These considerations are offset by the ability of the client to customize the scanner output to accommodate various application configuration and data input alternatives. Contact Information:

David Growe

Director, North American Sales

801-495-2200 ext 531 (Office)

801-550-6894 (Cell)

www.codecorp.com

Configuration:

- PDF417 Bar Code
- Set as a USB Keyboard Device
- Control + ASCII Mode On
- ***For Aspen Only:*** USB HID Bar Code Imager

Operating Instructions:

- Plug into a USB connector in your PC or a port expander that provides power to the Scanner. If using Bluetooth capabilities, consult with the hardware vendors for proper configuration settings.

- On a PC running WINDOWS XP access DOS and enter the command: **EDIT**
- Read the Bar Code and save the file.
- Access the file with a Hex Editor
- Note that the above process will produce a readable bar code that contains one “quirk”. The quirk is that following each Hex OD (Segment Terminator) there is a Hex OA (Data Element Separator). Extensive testing has determined that the DOS Edit program adds this Hex OA, not the bar code reader. In calculating the offset values, this extra Hex OA must be accounted for.

Estimated Cost

- \$450 per scanner (An RFP Bid might produce a lower price)