



Specifications for Self-Implementation

DOCUMENTATION FOR CUSTOMERS OF POSTNL





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1 Introduction

Getting a parcel from A to B requires smooth interaction between different systems: a clear, constant flow of information needs to be guided from one point to the other without any errors and, preferably, as fast as possible. This is an impressive task, and one that a company like ours aims to do almost 400,000 times a day every day, as effectively and as quickly as we can. This document can help our aim become reality. In our business, effective use of information is becoming increasingly important. By using scanners and computer systems PostNL Parcels is working towards maximising the efficiency and accuracy of sorting, distributing and tracking your parcels.

With your help we can achieve our aim, to your benefit and to ours. Using information effectively goes further than simply the layout of a dispatch label: aspects like the bar code and other information required for proper parcel dispatch also play an important role. In this document you can read how to submit this and other information, so that we can enter this information into our computer systems and ensure that your parcel gets from A to B as safely and as quickly as possible.

1.1 Integration in your computer system

This document includes the options for integrating PostNL Parcels' specifications into your own computer system. Properly implementing the instructions in this document should enable you to do the following successfully:

- printing dispatch labels with a bar code;
- generating pre-advice files;
- submitting your pre-advice files electronically.

Appendix IV includes examples of labels for the various shipment methods PostNL Parcels can offer.





2 Conditions for self-implementation

PostNL Parcels considers a fault-free flow of information a major advantage; information is, after all, an essential part of our daily work. We maintain a high standard, and the better and more complete the details we receive from you the more quickly and effectively we can get your parcels to their destination. Supplying the right information the right way involves a rather specialised process, and PostNL Parcels would like to lend you a helping hand in achieving this. However, some customers may object to installing one of our applications. That is why we also offer a 'self-implementation' option, providing you with the specifications you need to send us the right information, while still using your own system. Effective and convenient.

Our IT team is on standby to guide you through this process. They have drafted these specifications and are the designated contacts at PostNL Parcels tasked with ensuring that your self-implementation process runs a smoothly as possible.

2.1 Collaboration Guidelines PostNL Parcels and customer

In order to minimise the chance of problems arising during self-implementation, PostNL Parcels works together with your company to cover all risks associated with this process as best as possible. You can discuss your needs with your account manager and our IT team, and through them you will know what you can expect from us. To promote effective collaboration, avoid risks and ensure a successful self-implementation process, PostNL Parcels has set a number of requirements, as explained below.

Single contact

For the sake of effective communication, we ask that you designate a single contact responsible for the self-implementation process.

Dispatch labels with bar code and pre-advice files

Your company is responsible for producing the dispatch labels, including ISO code 39 bar codes (fonts), and for producing the pre-advice files with the correct information.

Sending pre-advice files

You should preferably send pre-advice files to PostNL Parcels using SFTP or e-mail (see Section 7 for more information). Please send the pre-advices in batches (per pick-up) and not a pre-advice per parcel, if this is inconvenient please discuss the possibilities with your IT-team. Please ask your account manager which team provides technical support to you, dedicated.it@postnl.nl or citservicedesk@postnl.nl.

Implementing status update files

PostNL Parcels sends you daily electronic parcel-status updates, which you can process in your system. More information about this is explained in chapter 6 Status Update Files, and in the Excel file *StatusCodesExplained2017* you can find a translation of the status events.

Testing dispatch labels and pre-advice files

During implementation, your system will be able to generate dispatch labels and pre-advice files. To ensure these will be accepted by our system we ask you to send physical samples of the dispatch labels to our IT team. You can send your pre-advice file by e-mail.





Communication between your company and PostNL Parcels IT-team

During the entire process, intensive communication will take place between our IT-team and your company. When the self-implementation process is complete, communication will, of course, remain essential in ensuring effective collaboration. Issues, delays and changes will need to be properly communicated so that both parties know at all times what is happening and can act accordingly. The procedure for dealing with issues, delays and changes will be agreed with PostNL Parcels' IT-team at a later time, as will the decision-making ('GO/NO GO') moments in the self-implementation process.

Possible changes in and during the self-implementation process

Changes at PostNL Parcels may require changes to be made to the self-implementation specifications, which will subsequently affect the self-implementation process. Should this occur, the IT-team will inform you as soon and as thoroughly as possible so that you and our team can agree the best approach to implementing the required changes.





3 Layout of the dispatch label

To ensure the quality of dispatch labels, they need to be instantly recognisable and clear. This is why PostNL Parcels has developed a standard layout for dispatch labels:



The layout of the dispatch label is set to a large extent. However, it also depends on which service you use for a particular parcel, for example, you might want to use the optional service 'COD' or 'Extra Cover'.

To ensure your parcels can move smoothly through our system, we need to enforce strict rules and guidelines on the layout and content of the dispatch labels. The fewer the uncertainties in this respect, the more your process and ours benefit. The following explains the layout and content of the label.

1 Special service

If you wish to make use of a special service, you should print 'AD' in bold capital letters below the address zone (also see Appendices). The product instruction concerned is printed below this.

- Font Caps Arial 36 Bold
- Product instruction in Font Arial 10 (e.g. 'Verhoogd aansprakelijk' [Extra Cover])

2 Sender details

This has to be a <u>Dutch</u> address, located in the top left-hand corner of the label. The name of the sender, street name, postcode and the town/city should be stated on the label.

Font Arial 10





3 + 4 Open text lines

PostNL Parcels has reserved space on the label so that you can run checks and print your own text on the label if you wish. You can print an order number above the sender address zone and/or your own line of text between the sender address zone and the franking zone. We do not advise listing the contents of the parcel on the label.

Font Arial 8

5 Franking zone

The set text 'FRANCO' (Freight Prepaid) is printed in the franking zone. The franking zone is always located in the top right-hand corner.

Font Caps Arial 10

6 Address zone

In this zone you print the name and address of the addressee.

- Font Arial 10
- Postcode in Font Arial 12 Caps Bold (e.g. 1000NA)
- Town/city in Font Arial 10 Caps Bold (e.g. AMSTERDAM)

7 Bar code

The bar code is printed at the bottom of the label as described in the specifications in Section 4. Since no or insufficient whitespace around the bar code might make it impossible to scan, the bar code is always centred on the label. In addition, the content of the bar code should be clearly presented in plain text below the linear bar code.

- ISO 39 bar code (also known as 'Code 3 of 9')
- 23-25 mm bar code height

3.1 Product codes

To facilitate communication about services, PostNL Parcels uses product codes. A product code is a numeric code representing a particular service. Product codes (see Appendix III) should be included in the pre-advice file. In Appendix IV, you can see the prescribed layout of the dispatch labels for each product code.

Another essential item on the dispatch label is the bar code. See Section 4 for more information on the bar code.





4 Bar code

To ensure the bar code can be scanned successfully, it has to meet a number of requirements. These apply to technical aspects as well as to content. The position of the bar code on the parcel is also very important when it comes to successful scanning.

4.1 What is a bar code?

A bar code is a symbol consisting of black bars with white spaces between them. The bar code stores

encoded information. In principle, each bar code consists of individual characters. Each character is represented by a unique sequence of wide and narrow bars. The width of the bars and the spaces between them vary depending on the characters that have been encoded. Most bar codes



* 3SABCD123456789 *

include a fixed START and a fixed STOP character, allowing the bar code to be read in either direction. The decoder can work out the correct sequence. The data encoded in a bar code is usually linked to information previously stored on a computer, for example, a product description, so reading the bar code is often sufficient to produce the rest of the information.

4.2 How is a bar code read?

From a technical point of view, the way bar codes work is fairly simple. The black (or dark) bars absorb the light; the white (light) spaces between these reflect the light. The bar pattern produces an uneven reflection of light that is specific for each symbol. A photocell registers the amount of light reflected and sends this information to the computer in digital form. A decoder in the computer recognises and interprets the specific structure of the bar code symbol and converts this information into data that the computer can read. Coding with bars, usually referred to as bar-coding, is undoubtedly the most familiar and most commonly used method of automatic product identification. Bar codes can be found on consumer products and are used for many trade applications, in industry, health care, educational institutes, libraries and even on restaurant menus.

Bar-coding offers many advantages. These are just a few:

- Better accuracy and higher speed, resulting in improved service
- Elimination of human error
- Improved speed and accuracy of data input, saving time and money
- Improved efficiency through optimal use of capacity.





4.3 Bar code requirements

PostNL Parcels has chosen the ISO 39 bar code for its code technology. This code is widely accepted and is supported by a wide range of printers and bar code readers.

To guarantee smooth operation, there are several standards regarding size, quality and position of the bar code on the dispatch label. Most of these standards have been taken from the ISO 39 standard.

4.3.1 The main requirements

- **Good printing quality:** especially in regard to contrast and the 'linearity' of the bars; the scan grade quality should be A or B in accordance with ISO CEN.
- **Start/stop character:** the bar code includes a start and a stop character (' * ', standard for code 39); many printers generate these automatically;
- Narrow bars and spaces: the width of the bars and spaces of between 0.4 mm and 0.5 mm (preferably 0.5 mm, but certainly no wider);
- Ratio: between narrow and wide bars and spaces (= ratio) between 1:2 and 1:3;
- Bar code height: a height of 23-25 mm for the bars.
- White spaces: a white space before and after the bar code (= quiet zone) of at least ten times the width of the narrow bar; a white space of at least 2 mm is required above and below the bar code;
- **Legibility:** under the bar code, the value is reproduced in alphanumerical characters, in a regular font that is easy to read.

There is a test procedure to determine whether the bar code produced meets the requirements. Bar code labels should not be used without prior written approval from our IT-team.

4.4 Contents of the bar code

The bar code is made up of three elements:

4.4.1 A data identifier

This two-digit identification code serves to avoid confusion with any other bar codes on the parcel. We have chosen the standard of the Federation of Automated Coding Technologies. This code is always '3S'.

4.4.2 A customer code (party code)

This is a unique code of no more than four upper-case or lower-case letters that identifies you as a customer of PostNL Parcels. This code does not change and is assigned to you by our IT-team.





4.4.3 Parcel number

This is a unique sequence of numbers for a parcel, comprised of five to nine digits for shipments within the Netherlands

Supplementary conditions

You are free to assign parcel numbers as long as you follow these rules:

- Use digits only.
- The bar code should consist of 11 to 15 characters.
- The number should be assigned only once in a period of at least six months (preferably one year), to facilitate the tracing of the parcel after some time, when necessary.

Examples

- Customer code = ABCD
- Parcel number = 123456789
- The numbers and letters represented in the bar code (including start and stop characters) are thus:
 - *3SABCD123456789*
- Customer code = ABCD
- Parcel number = 56789
- The numbers and letters represented in the bar code (including start and stop characters) are thus:
 - *3SABCD56789*

4.5 Position of the bar code

The bar code is printed on the dispatch label. For the logistical processing of the parcel, it is important that the bar code is always affixed on the parcel lengthways, <u>never around</u> the parcel. Ensure that packaging material such as tape or string never covers the bar code.

Always affix bar code labels to the address side of the parcel (not on the end or around the corner of the parcel) and do not crease them.

4.6 Bar code behind plastic/film or in window envelopes

If you print dispatch labels on packing slips, order forms, etc and affix them to your parcels behind plastic/film or in a window envelope, you will need to inform our PostNL Parcel IT-team of this. They will determine the best means of providing and testing this.

Please note that, due to reflection, placing the bar code behind plastic/film or in a window envelope can adversely affect the bar code's scanability. In such cases, the tests conducted will be more stringent.





4.7 Test procedure for the bar code

Before the bar code can be used, PostNL Parcels will test it to ensure that all requirements have been met and that the bar code can be scanned without causing any problems on the sorting belt for automatic scanning. A positive manual scanning result does not always mean that the bar code is suitable for automatic scanning. Various aspects of the bar code are checked during testing, such as decodability, contrast, scan grade, etc. A quality value is assigned to each part of the test, ranging from 'A' (high) to 'F' (low) (ANSI CEN grade). For optimum processing of your shipments PostNL Parcels requires that the bar codes provided by you have at least value 'B' for all parts of the test. These dispatch labels should be printed by the production printer. Contact our PostNL Parcels IT-team to agree the procedure for testing the dispatch labels.

4.8 Approval for the use of bar code labels

Bar code labels are an essential part of the PostNL Parcels business process, which is why it is so important to test these labels and the pre-advice files. To ensure the high standard of our services, these need to be of the best possible quality and provided according to the guidelines of PostNL Parcels. The decision-making ('GO/NO GO') moments in the self-implementation process are important in this regard; only the IT-team may determine these moments and make the final decision. Due to the importance of this aspect, we strongly suggest you follow all instructions of the IT-team in this matter.





5 Pre-advice file

The pre-advice file is very important for sorting, administration and billing. This is a UTF-8 file comprising three levels:

- Handover level (A segment)
- Dispatch unit level (V segment)
- Check level (Z segment).

The handover level and the check level each have one record in a pre-advice file. The dispatch unit level has as many records as there are parcels.

Each record includes several fields. Not all are mandatory fields. Each field starts on a new line and is preceded by a field code and one space.

- All field codes at the handover level begin with the letter A, starting with A010 and ending with A999.
- All field codes at the dispatch unit level begin with V, starting with V010 and ending with V999.
- All field codes at the check level begin with the letter Z, starting with Z001 and ending with Z999.

On the next pages, it is stated for each level which field codes there are, whether they are numeric or alphanumeric, what the field length is and whether or not it is a mandatory field. You do <u>not</u> need to pack out a field to the stated length using noughts or spaces.

A field code may be omitted if it is not mandatory. If you wish you can include optional blank fields. In the example, we have included a fictional value for most fields in the last column.





5.1 Record layout of the pre-advice file

5.1.1 Handover level (A segment)

Field	Type	Length	Mandatory	Additional information	Meaning	Example of field content
code						
A010	N	8	Υ		File generation date	A010 20120801
					(yyyymmdd)	
A011	N	6	Υ		File generation time	A011 153026
					(hhmmss)	
A020	N	3	Υ		Message version	A020 811
A021	N	3	Υ		Software version	A021 811
A022	N	3	Υ		Product version	A022 130
A030	Α	4	Υ		Customer code (party code)	A030 ABCD
A040	Α	12	Υ		Pre-advice ID (customer	A040 ABCD01000002
1050			. ,		code + serial number)	1000 20120001
A060	N	8	Υ		Shipment handover date	A060 20120801
1100	N	8	Υ		(yyyymmdd) Customer number	A100 1234567
A100		_		Nandatam if field and		
A130	A	35	Y	Mandatory if field code A132 is empty	Sender's company name	A130 PostNL Parcels
A131	Α	35	N		Sender's department	A131 PostNL IT
A132	Α	35	Υ	Mandatory if field code	Sender's last name	A132 Jansen
				A130 is empty		
A133	Α	35	N		Sender's first name	A133 Jan
A137	Α	35	N		Sender's building name	A137 Beukenhorst
A138	Α	35	N		Sender's building floor	A138 Ground floor
A139	Α	95	N		Sender's street name or PO	A139 Neptunusstraat
					Box	
A140	N	5	Υ		Sender's house/PO Box	A140 2
					number	
A141	Α	6	N		Sender's house number	A141 -20
					suffix	
A150	Α	6	Υ		Sender's postcode	A150 2132JB
A151	Α	35	N		Sender's city/town	A151 HOOFDDORP
A152	Α	35	N		Sender's district	A152 Beukenhorst
A153	Α	35	N		Sender's region	A153 Noord Holland
A154	Α	35	N		Sender's door code	A154
A155	Α	35	N		Sender's comment	A155
A220	Α	2	Υ	Country code in capitals	Sender's ISO country code	A220 NL
A228	N	34	A/N		IBAN (International Bank	A228 NLABCD0123456789
					Account Number) for COD	
		1			payments	
A229	N	11	A/N		BIC (Bank Identifier Code)	A229 ABCDNL1A
					for COD payments	
A230	N	6	Υ		Handover location code (BLS	A230 103861
					code)	
A999	Α	0	Υ		End of A segment (blank)	A999

In every file, this record or opening record occurs only once.





5.1.2 Dispatch unit level (V segment)

Field	Field Type Length Mandatory Add		Additional information	Additional information Meaning		
Code		Ŭ	Í		, and the second	Example of field content
V010	Α	1	Υ		First field of a parcel	V010 V
					description	
V020	Α	15	Υ		Bar code of a parcel	V020 3SABCD123456789
V021	Α	15	Υ		Shipment reference number	V021 3SABCD123456789
V025	Α	35	N		Reference text (open text)	V025 1 item COD AVG
V040	N	5	Υ		Product code (Prisma code)	V040 03085
V051	N	3	Υ		Franking impression	V051 15
V056	Α	50	N		E-mail address	V056 p.post@postnl.nl
V057	N	12	N		Mobile number	V057 +31612345678
V058	N	12	N		Telephone number	V058 +31231234567
V060	N	3	Υ		V056 p.post@postnl.nl	V060 1
V061	N	3	Υ		Total number of items in the	V061 1
					shipment	
V070	N	8	N	Mandatory if product	COD amount in euro cents	V070 2500
				concerned is applicable		
				(Prisma code in V040)		
V090	N	8	N	Mandatory if product	Insured amount in euro cents	V090 0
				concerned is applicable		
				(Prisma code in V040)		
V110	Α	35	N	Mandatory if field code V112	Different sender's company	V110 PNP
				is empty and if sender is	name	
				different		
V111	Α	35	N		Different sender's department	V111 Service desk
V112	Α	35	N	Mandatory if field code V110	Different sender's last name	V112
				is empty and if sender is		
				different		
V113	A	35	N		Different sender's first name	V113
V117	Α	35	N		Different sender's building	V117
1/440		25	1		name	1440
V118	A	35	N		Different sender's floor	V118
V119	A	95	N		Different sender's street name	V119 Neptunusstraat
V120	N	5	N	Mandatory if sender is	Different sender's house/PO	V120 1
1/424			1	different	Box number	1424
V121	Α	6	N		Different sender's house number suffix	V121 A
V120	_	6	N	Mandatory if conder is		V120 2521CA
V130	Α	0	IN	Mandatory if sender is different	Different sender's postcode	V130 2521CA
V131	Α	35	N	umerent	Different sender's city/town	V131 HOOFDDORP
V131 V132	A	35	N		Different sender's district	V131 HOOFDDORP V132 Beukenhorst
V132 V133	A	35	N		Different sender's region	V132 Beakermorst V133 Noord Holland
	A	35	N		Different sender's region Different sender's door code	
V134	А	55	IN		Different sender's door code	V134





Field	Type	Length	Mandatory	Additional information	Meaning	Example of field content
Code						
V135	Α	35	N		Different sender's comment	V135
V140	Α	2	N	Mandatory if sender is	Different sender's ISO country	V140 NL
				different, country code in	code	
				capitals		
V170	Α	35	Υ	Mandatory if field code 172 is	Addressee's company name	V170 POSTNL Cargo Service
				empty		
V171	Α	35	N		Addressee's department	V171 Planning
V172	Α	35	Υ	Mandatory if field code 170 is	Addressee's family name	V172 Hunze
				empty		
V173	Α	35	N		Addressee's first name	V173 Jan
V177	Α	35	N		Addressee's building name	V177
V178	Α	35	N		Addressee's floor	V178
V179	Α	95	N		Addressee's street name	V179 Gyroscoopweg
V180	N	5	Υ		Addressee's house/PO Box	V180 10
					number	
V181	Α	35	N		Addressee's house number	V181 B
					suffix	
V190	Α	6	Υ		Addressee's postcode	V190 1042AB
V191	Α	35	N		Addressee's city/town	V191 AMSTERDAM
V192	Α	35	N		Addressee's district	V192
V193	Α	35	N		Addressee's region	V193 Noord Holland
V194	Α	35	N		Addressee's door code	V194
V195	Α	35	N		Addressee's comment	V195
V200	Α	2	Υ	Country code in capitals	Addressee's ISO country code	V200 NL
V440	Α	35	N		Contents field	V440 Supplies
V450	N	6	N		Parcel weight in grams	V450 850
V451	N	9	N		Volume (in CM³)	V451 2000000
V999	Α	0	Υ		Last field of a parcel	V999
					description	

In every file, this record or parcel description record occurs once for every parcel.

5.1.3 Check level (Z segment)

Field code	Туре	Length	Mandatory	Additional information	Meaning	Example of field content
Z001	N	4	Υ		Number of dispatch units (number of V010 records)	Z001 1
Z002	N	12	Υ		Sum of COD amounts	Z002 2500
Z999	Α	0	Υ		End of message	Z999

In every file, this record or closing record occurs only once.





5.1.4 Example file pre-advice

A010 20120801

A011 153026

A020 811

A021 811

A022 130

A030 ABCD

A040 ABCD01000002

A060 20120801

A100 1234567

A130 PostNL Parcels

A131 PostNL IT

A132 Jansen

A133 Jan

A137 Beukenhorst

A138 Ground floor

A139 Neptunusstraat

A140 2

A141 -20

A150 2132JB

A151 HOOFDDORP

A152 Beukenhorst

A153 Noord Holland

A220 NL

A227 123456789

A230 103861

A999

V010 V

V020 3SABCD123456789

V021 3SABCD123456789

V025 1 item COD AVG

V040 03085

V051 15

V056 p.post@postnl.nl

V057 +31612345678

V058 +31231234567

V060 1

V061 1

V070 2500

V110 PNP

V119 Neptunusstraat

V120 1

V121 A

V130 2521CA

V131 HOOFDDORP

V132 Beukenhorst

V133 Noord Holland V140 NL

V170 POSTNL Cargo Service

V171 Planning

V172 Hunze

V173 Jan

V179 Gyroscoopweg

V180 10

V181 B

V190 1042AB





V191 AMSTERDAM V193 Noord Holland V200 NL V440 Supplies V450 850 V999 Z001 1 Z002 2500 Z999

5.2 Notes on the field codes

Handover level

A020	The version number of the pre-advice file indicates the composition of your message. This value
	is always 811 .
A021	The version number for self-implementation is always 811 .
A022	The version number for the product code label is always 130 .
A030	The customer code (party code) is a unique combination of four capitals that will be reserved
	for you. This code needs to be included in your bar code, for instance.
A040	The pre-advice ID should be unique and include the customer code (max. 4 letters) and a serial
	number (max. 10 digits).
A060	This is where you enter the date (format yymmdd) on which the parcels will be handed over.
A100	Customer number linked to the customer code in field A030.
A130 to	This is where you enter your sender's name and address. This data should also be printed in the
	top left corner of the
A220 incl.	dispatch label. If a different sender needs to be printed on the label, this data should be
	recorded in fields V110 up to and including V140.
A227	This is where you enter your bank account number for the COD payment.
A230	This is where you enter the code of the location (PostNL hub) where your shipments will be
	received for processing. You will be issued this code by your PostNL account manager and/or
	our IT-team.
	You need to create and hand over a separate file for each handover location and customer
	code.
A999	This field code indicates that no further information about handover follows in this file. No field
	value is required. After this field, information is given about each individual parcel.

Dispatch unit level

V010	This is a fixed indication: V.
	The description of the next parcel starts after this field code.
V020	This field contains the bar code for the parcel concerned (= item). It should be unique for each
	item for a period of at least six months. In the case of multiple-item shipments, the value
	assigned to the first parcel is used as reference (V021) for the shipment.
V021	The following applies if a shipment consists of several parcels (= multiple items) and is handed
	over as an AVG shipment: the bar code in field V020 (main item) should be entered as





reference/shipment number in field V021 for all items belonging to the shipment. For single-item shipments, V020 and V021 have the same value.

V040 For each parcel you can use a product code to indicate which service you require. A parcel you wish to insure will have a different product code from an uninsured parcel.

A number of frequently used product codes are listed in Appendix III. For each product code we have also given the number referring to an example of a dispatch label. You will find these examples in Appendix IV.

V051 This code indicates how the parcel was franked. For Franco (Freight Prepaid) the code is always **15**. This is a fixed value.

V060 If a shipment consists of one item, the value in this field is 1. If the shipment consists of more than one item (see notes on field V021), this field indicates which parcel in the shipment is being described.

V061 Indicates how many parcels are contained in the shipment (see the notes on field V021).

V070 For domestic shipments, this field contains the COD amount in cents. Please note that the currency indication has to be visible on the dispatch label (see Appendix IV). The amount should consist of numerical characters only.

This is a mandatory field if a product code in field V040 indicates that this shipment is a COD shipment. For a multi-item COD shipment the COD amount is <u>only entered in this field for the</u> main item.

The COD amount should not exceed €2,000

(the minimum field value for a COD shipment is 1 euro cent).

COD shipments can only be addressed to a physical address, not to a PO Box.

V090 This field contains the insured amount in cents. The amount should consist of numerical characters only.

This is a mandatory field if a product code in field V040 indicates that this shipment is an insured shipment. For an insured multi-item shipment the insured amount is <u>only entered in</u> this field for the main item.

The amount has to be a multiple of €500 and may not exceed €5,000 (the minimum field value for an insured shipment is 50,000 euro cents).

V110 to For return shipments of parcels, the sender's address used is the same as

V140 incl. the one recorded in our system and displayed in fields A130-A220. This return address should be printed on the dispatch label in the top left-hand corner. If you wish, you can enter a different return address in the fields V110-V140, but then you need to ensure that the different return address is also printed on the dispatch label.

V181 If there is a suffix to the house number (field V180) that is not numerical, this should be entered in the house number suffix field. Example: A.

V440 This field is used to enter the contents.

V450 This field is used to enter the weight in grams.

V999 This field code indicates the end of a record, i.e. the end of the description of a specific parcel.

It should be included in the file with no value.

Check level





Z001	This is where you indicate how many V records you have included in the file, i.e. the number of
	times field code V010 occurs.

This is where you enter the sum of the COD amounts in cents; i.e. the sum of all V070 fields in

This field code indicates the end of the pre-advice file. It should be included in the file with no value.

5.3 Naming the pre-advice file

The pre-advice file name consists of the letters VM and a serial number. The extension used for the file is .LST.

The first file is called VM000001.LST. The next file is called VM000002.LST. No double file names will occur if you adhere to this method of numbering.

If you only send one pre-advice a day, you can of course also use the date (ddmmyy) as a serial number in the file name.

5.4 Test procedure for the pre-advice file

The structure and contents of the file need to be correct to process a shipment correctly. The pre-advice file will therefore be tested before it can be used.

The pre-advice file can be e-mailed to our IT-teams, please ask your account manager which IT team will provide technical support to you:

Dedicated.it@PostNL.nl

Or

Citservicedesk@PostNL.nl

Our IT-team will ensure that the requisite tests are carried out. You will receive electronic feedback on the test results within three working days from the day the test material is received.

5.5 Approval for using pre-advice

Pre-advice is another essential part of the PostNL Parcels business process. It is therefore very important that pre-advice files be tested as well. To ensure the high standard of our services, these need to be of the best possible quality and sent according to the guidelines provided by PostNL Parcels. Pre-advice that does not meet the specifications, may not be processed by the PostNL systems. The decision-making ('GO/NO GO') moments in the self-implementation process are important in this regard; only the IT-team may determine these moments and make the final decision. Due to the importance of this aspect, we strongly suggest you follow all instructions of the IT-team in this matter. Pre-advice should not be used without prior written approval from our IT-team.





6 Status update files

A return subscription is the push channel from PostNL where you receive status information about your shipments based on an adjustable frequency. The return subscription is mainly aimed at providing data for your back office, such as order tracking, notification or activation of your services / products.

In a status update file you receive an overview (ASCII file) in which the status information of shipments is given. The status update files are not activated by default. If you want to make use of this service, you can request this via your IT-team. Please ask your account manager which team gives technical support to you (dedicated.it@postnl.nl or citservicedesk@postnl.nl). There is also the possibility to retrieve the status of your shipment via our shipping status web service. For more information, see https://developer.postnl.nl/.

This chapter contains a functional description, the technical specifications of the status update file and an example of a status update file. An explanation of every separate status code is mentioned in the Excel file *StatusCodesExplained2017*.

6.1 Functional description

Added value

For you as a customer, the status update file can be of added value, because it allows you to be informed in time about the current status of your shipments. You can then use this data for your internal systems and services.

The composition of a status update file

The overview in the status update file contains three levels, which consist of records. Each record consists of a number of fields. Not all fields are mandatory in all circumstances. Each field is on a new line and is preceded by a field code.

Offer level with information about the message (A-segment)

The offer level consists of one record. All field codes of the offer level start with the letter A. The first field of this record is A010, the last field A999.

Dispatch unit level with information about all shipping units (V segment)

The shipping unit level has as many records as the number of observations that are reported back. The field codes of the send units start with the letter V. The first field starts with V010, the last field with V999.

Control level with control data concerning the status update file (Z-segment)

The control level consists of one record. The field codes of the control level start with the letter Z. The first field is Z001, the last field Z999.





Because all fields are preceded by a fixed field code, the meaning of the field value is always unambiguous and does not depend on the location in the file. The substantive meaning per field code is explained below in the technical specifications.

Content of a status update file

In the status update file, an observation type is reported back for each shipping unit (including regular delivery). In combination with the observation reason, the observation type provides information about the status of your shipment. In the Excel file *StatusCodesExplained2017* you can find the meaning of the various observations in the status update file.

Because there are several observations that convey approximately the same message, an aggregate level has been made clear about what an observation says about your shipment. Here we distinguish between different sub statuses in the process:

- Postponed
- Delayed
- Stock
- Damaged
- Rerouting
- Denied
- Undeliverable
- Delivery data incorrect
- Neighbor delivery
- Missing
- Corrected delivery data
- Not pre-alerted
- Delivery canceled
- No answer
- Relabeling
- Not collected

You can find the total overview of the observations and the sub-status of these, with the corresponding effect for your shipment, in the Excel file *StatusCodesExplained2017*.

Receiving a status update file

There are several possibilities to receive a status update file, which vary in interval:

- Every 15 minutes
- Every hour
- Every six hours





You can determine and adjust the interval together with your IT-team (dedicated.it@postnl.nl or citservicedesk@postnl.nl). An interval is determined based on the user need for status information about the shipments. For example, you can choose to receive a status update file every 15 minutes, in order to maintain your own current mail platform.

Note: if a status update file is not read for more than 30 days, it will be deleted.

6.2 Technical specifications of the status update file

Record layout of the status update file

Offer level (A-segment)

Field code	Туре	Length	Mandatory	Meaning	Example of content
A010	N	8	Y	Date (yyyymmdd) production feedback	A010 20120801
A011	N	6	Y	Time (hhmmss) production feedback	A011 105406
A020	N	3	Υ	Version number of the layout feedback	A020 210
A030	N	12	Υ	Status update ID (yyyymmdd+number)	A030 201208010001
A050	А	8	Υ	Customer number	A050 1234567
A060	Α	35	Υ	Name of sender	A060 PostNL Pakketten
A999	N	0	Υ	End of offer level	A999

This (opening) record occurs exactly once in every file.

Dispatch level (V segment)

Field code	Туре	Length	Mandatory	Meaning	Example of content
V010	Α	1	Υ	Indication segment type	V010 V
V020	Α	15	Υ	Barcode of the parcel	V020 3SABCD123456789
V035	Α	35	N	Reference by the customer	V035 1 collo rembours avg
V040	Α	15	N	Group number (shipment number)	V040 3SABCD123456789
V045	N	8	N	Delivery date	V045 20160825
V046	N	12	N	Delivery date-period start (YYYYMMDDHHMM)	V046 201608251110
V047	N	12	N	Delivery date-period end (YYYYMMDDHHMM)	V047 201608251310
V050	Α	12	N	Pre-alert ID	V050 ABCD10000002
V060	Α	1	Υ	Observation type	V060 B
V070	N	2	Υ	Reason for observation	V070 01
V080	N	8	Υ	Date (yyyymmdd) observation	V080 20120801
V081	N	6	Υ	Time (hhmmss) observation	V081 210338
V090	Α	35	Υ	Location observation	V090
V091	Α	35	Υ	Location observation of the business process	V091 Pakkettendistributie
V100	А	35	N	Name pick-up location	V100
V110	N	6	N	Determined weight in grams	V110 850
V120	N	9	N	Determined volume in cm ³	V120 2400





V140	А	35	N	Name of addressee	V140 Jansen
V150	N	5	N	House number addressee Filled if V200 = NL Empty if V200 ≠ NL	V150 10
V151	А	6	N	House number addition addressee Filled if V200 = NL Empty if V200 ≠ NL	V151 B
V160	А	6	N	Postal code addressee Filled if V200 = NL Value is 0000FF if V200 ≠ NL	V160 1042AB
V170	Α	24	N	Street name addressee	V170 Gyroscoopweg
V180	А	24	N	City addressee Filled if V200 = NL Empty if V200 ≠ NL	V180 Amsterdam
V200	Α	2	N	Country code addressee	V200 NL
V210	Α	35	N	Abroad address addressee Filled if V200 ≠ NL Empty if V200 = NL	V210
V211	А	35	N	Abroad address addressee Filled if V200 ≠ NL Empty if V200 = NL	V211
V212	А	35	N	Abroad address addressee Filled if V200 ≠ NL Empty if V200 = NL	V212
V213	А	35	N	Abroad address addressee Filled if V200 ≠ NL Empty if V200 = NL	V213
V219	Α	95	N	Neighbors delivery -Street name	V219 Gyroscoopweg
V220	Α	35	N	Neighbors delivery -House number	V220 11
V221	Α	35	N	Neighbors delivery -House number addition	V221 B
V230	Α	17	N	Neighbors delivery -Postal code	V230 1042AB
V231	А	35	N	Neighbors delivery -City	V231 Amsterdam
V240	Α	2	N	Neighbors delivery -Country code	V240 NL
V999	Α	0	Υ	Last field package description	V999

In every file this (observation) record is just as common as parcels with status update observations.

Controle level (Z-segment)

Field code	Туре	Length	Mandatory	Meaning	Example of content
Z001	N	4	Υ	Number of status updates	Z001 1
Z999	Α	1	Υ	End of message	Z999

This (closing) record occurs exactly once in every file.

A sample file of a status update file can be found in **chapter 6.3**.





Explanation of the field codes

Offer level

- A030 Every status update file receives a returned ID. This allows you to keep track of the file in which the status of a shipping unit has been reported.
- A050 This concerns the customer number on which the shipping units are offered.
- A999 This field code indicates that no information about the offer will follow in this file. After this code, information from each shipping unit follows separately.

Dispatch level

- V020 This field contains the barcode of the package to which the observation relates.
- V035 This field contains the reference that is mentioned in the field V025 with the corresponding barcode in the pre-announcement
- V040 This field contains for shipment units the group number (shipment number) of the shipment.
- V045 This field contains the (expected) delivery date of the shipment.
- V046 This field contains the start time of the Period in which the postal items described in this message are expected to be delivered by PostNL.
- V047 This field contains the end time of the Period in which the postal items described in this message are expected to be delivered by PostNL.
- V050 In this field it is reported back with which pre-announcement ID (field A040 in the pre- notification) the package has been pre-registered.
- V060 This field contains the type of observation. Example: B.
- V070 The field of observation is mentioned in this field. Example: 01.
- V060 In combination with V070 gives the complete observation. Example: B01 = Shipment retrieved and in sorting process
- V090 Here the location of the scan observation is mentioned.
- V091 This field indicates at which business process the barcode has been scanned.
- V100 In this field, if applicable, the name of the collection office is mentioned.
- V110 If the package is offered at a sorting center and is sorted automatically, the weight of a package is recorded and reported back (in grams) to a Proof Of Acceptance or OVER message
- V120 This field code indicates the volume that is determined during sorting (in cm³)
- V219 This field code indicates the street name associated with the address used by PostNL for the execution of the 'neighbor delivery' service.
- V220 This field code gives the house number (or PO Box number) of the address used by PostNL for the execution of the 'neighbor delivery' service.
- V221 This field code provides additional information on house number (or street name) of the address used by PostNL for the execution of the 'neighbor delivery' service.
- V230 This field code indicates the postal code of the address used by PostNL for the execution of the 'neighbor delivery' service.
- V231 This field code gives the place name of the address used by PostNL for the execution of the





'neighbor delivery' service.

V999 This field code indicates the end of a record, ie the end of the description of a specific sending unit.

Control level

This field indicates how many observations have been included in this file; in other words, how many times the field code V010 occurs.

Z999 This field is the last field of this status update file.

6.3 Example status update file

A010 20120801

A011 105406

A020 210

A030 201208010001

A050 1234567

A060 PostNL Packages

A999

V010 V

V020 3SABCD123456789

V035 1 package COD avg

V040 3SABCD123456789

V045 20160825

V046 201608251110

V047 201608251310

V050 ABCD10000002

V060 B

V070 01

V080 20120801

V081 210338

V090

V091 Package distribution

V100

V110 850

V120 2400

V140 Jansen

V150 10

V151 B

V160 1042AB

V170 Gyroscope road

V180 Amsterdam

V200 NL

V219 Gyroscope

V220 11

V221 B

V230 1042AB

V231 Amsterdam

V240 NL

V999

Z001 1

Z999





7 Data exchange

Besides affixing a dispatch label to your parcels you it is very important that you submit an electronic preadvice to PostNL Parcels containing the shipment data for these parcels. Data can be exchanged by means of SFTP (Secure File Transfer Protocol). Please send the pre-advices in batches (per pick-up) and not a preadvice per parcel, if this is inconvenient please discuss the possibilities with the IT-team.

7.1 SFTP

7.1.1 SFTP manual (client side)

In brief, an SFTP session with the BIP SFTP server is performed as follows:

- Connect to sftp.bip.enovation.net.
- Log in with your user name and password.
- Upload files to the server.
- Download files from the server.
- Close the connection.

An error may occur during any of these steps, which is why it is important that there is a procedure in place for error handling. This does not mean that the script should be able to resolve any error situation, but that it should at least detect errors so that the user can take appropriate action.

Below is a general description in pseudo code of how an SFTP script should more or less run.

7.1.2 SFTP script in pseudo code

Define a number of parameters (hard-coded or using an .ini configuration file)

- If applicable: Dial Up Networking profile name.
- If applicable: Login name for DUN.
- If applicable: Password for DUN.
- SFTP server name or IP address.
- SFTP user name.
- SFTP password.
- Local directory for upload (to the server).
- Local directory for download (from the server).
- Temporary directory on the server for upload (workc2s).
- Directory on the server for upload (c2s).
- Directory on the server for download (s2c).





Connect with the server (if applicable, start dial-up first)

- Start Dial Up Networking, if applicable.
- Establish a connection and log in.
- If this fails, generate an error message and close down.

Set the transfer mode (BIN or ASCII) and go to the correct directory

- Set the transfer mode to ASCII (or Binary for executables, etc).
- Go to the temporary directory on the server (cd workc2s).
- Go to the local directory where the files are located (lcd <ldir>).
- Retrieve the directory listing for the local directory.
- If one of these steps fails, generate an error message and close down.

Upload the files to the server.

Loop: for each file in the local directory.

Send the file to the server (Put).

If this fails, generate an error message.

Rename the file on the server to the "c2s" directory (Rename).

If successful, delete the local file.

Otherwise generate an error message.

Go back to the correct directories.

- Go to the s2c directory on the server (cd).
- Go to the local directory where you want to save the files to (lcd).
- Retrieve a directory listing (from the server).
- If one of these steps fails, generate an error message and close down.

Download any messages from the server

• Loop: for each file in the directory on the server.

Get the file from the server.

If successful, delete the file from the server.

Otherwise generate an error message.

Close

- Close the SFTP session.
- If applicable, close the DUN session.





7.1.3 Problem-solving

There may be several reasons why you have failed to establish an SFTP session, the most common being:

Error: unknown host

Explanation: The host name used (e.g. sftp.bip.enovation.net) cannot be translated into an IP address. **Cause:** It is most likely that the name server is not properly configured (consult your system administrator). **Solution:** Check whether other names are properly resolved by, for example, typing: 'ping www.yahoo.com'. If that fails, use the IP address.

Error: user <username> access denied

Explanation: Invalid user name or incorrect password.

Cause: The user has made a typing error in username/password, or an error was made when passing it on.

Solution: Check whether CAPS Lock is off. Ask the helpdesk to check the password.

Error: time-out

Explanation: The SFTP server cannot be reached.

Cause: Network problem or restriction in the customer's firewall.

Solution: Check whether other SFTP sites can be accessed, such as 'sftp.uwasa.fi'. If this fails, consult your system administrator. If other Internet SFTP sites can be accessed, there might be a problem with the eBD SFTP server.

Error: time-out (after successful login)

Explanation: The user can log in but cannot send or receive files.

Cause: Normal SFTP traffic is not possible, due to a restriction in the customer's firewall.

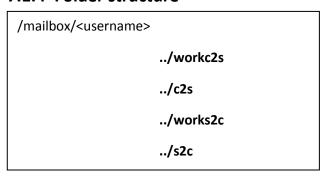
Solution: Set the SFTP client to 'Passive' mode (command: quote PASV). This allows all data connections to

be initiated by the client.





7.1.4 Folder structure



Logging in will take you directly to your own mailbox ('/'). In the mailbox, you will find a number of directories:

- workc2s, this is your work folder.
- c2s, this stands for client-to-server. In this folder, you can put your pre-advice files.
- works2c, this is the server's work folder.
- s2c, this stands for server-to-client. This is where you will find your status update files.

These directories are used to exchange messages between the user and the server at PostNL Parcels. How this works is described in the following section.

7.1.5 Protocol

This protocol has been set up to ensure reliable message exchange:

- The user wants to send a pre-advice file.
 - First, put the file in the '/mailbox/<username>/workc2s/' folder. As soon as the file has been sent in its entirety, you should use 'rename' to move the file to the '/mailbox/<username>/c2s/' client-to-server folder.
- The user wants to download a status update file.
 - The server will put messages in the '/mailbox/<username>/works2c/' folder for you and subsequently, using the 'rename' command, move the files to the '/mailbox/<username>/s2c/' server-to-client folder. You can download the status update file from the s2c folder during a session. It is important that you delete the received files from this folder.





7.2 Configuring and testing communications

When the syntax of the pre-advice has been approved by e-mail, the SFTP protocol or e-mail process will have to be tested. The IT-team will arrange with you a date on which a test file will be sent in order to verify communication between you and PostNL Parcels. This will be a chain test.

7.3 Confirmation

PostNL Parcels can send you an e-mail confirmation for each pre-advice file you transmit, irrespective of the method used. The confirmation is usually sent within fifteen minutes informing you that data transfer was successful. The message contains the name of the pre-advice file sent and the number of V segments (items) in the message concerned. The confirmation does not give any feedback on the correctness and/or completeness of your data. If you would like to make use of the confirmation option, please inform your IT-team contact of the e-mail address that needs to be authorised for this purpose.





8 Appendix I: Product codes

General Conditions for the Transport of Goods (AVG)

Product code	Description
3085	Standard delivery
3087	Extra Cover
3089	Signature on Delivery + Stated address only
3090	Delivery to neighbour + Return when not at home
3094	Extra Cover + Return when not at home
3096	Signature on Delivery + Stated address only + Return when not at home
3189	Signature on Delivery
3385	Stated address only
3389	Signature on Delivery + Return when not at home
3390	Stated address only + Return when not at home

You will find an example of the corresponding labels in Appendix IV.

The General Conditions for the Transport of Goods (AVG) are applicable to all product codes.





9 Appendix II: Sample dispatch labels per product

Dispatch label AVG [3085] (single item)



Dispatch label AVG [3085] (multiple items)







Dispatch label AVG + Extra Cover [3087]



Dispatch label AVG + Signature on Delivery + Stated address only [3089]







Dispatch label AVG + Delivery to neighbour + Return when not at home [3090]



Dispatch label AVG + Extra Cover + Return when not at home [3094]







Dispatch label AVG + Signature on Delivery + Return when not at home [3096]



Dispatch label AVG + Signature on Delivery [3189]







Dispatch label AVG + Stated address only [3385]

Ordernummer Referentietekst

Afzender:
POSTNL Pakketten
Neptunusstraat 2-20
2132 JB HOOFDDORP

Pakket B.V.
T.a.v. de heer J. Post
Gyroscoopweg 4-8
1042AB AMSTERDAM

Alleen huisadres

1 Collo

* 3SABCD1234567 *

Dispatch label AVG + Signature on Delivery + Return when not at home [3389]







Dispatch label AVG + Stated address only + Return when not at home [3390]

Ordernummer Referentietekst **FRANCO** Afzender: POSTNL AVG **POSTNL Pakketten** Neptunusstraat 2-20 Pakket B.V. 2132 JB HOOFDDORP T.a.v. de heer J. Post Gyroscoopweg 4-8 1042AB AMSTERDAM Alleen huisadres Na bestelpogingen retour afzender 1 Collo