

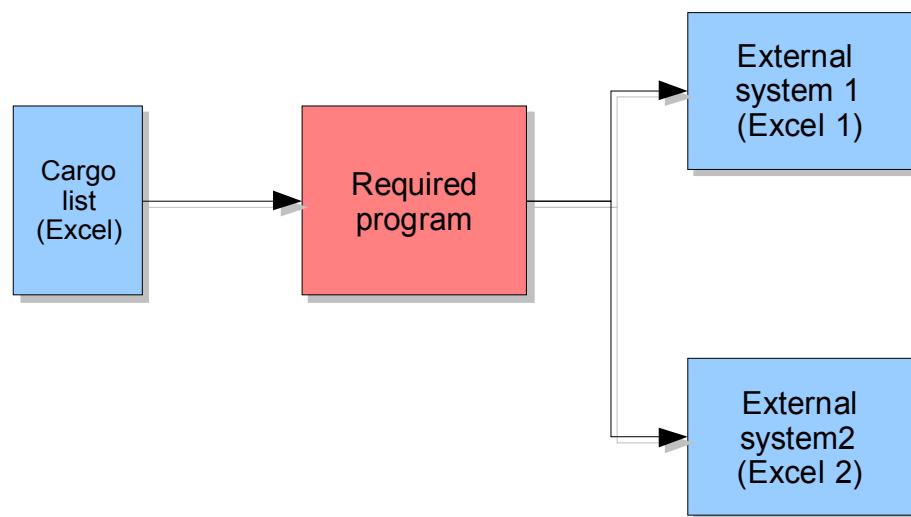
Specification for a data conversion utility

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Main task

We need a program to convert data about cargoes to data format, suitable for import to external software.



Step 1 — prepare data to import to program 1

At this step we need to import source data from external Excel file or from clipboard (Excel). After import we have next data fields (Excel columns).

Table 1 — Source data

	Column	Description
1	Группа	Those columns need to be removed
2	Код ТНВЭД	
3	Описание	Described below
4	Производитель	Described below
5	Код	Not changed
6	Цена	This column need to be removed
7	Количество	Not changed
8	Вес	Replaced from external dictionary semi-automatically (described below)
9	Сумма	This column need to be removed
10	Страна	Replaced from external dictionary semi-automatically (described below)

As result file we need to get this structure

Table 2 — Results

	Column	Source
1	Артикул (Code)	Column «код» from source data (p.5)
2	Наименование товара (Name)	From cargo dictionary after replacement of «описание» field (p.3)
3	Код ТН ВЭД (Customs Code)	From cargo dictionary after replacement of «описание» field (p. 3)
4	Количество (Amount)	Column «количество» from source data (p.7)
5	Общий вес нетто (weight netto)	«масса груза в кг» * «количество» !!! round to 2-digits after comma !!!
6	Общий вес брутто (weight brutto)	«общий вес нетто» * «коэффициент в зависимости от упаковки» !!! round to 2-digits after comma !!!
7	Общая сумма, евро (cost, Euro)	«общий вес нетто» * «стоимость за кг. from cargo dictionary » !!! round to 2-digits after comma !!!
8	Упаковка (Package type)	From cargo dictionary after replacement of «описание» field (п. 3)
9	Фирма производитель (Company)	From Firms dictionary after replacement of «Фирма» field
10	Страна происхождения (Country)	From Countries dictionary after replacement of «Страна» field (usually all European countries — EC, others as it is)

new columns

Cargoes dictionary

	Column	Description
1	Описание (Name)	Аналогично описанию в исходных данных но в этом справочнике содержатся «правильные» имена для всех грузов
2	Код ТН ВЭД (Customs code)	Code
3	Цена в евро за единицу (Price for a dimension unit)	-
4	Единица измерения (Dimension unit)	кг, шт. kg, items

	Column	Description
5	Тип упаковки (Package type)	Package type

Package types

	Column	Description
1	Название (Name)	Name
2	Коэффициент (Coefficient)	Coefficient used for calculations
3	Код (Code)	Package code

We have now next types of packages

	Package	Coefficient
1	Без упаковки (without package)	1,00
2	Коробка (box)	1,10
3	Полиэтилен (polyethilen)	1,05

Countries

	Column	Description
1	Страна (Country)	Аналогично описанию в исходных данных но в этом справочнике содержатся «правильные» имена для всех грузов
2	Страна замены (Replacement country)	Правильный код
3	Код страны (Country code)	-

Algorithm

After insertion of source data user need to see data grid with fields from (Table 2). Unused columns need to be removed automatically and new columns need to be appended also automatically.

Required rows cells need to be replaced automatically according to replacements which was did earlier.

All automatically modified cells need to be marked by color (something like lite green). All cells need to be modified must be colored by some attractive color (something like red).

Removing

User must be able to remove some rows. Removed rows need to be marked as removed (crossed font) and user must be able to unerase removed row.

Country replacement

According to country replacement dictionary all countries which has replacement need to be replaced automatically. *Important note after automatic replacement cell still need to be editable.*

Descriptions replacements (column «Описание»)

User must be able to replace existing description of cargo with some «right» description which is standartized and exists in dictionary. So replacement must be done by selecting right value from dictionary. After replacement combination of source and replaced values need to be stored somewhere and used later for automatic replacement.

12 October, 2007

After replacement of description also some other dependent fields need to be replaced from the same dictionary.

This step is one of most hard work of managers so it need to be realizes very user friendly.

Excel Export

Results Excel file :

Warning!!! Columns must start from row 18. 18 row must contain headers.

	Column	Title		
1	A	АРТИКУЛ (Article)		
2	B	НАИМЕНОВАНИЕ ТОВАРА (Description of Goods)		
3	C	КОД ТН ВЭД (Customs Nr)		
4	D	КОЛ-ВО ШТ. РСС		
5	E	ОБЩИЙ ВЕС НЕТТО КГ (Net)		
5	F	ОБЩИЙ ВЕС БРУТТО КГ (Gross)		
6	G	ОБЩАЯ СУММА, ЕВРО (Amount EUR)		
7	H	УПАКОВКА (Packing)		
8	I	ФИРМА ПРОИЗВОДИТЕЛЬ (Firm of original)		
9	J	СТРАНА ПРОИСХОЖДЕНИЯ (Country of original)		

Step 2 — second Excel file

As source data we need to use already prepared Table 2

Results Excel file

Warning!!! Columns must start from row 4. 4 column must contain table headers.

Table 2.1

	Column	Title	Comments
1	B	№ товара	Row counter for combination «Код ТНВЭД» - «Страна» f.e. if group contain 3 types of packaging all of them has the same number
2	C	Код ТНВЭД	
3	D	Описание	Look below
4	E	Количество мест	Always empty
5	F	Кол-во в ДЕИ	
5	G	Наименование ДЕИ	Always empty
6	H	Код наличия упаковки	
7	I	Буквенный код страны	from Country dictionary
8	J	Наименование страны	from Country dictionary
9	K	Брутто	
L		Нетто	
M		Фактурная	? unclear — i don't know — stay it empty
N		Группа: №	always '1'
O		Группа: описание	always ':'
P		Группа: фирма изготовитель	comma delimited firms from group
Q		Группа: товарный знак	comma delimited firms from group
R		Упаковка: код вида	from package dictionary
S		Упаковка: количество по виду	cargoes count for given type of pack

Algorithm

Data from Table 2 grouped by fields «Код ТНВЭД», «Страна» and «Тип упаковки»

Column «Описание» is «Наименование товара»: АРТ№ «Артикул1» - «Кол-во» ШТ.; АРТ№ «Артикул2» - «Кол-во» ШТ. АРТ№ «Артикул N» - «Кол-во» ШТ. ВСЕГО: <total amount> ШТ.

Sample of grouping п. 1 Table 2.1

№ товара	Код ТНВЭД		Упаковка: код вида	Упаковка: количество по виду
1	5520950108	..	PK	20
1		...	XD	1
2	5202181195	..	NE	2
2		..	XD	3
3	1670980009	..	XD	45
4	9689609808	..	PK	65
5	6546546548	..	NE	23
5		..	PK	1

Some conclusions

So finally you will need to do:

1. Main form with editable grid
2. Dictionary of cargoes descriptions
3. Dictionary of Countries
4. Dictionary of Firms
5. Dictionary of Package types
6. Local database to remember replacements for Cargoes, Countries and Firms
7. Two export functions

All dictionaries must be editable (create/edit/delete), as well as their replacement list.

Typical user's workflow required

At morning manager is started some software where is a list of cargoes exists. He is selected all cargoes to clipboard and pasted it to our programs. He see a colored grid and need to carefully check only cells which are highlighted. He need also verify all data — remove unused rows. And finally he can export data to excel format1 or format2.

Preferred technology

We need this program written used C# language with some local database storage SQLite, Ms Access or something else. But if you can give us better solution we are ready to discuss it.

12 October, 2007
