TERMINOLOGICAL DATABASE TO BE USED AS AN AID TO TRANSLATING AND TRANSLATOR TRAINING*

Luzia Araújo**

ABSTRACT: This paper describes a termbank (COMEX) dedicated to foreign trade terminology in Brazilian Portuguese, English, and Spanish. Initially, a relational database was designed specially for storage and management of terminological data. The database is PC-based and was developed using Microsoft Access®. Later, an attempt was made to transfer the already stored data to the terminology-oriented MultiTerm® database. In this work, both environments are described and selected data categories are illustrated by means of some terminological record samples given. It is expected that the contents of COMEX can be used as an aid to translation, while the design principles and structure can be used to teach terminology to translation students. The use of the database shall help students to get familiarised with terminological tools for translators and also with the design and building of terminology management systems applied to their profession.

KEYWORDS: applied terminology; translation; termbanks.

RESUMO: Este trabalho apresenta um banco de dados (COMEX) dedicado à terminologia da área de comércio exterior em português do Brasil, inglês e espanhol. Inicial-

* This work was partially supported by FAPESP (grant # 97/11986-0). The terminology-oriented database was developed during a “sandwich programme” at the Department of Language Engineering, UMIST, UK, with the financial support of CAPES Foundation (grant # BEX 0636/98-3).
** Programa de pós-graduação em Lingüística Aplicada, Universidade Estadual de Campinas.
mente, foi desenvolvida uma base de dados relacional para
o armazenamento e gestão de dados terminológicos em
ambiente PC utilizando-se o Microsoft Access®. Os dados
já armazenados foram mais tarde exportados para um
programa especificamente voltado para gestão de termi-
nologia (Trados MultiTerm®). Aqui, são descritos os dois
ambientes e apresentados alguns exemplos de registros
terminológicos, ilustrando as categorias de dados
selecionadas. Espera-se que o COMEX possa ser utiliza-
dado como ferramenta de consulta para auxílio à tradução e
que sua estrutura e princípios de desenvolvimento pos-
sam ter aplicação no ensino de terminologia para futuros
tradutores, possibilitando-lhes a familiarização com um
sistema computadorizado de gestão de terminologia apli-
cada à sua atividade.

UNITERMOS: terminologia aplicada; tradução; BDTs.

Introduction

Terminology is gradually establishing itself as an
independent practice and research field in Brazil. Though still
very few, there already exist some well-established groups devoted
to developing activities relating to both descriptive and normative
branches of terminology. However, inter-disciplinary aspects such as
the relationship between translation and terminology are not
yet considered or defined.

Previous research (Araújo, 1998) has shown that, as an
academic discipline, terminology seldom features in the
curriculum for translation students. Indeed, there have been a
number of “black holes” in the universe of professional translation
training at the majority of Brazilian schools. In the extreme case
there is a complete absence of terminology (theory and practice)
within the degree programme. In other cases where some attempt
has been made to address the subject, one may find a simplistic
view of terminology: terminology is regarded as a mere compilation
of bilingual lists of words. Also, there seems to be an abyss between
translation and terminology for the common features of both are seldom addressed in the context of translation practice disciplines. As a result, the vast majority of would-be translators are not trained appropriately to deal with terminology in authentic situations of their professional environment. Students are neither introduced to the use of terminological tools for translation, such as termbanks, nor are they trained in the methodologies for compiling and storing terminological data in such a way as to optimise their work and that of their colleagues as professional translators in the future. In addition, most of those students are unlikely to study terminology issues that inevitably arise from translation practice.

A survey of the Brazilian translation market has revealed a similar deficiency in terminological resources. To have a general picture of our present scenario, a survey among Brazilian professional translators was carried out by means of a questionnaire application addressed to freelance translators and translation agencies. The questionnaire looked at aspects of the role of terminology in translation practice with respect to terminology as both a specialised vocabulary and an activity, as well as terminology tools for translators and standardised terminology. Results have shown that Brazilian Portuguese-oriented terminological tools for translators, which no doubt could help them to optimise their work, are seldom available; also, terminologists are a rarity within translation agencies. In addition, although translation invariably involves a great deal of terminology-related activities, these activities are usually not acknowledged as such within translation practice.

As an attempt to bridge a gap between translation and terminology, a termbank (COMEX) dedicated to foreign trade terminology in Brazilian Portuguese, English, and Spanish is currently under development. In this paper, the two formats of the termbank are presented: a preliminary format developed using a general-purpose relational database software package (Microsoft Access®), and a revised format developed using a terminology-oriented database software package (MultiTerm®). The basic features of the database are described and the selected information categories and fields are illustrated by means of some
terminological record samples given. In addition, some of the difficulties encountered in an attempt to convert the original data to the terminology-oriented database are briefly outlined.

**Database features**

*COMEX* has been designed for the management of terminology in the domain of foreign trade. Languages covered are English, Spanish and Brazilian Portuguese, which has been used as source language for entry terms and concepts. Only concepts existing in the source language are accessible from the other languages of the database. The database is primarily intended for use as a terminological tool in translating foreign trade textual materials from Brazilian Portuguese into English and Spanish; however, it can be also used when translating from English and Spanish into Brazilian Portuguese. It is expected that the design principles and structure make it suitable for the teaching of terminology to translation students, and the teaching of translation practice.

The potential target users are in-house translators and administrative staff of the University, as well as external professional translators (expected), for a primary target user group. Undergraduate students and other language professionals interested or involved in terminology management are expected to constitute a secondary target user group.

After identifying potential uses and user groups for the proposed terminological database, an attempt was made to outline the users' needs, which so far could be specified as follows:

- **primary needs**: easy retrieval of relevant terminological data, which may facilitate a translator's task within a professional environment (cf. primary use), and
- **secondary needs**: same as above, plus familiarisation with the design and use of terminological tools within a would-be translator's professional environment (cf. secondary use).
With respect to the characteristics of the sublanguage of foreign trade, it is worth mentioning that the various procedures and steps involved in any import or export processes generate specific types of documents, which contain different types of information concerning goods, importer/exporter, shipping and payment terms, and so on. The variety of documents, ranging from commercial letters, faxes and e-mail messages, to invoices, shipping and banking documentation along with other types of textual materials, such as bank handbooks, IATA (International Air Transport Association) and ICC (International Chamber of Commerce) publications, constitute the main source for this terminological research. In addition to this wide range of documents and publications, some course textbooks also have been used as source material. Quite usually, terms can be easily identified and picked up from that set of documents and publications.

Although this terminological research is still not extensive, there are already some forms that can be systematically found in different types of documents, from which we can have a general portrait of the foreign trade terminology. During the process of identifying potential terms in Brazilian Portuguese, it has emerged that: (i) in certain types of documents, particularly daily correspondence, abbreviations are largely used in the place of the extended form of a term, and they are usually kept in the English abbreviated form (e.g., AWB, BL, CAD, instead of conhecimento aéreo/maritimo, and [pagamento] contra-apresentação de documentos). Those abbreviated forms, and others such as FOB and FCA, are largely found on daily correspondence, bank/credit documents and also guide books like the ICC documentary credit brochures; (ii) there is a marked use of foreign terms (that is, English terms) in nearly all types of source materials surveyed so far. Indeed, this has become one of the most remarkable features of the foreign trade terminology in Brazilian Portuguese. Terms such as “invoice”, “courier”, “sight draft” (or simply “draft”), “outsiders”, “tramps”, all appear to have been already incorporated to the Brazilian foreign trade jargon; (iii) a large number of compounds, mainly in the form of “noun + adjective(s)” can be easily found (e.g., mercadorias valiosas, mercadorias perigosas,
créditos documentários, conhecimento aéreo, transporte marítimo, despacho aduaneiro, pagamento antecipado). Sometimes they occur in a kind of mixed form, part Portuguese, part English, i.e., a combination of Portuguese plus English lexical forms, as is the case of tarifa ULD (ULD tariff), carta de crédito standby (standby letter of credit); (iv) in certain types of documents, mainly ICC documentary credit brochures, very often a term or terminological unit in Brazilian Portuguese is followed by its English term between brackets.

Up to now, terminological research has been carried out only for the Portuguese/English language pair, with the Portuguese/Spanish being left for a further stage of the database development. A brief description of the preliminary and present formats of the database is given in the sections that follow.

The general-purpose database

The initial version of COMEX (Araújo, 1995, 1996) was designed using a general-purpose database software package (MS Access®). Due to a number of circumstantial reasons, it has not been developed using a computer programme specially dedicated to terminology management from the very start. Among those reasons were the unavailability of terminology-specific software packages in the Brazilian market on the one hand, and the urgent need of compiling and retrieving basic terminological information to support translation activities at the Import Department, on the other. Therefore a database was developed to easily store, update and retrieve terminological information for translation purposes, using the resources available locally.

The database was built according to the usual Access® structural components, that is, tables and forms for data input, and queries and reports for data retrieval. First, a table was created in order to determine the set of fields required for a terminological record. Data categories and fields for each entry term were selected by following some basic guidelines as suggested in Sager (1990). They were intended to deal with information mainly related to: conceptual (or semantic) data: definition, domain, conceptual
relations, equivalence, and links to related terms; linguistic data: grammatical information, variants, abbreviations; pragmatic data: context and usage notes; bibliographic data: source, author, year, publisher etc.; housekeeping data: number of record, terminologist, updates etc.

A terminological record form for data input was created from a table in which all labels had been defined. Approximately 150 records in Brazilian Portuguese were generated, most of which containing a Brazilian Portuguese term, its definition, source and the appropriate term in English. Figure 1 shows a sample of the terminological record screen for entering data.

**The terminology-oriented database**

As mentioned previously, the transfer of data from the general-purpose database to a terminology-oriented one was meant since the very beginning of this work. This transfer should lead to a more systematic approach to terminology work, with respect to methodology, and to a more suitable form of data display, and therefore retrieval of terminological information, with respect to a final product.

Since MultiTerm® is terminology-specific, it is not surprising that it contains information categories that were missing in the original Access® database. Therefore, in the attempt to convert the general-purpose database into a terminology-oriented one, the whole conception of the former had to be changed in terms of information management, basically to conform with the fixed format and pre-defined information categories of the later. Several significant changes and improvements have resulted from the transfer: not only has the structure of the database gained a completely different layout; the information categories have also been grouped into a new set of data fields. Furthermore, new fields have been added, thereby considerably augmenting the number of existing information categories. Despite of all changes, it was necessary to ensure that no loss of data occurred during transfer.

In order to cope with the MultiTerm-specific database constraints, data categories have been re-arranged into Index
Fields, Text Fields, and Attribute Fields. The number of information fields has jumped from a dozen in the original database to 25 in the new one, and the re-defined fields have been labelled in Brazilian Portuguese, English and Spanish (see table 1). For reasons of economy, certain labels are identical. Abbreviated forms have been used whenever they could refer to the same label in all three working languages of the database (e.g., biblio, which stands for bibliografia in Brazilian Portuguese and Spanish, and "bibliography" in English: def, standing for definicao, "definition" and definicion, respectively).

Some example windows are presented below: a template for entering data in the Brazilian Portuguese Index Field (figure 2), a sample terminological record (figure 3), and a cross-reference record for bibliographic data (figure 4).

The main difficulties found in the process of converting data from the existing database are outlined in the next section, and some advantages and disadvantages of using a terminology-specific database are pointed out.

Discussion

In this section, the different stages of the database development are specified, and their main features are summarised. In addition, some of the difficulties, advantages and disadvantages relating to the project are outlined.

The main features of the database development can be defined according to three main stages, which are briefly specified on table 2. The first stage may be seen as an introduction into terminology work, whereas the second and third refer to a more specialised and detailed terminology work. The first and second stages are already concluded, and are briefly discussed here; the third stage refers to work to be done and will be addressed later on in the final section.

In the first stage, a whole methodology for terminological research and for compiling and storing terminological data was still to be established. The initial version of the database was expected to be just a simple tool for the storage of terminological
information resulting from a preliminary terminological research in the field of foreign trade. The main concern at that time was to establish the boundaries of and to have an initial portrait of foreign trade terminology in Brazilian Portuguese and English, mainly as manifested within the University’s context of purchasing imported goods. At that stage the work was focused more on the process by which to arrive at relevant terminological information for translation purposes rather than on the storage of that information.

In view of the fact that COMEX was initially conceived as a practical tool to be used exclusively as an aid to translation activities at the University’s Import Department, the main concern was to identify potential terms in Brazilian Portuguese, find out reliable sources for their definitions along with some contextual examples, and the corresponding term in English. The source language term, its definition, context, and the target language term were then thought to be the very basic information needed to fulfill a translator’s needs, i.e., to have a reliable source of information which could help them to produce texts in the target language. Thus, a preliminary version of the proposed termbank was developed using a general-purpose relational database software package for the storage and management of a non-detailed set of terminological information, mainly in Brazilian Portuguese.

In the second stage, the main purpose was to deal with the compilation of terminology following some specific approaches to terminology management and using a more appropriate software package to store terminological information. At this stage, an attempt was made to transfer the already stored data to a terminology-specific database.

In that attempt, the level of terminological information has been largely expanded, mainly as a result of the already existing data categories of the terminology-oriented software package. That expansion resulted not only from considering the default data categories available in MultiTerm® but also from broadening the potential database applications and uses. There was a considerable increase in the number of information fields, which were subsequently re-labelled according to frequently occurring
labels found in contemporary literature on the subject (e.g., Wright & Budin, and Cabré).

The augmented number of fields and their renaming were the first difficulty encountered in the process of importing the already existing data into the MultiTerm® database. Field names must be exactly the same for both export and import files when one attempts to convert data from one type of application into another. Given this very tricky barrier, the first option was to completely abandon the preliminary version of the database, thus losing all previous existing data, and start inputting data all over again. However, a second alternative was favoured and implemented: to re-label some of the field names in the Access® database file so that they would match the field names specified in the MultiTerm database, and then attempt to recover at least part of the existing data.

With the purpose of recovering part of the existing data, a new table was created in the Access® database only for those fields we wanted to export, i.e., the entry terms in Brazilian Portuguese and English, their definition, and source. Each field was re-labelled according to its new name in the MultiTerm® database. However, as it was found out later, re-labelling fields at that stage turned out to be unnecessary due to the differences in the conventions of the text format files for data exchange between the two applications. The newly created table had to be exported to an external file (text format) which would subsequently be imported into the new database. Figure 5 shows a piece of the text file generated in accordance with the Access® export wizard conventions.

The delimiters for entries and fields in the resulting exported file did not match the conventions required for the import file. Neither was the hierarchical structure of the entries consistent with the structure of MultiTerm® entries. Those differences, then, became another barrier to be overcome.

Even when using the advanced menu options for export specifications in the Access® export text wizard, it was impossible to conform the delimiters of the export file with those required by MultiTerm® for importing purposes. For that reason, the text file had to be re-edited so that the appropriate entry and field
delimiters could be inserted. The resulting text file conformed to the required MultiTerm® conventions appeared as shown on figure 6. From that text file it was then possible to import all entries into the new database. The entries were imported without using any type of filtering or any other advanced import option allowed by MultiTerm®.

However, there was still a problem with the hierarchical structure of the text file, which affected the presentation of data in the target database. In the first attempt to transfer data from one application into another, the Text Fields <Def> and <Fonte> (which referred to the Brazilian Portuguese Index Field) were inappropriately assigned to the Index Field <English> in the MultiTerm® database. This was due to the fact that those text fields appeared immediately after the Index Field <English> in the text file, as shown on figure 6. For this reason, MultiTerm® imported them as a Text Field subordinated to the Index Field <English>. Once more, it was necessary to go back to the original Access® database file, modify the structure of the table, and export it again. Figure 7 shows the resulting text file resembling the appropriate hierarchical structure.

Finally, from a text file like the sample shown on figure 7, it was possible to import all data successfully and generate a terminological record as shown on figure 3, in the previous section.

The main difficulties in the process of transferring data from one application to another relate basically to a general incompatibility of entry and field delimiters in the source and target database files. The options for changing such specifications in the source database are very restricted, thus not allowing them to accord with the specifications required for performing a successful import into the target one. In addition, the fact that it is impossible to change the structure of a MultiTerm® database file once it has been defined forces the user to make all pertinent changes in the source file. That was the case with the hierarchical structure of the database, which directly affects the way information fields are displayed in a MultiTerm® terminological record. Fortunately, in that case, there was flexibility enough in the source database as to apply changes to the table in order to conform the previous structure to the new one. Should it not, changes would have to be made in the text file.
The difficulties outlined here were quite easily overcome, mainly because the number of records was relatively small and the number of fields to be imported was not extensive. But when changes had to be made in the text file they did require a "manual" intervention; that is, changes were made manually, record by record, since it was impossible to perform them by means of some automatic feature. This could have been a real inconvenient if one had to deal with larger databases, showing a more extensive number of records and information categories.

In the context of this work, the main advantages of converting the database into a terminology-specific one relate to organisation of information and presentation of data as well. The fact that MultiTerm® is a terminology-specific software package, containing a number of pre-defined information categories, is very helpful to the extent that it provides the type of information such an oriented-database should contain. Although those information categories are available, it is up to the user to decide whether to keep them or not. This is a very useful feature mainly when using such a package in a translation environment is considered; it works as a kind of general guideline or starting point for translators who are not terminology specialists nor can count on the advice of a terminologist within their team.

The rigidity when defining the database structure may be seen as a disadvantage at first, once it implies a total lack of flexibility. But, this rigidity turns out to be a real advantage later on, because at a further stage it will assure a uniform presentation of data in view of the fact that the format in which terminological data is displayed is automatically generated.

Finally, a general advantage of using a terminology-specific software package in a translation environment relates to time saving. Creating databases usually becomes a time-consuming task, which may not cope with the usual translator's deadlines.

Although in this work we have dealt with a limited set of data fields and a relatively small number of records, the results obtained so far allow us to go a step further. This version of COMEX may be seen as a basis for moving on to the next step of the project, whose main objectives and features are outlined in the following section.
Further developments

As previously mentioned, COMEX is intended primarily for use as a terminological tool in translating foreign trade textual materials from Brazilian Portuguese into English and Spanish, and from English and Spanish into Brazilian Portuguese. Also, it is expected that the design principles and structure can be used in the teaching of terminology to translation students. Both applications are going to be explored during the third stage of the database development, which has been split into three main phases, as outlined below.

The first phase relates to exploiting the design principles and structure of the database in the teaching of terminology to translation students, as well as in the teaching of specialised translation practice modules. The use of COMEX in a teaching environment shall allow students to be in contact with the various aspects of terminology in the context of translation practice. Those aspects relate simultaneously to terminology as theory, as an oriented-activity, and as a specialised vocabulary as well.

By using COMEX in terminology or translation practice classes students shall be provided with an appropriate tool for terminology management in the context of tasks involving terminological research in a particular domain; they shall have an opportunity to exploit the structure of the database and therefore get acquainted with designing principles. Students shall be guided into systematic approaches to terminological research in the field of foreign trade in the three working languages of the database, which eventually may result in gradually augmenting the database itself not only in terms of adding new records but also in terms of complementing and updating the already existing information. It is expected that this work is conducted in such a way as to allow its continuity by forthcoming students, that is, the terminology work done by one group is expected to serve as the basis to subsequent ones. Therefore, at the end of each term, instead of coming out with just some printed bilingual lists of words, students shall have developed the necessary skills for optimising their dealing with terminology; as a result, the product of that development – a continuously augmented termbank – is
likely to function as a starting point for further improvements to be made by newcomer students.

In a complementary way, while following some systematic approaches and principles of terminology work, students shall be in contact with terminology theory. They shall be dealing with issues such as the nature of terms or the process of term formation, and establishing conceptual relations between terms as well. Such issues relate to the nature of meaning, which could be seen as one of the bridges linking translation and terminology, since both disciplines inescapably encompass the process of representing meanings in different cultures and specialised language communities.

The second step relates to the application of the database in an actual translation environment. At this point, the database is expected to have been considerably augmented in terms of content, in such a way as it could be tested within some translation service. This testing phase is meant to be a means of obtaining some feedback from a particular group of target users, so that improvements can be implemented to make it more suitable for using in the context of a translation environment.

Finally, the last phase relates to making the database available for consultation to an extended number of users by means of placing it on the internet.

By making use of this termbank for translator’s training purposes, it is hoped to fulfil students’ needs concerning familiarisation with the design and use of terminological tools within a would-be translator’s environment. Also, this use shall contribute to build up an appropriate scenario where some of the inter-disciplinary aspects which bind translation and terminology together can be put at issue. By making it available for use at a professional environment, it is intended to emphasise how terminological tools can be applied to optimise a translator’s task. On the completion of this work, it is expected to have moved a step further on the path to create an awareness of the relevance of terminology to translation, both in terms of an actual optimised practice and translator training.
Acknowledgements

I am grateful to Blaise Nkwenti-Azeh, who supervised my research activities at UMIST; I am deeply indebted to him for his time and detailed comments on an earlier version of this paper.

The financial support of FAPESP and CAPES is gratefully acknowledged.

References


### Table 1: Information fields re-defined in the terminology specific database

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**BR** | **PORTUGUESE** |

- definição
- contexto
- fonte
- título
- autor
- página
- editor
- ano
- data de entrada
- revisão
- anterior
- última
- revisão
- variantes

**EN** | **ENGLISH** |

- definition
- context
- source
- title
- author
- page
- publisher
- year
- input date
- prev update
- last update
- variants

**ES** | **SPANISH** |

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<td>- Non-detailed level of terminological information</td>
<td>- Brazilian Portuguese (SL) and English (TG)</td>
<td>- General purpose software (Microsoft Access)</td>
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<td>- Identification and compilation of foreign trade terminology for translation purposes</td>
<td>- The principles of designing terminaries using terminology-oriented tools</td>
<td>- Limited terminological information categories</td>
<td>- Basic information categories</td>
<td>- Data input mainly in Brazilian Portuguese</td>
<td>- Terminology-oriented software package (Trados MultiTerm)</td>
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<td>- The processes of converting data from generic application software into a specific one</td>
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<td>- More detailed level of terminological information</td>
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<td>- Augmented uses/users</td>
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Table 2: Main features of the database development
Figure 1: Sample of a terminological record window for data input using a general-purpose database
Figure 2: Template window for data input in the Brazilian Portuguese index field

Figure 3: Sample window of a MultiTerm® terminological record
**Figure 4:** Sample window of a cross-reference record displaying bibliographic data

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**Figure 5:** Sample of records exported from Access® to a text file

"TACT", "TACT", "Abreviação de The Air Cargo Tariff (Tarifa de Transporte Aéreo). Publicação especial para divulgação das tarifas determinadas pela IATA para o transporte de mercadorias, tarifas estas válidas para todas as companhias de transporte aéreo regular."; "Integração, Apostila Transporte" "Mercadoria valiosa", "Valuable Cargo", "São embarques com valor declarado para transporte que seja igual ou superior a US$ 1,000.00 / Kg ou o seu equivalente."; "Integração, Apostila Transporte" "Tarifa ULD", "ULD Tariff", "Tarifa de transporte para unidades específicas, tais como contêineres e paletes. É calculada por unidade (ULD - Unit Load Device)."; "Integração, Transporte".

**TRADTERM, 8. 2002. p. 189-209**
<Português Br> TACT
<English> TACT

<Def> Abreviação de The Air Cargo Tariff (Tarifa de Transporte Aéreo). Publicação especial para divulgação das tarifas determinadas pela IATA para o transporte de mercadorias, tarifas estas válidas para todas as companhias de transporte aéreo regular.

<Fonte> Integração. Apostila Transporte

**

<Português Br> Mercadoria valiosa
<English> Valuable cargo

<Def> São embarques com valor declarado para transporte que seja igual ou superior a US$ 1,000.00 / Kg ou o seu equivalente.

<Fonte> Integração. Apostila Transporte

**

<Português Br> Tarifa ULD
<English> ULD Tariff

<Def> Tarifa de transporte para unidades específicas, tais como contêineres e paletes. É calculada por unidade (ULD - Unit Load Device).

<Fonte> Integração. Apostila Transporte

Figure 6: Sample of a text file with the appropriate delimiters for import into MultiTerm®

**<Português Br> TACT
<Def> Abreviação de The Air Cargo Tariff (Tarifa de Transporte Aéreo). Publicação especial para divulgação das tarifas determinadas pela IATA para o transporte de mercadorias, tarifas estas válidas para todas as companhias de transporte aéreo regular.

<Fonte> Integração. Apostila Transporte

<English> TACT

**

<Português Br> mercadoria valiosa
<Def> São embarques com valor declarado para transporte que seja igual ou superior a US$ 1,000.00 / Kg ou o seu equivalente.

<Fonte> Integração. Apostila Transporte

<English> valuable cargo

**

<Português Br> tarifa ULD
<Def> Tarifa de transporte para unidades específicas, tais como contêineres e paletes. É calculada por unidade (ULD - Unit Load Device).

<Fonte> Integração. Transporte

<English> ULD tariff

Figure 7: Sample of a text file with the appropriate hierarchical structure