Routing Database

Table Structure & File Layout Specification

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Content

Changes compared to the previous version

Date	Version	Author	Status *draft, released approved, deferred	Change
	1.3			Chapter 3.3: Update Field Description Chapter 3.3.1: Update Postcode Usage Chapter 3.4: New Business Rule added Chapter 3.8: Update Flow diagram Chapter 3.9.2.3: Update Service Elements Chapter 3.10.2: Update Field Description Chapter 3.11.2: Update Field Description
	1.2			Revision History added Update of all Examples Chapter 2: Update Flow diagram Chapter 3.3.1: Update Description Postcode Chapter 3.5: New Understanding of table contents Chapter 3.8: Update Flow diagram Chapter 3.11.2.2: Update Gateway Depots Chapter 3.11.3: Update Business Rules Chapter 3.11.4: New: Formatting Country flow chart Chapter 4.1.3: Deleted Chapter 5.3: Deleted

Participant

Name	Organisation	Function	Contakt

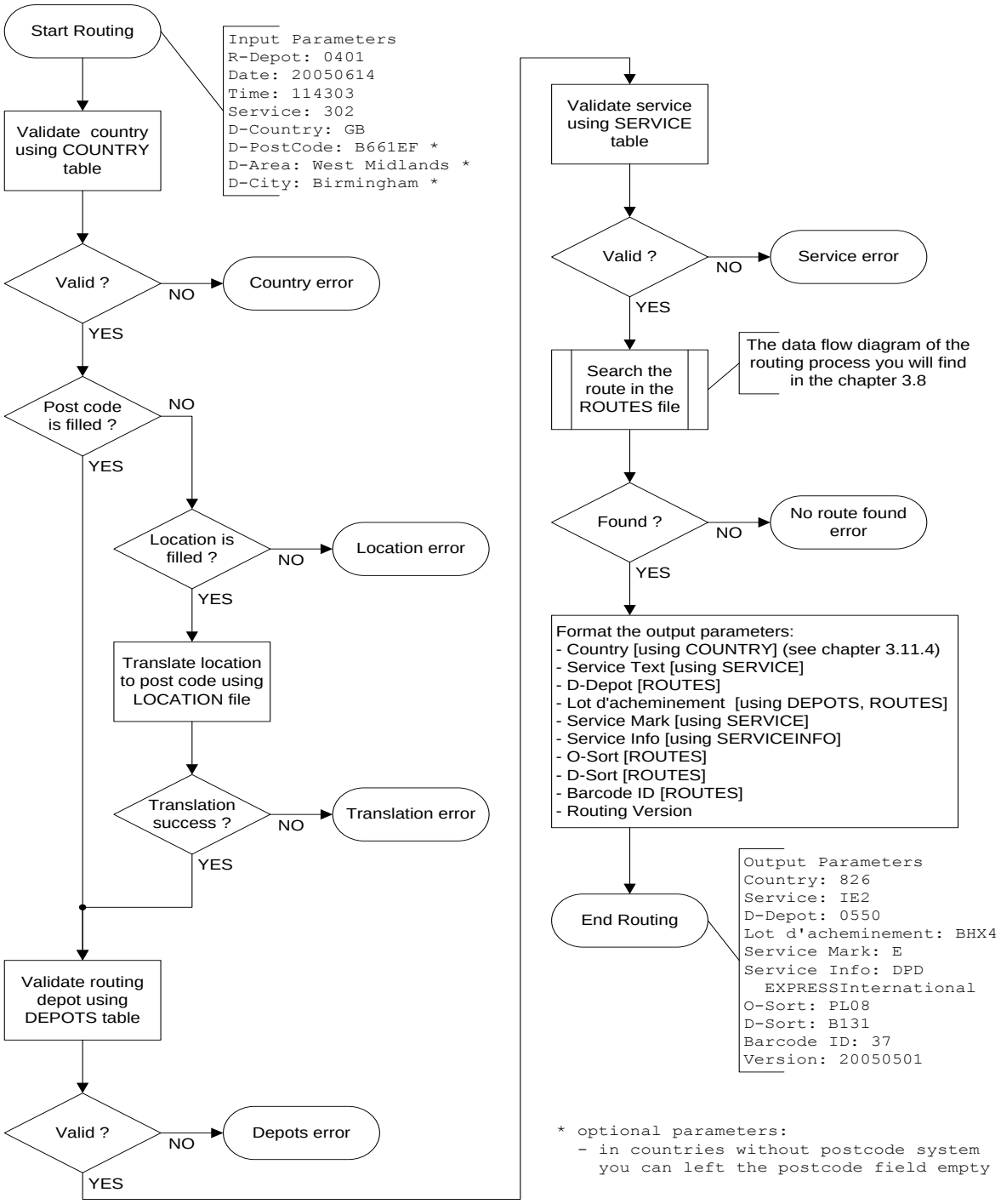
1 Introduction

The document describes the file interface of the new DPD routing database. It contains the specification of each table, how each table will work, how the tables will work together, the layout of the files, the process description and how the database will be distributed to the system. The database will be used together with a lot of partners of DPD and is therefore also called Common Routing Database.

This new Routing Database is effective from the introduction of the New Barcode August, 1st 2006.

2 Data flow diagram

The diagram shows the processes and the order of processes which must be done to route a parcel. You will see which input parameters are needed and which output parameters the database will provide.



3 Tables

All tables will be provided into the format which will be described in the "Files" chapter.

3.1 Routing

The routing table is needed to solve the destination depot as well as the O-, D-sort and the grouping priority information. It will be used during the routing, labeling and sorting process. Before the routing table is used the validation of the parameters is needed using the country, the depots and the service table.

3.2 Facts

Filename: ROUTES
Type: Mandatory

3.3 Fields

Field	BIC 5 ID	Format	Key	Opt.	Comment
Country	DestinationCountry	2 A	Y	N	see: Country Table
Post Code Start	BeginPostCode	9 A/N	Y	Y	see: Post Code
Post Code Stop	EndPostCode	9 A/N	Y	Y	
Service Codes	ServiceCodes	TEXT	Y	Y	see: Service Codes
Routing Places	RoutingPlaces	TEXT	Y	Y	see: Routing Places
Sending Date	SendingDate	TEXT	Y	Y	see: Sending Date
Origin Sort	O-Sort	4 A/N	N	Y	
Dest. Depot	D-Depot	4 A/N	N	N	see: Destination Depot
Grouping Priority	GroupingPriority	1 A/N	N	Y	see: Grouping Priority
Dest. Sort	D-Sort	4 A/N	N	Y	
Barcode ID	BarcodeID	3 N	N	N	see: Barcode ID

3.3.1 Post Code

If operators don't know the post code of a given city name or district the post code can be looked up in the LOCATION table.

To save space, the field "Post Code Stop" should be left empty if the range includes only one code e.g.: 63868-63868.

3.3.1.1 No post code needed

If we don’t need a post code to route the parcel because the complete destination country can be handled by one depot (like Zimbabwe) or one service at the complete country can be handled by one depot (like Express International at Slovakia) the "Post Code Start" and the "Post Code Stop" field can be empty. If the post code

fields are empty the routing mechanism accepts any post code input including no postcode input at all. Records with and without post codes can be mixed.

In the example all express parcels for Slovakia will be match the first line and all other services need to find a record with the correct post code:

```
Line  01   SK|||S299,S302303|…
      02   SK|01000|01299||…
      03   SK|01300|01311||…
      …
      nn   SK|99141|99142||…
```

3.3.2 Countries without post code system

If the destination country has no post code system the routing database implements two different ways to deal with it:

- A dummy post code system can be defined by GeoPost.
  This way will be used if we have more than one destination depot at the country. GeoPost will define a set of dummy post codes (like for Ireland) which must be entered by the user or selected from the LOCATION table to find the right record at the ROUTES table. The dummy post codes will be written to the ROUTES table like the real post codes from countries with a post code system.
- No post code is needed to route the parcel.
  see chapter 3.1.3.1.1

3.3.3 Service Codes

The "Service Codes" field defines a rule of services which can be send to this destination (see example below). The rule consists of a comma separated list of elements. All possible elements are:

Element	Model	Syntax	Description	Example
Service code	single	`Saaa`	a = single service code	`S101`
	range	`Sbbbccc`	b = service code range start c = service code range stop	`S101150`

All possible service codes which can be used in the rule are defined in the service code table. Ranges which include illegal service codes will be forbidden.

To save space and to reduce the complexity the field "Service Codes" can be empty. If the field is empty this record will be used for all service codes which do not exist in other records.

In the example all non guarantee parcels will match the first line, all guarantee and express parcels will match the second line and all other services will match the default on the third line:

```
Line  01   DE|63860|63870|S101154,S289292|…
      02   DE|63860|63870|S155288,S299,S302314|…
      03   DE|63860|63870||…
```

3.3.4 Routing Places

The "Routing Places" field defines a rule of locations where the routing decision for this destination service combination can be done (see example below). The rule consists of a comma separated list of elements. All possible elements are:

Element	Model	Syntax	Description	Example
Depot code	single	Daaaa	a = single depot code	D0402
	range	Dbbbbcccc	b = depot code range start c = depot code range stop	D04010408
Country code	single	Caa	a = single ISO 2 alpha country code	CFR
Depot group *	single	Gaaaa	a = single depot group (Freetext)	GE01A

All possible depot codes, depot groups and country codes which can be used in the rule are defined in the depot table. Ranges which include illegal depot codes will be forbidden. The element depot code works with depot codes not with IATA like codes.

The elements country code or depot group are used to replace a long list of depot codes by a single token. For test purposes it is possible to decompile the rule to a list of single depot codes. There is no prioritization between lines of the table depending on the type of the element.

To reduce the complexity the field "Routing Places" can be empty. If the field is empty this record will be used for all routing places which do not exist in other records.

Customers will receive a Routing Database with only valid entries for their locations.

In the example the first line will match all depots in Germany and Denmark, the main HUB in Great Britain (0550), some depots in France and all depots in the depot group E01A. The second line will match all depots in the depot groups DAFR and DSAM as well as the main HUB in Mexico and the some depots in Mexico. The third line will match all other depots which are not matching other lines.

```
Line  01   DE|63860|63870|S101|CDE,CDK,D0550,D04010408,GE01A|…
      02   DE|63860|63870|S101|GDAFR,GDSAM,D0069,D06900693|…
      03   DE|63860|63870|S101||…
```

3.3.5 Sending Date (optional)

Note: This field won't be used in the beginning. DPD will define it when it is needed.

The "Sending Date" field can be used to make the record dependent on special dates, week days or times. The field can consist of several of the following elements:

Element	Model	Syntax	Description	Example

Date	pattern	`Dyyyymmdd`	y = year, m = month, d = day
			the pattern can include the wildcard '?'
				`D????1224`
				`D????06??`
				`D2010????` *1

Weekday	single	`Wa`	a = single day of the week 1 represents Monday	`W1`
	range	`Wbc`	b = day of the week range start c = day of the week range stop 1 represents Monday	`W15`

Time	pattern	`Tohhmm`	o = operator which can be:
			equel =
			smaler <
			smaler or equal <=
			bigger >
			bigger or equal >=
			h = hour
			m = minute
				`T<1200`
				`T>1200`
				`T=1200` *2

*1) The first example will match on every Christmas eve, the second example will match every June and the third will match only in the year 2010.

*2) The first example matches before noon, the second matches afternoon and the third example match noon.

To create a logic expression you can use:

- plus (+) as logical or
- multiply (*) as logical and

The expression follows the rules of logical algebra (and prior or).

In the example the first line matches Friday before noon, the second matches Friday afternoon and the third line matches Friday noon.

```
Line  01   DE|63860|63870|S101|D0401|W5*T<1200|…
      02   DE|63860|63870|S101|D0401|W5*T>1200|…
      03   DE|63860|63870|S101|D0401|W5*T=1200|…
```

If the field is empty the record represents all dates and weekdays which do not exist in other records.

3.3.6 Destination Depot

The field "Destination Depot" contains a depot number, not an IATA like code.

3.3.7 Grouping Priority

The "Grouping Priority" is a part of the Lot d'acheminement. To elaborate the Lot d'acheminement you need the IATA like code from the DEPOTS table.

3.3.8 Barcode ID

The "Barcode ID" represents the basic ASCII set numeric value (e.g. 37 = '%') of the identifier which must be printed at the first position in the barcode. This character may change in the future.

3.4 Business rules

- The country code must exist in the country code table.
- If the stop post code field is filled the value must be bigger then the start post code.
- The service codes must exist in the service code table.
- The routing place depot code must exist in the depot code table.
- The destination depot code must exist in the depot code table.
- Every special record (Service Codes, Routing Places and Sending Date) need to have a fallback (default value) entry.
- Each combination of country code, single postcode, single service code, single routing place and sending date need to be unique. I.e. when decompiling each line to a single combination of country, postcode, service, routing place and sending date there may not be a duplicate record.
- In the fields “Origin Sort” and “Destination Sort” only a reduced set of characters can be used (see appendix in chapter 6.1).

3.5 Understanding of the table contents

The GeoPost routing table is based on a default and exception routing. This model guarantees a small database file, a fast access to the table and an easy administration. The following explanations should help to explain how the fields are filled:

3.5.1 Default route

The "default route" represents the destination of a parcel in term of all or deferred services and all or the most sending depots. The "default route" will be used for all services and routing places which are not defined in other rules. The "default route" has an empty service code field and an empty routing place field.

Example 1: If all parcels from all GeoPost depots to Uzbekistan are handed over to an agent we need only the "default route" to Uzbekistan.

Example 2: If all parcels from all GeoPost depots to the Netherlands postcodes 1000 to 1199 go to the destination depot 0516 we only need the "default route" to these postcodes.

3.5.2 Service exception route

The "service exception route" defines the first level of exceptions at the GeoPost routing table. These exceptions will be used if some services (COD, Express, …) have a different destination than the "default route". The "service exception route" has a filled service code field and an empty routing place field.

Example: If an Express parcel from any GeoPost depot to Sweden has a different destination than the deferred parcel (0943 instead of 0304) we need to have a "service exception route".

3.5.3 Routing place exception route

The "routing place exception route" defines the second level of exceptions at the GeoPost routing table. This exception will be used if one or more depots use a different destination then the "default route" for the same service codes and the same destination(s). The "routing place exception route" has a filled routing place field and an empty service code field.

Example: If the depots at France have to use other destination depots in Italy with the same service codes then the "default routes" we need to have a "routing place exception route".

3.6 Example

```
#Filename: ROUTES
#Version: 20050101
#Expiration: 20050430
#Hash: 7bb39bb530ad0954f8faea585ebea23f40d5a010
#Reference: http://georout.geopost.com/R20050101/common/reference.txt
#Fields: DestinationCountry|BeginPostCode|EndPostCode|ServiceCodes|RoutingPlaces|SendingDate| O-
Sort|D-Depot|GroupingPriority|D-Sort|BarcodeID|
#Key: DestinationCountry|BeginPostCode|EndPostCode|ServiceCodes|RoutingPlaces|SendingDate|
FR|05000|05999|S101154,S289292|CDE,CDK,D0550,D04010408,GDBNL|W15||0446|7|11|37|
FR|05000|05999|S101154,S289292|CDE,CDK,D0550,D04010408,GDBNL|W67||0446|7|12|37|
FR|05000|05999|S101154,S289292|GDAFR,GDSAM,D0069,D06900693|W15||0446|7|13|37|
FR|05000|05999|S101154,S289292|GDAFR,GDSAM,D0069,D06900693|W67||0446|7|14|37|
FR|05000|05999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W15||0446|2|15|37|
FR|05000|05999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W67||0446|7|16|37|
FR|05000|05999|S155288,S299,S302314|GDAFR,GDSAM,D0069,D06900693|W15||0446|2|17|37|
FR|05000|05999|S155288,S299,S302314|GDAFR,GDSAM,D0069,D06900693|W67||0446|7|18|37|
FR|05000|05999|||||0446|7|10|37|
FR|06000|06999|S101154,S289292|CDE,CDK,D0550,D04010408,GDBNL|W15||0446|7|21|37|
FR|06000|06999|S101154,S289292|CDE,CDK,D0550,D04010408,GDBNL|W67||0446|7|22|37|
FR|06000|06999|S101154,S289292|GDAFR,GDSAM,D0069,D06900693|W15||0446|7|23|37|
FR|06000|06999|S101154,S289292|GDAFR,GDSAM,D0069,D06900693|W67||0446|7|24|37|
FR|06000|06999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W15||0446|2|25|37|
FR|06000|06999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W67||0446|7|26|37|
FR|06000|06999|S155288,S299,S302314|GDAFR,GDSAM,D0069,D06900693|W15||0446|2|27|37|
FR|06000|06999|S155288,S299,S302314|GDAFR,GDSAM,D0069,D06900693|W67||0446|7|28|37|
FR|06000|06999|||||0446|7|20|37|
DE|63869|63871||||51|0163||03|37|
DE|63872|63875||||52|0163||07|37|
GB|B661AA|B661ZZ||||PL08|0550|4|B131|37|
```

GB|B661AA|B661ZZ||||PL09|0550|5|B131|37|

3.7 Search algorithm

Before the routing table search algorithm starts up the routing depot country and depot group need to be solved by the DEPOTS table.

Routing input data:

Destination country code:	FR
Destination post code:	05123
Service Code:	191
Routing depot:	0120 (Country: DE, Group: DDEN)
Sending day:	2 (Tuesday)

Select all records of the destination France where the destination post code is in the range:

```
FR|05000|05999|S101154,S289292|CDE,CDK,D0550,D04010408,GDBNL|W15||0446|7|11|37|
FR|05000|05999|S101154,S289292|CDE,CDK,D0550,D04010408,GDBNL|W67||0446|7|12|37|
FR|05000|05999|S101154,S289292|GDAFR,GDSAM,D0069,D06900693|W15||0446|7|13|37|
FR|05000|05999|S101154,S289292|GDAFR,GDSAM,D0069,D06900693|W67||0446|7|14|37|
FR|05000|05999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W15||0446|2|15|37|
FR|05000|05999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W67||0446|7|16|37|
FR|05000|05999|S155288,S299,S302314|GDAFR,GDSAM,D0069,D06900693|W15||0446|2|17|37|
FR|05000|05999|S155288,S299,S302314|GDAFR,GDSAM,D0069,D06900693|W67||0446|7|18|37|
FR|05000|05999|||||0446|7|10|37|
```

Select all records with the given service code. If no record is found try to select all records without service code:

```
FR|05000|05999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W15||0446|2|15|37|
FR|05000|05999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W67||0446|7|16|37|
FR|05000|05999|S155288,S299,S302314|GDAFR,GDSAM,D0069,D06900693|W15||0446|2|17|37|
FR|05000|05999|S155288,S299,S302314|GDAFR,GDSAM,D0069,D06900693|W67||0446|7|18|37|
```

Select all records with the given routing depot. If no record is found try to select all records without routing depot:

```
FR|05000|05999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W15||0446|2|15|37|
FR|05000|05999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W67||0446|7|16|37|
```

Select all records which match the Sending day. If no record is found try to select all records without sending day:

```
FR|05000|05999|S155288,S299,S302314|CDE,CDK,D0550,D04010408,GDBNL|W15||0446|2|15|37|
```

If there is more than one record left there is a routing table error.

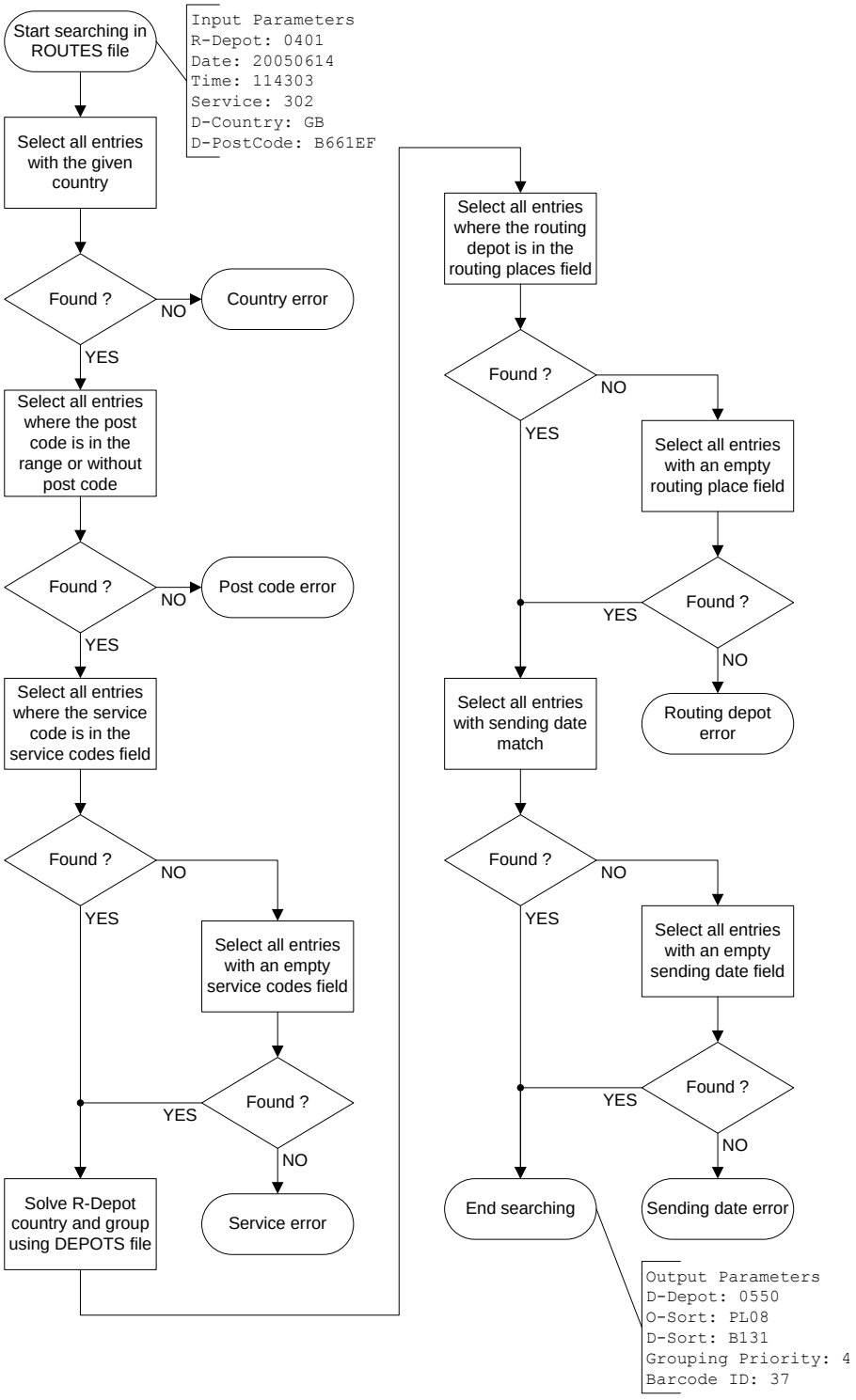
Routing output data:

Origin-Sort:	
Destination-Depot:	0446
Grouping Priority:	2
Destination-Sort:	15

Barcode ID: 37

3.8 Search flow diagram

Here you will see the search flow diagram of the routing table. You will see which input parameter will be needed and which output parameters the database will provide.



3.9 Service

The service table is needed to validate service codes, to translate the service code into the service abbreviation which will be printed on the label and to find out the service elements.

3.9.1 Facts

Filename: SERVICE
Type: Mandatory

3.9.2 Fields

Field	BIC 5 ID	Format	Key	Opt.	Comment
Code	ServiceCode	3 N	Y	N	
Text	ServiceText	16 A/N	N	N	see: Service Text
Mark	ServiceMark	1 A	N	Y	see: Service Mark
Service Elem.	ServiceElements	TEXT	N	N	see: Service Elements

3.9.2.1 Service Text

The service text must be printed on the label. It describes the service code regarding the parcel with human readable abbreviations.

3.9.2.2 Service Mark

If the field "Service Mark" is filled the mark must be printed on the label. It's a hint for the manual sorting operators and should signalise a speciality of this parcel.

3.9.2.3 Service Elements

The Service Elements are for DPD internal use only and are not further explained.

3.9.3 Example

```
#Filename: SERVICE
#Version: 20050501
#Expiration: 20050831
#Hash: 6bf328d6afe450618888656a2e6b9adf5facc5e9
#Reference: http://georout.geopost.com/R20050101/common/reference.txt
#Fields: ServiceCode|ServiceText|ServiceMark|ServiceElements|
#Key: ServiceCode|
150|D-COD+|X|002,100,900|
151|D-COD-6+|X|002,100,120,900|
152|D-SWAP+|X|002,110,900|
153|D-SWAP-6+|X|002,110,120,900|
154|PARCELLetter||005|
155|PM2||010|
156|PM2-PO||010,150|
157|PM2-HAZ||010,140|
158|PM2-EXW||010,105|
159|PM2-EXW-PO||010,105,150|
```

3.10 Country

The country table is needed to validate country codes, to translate the country code into the country abbreviation which will be printed on the label, to find out the languages which are spoken in the country and if the country has no post code system.

3.10.1 Facts

Filename: COUNTRY
Type: Mandatory

3.10.2 Fields

Field	BIC 5 ID	Format	Key	Opt.	Comment
ISO Numeric	ISO-NumCountryCode	3 N	Y	N	
ISO Short	ISO-Alpha2CountryCode	2 A	N	N	
ISO Long	ISO-Alpha3CountryCode	3 A	N	N	
Languages	DestinationLanguages	TEXT	N	Y	
Flag PC_NO	FlagPostCodeNo	1 N	N	N	Has no post code system
Postcode Pattern	PostCodePattern	TEXT	N	Y	For DPD internal use only

3.10.2.1 Languages

A comma separated list of languages which will be spoken in the country. The list will consist of elements in ISO 639 2 alpha code notation.

3.10.3 Examples

```
#Filename: COUNTRY
#Version: 20050101
#Expiration: 20050430
#Hash: 8611cb7c40956cfec34efef297129fe3c664834f
#Reference: http://georout.geopost.com/R20050101/common/reference.txt
#Fields: ISO-NumCountryCode|ISO-Alpha2CountryCode|ISO-
Alpha3CountryCode|DestinationLanguages|FlagPostCodeNo|
#Key: ISO-NumCountryCode|
056|BE|BEL|FR,NL|0|
250|FR|FRA|FR|0|
276|DE|DEU|DE|0|
372|IE|IRL|GA,EN|1|
756|CH|CHE|DE,FR,IT|0|
826|GB|GBR|EN|0|
```

3.11 Depots

The depots table is needed to validate depot codes, to allocate the depot code to the IATA like code which will be printed on the label and to get the depot address if it is needed.

3.11.1 Facts

Filename: DEPOTS
Type: Mandatory

3.11.2 Fields

Field	BIC 5 ID	Format	Key	Opt.	Comment
Depot Number	GeoPostDepotNumber	4 A/N	Y	N	
IATA Like Code	IATALikeCode	3 A/N	N	Y	without Grouping Priority
Depot Group ID	GroupID	TEXT	N	Y	see: Depot Group ID
Name 1	Name1	35 A/N	N	N	
Name 2	Name2	35 A/N	N	Y	
Address 1	Address1	35 A/N	N	Y	
Address 2	Address2	35 A/N	N	Y	
Postcode	PostCode	9 A/N	N	Y	see: Gateway Depots
City	CityName	60 A/N	N	Y	
Country	ISO-Alpha2CountryCode	2 A	N	Y	see: Gateway Depots
Phone	Phone	35 A/N	N	Y	
Fax	Fax	35 A/N	N	Y	
Mail	Mail	35 A/N	N	Y	
WEB	WEB	35 A/N	N	Y	

3.11.2.1 Depot Group ID

The "Depot Group ID" provides the possibility to group depots with the same routing place characteristics. The field will consists of a comma separated list of depot group IDs. Each depot group ID consists of four characters and/or numbers. This feature will be used and managed by the network management teams.

3.11.2.2 Gateway Depots

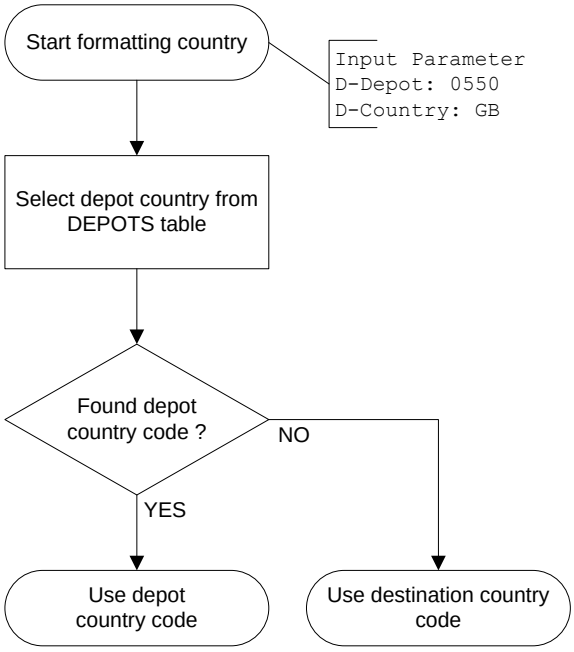
A Gateway Depot is a dedicated or logical location where parcels will be handed over to another partner, another country or to a special organization like a customs agent. If this gateway will handle multiple countries the fields "Country" and "Postcode" must be empty.
For normal depot locations the fields "Country" and "Postcode" must be filled because the information will be used for the return routing.

3.11.3 Business rules

- The IATA like code field will be managed by the destination country. That means for instance that the Netherlands can define the IATA like codes for their depots. If the IATA like code field is not filled the IATA like code and Grouping Priority information will not be printed to the label.
- To normalize the address only the basic ASCII character set without accents, without German umlauts and without other particular characters are allowed.
- The “Postcode” field will be used to route a parcel so it must be filled without any format characters like blanks and hyphens.

3.11.4 Formatting country flow chart

Here you will see the process to find out which country code is printed to “Routing Text” field at the GeoPost label. This additional test is needed for special routing cases when an area is delivered by another country. Example: The Kleinwallsertal (a small valley at the Alps) belongs to Austria but is delivered by a German depot.



3.11.5 Example

```
#Filename: DEPOTS
#Version: 20050501
#Expiration: 20050831
#Hash: 4ab4a8197abd2bb126d8ed4b14a59b3e57875320
#Reference: http://georout.geopost.com/R20050101/common/reference.txt
#Fields: GeoPostDepotNumber|IATALikeCode|GroupID|Name1|Name2|Address1|Address2|PostCode|CityName|
ISO-Alpha2CountryCode|Phone|Fax|Mail|WEB|
#Key: GeoPostDepotNumber|
0160|FRA|DDEM,EEUM,EDEM|Depot 0160|DPD Zeitfracht GmbH & Co. KG|Kelsterbacher Str.
64||65479|Raunheim|DE|||||
0408|MSY|DFRM,EEUM|Depot 0408|Chronopost S.A.|21, Rue Du Perou|Zi Du Perou|91300|Massy|FR|||||
0550|BHX|DUK0|Depot 0550|DPD (UK) Ltd. c/o GeoPost UK Ltd.|Roebuck Lane|Smethwick Warley|B66
1BY|West Midlands|GB|||||
```

3.12 Service Field Info (by language)

The service field info table will be needed to print the right information into the service field. There will be one table per language to give the printing program the possibility to suit local needs.

3.12.1 Facts

Filename: SERVICEINFO.XX (The 'XX' has to be replaced by the two alpha characters of the ISO 639 language code and represents the translation language of the file.)

Type: Optional

3.12.2 Fields

Field	BIC 5 ID	Format	Key	Opt.	Comment
Code	ServiceCode	3 N	Y	N	
Service Field Info	ServicefFieldInfo	100 A/N	N	Y	

3.12.3 Example

```
#Filename: SERVICEINFO.DE
#Version: 20050501
#Expiration: 20050831
#Hash: 552ea64087ed35fb0e8826a322a020028ac630cf
#Reference: http://georout.geopost.com/R20050101/common/reference.txt
#Fields: ServiceCode|Fieldinfo|
#Key: ServiceCode|
109|NACHNAHME/C.O.D|
154|PARCEL Letter|
105|UNFREI/Ex Works|
179|DPD EXPRESS 10|
155|DPD GUARANTEE|
```

3.13 Location (by language)

The location table is used to solve routing in countries without post code system, to help the operator to find the right post code and to validate the post code with the city name.

3.13.1 Facts

Filename: LOCATION.XX (The 'XX' has to be replaced by the two alpha characters of the ISO 639 language code and represents the translation language of the file.)

Type: Optional

3.13.2 Fields

Field	BIC 5 ID	Format	Key	Opt.	Comment
Area	AreaName	35 A/N	Y	Y	Area or District
City	CityName	35 A/N	Y	N	City
Country	ISO-Alpha2CountryCode	2 A	N	N	
Post Code	PostCode	9 A/N	N	N	

3.13.3 Example

```
#Filename: POSTCODE.GA
#Version: 20050101
#Expiration: 20050430
#Hash: afdb5151e7bda76084328bce46d5d91d0104b9f8
#Reference: http://georout.geopost.com/R20050101/common/reference.txt
#Fields: AreaName|CityName|ISO-Alpha2CountryCode|PostCode|
#Key: AreaName|CityName|
Tipperary|Cahir|IE|00010|
Tipperary|Cashel|IE|00011|
Tipperary|Clonmel|IE|00012|
Tipperary|Fethard|IE|00013|
```

4 Files

All tables will be represented by plain ASCII file with token based format and variable field length.

4.1 Header

Each file starts with a standard header. The header consists of all information to identify and to validate the table. The information will be stored in #PARAMETER:VALUE pairs. The date format of the Version, Update and Expiration parameter is YYYYMMDD.

4.1.1 Filename

The filename parameter is followed by the table file name.

4.1.2 Version

The version parameter is followed by the release date of the basic table (every four months).

4.1.3 Expiration

The expiration parameter is followed by the date of the expiration of the basic table (last day of topicality).

4.1.4 Hash

The hash parameter is followed by the 160 Bit SHA-1 content hash which represents the content of the file exclusive the header. To be more robust against failures algorithm will ignore all carriage return characters (ASCII 0x0D). This hash can be used to check that the file was not damaged during the transfer. The 160 Bit of the content hash will be represented by a 40 Byte lower case hexadecimal string. The content hash will be created and can be check with the original SHA-1 algorithm which is defined in RFC3174.

4.1.5 Reference

The reference parameter is followed by the URL where the original content hash of this file can be found. This reference can be used to check if the file was illegal modified by a third party. The URL shown is just to give examples. It can be changed in the final Routing Database.

4.1.6 Fields

The fields parameter is followed by the pipe separated list of token IDs.

4.1.7 Key

The key parameter is followed by the pipe separated list of token IDs which represent the primary key. This information is needed to insert, update or remove records from the table.

5 Database

5.1 Create

The common routing database will be created from and managed on a central database service.

5.2 Distribute

The database will be represented by a file archive like ZIP or compressed TAR. The archive includes all files of the database. The name of the archive consists of the unique file prefix, the type (R for release and U for update), the release date of the database and the archive suffix:

```
"GeoRouteDB_" + TYPE(R) + DATE(YYYYMMDD) + PREFIX(.zip or .tar.gz)
```

Release example: GeoRouteDB_R20050501.zip

Only the last release of the database and the last release of the update archive will be at disposal on a central FTP Server.

IMPORTANT: Every self printing customer is obliged to download and install the new valid files immediately after expiration of the old ones in order to produce the right labels.

6 Appendix

6.1 O-Sort / D-Sort character set

These characters are allowed to use at the O-Sort or at the D-Sort.

0	1	2	3	4	5	6	7	8	9
A	B	C	D	E	F	G	H	I	J
K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z				