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Master Merchant BIN File Level 4 Specification

This document provides information about the content and structure of the Master Merchant BIN file. The file is a comprehensive collection of all POS-eligible BINs and includes information such as BIN Length, PAN Length, BIN number, and network.

Each record includes a matrix of Yes/No indicators that provide additional information about the capabilities of cards using the BIN such as whether the BIN has PIN Debit, Signature Debit, or Credit capabilities. Indicators also denote association with other features (e.g., Prepaid, Commercial/Business, Fleet, PINless Bill Pay, EBT, WIC, and International).

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Header and Trailer Records

Each BIN file includes a header and trailer record that use the formats listed in Table 1 and Table 2. The Header Record is a 22-character title followed by the creation date and version. The Trailer Record is a 13-character title followed by a seven-digit record count, which you should right justify with leading zeros.

TABLE 1 BIN File Header Record

Data Element Name	Position	Length	Description	Sample Data
Title	1	22	Identifies the start of the file	HEADER RECORDBIN IDENT
Filler	23	1	Blank between the fields	
Date	24	8	MM/DD/YY format for the date Worldpay created the file	01/01/18
Filler	32	1	Blank between the fields	
Version	33	5	VXX.X format that indicates the version number of the file	V0#.0
Reserved	38	42	Blank	

TABLE 2 BIN File Trailer Record

Data Element Name	Position	Length	Description	Sample Data
Title	1	13	Identifies the end of the file	TRAILR RECORD
Record Count	14	7	Final record count of all BIN entries contained in the file	0123456
Reserved	21	59	Blank	

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BIN Records

Table 3 provides field definitions and lengths.

TABLE 3 BIN File Record Structure

Data Element Name	Position	Length	Description
Sequence Number	1	7	A number indicating the position of the record in the BIN file
BIN Length	8	2	The length of the BIN
Pan Length	10	2	This element indicates the length of the PAN. Allowed values are 12 through 19 inclusive, or 00, which indicates the card networks accepts any PAN length between 13 and 19 inclusive.
BIN	12	12	The Bank Identification Number Left justify and zero fill this element.
Table ID	24	4	The four-letter abbreviation identifying the specific card/debit network. Refer to Table 4 for possible values and definitions.
Filler	28	2	Blank fill. Reserved for future use by Worldpay/FIS
Debit Flag	30	1	Indicates a BIN that you can use for PIN-based Debit transactions to a Debit network
Checkcard Flag	31	1	Indicates a BIN that you can use for Signature-Based Debit transactions that route to the Credit networks.
Credit Card Flag	32	1	Indicates a BIN which is a credit transaction that routes to the respective Credit Network.
Cardholder Funds Transfer Flag	33	1	Indicates if the BIN is capable of initiating transactions to credit or debit a cardholder's account from another cardholder or institution
Dual Message Flag	34	1	Indicates the associated network supports Dual Message functionality (pre-auth and completions), where the default would be Single Message
Filler	35	5	Blank fill. Reserved for future use by Worldpay/FIS
Network Regulation Value	40	1	Indicates if regulation data on the BIN is available, and the level of regulation of the BIN.

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TABLE 3 BIN File Record Structure

Data Element Name	Position	Length	Description
International Flag	41	1	Indicates that the BIN is issued for a country outside of the United States
Currency Conversion Flag	42	1	BIN is capable of currency conversion using any of Worldpay's currency conversion processes
Commercial/Business Card Flag	43	1	Indicates a credit or check BIN with the designation of being used by a business or corporation for purchasing, travel, or other day-to-day business expenses
Fleet Card Flag	44	1	Indicates a BIN you can use for purchasing gas/fleet related expenses for a corporate or business fleet of vehicles and may require extra data to authorize the transaction
Prepaid Card Flag	45	1	Indicates a fixed funding source for a card but not necessarily associated with the consumers' checking account You can also use this flag to determine when networks might return Remaining Balance information.
Reload Flag	46	1	Indicates that the Prepaid BIN is reloadable
Benefit Card Services Flag	47	1	Indicates that the BIN is eligible for Benefit Card Services transactions.
Filler	48	1	Blank fill. Reserved for future use by Worldpay/FIS
HSA Flag	49	1	Indicates a card attached to a Health Savings Account
FSA Flag	50	1	Indicates a card attached to Flexible Spending Account
EBT Flag	51	1	Indicates the BIN has Electronic Benefits Transfer (EBT) capabilities
WIC Flag	52	1	Indicates that the BIN is used for Women Infant Children (WIC) transactions
PINless POS Flag	53	1	Indicates that the Debit network support PIN Debit transactions under a certain dollar amount without a PIN, or Full PINless, where there is no dollar amount restriction.
PINless Bill Pay Flag	54	1	Indicates the ability to submit to a debit network a debit transaction without a PIN for reoccurring, card-on-file transactions

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TABLE 3 BIN File Record Structure

Data Element Name	Position	Length	Description
Token Flag	55	1	Indicates that the BIN is used for tokenization with a network
E-Commerce Flag	56	1	Indicates the associated network supports E-commerce-based transactions
Filler	57	3	Blank fill. Reserved for future use by Worldpay/FIS
Reserved	60	1	Blank fill. Reserved for future use by Worldpay/FIS
Filler	61	14	Blank fill. Reserved for future use by Worldpay/FIS
BIN Product ID	75	3	Product ID assigned by the network. Please refer to network documentation for Product ID definitions.
Issuer Country Code	78	3	Country code of the issuer
Issuer Name	82	80	Name of the issuing bank.

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Network IDs

TABLE 4 Table ID Values

ID	Network	ID	Network
AFN5	Armed Forces Financial Network	SHAZ	Shazam, Inc.
AMEX	American Express	SNE1	Star Access
ATH3	ATH Network - Banco Popular Debit Network	SNE1	Star Northeast
CRTB	Carte Blanche	TRA1	TransAlliance/Accel
CTF4	Culliance	VISN	Visa
DINR	Diners Club	VOYG	Voyager
DISC	Discover	WAK1	WIC Alaska
EAK1	EBT Alaska	WAL1	WIC Alabama
EAL1	EBT Alabama	WAS1	WIC American Samoa
ECA1	EBT California	WAZ1	WIC Arizona
EDC1	EBT District of Columbia	WAZ2	WIC Inter-council Arizona
EDE1	EBT Delaware	WCA1	WIC California
EFL1	EBT Florida	WCH1	WIC Choctaw Indians, Mississippi Band of, MS
EGU1	EBT Guam	WCN1	WIC NV Chickasaw Nation
EIA1	EBT Iowa	WCN3	WIC Chickasaw Nation
EIL1	EBT Illinois	WCO1	WIC Colorado
EIN1	EBT Indiana	WCP1	WIC Potowotami Nation OK
EIT1	EBT Indian Tribal Nation	WCT1	WIC Connecticut
EKS1	EBT Kansas	WDC1	WIC Washington D.C.
EKY1	EBT Kentucky	WDE1	WIC Delaware
ELA1	EBT Louisiana	WEXP	Wright Express
EMA1	EBT Massachusetts	WFL1	WIC Florida
EMD1	EBT Maryland	WGA	WIC Georgia
EME1	EBT Maine	WGU1	WIC Guam
EMI1	EBT Michigan	WHI1	WIC Hawaii
EMN1	EBT Minnesota	WIA1	WIC Iowa
EMP1	EBT Northern Mariana Island	WID1	WIC Idaho

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TABLE 4 Table ID Values

ID	Network	ID	Network
EMS1	EBT Mississippi	WIL1	WIC Illinois
EMT1	EBT Montana	WIN5	WIC Indiana
ENCS	EBT North Carolina	WIT1	WIC NV Intertribal Council
ENE1	EBT Nebraska	WKS1	WIC Kansas
ENJ1	EBT New Jersey	WKY1	WIC Kentucky
ENJ1	EBT	WMA1	WIC Massachusetts
ENJ2	EBT New Jersey	WMC1	WIC Muscogee Creek Nation
ENM1	EBT New Mexico	WMD1	WIC Maryland
ENS1	EBT North and South Dakotas	WME1	WIC Maine
ENV1	EBT Nevada	WMI1	WIC Michigan
EOH1	EBT Ohio	WMN1	WIC Minnesota
EOK1	EBT Oklahoma	WMO1	WIC OTOE Missouria Tribe
EOR1	EBT Oregon	WMP1	WIC N. Mariana Island
EPA1	EBT Pennsylvania	WMS1	WIC Mississippi
EPR1	EBT Puerto Rico	WMT1	WIC Montana
ESC1	EBT South Carolina	WNC2	WIC North Carolina and WIC Cherokee Indians, Eastern Band of North Carolina
ETN1	EBT Tennessee	WND1	WIC North Dakota
ETX1	EBT Texas	WNE1	WIC Nebraska
EUT1	EBT Utah	WNH1	WIC New Hampshire
EVA1	EBT Virginia	WNJ1	WIC New Jersey
EVI1	EBT Virgin Islands	WNN1	WIC Navajo Nation
EWA1	EBT Washington	WNV1	WIC Nevada
EWCS	EBT	WNY1	WIC New York
EWI1	EBT Wisconsin	WOK1	WIC Oklahoma and WIC Inter-Tribal Council, Inc. of Oklahoma
EWV1	EBT West Virginia	WOK3	WIC Oklahoma
EWY1	EBT Wyoming	WON1	WIC Osage Nation
FLT1	Fleet One	WOR1	WIC Oregon
FLTC	Fleetcor	WPR1	WIC Puerto Rico
INLK	Interlink	WRI1	WIC Rhode Island

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TABLE 4 Table ID Values

ID	Network	ID	Network
INR1	Interac	WSC1	WIC South Carolina
JCBC	Japanese Credit Bureau	WSD1	WIC South Dakota
JENI	Jeannie	WTN1	WIC Tennessee
MAES	Maestro	WTT1	1. WIC Cheyenne Rive Sioux Tribe, SD 2. WIC Eastern Shoshone, WY 3. WIC Northern Arapahoe, WY 4. WIC Omaha Nation, NE 5. WIC Rosebud Sioux Tribe, SD 6. WIC Santee Sioux Nation, NE 7. WIC Standing Rock Sioux Tribe, ND 8. WIC Three Affiliated Tribes, ND 9. WIC UTE Mountain Ute Tribe, CO 10. WIC Winnebago, NE
MCRD	Mastercard	WVA1	WIC Virginia
NYC1	New York Cash Exchange (NYCE)	WVT1	WIC Vermont
NYC3	NYCE Crypto	WWA1	WIC Washington
NYCO	NYCE Benefit Card Services	WWC1	WIC WCD Enterprises
PAVD	PIN Authorized Visa Debit	WWI1	WIC Wisconsin
PUL2	Pulse Network	WWV1	WIC West Virginia

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Notes and Usage

The Master Merchant BIN file allows for multiple entries for the same BIN, differentiated by their network (Table ID), BIN Length, and the indicator values, detailing card capabilities. This information lets you set up automated tasks in your POS device, such as PIN prompting, and establish routing preferences. Each of the BIN record example below show the same BIN (spaces added), but each references a different network and capabilities.

Example: Debit Card with Check Card Capabilities for the Maestro Network with Regulated Debit and Fraud Adjustment

```
126035206165576210000000MAES  YYNYN      2NNNNNN  NNNNNNNN                  840
```

Example: Unregulated Check Card Operating Through the Mastercard Network

```
126035306165576210000000MCRD  NYNNN      2NNNNNN  NNNNNNNN                  840
```

Example: Debit Card with Check Card Capabilities for the Star West Network with Regulated Debit and Fraud Adjustment with Pinless Pay Capability

```
126035006165576210000000AVAL  YYNNN      2NNNNNN  NNNNNYNN                  840
```

Prioritizing BINs based off length is essential to the function of the file. The file is arranged by BIN length, and where possible, the longest BIN should be given priority.

Example: BIN Prioritization

```
012761009164238480100000PAVD  YYNYN      0NNNNNN  NNNNNNNN                  840
012761109164238480100000VISN  NYNNN      0NNNNNN  NNNNNNNN                  840
012761309164238482420000PAVD  YYNYN      0NNNNNN  NNNNNNNN                  840
012761409164238482420000VISN  NYNNN      0NNNNNN  NNNNNNNN                  840
012761609164238482750000PAVD  YYNYN      0NNNNNN  NNNNNNNN                  840
012761709164238482750000VISN  NYNNN      0NNNNNN  NNNNNNNN                  840
012761909164238485330000PAVD  YYNYN      0NNNNNN  NNNNNNNN                  840
012762009164238485330000VISN  NYNNN      0NNNNNN  NNNNNNNN                  840
012762209164238485720000PAVD  YYNYN      0NNNNNN  NNNNNNNN                  840
012762309164238485720000VISN  NYNNN      0NNNNNN  NNNNNNNN                  840
012762509164238486800000PAVD  YYNYN      0NNNNNN  NNNNNNNN                  840
012762609164238486800000VISN  NYNNN      0NNNNNN  NNNNNNNN                  840
012762809164238486810000PAVD  YYNYN      0NNNNNN  NNNNNNNN                  840
012762909164238486810000VISN  NYNNN      0NNNNNN  NNNNNNNN                  840
012763109164238486820000PAVD  YYNYN      0NNNNNN  NNNNNNNN                  840
012763209164238486820000VISN  NYNNN      0NNNNNN  NNNNNNNN                  840
012763309164238486860000PAVD  YYNYN      0NNNNNN  NNNNNNNN                  840
012763409164238486860000VISN  NYNNN      0NNNNNN  NNNNNNNN                  840
012769906164238480000000JENI  YYNNN      3NNNNNN  NNNNFNNN                  840
```

In this example, Jeanie (JENI) claims routing on the full BIN range of 423848000000 - 423848999999, and Visa (PAVD/VISN) claims routing availability on 423848010000 - 423848019999, 423848242000 - 423848242999, 423848275000 - 423848275999, and so on. There is a gap to suggest that Jeanie's routing for that BIN would be debit only. In this case, a card starting with 423848 would only route to Jeanie and would require a PIN. A card starting with 42384801 could route to VISN, PAVD, or fall back to JENI as well. If JENI is examined first or only

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though, the POS could determine it to be PIN Debit only, and if the customer does not use a PIN, it could result in a negative customer experience.

Searching the Records

Worldpay designed the records for easy parsing and searching. After getting the file and parsing it, you can easily search for BINs based on your choice of characteristics. For example, a simple query could yield a list of all BINs for Debit cards on the Pulse network. You could further refine the search parameters to limit the list to cards that also allow PINless Bill Pay and are Regulated.

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