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Ergane helpfile version 1.1

Introduction

Ergane is a multi-lingual dictionary programme that uses Esperanto as an auxiliary language to translate single words and short expressions from one language to another. The use of an auxiliary language makes it possible to create a multi-lingual dictionary that does not need an astronomically large number of bilingual wordlists.

Because Esperanto words usually have only one meaning, the chances of totally erroneous translations are quite small. Nevertheless in general it would be unrealistic to expect the translations to be as accurate as those of dictionaries that use wordlists compiled for a specific source and destination language.

This freeware programme was written by Gerard van Wilgen. Being a freeware programme it is obviously available for free and it can be copied and distributed without any restrictions. Also, any wordlist generated by Ergane is free of copyright and may be used by other programmers as a data source for other applications.

The Ergane interface consists of six main windows, namely:

The dictionary window for finding and translating words.

The language window for selecting the source and destination language.

The practice window for practising word memorization.

The export window for exporting wordlists.

The keyboard configuration window for mapping keys on your keyboard to characters in Ergane's character set.
The language info window in which information about a selected language can be displayed. .

The language window

When Ergane starts up, it will read a list of languages and search for associated .INF files in the same directory as where ERGANE.EXE resides. If there is an .INF file present, the name of the corresponding language will show up in the two listboxes in the *language window*. This window also contains buttons for opening other main windows and a button for terminating the programme:

Dictionary: Click on this button to open the dictionary window, which you can use to translate words (if the source and destination language are different) or to find homonyms and synonyms, or words that match certain patterns (if the source and destination language are the same).

The dictionary window is also used to create practice files for word memorization.

Before clicking on this button, you should select a source language (from the listbox labelled *From*) and a destination language (from the listbox labelled *To*). Because Esperanto is Ergane's auxiliary language it is not possible to select Esperanto both as source and destination.

Practise: Click on this button to activate the practice window, which is used for word memorization.

Export: Click on this button to activate the export window, which is used to generate text files containing wordlists (mono- or bilingual). A source and destination language can be selected before clicking on this button but they can also be selected in the export window itself.

Keyboard config.: Click on this button to activate the keyboard configuration window. This window is used to assign characters of Ergane's character set to keys on your keyboard (the default configuration is based on a US keyboard).

Every character in Ergane's character set can be generated with any existing keyboard, but by changing the default configuration you can use the extra keys found on many keyboards outside English speaking areas of the world, or you can change the default mapping to one that is easier to use for you.

Exit: Terminate the programme with this button. You can of course also close the language window in the usual way for Windows applications.

The language window has also a series of pull-down menus and some of the options in them lead to sub menus:

Colours: It is possible to change the colours of the language window and the export window (but not separately).

The colours menu has the following options:

1. Use default colours
2. Use user selected colours
3. Set background colours
4. Set foregrond colours
5. File

Choosing the first option causes the windows to be displayed in their default colours (i.e. the colours that were chosen when the windows were designed). If you choose the second option, the user selected

colours will be used. Each window has a background colour and a foregrond colour and with the third and fourth option you can change the current fore and background colours. The fifth option is used to file the current colours, which means that the current colours will become the new user selected colours.

Fonts: The next menu on the menu bar is for controlling the fonts that are used. Only the fonts used in the language window and in the export window are influenced by the chosen fonts.

This menu has the following options:

1. Use default fonts
2. Use user defined fonts
3. Forms
4. List boxes
5. File

Choosing the first option causes the default fonts to be used (i.e. the fonts that were chosen when the windows were designed). If you choose the second option, the user selected fonts will be used. The fonts for the list boxes and the rest of the windows are set separately and this is done with the third and fourth option respectively. The fifth option is used to file the current fonts, which means that the current fonts will become the new user selected fonts.

Miscellaneous: This menu contains the following options:

1. Default colours at start-up
2. User selected colours at start-up
3. Default fonts at start-up
4. User selected fonts at start-up
5. AA substitution
6. AE substitution
7. IJ substitution
8. OE substitution
9. UE substitution
10. RR substitution

The settings of the first four menu items determine whether the default colours and/or default fonts or the user defined ones are used when the programme is re-started. These settings are automatically saved when the programme is exited.

The rest of the menu items determine whether certain character combinations are converted by Ergane to one new character. For instance, if the *AA substitution* item is checked, the combination of two A's will be replaced by an *A* with a ring above it if you are using Danish as source language. These substitutions are only made for certain languages and they are intended to facilitate the typing of characters for which there may be no keys available on your keyboard. Click here to see which character substitutions can be made for which languages.

Other ways to generate characters for which there are no keys on your keyboard involve the use of the function keys and the CTRL and ALT keys. See the keyboard configuration topic for more information about this.

The dictionary window

The dictionary window is used to translate words from a source language into a destination language, or to find synonyms and homonyms or words with a certain pattern. Sometimes it is also possible to have Ergane display miscellaneous information about a word, such as the gender, inflection, usage, pronunciation, et cetera (if such information is available).

At the top of the dictionary window there is the *input box* in which you can enter your words. Ergane automatically selects the script that is defined as input script for the source language that was selected. So, if for instance Russian is the source language, all text that you type in the input box will be in the Cyrillic script.

A word in the input box will be processed if you press the enter (return) key on your keyboard.

Editing: Editing your text is very simple, albeit a bit cumbersome when you need to correct a typo at the start of a long word. You just use the backspace key to remove all characters typed so far until you have erased the error and then start anew from that point. Note that for scripts that run from right to left (e.g. Arabic) pressing backspace removes the character to the *right* of the cursor and shifts the cursor to the *right*. Also, for scripts where some vowel characters are placed above or below other characters (e.g. Thai), a superscripted or subscripted character will be removed before the vowel bearer itself will be removed.

Automatic character conversions: Apart from the character combinations that are converted to single characters according to the settings in the main window, there are other convertions that may take place during typing. For instance, if Japanese is the source language and you type the combination *sh*, Ergane will change this either into *sy* or *s*. The reason for this is that *sh* is the representation of a certain Japanese sound in the so-called *Hepburn transliteration* whereas Ergane uses the *kunrei-siki transliteration*, in which this sound is represented by *sy* or *s* (before the letter *i*). Other changes may occur because in some scripts there are different representations for the same letter in different positions in a word. An example of this is the small letter sigma in Greek. If you type this letter, it will initially appear as a final sigma, but it will change into a normal sigma if you type another letter directly behind it.

Automatic word convertions: A word in the input box will be processed when you press the enter box. Sometimes you may notice that Ergane changes the spelling of your word. The reason is that before the vocabulary files are searched, the programme checks whether the combination of characters which you entered, can be found in a table of alternative spellings. In principle every word in the vocabulary has only one spelling, but in order to cope with different spellings of the same word that are used in real life (and also frequently misspelled words), the language database contain tables for mapping alternative spelling to standard spellings. For example, if the source language is English and you enter *plow* Ergane will change this into *plough* before starting to search in the vocabulary files.

Translations: If the source and destination languages are different, Ergane will try to translate the word in the input box. If it cannot find the input word in the vocabulary of the source language, an error message will appear.

The first step of the translation process is translation into Esperanto. Very often a word can be translated to more than one Esperanto word (usually words with different meanings) and in this case each of the Esperanto translations will be translated into the destination language. The translations are then shown in the *output box*.

The output box can contain at maximum three translations. Each possible translation is accompanied by the corresponding Esperanto word (in red) that shows how Ergane arrived to that translation. For those who know Esperanto, this also gives an indication of the translation's accuracy. If the programme cannot translate the intermediate Esperanto word into the destination language, a question mark is displayed instead of a translation.

Script: Normally the words in the destination language are displayed using the same script as the one that would be used for input. However, the dictionary window has a pull-down menu that is called *Script* and if a languages is not written in the Latin script (e.g. Russian or Thai) or if more than one script is used in practice (e.g. Serbo-Croatian or Irish), this menu can be used to change the script in which Ergane displays the words of the destination language.

If Ergane finds more than three translations, you should click on the button that is labeled *Next* and then the next translations will be shown. If there are only three translations or less, the *next button* is disabled.

In order to enter a new word, you should click on the button labeled *New*.

Synonyms & homonyms: If the source and destination languages are the same, the translation process will result in translations that consist of the word in the input box and possibly a number of synonyms (or near-synonyms). For example, the English word *puma* translated into English will result in the synonyms *cougar*, *mountain lion* and also of *puma* itself.

If a word can be translated into more than one way into Esperanto and if the Esperanto translations are not synonymous, you will in effect also get the homonyms of that word. For example, if the word in the input box would be the English *light* a few of the different meanings given to you would be: *to kindle, bright, not heavy, to illuminate,* and *faint* (strictly speaking not all these different occurences of *light* are homonyms, because there are only two basic meanings of *light*).

Upper case or lower case: If Ergane cannot find a word in the vocabulary of the source language, it will not immediately return an error message, but instead change the case of the first letter of the word (if the input script has upper and lower case letters) and try again. So, if you enter *america*, the programme will fail to find this word and try *America*.

Proper names: Sometimes proper names have different forms in different languages. For example, *London* is called *Londres* in French, *Llundain* in Welsh, *Rondon* in Japanese, et cetera. Since Ergane's vocabulary files also contain many of these proper names (mostly toponyms but also names of historical and mythical persons), they are no problem.

However, most proper names are found in only a few languages or even in just one. This would for example mean that if you chose English as source language and Swahili as destination language, and then entered *Rhine* (a river in Western Europe), you might expect the programme to report that the word could not be translated into Swahili. But instead Ergane will check a file with proper names and returns the local names for it, namely *Rhein* (German), *Rijn* (Dutch) and *Rhin* (French).

Pattern searching: If the source and destination language are the same, you can apply a simple form of pattern searching. An atpersand character used in a pattern means that any character in a word having the same position as the atpersand in the pattern will be considered a match. So, if English is the language and the word you entered in the input box was *b@n@*, Ergane would give you the words *band*, *bang*, *bank*, *bend*, *bind*, *bond*, *bone* and *bony*.

If you use the asterisk at the start or at the end of a pattern (but not at both sides), it will represent an

undefined number of characters (or no character at all). The asterisk is very useful for finding words with a certain prefix or suffix. For instance, the pattern **esque* could be used to find the words *Moresque*, *Romanesque*, *arabesque*, *grotesque* and *picturesque* in English.

It is possible to combine an asterisk with one or more atpersands. For example, the pattern *m@@th** would give you *month*, *month*, *monthly*, *mouth* and *mouthful* in English.

Underlined words: Sometimes Ergane displays one or two lines beneath a word. For Esperanto words the lines can appear in the input box after you have pressed the enter key, but for other languages only words in the output box can be underlined.

These lines indicate that there is more information available about a word, and this information can be made visible by clicking on the word. An upper line means that Ergane has a *dictionary window* which may contain stuff like pronounciation, meaning, usage, et cetera, while a lower line means that there is grammar information available (part of speech, gender, inflection, et cetera. A word may be underlined with either of these lines or by both, depending on the information that is available.

If you click on an underlined word, a window will be opened that shows a page of the dictionary of the current destination language. At the bottom of the dictionary page there is a text box in which the part of speech (noun, verb, adjective, et cetera) of the word is shown. At the left of this text box there is a button labeled with *Flection*. If this button is enabled, you can open another window in which all the forms of the word that can be derived through inflection are displayed.

The contents of the *flection window* depend upon the destination language. For English it shows for nouns only the singular and plural (or the genitive for proper nouns) but in other languages a noun may have dozens of inflections.

In order to save space, the various forms of a word are displayed in the flection window without indication of what kind of inflection they represent. But you can place the cursor on one of those forms and the type of flection (e.g. plural or genitive) will be displayed in a text box at the top of the flection window.

Creating practice files: In the right corner of the dictionary window you will notice three buttons that are labelled *Open practice file*, *Add* and *Delete*. Together with the check boxes in the output box these buttons are used to create and update practice files.

The practice window

Ergane's practice window can be a valuable tool when it comes to drumming the words of a foreign language into your head. The programme picks a word from a list, displays it and asks you to enter a translation in another language. After you have done that you will be told whether the translation was correct or not, and the next word will be displayed. This is the principle, but the practice window contains a lot of controls with which you can make this process much more efficient.

If you have created one or more practice files of the .PRA type by using the dictionary window, or if there are .BVF files present on your disc (downloaded from the Ergane site or created by yourself with a text editor), you can select one of these files for practising word memorization. But if you feel very confident about the size of your own vocabulary you can also select an entire Ergane vocabulary as a source for words. Either way, you should first select a source and a destination language and then open the practice window.

It is easiest to explain the way the controls in the practice window are used by example. Let us assume that you want to learn French words by having Ergane display English words for which you will have to provide the French equivalents. This means that you will have to select *English* as the source language in the language window and *French* as the destination language.

To avoid confusion you should be aware that with regard to .PRA files the *source* of words in the practice window, produces words in the language that was chosen as the *destination* in the dictionary window when you created the .PRA file. In this example *English* is the source language and *French* the destination language because you are expected to translate *English* words into *French*. But Ergane picks French words from the source file (either a practice file or the French vocabulary file), and translate them to English words that are presented to you.

Note: All this source and destination stuff does not apply to .BVF files which can be used with English as source and French as destination language or vice versa (or with any other language combination).

Initially Ergane will assume that the entire English vocabulary known by the programme will be the source of English words and you will see the text *English dictionary* displayed as the source. Every word in a dictionary has a unique number and it is this number that is used to indicate the range of words in the dictionary that will be used. The number given behind *From word* corresponds to the first word in the range and the number behind *To word* corresponds to the last word in the range. Initially these numbers are 1 and the number of words in the dictionary respectively. You can change these numbers in order to change the range, but since it will be difficult to determine which words are in a given range, this feature is of limited value (The words in a dictionary are ordered according to the numerical values of their letters when interpreted as two byte integers). If the source is a practice file instead of a vocabulary file, the words will be stored in the order that you entered them. In this case the feature might be more useful because it would allow you to split the exercise in small, more manageable chunks when the file contains a large number of words.

You can change the source by using the radio buttons in the s*ource selection frame* that are labelled *Dictionary* and *Practice file* respectively. If you press the second radio button, the button *Select file*, will become enabled and pressing this button will cause a pop-up window to be displayed in which you can specify one of your own practice files as source.

When you press the button which is labelled *Next word* you will see that Ergane normally not only displays an English word, but also an Esperanto translation. In many cases, certainly when dealing with

English words, it is impossible to decide to which part of speech a solitary word belongs and what its precise meaning is. For instance, the English word *down* may be a noun, a verb, an adjective, a preposition or an adverb (either of position or direction). But in order to know how it should be translated in French, it is necessary to know to which part of speech *down* belongs and maybe also what its precise meaning is. Luckily, in many cases Ergane not just displays one word but rather all words with the same meaning. For example, instead of just *down* you may see *down; fluff* or *down; underneath*. Furthermore, in most cases the part of speech is displayed at the right of the output box (labelled *type*), so *down; fluff* will be accompanied with the indication *noun* and the words *down; underneath* will be cassified as *adverb*. For those people who are familiar with Esperanto, an Esperanto translation is displayed as an extra help, indicating both unambiguously (usually) the exact meaning of a word and the part of speech to which it belongs.

But it is possible that you do not want to see the Esperanto translations. For instance, a Frenchman might use the practice file in this example to test his knowledge of English words by entering the French equivalents. In that case an Esperanto translation might give him a clue to the meaning of the English word, which would spoil the test. Even if that Frenchman would not know Esperanto, he would probably guess that for instance Esperanto *fero* (iron) is *fer* in French and therefore be able to correctly enter that translation even if he did not know the word *iron*. To cope with such situations, the option to have the Esperanto words displayed can be switched off by clearing the check box labelled *Esperanto words visible*.

If you used French as source and English as destination language when creating the practice file, you may think that the practice file contains English words (because English will be the source in the practice window), but in fact it contains Esperanto words and only when Ergane picks a word from it to display in the practice window, the English equivalents are read from the English vocabulary file and displayed. The practice file in this example could in fact be used with any language as source language prior to opening the practice window (but selecting another destination language than French would cause an error message to appear). But this could pose a problem because not all vocabulary files contain the same Esperanto words,and there may be words missing from the vocabulary of the other language (i.e. another language than the one selected as destination when you created the practice file). This will result in only the Esperanto translation being displayed (unless *Esperanto words visible* is turned off, in which case nothing at all will be displayed).

To avoid this situation, you can explicitely tell Ergane that only Esperanto words for which it has equivalents in the source language, should be displayed. This is done by checking the box that is labelled *English (modern) translation required* (for *Modern English* any other source language may obviously be substituted). In that case Ergane will pick a word from the source file, test whether it can translate it into the source language and if not, search sequentially through the file until it finds a word that it can translate (or until it has decided that there are no such words). If the source file contains many words but the vocabulary file of the source language contains relatively few words, this may take more time than you want to wait. If this happens you can push the button labelled *Break* to interrupt this search. This problem will manifest itself mainly when you select a source language with a small vocabulary and a destination language with a large vocabulary file and subsequently use the vocabulary file as source instead of a practice file. Ergane will then pick words from the large vocabulary file of the destination language and consequently in many cases will not be able to find a translation in the small vocabulary file of the destination language.

So far so good, Ergane displays English words and you enter the French translations. You start with a score of 100 % and when you make an error your score will become less. If you do not know how to translate a given word, you can either press the enter key and Ergane will count this as an error, or you can click in the input box which causes the translations to be displayed. Every error will be recorded and

if you decide that you should concentrate on the words that you got wrong, you can push the radio button labelled *Only errors* and from that moment on only the words that gave you trouble will be picked from the source file. If you want to use the entire set again, you press the radio button labelled *All* which cancels the *Only errors* button.

By default Ergane picks words randomly from a source file but you can change this to a fixed sequence by clearing the check box labelled *Random sequence*. You might consider using the fixed sequence if you are concentrating on your errors, thus ensuring that you will not have to wait for a long time (determined by pure chance) until that one word that you keep forgetting reappears.

The functions of two more buttons in the practice window remain to be explained. First, there is the button labelled *Score 100 %*. Pressing this button resets your score to 100 % but it does not clear the list of errors. These errors are stored on disc and remain there even if you have quitted Ergane. You can determine whether there is an error file for a given destination language by looking at the radio buttons *All* and *Only errors*. If these buttons are enabled (i.e. not displayed dimly), it means that an error file exists. You can delete this file by pressing the button *Erase errors* (These files are stored in the programme directory. They have the extension .ERR and can also be deleted with the appropriate operating system utilities, although this is not recommended because of the risk of deleting permanent Ergane files by accident).

The export window

If you choose a source and destination language and then press the button labelled *Export* a window will be opened that allows you to create your own wordlists (mono or bilingual) in plain text format. These lists can be used for many purposes, for instance to supply data for wordgames like *gallows* or *Scrabble* or even to create your own dictionary programme.

It is not necessary to select a source and destination language in the language window, you can also select them in the export window itself.

The export window contains two pull down menus. The first one is the *Filters* menu which is used to excude certain types of words from the list that you want to create (but only when they appear in the vocabulary of the source language). This menu contains the following items.

Exclude descriptions: This item is checked by default. A vocabulary may contain entries like <*nedifina artikolo*> which means *indefinite article* in English. In Esperanto there is no equivalent of the English article *a* and the < and > character are used to enclose a description that takes the place of a non existant translation. If the option *Exclude description* is checked, these entries will be ignored.

Exclude expressions: For Ergane every entry that contains one or more spaces is an *expression*. In English examples of such entries are *be hungry* or *in due time*. An expression in one language is not necessarily an expression in another language also. For example the Esperanto equivalent of *be hungry* is the single word *malsati*, and *in due time* can be translated as *siatempe*.

Exclude capitalized words: If this item is checked, words that start with a capital letter are ignored. Obviously this is only useful if the script of that language distinguishes between upper and lower case letters. If this is the case, it is a convenient way of filtering out proper names, but note that not all languages have the same rules for capitalization of words. For instance, if applied to German this method would filter out every noun (German nouns always start with an upper case letter) and in some other languages some real proper names might slip through, such as *'s-Gravenhage* (a Dutch name for the city of *The Hague*) or *eMelika* (Zulu for *America*).

The next six options are currently only applicable for Esperanto as the source language.

Exclude proper names: If this item is checked proper names such as *Kanado* (Canada), *Dio* (God), *Londono* (London) and *Karlo* (Charles) are ignored. Note that proper names always start with a capital in Esperanto, but some people also use a capital letter for deriviations like *kanada* (Canadian) and *kanadano* (a Canadian). The names of the days of the week and the names of months of the Western calender are not considered proper names in Ergane, but names of special holidays like *Kristnasko* (Christmas) and *Pasko* (Eastern) are.

Exclude ordinary nouns: All nouns that are not proper names are ignored. Examples of such words are *tablo* (table), *administrado* (administration) and *libro* (book)

Exclude adjectives: All adjectives are ignored. Examples of such words are *granda* (big,), *sciavara* (curious) and *kolera* (angry).

Exclude adverbs: All adverbs are ignored. Examples of such words are *kolere* (angrily), *sciante* (knowingly) and *preskau* (almost). Adverbial expressions like *de tempo al tempo* (from time to time) fall also into this category.

Exclude verbs: All verbs are ignored. Examples of such words are *iri* (to go), *legi* (to read) and *mortigi* (to kill).

Other word types: All words that are not nouns, adjectives, adverbs or verbs are ignored. Examples of such words are *en* (in), *aj* (ouch), and *kaj* (and).

The second pull-down menu has for items: *Style 1A, Style 1B, Style 2A* and *Style 2B* and each is subdivided into a type The only difference between the styles 1A and 2A and between 1B and 2B is that in style 2A and 2B an empty line is inserted after each block of translations and that the Esperanto translations are missing. Here is an example of an actual wordlist generated by Ergane in style 1A. It is a piece of an English-Italian wordlist:

abolish
  1. abolire (abolicii)
  2. annullare (nuligi)
abominate
  1. detestare (abomeni)
about-face
  1. cambiamento (s^ang^o)
about
  1. circa, verso (proksimume)
  2. intorno a (c^irkau^)

And here is the same fragment in style 2A:

abolish
  1. abolire
  2. annullare

abominate
  1. detestare

about-face
  1. cambiamento

about
  1. circa, verso
  2. intorno a

The difference between the A and B types of styles is that when a B style is selected Ergane tries to insert extra data about the words that might be useful if the list is intended to be used as a dictionary. Here is a part of an English-French wordlist generated in style 2B:

accessory
  1. accessoire [adj], auxiliaire [adj], secondaire [adj]
  2. accessoire [M], appendice [M]

accidence
  1. *hasard [M]

You will notice that the gender of the French noun *hasard* is indicated with [M] to show that it is masculine. Also Ergane did add an asterisk (*) to the begining of this word to show that the letter H is not

pronounced (as usual in French), but nevertheless prevents the definite article *le* to be attached to the word. (So, it is *le hasard* and not *l'hasard*).

The kind of extra data inserted by Ergane may differ for different languages and at the time of writing the B styles are only available for English, French and Dutch. For all other languages there is no difference between the A and B styles.

If Esperanto is either the source or the destinaton language, the format of the file is simpler. Here is a piece of an Esperanto-English wordlist:

aboni: subscribe
abono: subscription
aborigeno: aboriginal
aborti: abort, miscarry
abortigi: abort
abortigisto: abortionist
abortigo: abortion
aborto: abortion

And an example of an English-Esperanto wordlist:

adjacent
  1. apuda
  2. limtus^anta
  3. najbara
  4. tus^anta
adjectival
  1. adjektiva
adjective
  1. adjektivo
adjoin
  1. limtus^i

People who know Esperanto will notice from these examples that the Esperanto parts sometimes contain the character ^ behind words that should actually have a circumflex accent over them. Originally computers used 8 or even less bits to represent a character (And at this moment 8 bits is still the norm). And with 8 bits that means that there are at maximum 256 characters that can be coded. In reality this is somewhat less because some bit patterns are used for non-printable control characters like the *carriage return* and the *line feed*. For most languages there are enough combinations left to code every possible character used in that language, but problems can arise if you are going to use more than one language. At this moment a character set that uses 16 bits (Unicode) is gradually introduced which contains thousands of characters and although some Windows applications can use this set, Windows itself and most of its applications expect a character to consist of 8 bits. To deal with different languages, computer manufactures and standardization committees have created various character sets that were designed either for one specific language or for a group of languages.

Ergane itself uses a 16 bits character set (but not Unicode), so if you want to create a text file on your computer, you will have to tell the programme to which character set it should convert the text before it is written to your file. The third list box from the left in the export window is used to select this character set. Usually this set will either be the one that your Windows version uses or the one that is used in our DOS box.

If you select a character set that is not suited for one of the languages that you selected, Ergane will tell you so. In some cases you will have to select another set, for instance if you selected *Windows International* for Russian but in other cases you will be allowed to ignore this message and Ergane will try to deal with the missing characters the best it can.

If you want to determine beforehand whether a given character set is suited to represents the words of a certain language, you can double-click on the name of that set in the listbox and a new window will be opened that shows you all characters that are defined in that set. Undefined and non-printable characters will be displayed as dark blue question marks while the other characters are displayed in red.

By clicking on a character in a character set you can have its code number in that set displayed and also the number of that character in the Unicode character set and in Ergane's own character set. Additionally you will see the name that this character has, according to the Unicode standard.

If neither the source language nor the destination language is Esperanto, you can specify one of three extra filtering conditions by pressing one of the radio buttons grouped under the header *Word selection*:

Only translatable words: Words from the source language that Ergane cannot translate into the destination language, will be ignored.

All words: Words from the source language that Ergane cannot translate, will be included to. Instead of a translation a question mark will be used. This is the default option.

Only untranslatable words: Only words from the source language that Ergane cannot translate into the destination language, will be included in the generated wordlist. This option is useful for *cross-referencing* two vocabulary files in order to determine which words are still missing from the vocabulary file of a given language but which are present in the vocabulary file of another language.

If only one language is selected, either as source or destination, a monolingual wordlist will be generated. It may happen that you want to generate such a list but there is already both a source and a destination language selected. In that case you can de-select the languages in both listboxes by clicking on the window's background..

The keyboard configuration window

For all languages that Ergane supports there are thousands of different characters available, but how do you type them with only about a hundred keys on your keyboard?

Firstly, Ergane interprets keystrokes according to the language that is currently used for input. If you press the A key and the language is English, the letter *a* will be displayed; if the language is Greek, the same keystroke will produce the letter *alpha*.

Secondly, some combinations of two characters in certain languages can be converted to one new character. See the dictionary window topic for more info about this method.

Thirdly, you can use the *control key* to add diacritical signs such as accents to certain letters. To do this you should first type the letter and then add the required diacritical sign or signs (in some cases a letter can have two or three diacritics) by using a control key sequence. The following diacritics can be generated with a control key sequence:

acute accent / oxia	**CTRL A**
breve / dasia	**CTRL B**
circumflex accent / perispomeni	**CTRL C**
diaeresis / umlaut	**CTRL D**
grave accent / varia	**CTRL G**
macron / psili	**CTRL L**
superscripted dot	**CTRL P**
subscripted dot / ypogegrammeni	**CTRL U**
caron	**CTRL Q**
cedille / ogonek	**CTRL S**
tilde	**CTRL T**

This table shows that sometimes a control key sequence can generate more than one diacritic. In those cases Ergane will determine which diacrital sign it should use, based upon the previous letter and the current script. For instance, the combination *C, CTRL S* will result in a capital *C* with a cedille, but the combination *E, CTRL-S* will cause an *E* with an ogonek to be displayed.

Finally, you can tell Ergane that certain function keys should be used to generate characters that you assigned to them and that certain characters generated by your keyboard are mapped to Ergane characters of your own choosing. This is done with the *keyboard configuration window*.

If you open this window a chart showing all the characters of the Latin script that are used by Ergane, is displayed. This window has a menu called *Script* which allows you to replace this by a chart for one of the other scripts that Ergane supports. This chart has several functions and one of them is to show you which key or key sequence you can use to generate a certain character. If you click on one of the characters in this chart, Ergane will tell you how to type it when you are entering a word. For example:

A small letter *A* with a tilde = a, CTRL T
A capital letter *X* with a diaeresis = X, CTRL D
A small letter *L* with a stroke = F12
A small letter *U* with a diaeresis and a caron = u, CTRL D, CTRL Q

The third example shows that by default the function keys are already assigned to characters but you are

free to change the assignments to assignments that are more convenient for you. In the fourth example the notation suggests that you should first add the diaeresis and then the caron but if a more than one diacritic should be added to a letter, you can in fact add them in any order.

If you click on a character in a chart you will additionally be given its ordinal number in the Ergane character set, the equivalent number in the Unicode set and its Unicode name.

Now suppose that you have a French keyboard which enables you normally to generate a small letter *a* with a circumflex accent by using one of the extra keys (compared to a US keyboard). If you want to use this method also in Ergane, you should first select this letter in the chart of the Latin characters by clicking on it. Then you open the combo box labelled *Mapped to character/key* which contains a list of all characters that your version of Windows suppports, followed by a list of all the function keys (including the combinations of the shift and control key with a function key). Finally, you locate the required letter in this list and click on it. From that moment on, if Ergane receives a byte from your keyboard that represents this character (it has number 226 in the Windows International character set used in French speaking countries), it will replace it by its own two byte code that corresponds to a small *a* with a circumflex accent (number 142 in Ergane's character set). In the same way you can assign this letter to for example F1 or CTRL F5 so that you can use function keys to type this letter.

Note: If you install a new version of Ergane on your computer and want to keep your own keyboard configurations, you should temporarily rename the .KMP files, remove them to another directory or make backup copies of them. Otherwise the original .KMP files (which are included in ERG.ZIP) will replace them.

The language info window

If you double-click on the name of a language in either one of the listboxes in the language window, a new window will be opened that gives access to all sorts of information about this language. This window contains the following information:

Family tree: A listbox in which is shown the generic position of a language. For instance, for English it tells you that English belongs to the western branch of the Germanic languages, which form themselves a branch of the Indo-European language family.

Territories: A listbox that lists the territories in which a language is spoken (or used to be spoken) and what its status there is (official national language, official regional language, unofficial regional language, etc.)

Character sets: A listbox that lists the character sets that contain all characters necessary to write a language.

Vocabulary size: If you press the button labelled *Vocabulary size* a pop-up window will appear which shows the number of words of a language that are in the corresponding vocabulary file.

More: If this button is pressed, a new window is opened which acts as a kind of viewport to a digital book that contains miscellaneous information about a language. This book contains at least a list of the literature that was used to obtain information for Ergane's database. It may also contain a list of names of people who made a substantial contribution to filling the vocabulary file for that language. In the future complete language courses may be included; at this moment you may take a look at courses that are under construction for the languages Esperanto and Dutch (i.e. they are still incomplete).

In order to page through the books, the viewport window contains four buttons that enables you to move to the first page, the last page, the next page or the previous page. You can also jump to the start of a specific chapter by selecting the title of the desired chapter from a listbox. When you close the viewport, the current page will be remembered and the next time that you open it, that page will again become the current page.

Supported languages

These are the languages for which vocabulary files exist at the time of writing (there may have been a few added when you read this).

The column *Script* indicates the script that Ergane uses for input.

Language	*Language family*	*Script*
Afrikaans	Indo-European	Latin
Albanian	Indo-European	Latin
Basque	N/A	Latin
Bavarian	Indo-European	Latin
Brahui	Dravidian	Latin
Catalan	Indo-European	Latin
Czech	Indo-European	Latin
Danish	Indo-European	Latin
Dano-Norwegian	Indo-European	Latin
Dutch	Indo-European	Latin
English (Modern English)	Indo-European	Latin
English (Old English)	Indo-European	Latin
Esperanto	N/A	Latin
Estonian	Finno-Ugric	Latin
Fijian	Malayo-Polynesian	Latin
Finnish	Finno-Ugric	Latin
French	Indo-European	Latin
Frisian	Indo-European	Latin
German	Indo-European	Latin
Greek (Classical Greek)	Indo-European	Greek
Greek (Modern Greek)	Indo-European	Greek
Hawaiian	Malayo-Polynesian	Latin
Hungarian	Finno-Ugric	Latin
Icelandic	Indo-European	Latin
Indonesian	Malayo-Polynesian	Latin
Irish Gaelic	Indo-European	Irish
Italian	Indo-European	Latin
Japanese	N/A	Latin
Kurdish	Indo-European	Latin
Latin	Indo-European	Latin
Latvian	Indo-European	Latin
Lithuanian	Indo-European	Latin
Lao	Kam-Tai	Lao
Lombard	Indo-European	Latin
Malay	Malayo-Polynesian	Latin
Maltese	Afro-Asiatic	Latin
Mandarin	Sino-Tibetan	Latin
Maori	Malayo-Polynesian	Latin
Melanesian Pidgin	N/A	Latin
Papiamento	N/A	Latin
Polish	Indo-European	Latin

Portuguese	Indo-European	Latin
Romanian	Indo-European	Latin
Russian	Indo-European	Cyrillic
Samoan	Malayo-Polynesian	Latin
Scottish Gaelic	Indo-European	Latin
Serbo-Croatian	Indo-European	Cyrillic
Slovak	Indo-European	Latin
Spanish	Indo-European	Latin
Sranan Tongo	N/A	Latin
Swahili	Niger-Congo	Latin
Swedish	Indo-European	Latin
Tagalog	Malayo-Polynesian	Latin
Tahitian	Malayo-Polynesian	Latin
Thai	Kam-Tai	Thai
Tongan	Malayo-Polynesian	Latin
Tswana	Niger-Congo	Latin
Turkish	Altaic	Latin
Ukrainian	Indo-European	Cyrillic
Welsh	Indo-European	Latin
Yoruba	Niger-Congo	Latin
Yucatec	Mayan	Latin
Zulu	Niger-Congo	Latin

Character substitutions

Combination	Resulting character	Language(s)
AA	Latin capital letter A with ring above	Danish, Norwegian
aa	Latin small letter A with ring above	Danish, Norwegian
AE	Latin capital letter A with diaeresis	Finnish, German, Swedish
AE	Latin capital AE ligature	Danish, Norwegian, Icelandic, Latin, Old English
ae	Latin small letter A with diaeresis	German, Swedish
ae	Latin small ae ligature	Danish, Norwegian, Icelandic, Latin, Old English
IJ	Latin capital IJ ligature	Dutch
ij	Latin small IJ ligature	Dutch
OE	Latin capital letter O with diaeresis	German, Icelandic, Swedish
OE	Latin capital OE ligature	French
oe	Latin small letter O with diaeresis	German, Icelandic, Swedish
oe	Latin smalll OE ligature	French
UE	Latin capital letter U with diaeresis	German, Swedish
ue	Latin small letter U with diaeresis	German, Swedish

Notice that the same character combination can result in different characters, depending on the chosen language.

Creating and updating practice files

Ergane can be used to help with what is undoubtedly the most tedious aspect of learning a new language for most people, memorizing long lists of new words. This process can be made more efficient by using Ergane's practice window.

You can use an entire vocabulary as the source for your word memorization exercises, but if you are still a beginner the majority of the words that Ergane presents to you will then be unknown to you and you will make little progress. It is much more efficient to create managable chunks of vocabulary and use these instead of the complete vocabulary. This topic describes how you can create .PRA files by giving an example of how it is done by using the dictionary window of Ergane. It also describes the creation of .BVF files with the help of a text editor or word prcessor.

Note: The .PRA filesdo not actually contain the words themselves but references to the locations in the vocabulary files where they can be found. This means that if you replace a vocabulary file with an updated version, the associated practice files may become useless because many words will occupy different positions in the new vocabulary file! This may result in words showing up in the practice window, that you did not select when you created the practice file. It is best to delete such practice files after you updated a vocabulary file. The .BVF files on the other hand do not need to be re-created after a vocabulary update.

Let us suppose you want to practise French by entering English translations of French words that are displayed by the programme using a practice file that you name *EXER1.PRA*. First you open the dictionary window with English and French as "From" and "To" languages. Then you press the button "Select practise file" to create a new, empty practice file. Ergane will use EXER1.PRA to pick French words from (either randomly or in a fixed sequence) and display them, so that you can try to give the correct English equivalents.

The next step is obviously filling this file with French words. For that you enter an English word in the input box and when the French equivalents are shown, you should press the button "Select words" to store all French words that are given as translations of the English word (including those that do not fit on the first page if there are more than three). It is, however, possible that you want to ignore some of the French words that are given by the programme. If you want to learn for instance the names of farm animals and you enter the English word *calf*, Ergane will give you the French words *veau* (the young of a cow) but also the word *mollet* (a body part). To prevent *mollet* from appearing in the practice file with farm animals, you should check the *exclude option* behind *mollet* and this word will then not be stored into the practice file.

The words that are not excluded will be stored when you press the *Add button.*If you want to delete previously stored words from a practice file, you can use the *Delete button* for that purpose. It will remove all currently displayed words (and the ones on pages that are not shown) with the exception of the ones that have their exclude option checked (i.e. they are excluded from deletion).

If you already have a practice file, you can modify it by adding new words to it or by deleting existing words from it. If you enter the name of an existing practice file, Ergane will not create a new file but simply open the existing file for update operations.

If you want to get rid of a practice file, you can simply delete is as any ordinary file by using the appropriate utilities of your operating system.. It is recommended that you store your practice files in directories that you created specifically for that purpose, to minimize the chances of deleting files that

belong to other applications!

Creating a .BVF file is done with a text editor or a word processor (in which case the .BVF file should be saved in plain text format). The format of a .BVF file is very simple. It is just a list of Esperanto words, like this:

```
akvo
domo
monto
sidi
varma
```

However, since not all characters necessary for Esperanto are part of the ASCII character set used in .BVF files, some substitutions will have to be made when these unsupported characters are used in a word:

q	Small letter C with circumflex accent
Q	Capital letter C with circumflex accent
w	Small letter U with breve
W	Capital letter U with breve
x	Small letter S with circumflex accent
X	Capital letter S with circumflex accent
[	Small letter J with circumflex accent
]	Capital letter J with circumflex accent
{	Small letter H with circumflex accent
}	Capital letter H with circumflex accent

Although it is not necessary for Ergane, it is convenient for yourself if you keep the words in a .BVF file in alphabetical order. It will facilitate updating the file.

If Ergane encounters an Esperanto word that cannot be translated into the destination language it will normally just ignore it and select another one. However, if your DOS environment table contains a variable with the name *ERGCOM* to which is assigned a string containing the substring */C* Ergane will give a warning when such a word is encountered. Note however that since .BVF files are language independant those words are not necessarily errors. It is also possible (especially if the vocabulary of the destination language is small) that there just is not yet an Esperanto translation available.

Esperanto is an artificial language that was published in 1887 by the Polish oculist L. L. Zamenhof. It is still the most popular artificial language and there are perhaps between several hundred thousand and one million people who can speak it to some degree.

My present email address is gvwilgen@worldonline.nl but you can also reach me through Travlang. Check their Ergane pages regularly for updates of the programme and the vocabulary files!

The *standard spelling* is not necessarily the spelling used by the majority of speakers of a language, and neither is it necessarily the spelling prescribed by a government, academy or other authorative body. When a new language is added to the database, the spelling system used in the first source is usually chosen as the standard spelling.

There are synonyms in Esperanto but the programme tries to use only one of each set for translating between two other languages. This is done by checking a table containing words that should not be used for translating purposes. This table is however not guaranteed to be complete.