



The CYM Guide to installing and using **Ukrainian Fonts**

*on Personal Computers with
Microsoft Windows®*

Updated!

This document was updated in April, 2002 and now includes all of these operating systems:

- Windows XP
- Windows ME
- Windows 2000
- Windows 98
- Windows NT4
- Windows 95

Introduction

This instruction kit is intended to assist you in setting up your Microsoft Windows based personal computer to read and write using Ukrainian (Cyrillic) fonts. After following the steps described below, you should be able to browse Ukrainian language Web sites, send and receive email, and create, edit, and print documents in Ukrainian. Of course, depending on what software you use, you may need to modify the instructions slightly to suit your particular configuration. Unfortunately, until recently (and to a large extent, still today) standardization of Ukrainian language encoding was varied and uneven, so many individual software products still differ in their levels of support. Also, be aware that these instructions apply to the Standard release of Microsoft Windows; the Pan European or other releases of Windows may behave differently.

If the process outlined below appears intimidating to you, please don't let it. It is actually quite simple and takes only a few minutes. This document contains supplemental information to cover some uncommon scenarios and to provide additional information to those who are interested, but the steps involved in just adding Ukrainian language support are actually rather brief and easy to implement, even if you are not accustomed to performing system administration tasks. If you have trouble setting up your computer after reading this document, please contact your local CYM webmaster. As a last resort, email us at CYMnet@cym.org.

1. Reading Ukrainian Text

Note: If you are running Windows XP, Windows 2000 or Windows NT you can bypass this section, since multi-language support is installed automatically on those systems. For Windows 95/98/ME, follow these steps:

Installing support for Ukrainian language characters on Windows 95/98/ME can be achieved by means of loading the Microsoft Windows Ukrainian (Cyrillic) Unicode fonts onto your machine. Without this (or a similar approach), you will not be able to see Ukrainian text on your screen – instead, you will see what may appear to be nonsensical characters...

1. Click the **Start** button
2. Click **Settings**, then **Control Panel**
3. Double-click the **Add/Remove Programs** icon
4. Click the **Windows Setup** tab - the middle tab at the top of the **Add/Remove Program Properties** window. (see *Figure 1*)
5. Scroll down to **Multilanguage Support** and click on the words **Cyrillic Language Support**
6. Click the **Details** button
7. Check off **Cyrillic Language Support**, then click **OK**
8. Click **OK** at the bottom of the **Add/Remove Program Properties** window
9. At this point you may need to insert your Windows 95/98/ME disk (this depends how Windows was originally installed on your system – if you don't have the disk, see Note below)
10. After installing the files, your system will close the **Add/Remove Program Properties** window and inform you that you must restart your computer. You should restart your computer.

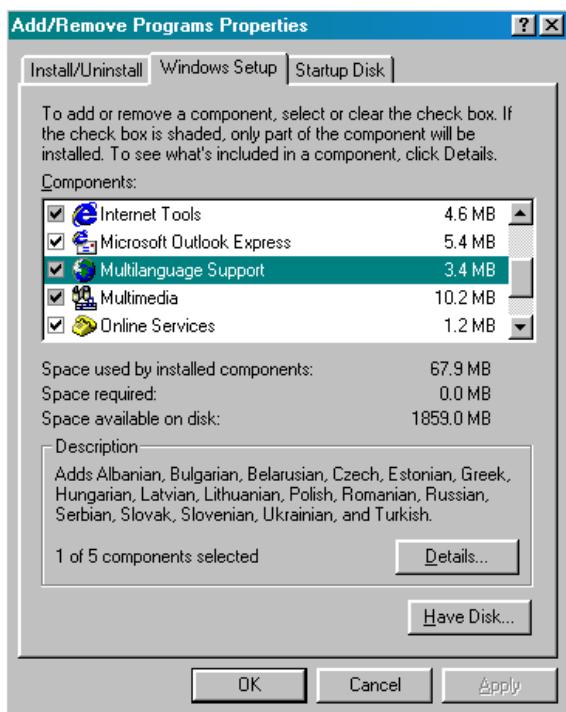


Figure 1. Ukrainian Language Support (95/98/ME)

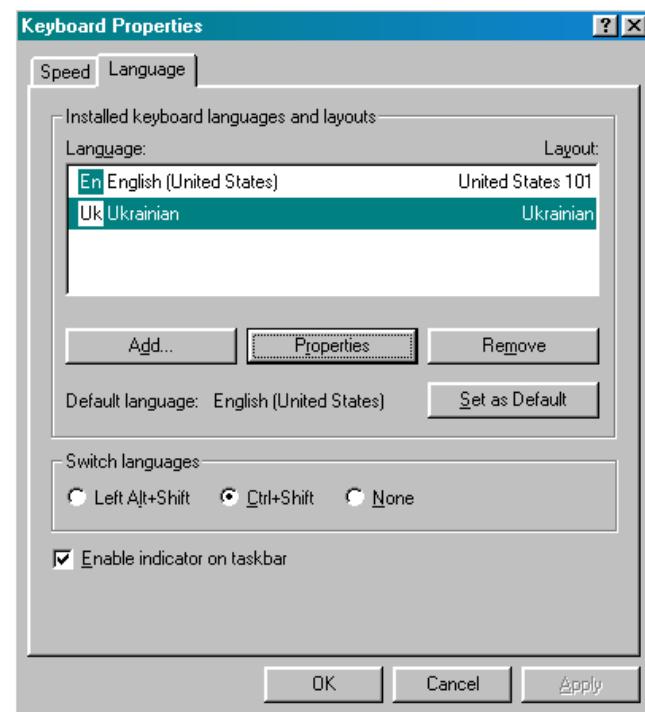


Figure 2. Adding the Ukrainian Keyboard

2. Typing Ukrainian Text

This involves installing what's known as a *keyboard driver* for switching between English (Latin characters) and Ukrainian (Cyrillic characters) when typing on your keyboard. It assumes that you have already installed Ukrainian Language Support (see above) on your Windows system. Since the method of installation differs widely on newer versions of Windows, we've added separate sections for each major version. *You can skip this section if you do not plan on doing any typing in Ukrainian...*

2.1 Windows XP (Home and Professional versions)

1. Click the **Start** button
2. Click **Settings**, then **Control Panel**
3. Double-click the **Regional and Language Settings** icon
4. Click on the **Languages** tab.
5. Click on the **Details...** button
6. If **Ukrainian** does not already appear in the window that pops up, click on the **Add** button.
7. Select **Ukrainian** for language and keyboard settings to add, and click on **OK**.
8. Now **Ukrainian** should appear on the **Text Services and Input Languages** window on your screen.
9. Click on the **Languages Bar** button.
10. Make sure that **Show the Language Bar on the Desktop** button is checked, then click **OK**.
11. Click on **Key Settings** and select the key sequence you prefer for switching between Ukrainian and English (or whatever default language you use). You can change the setting by clicking on **Change Key Sequence**.
12. Click the **OK** buttons until all of the Control Panel windows are closed.



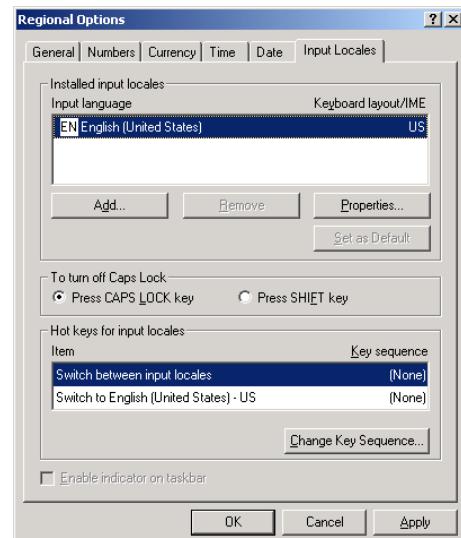
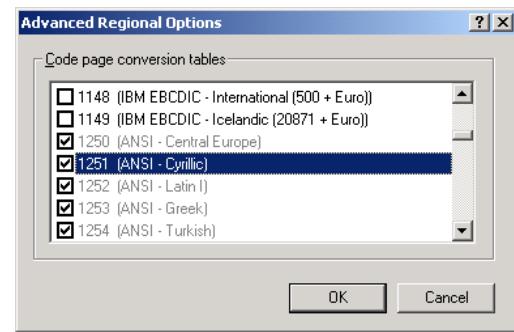
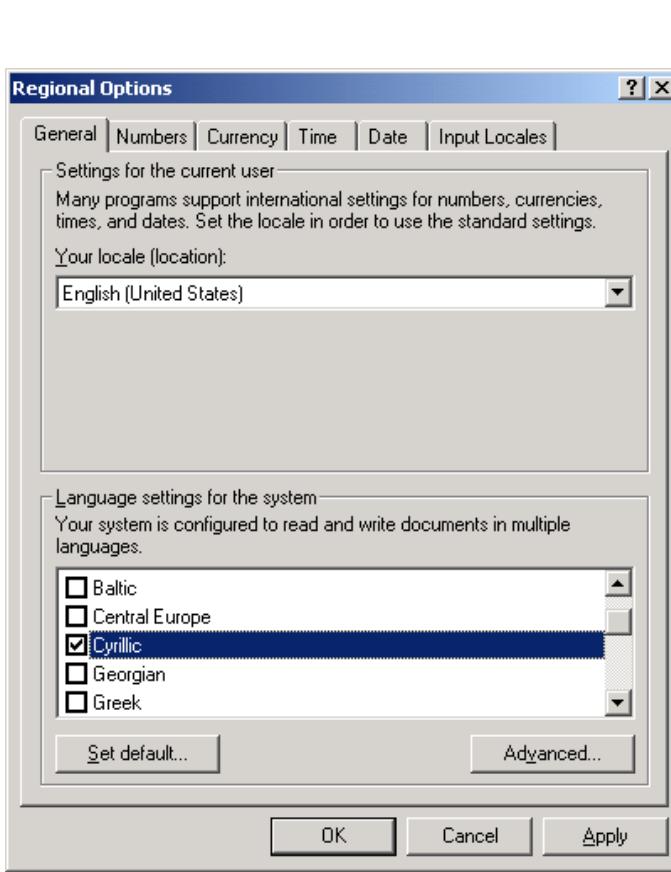
Figure 3. Adding Keyboard Driver (Windows XP)



Figure 4. Windows XP Key Settings

2.2 Windows 2000

1. Click the **Start** button
2. Click **Settings**, then **Control Panel**
3. Double-click the **Regional Options** icon
4. Click on the **General** tab.
5. Under **Language Settings**, check **Cyrillic**.
6. Click on the **Advanced** button
7. Make sure **1251 (ANSI-Cyrillic)** is checked, then click **OK**.
8. Back in the **Regional Options** window, click on the **Input Locales** tab.
9. If **Ukrainian** doesn't appear as an input language, click on **Add** and add it.
10. Use the **Change Key Sequence** button to select the key sequence you prefer for switching between Ukrainian and English (or whatever default language you use).
11. Click the **OK** buttons until all of the Control Panel windows are closed.



Figures 5-7. Adding Ukrainian Keyboard Driver (Windows 2000)

2.3 Windows 95, 98, ME, NT

1. Click the **Start** button
2. Click **Settings**, then **Control Panel**
3. Double-click the **Keyboard** icon
4. *Windows 95/98/ME:* Click the **Language** tab (middle tab at the top of the **Keyboard Properties** window) (see *Figure 2*)
Windows NT: Click the **Input Locales** tab (middle tab at the top of the **Keyboard Properties** window)
5. Click the **Add** button, which will take you to the **Add Language** dialogue box
6. Scroll down to **Ukrainian**, then click **OK** (**Note:** on some Windows systems, you might see more than one choice for Ukrainian. Each of these selections represents a different keyboard layout – for example, one that maps to the traditional Ukrainian typewriter layout, another than corresponds to a Latin phonetic layout – e.g. ‘ї’ maps to Latin ‘P’, etc. Experiment with these until you find the one you like).
7. Ukrainian will now be listed as an available keyboard in addition to any other keyboards that may already be installed.
8. The bottom half of the **Keyboard Properties** dialogue box lets you choose how to toggle between languages, as well as the option to enable an indicator on your taskbar.
9. Having performed these operations, you will now be able to type in Ukrainian using several Windows fonts, including **Arial**, **Courier New**, **Times New Roman**, **Comic Sans MS**, **Verdana**, and (probably) several others. Your font listing may list different versions of each of the above (e.g. **Arial CYR** for the Cyrillic version of **Arial**), depending on your software. Try experimenting with the fonts installed on your machine.
10. A blue box should appear on the lower right hand corner of your screen, next to your clock, with the letters **EN** in it (if not, go to **Control Panel**, then **Keyboard**, then **Language**. Click **Enable indicator on taskbar**).
11. To switch to Ukrainian, either right click on the blue box and switch to **UK**, or use the hot key combination you selected when installing the Ukrainian keyboard in the steps above (this hot key can be changed by right clicking on the blue box and selecting **Properties**).
12. The keyboard mapping is the standard Ukrainian typewriter layout, not a phonetic one. Make a note of which Ukrainian characters correspond to which key on your keyboard.

2.4 Typing the Ukrainian letter І or і on the Keyboard

You should be aware of one problem with the Microsoft Ukrainian Language Keyboard: on the United States keyboard (and perhaps others?), the letter [І і] is not part of the “standard” layout. That is, it cannot be typed with a single keystroke. To type it, you have to be a contortionist:

- ☞ For the small і, press **RightAlt-r** (that is, the **Alt** on the right side of the keyboard + “U”)
- ☞ For capital І press **Shift-RightAlt-Г** (that is, **Shift** + the **Alt** on the right side of the keyboard + and “U”)

Yes, three simultaneous keystrokes for a capital І. Complain to Microsoft...

3. Sending and Receiving Email in Ukrainian

Once you have followed the steps above, sending and receiving email in the Ukrainian language should be possible without any further changes, especially if you are using an email client like Microsoft Outlook or Outlook Express. With other email clients, you may have to do some minor configuration, depending on the particular software you use. If you are having problems with this feature, make sure that the default font you have chosen in your email client is one of the Unicode ones listed above that include Ukrainian characters. There are two important things to remember when sending and receiving mail in Ukrainian:

1. When you type an email in Ukrainian, make sure to tell your email program to send the text in a Cyrillic encoding scheme. **Even though you see Ukrainian letters in your email, the recipient may not, unless you do this.** For example, if using Outlook, go to the **Format** menu and choose any one of the **Cyrillic** encoding schemes when sending a letter in Ukrainian.

You will typically find several options here that are called “Cyrillic”. For email there are two choices that you will need to choose from. If writing to others that use Microsoft Windows, you can use the **Cyrillic (Windows)** option. If writing to someone that may not be using Windows, you can use **Cyrillic (KOI8-U)**. This is typically the encoding that people in Ukraine use to encode their emails. Be aware that there is also a **Cyrillic (KOI8-R)**, but you should *not* use this, since the Cyrillic letters that are unique to the Ukrainian alphabet (which do not appear in Russian) will *not* appear correctly on the receiver's screen.

2. When receiving email, if you see strange characters where you were expecting Ukrainian ones, try adjusting your email program's **Encoding** option for that particular received email – your email program may not have detected the correct Cyrillic encoding scheme automatically. Encoding is usually one of the options in the menu of your email program. Its location varies with each program, so just look around...

3.1 Setting up Outlook Express for Ukrainian language email

Since most Ukrainian language email in countries outside of Ukraine these days is encoded in CP1251 encoding, you can follow the following steps to customize Outlook Express to **always** work correctly with both English and Ukrainian email, without having to perform any manual steps each time you write or receive an email. Start Outlook Express and do the following (these instructions are tailored for Outlook Express 5, but other versions work similarly).

1. Click on menu option **Tools**, then **Options**.
2. On the window that pops up, click on **Read**, then click on the **FONT** button.
3. Under **Font Settings**, choose **Cyrillic**. Under **Encoding** select **Cyrillic(Windows)**.
4. Click on the **Set as Default** button, then click **OK**.
5. Click **International Settings**, and check **Use default encoding for all incoming messages**, then **OK**.
6. Click on the **Send** tab, then **International Settings**. Make sure **Cyrillic(Windows)** is selected for **Default encoding**, then click **OK**
7. Click **OK** to close the **Options** window.

4. Viewing Ukrainian Language Web Pages

Web pages which include text in the Ukrainian language will, in most cases, appear as they should on your browser screen. Newer versions of the major browsers do a good job in automating this process. However, you may need to perform some adjustments, depending on the particular browser you use. *If you come upon a page that you know to be in Ukrainian but that is not automatically readable, you must explicitly tell the browser how the page is encoded, by following these instructions:*

Internet Explorer

1. Click **View** on the toolbar, then **Encoding**.
2. You will be given choices, first for size, then for encoding. For Ukrainian, available options are **Cyrillic Alphabet (ISO)**, **Cyrillic Alphabet (KOI8)**, **Cyrillic Alphabet (Windows)**
⇒ If these options are not present, install them from your Internet Explorer installation disk. You'll need to run the Internet Explorer **setup** program and specifically choose to the Cyrillic character support from the Internationalization options. If you don't have this installation program, you can download it from <http://www.microsoft.com/ie> for free.
3. The most common will be **Cyrillic Alphabet (Windows)**. Click this choice.
4. Your browser will reload the page. If the page is not readable try **Cyrillic Alphabet (KOI8-R)**, or **Cyrillic Alphabet (ISO)** or any of the other Cyrillic options.

- **Netscape Navigator or Mozilla**

1. Click **View** on the toolbar, then **Character Set**
2. You will be given numerous encoding choices. The two most frequently used options will be **Cyrillic/Ukrainian (KOI8-U)** and **Cyrillic (Windows-1251)**
3. The most common will be **Cyrillic (Windows-1251)**. Click this choice.
4. Your browser will reload the page. If the page is not readable try **Cyrillic/Ukrainian (KOI8-U)** or another of the other Cyrillic options.

5. Creating your own Ukrainian Language Web Pages

Now that your PC is set up with Ukrainian fonts, it's easy to create Web pages in Ukrainian. Using your favorite text editor (if you're an HTML expert) or HTML editor (if you're not an expert and want to create pages *fast!*), use the "blue box" keyboard switching approach described above to switch between Ukrainian and English text when typing. (We assume you know how to create Web pages – in this document, we just cover how to include Ukrainian text in the pages). Your Web page can easily contain a mixture of Ukrainian and English text simultaneously. To make sure that others will be able to read the Ukrainian text on your pages, you'll want to make sure that the following line appears in your final HTML, anywhere between the **<HEAD>** and **</HEAD>** tags near the top of the file:

```
<META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=windows-1251">
```

This will automatically tell the browser that there is Ukrainian language text in your Web page encoded in the standard Windows encoding scheme. If you have trouble viewing your Web pages after you create them, refer to the [Viewing Ukrainian Web Pages](#) section above.

It is important to note that using Microsoft Word (versions at or after Word 97) will generally **not** work when creating CP1251-based Web pages. This is because recent versions of Word are Unicode based and will not save CP1251-based text. Same with Microsoft NotePad. When you try

to “Save as Text”, Word wants to create Unicode text, which most Web Servers can’t handle today. Therefore, if you’re creating CP1251 Ukrainian language Web pages, you’ll need to use a CP1251-based editor. If you happen to have Microsoft Wordpad version 1, that’ll work (later versions may not). We use an editor called **EditPad**, which is available on the Internet (at <http://www.jgsoft.com>) almost for free (it’s *postcardware*, which means that if you use it, the author asks that you send him a nice postcard from where you live). It’s a very nice general text editor which is a great replacement for NotePad.

6. Advanced: Alternate Methods for Ukrainianization of Windows

In addition to the “native” Microsoft Ukrainian language support described above, other methods for Ukrainianization exist, and have been mentioned throughout this document. There is a popular Cyrillic encoding scheme called KOI-8 which has historically been popular in the Unix world, especially in Ukraine. To read or create text encoded in this scheme (or in the Windows “Code Page 1251” scheme), there are widely available free fonts and keyboard driver programs on the Internet. The most popular free Ukrainian fonts are the so-called “**ER**” fonts, which require an accompanying keyboard driver program like the ***kbdruknt.exe*** program. These fonts are often useful in older email clients, and for reading documents or (usually older) Web sites which are encoded in KOI-8. This software can be found at a variety of Ukrainian sites. ***Note that this is method is not recommended (read to the end of this section before deciding to install this software on your machine!)***

To use this alternate method: after installing the ER fonts and the ***kbdruknt.exe*** program, run ***kbdruknt.exe***. A menu will allow you to select between CP1251 and KOI-8 encoding, and to select a hot key which toggles the keyboard between Ukrainian and English (like the blue square in the Microsoft keyboard driver), as well as the choice of a keyboard mapping: phonetic or typewriter. Use the ***kbdruknt.exe*** program to switch between languages while typing if you are using the ER fonts, instead of the blue square from the Microsoft keyboard driver.

 **Note:** If you would like to create text using the **ER** fonts (because you like the way they look or because your friends use them), but want to avoid the ***kbdruknt.exe*** program (*why have to use two different keyboard drivers when you can get away with using only one?*) then you can download a copy of the ER fonts that have been modified to include the Unicode encoding. These are available at <http://www.cym.org> in the **Help** section (these are different than those ER fonts found at most other Ukrainian Web sites). This way, you can use the Microsoft “blue box” keyboard driver and have the choice of using either (or both) the built-in fonts (**Arial**, etc.) or the **ER** fonts using only one keyboard driver.

If you are using **Office 97**, you should be aware that you may experience problems using the non-Unicode **ER** fonts found at most Ukrainian sites. It seems that Microsoft is joining other OS vendors in migrating toward a Unicode standard in general. Office 97 programs already seem to save text only as Unicode, often causing conflicts especially with KOI-8 encoded text. The best solution right now (and probably more so in the future) is to use the built in Windows language support and keyboard drivers as described in this document instead of the **ER** and ***kbdruknt.exe*** solution.

7. OK, but what about my existing documents that use ER fonts (1251 or KOI8) or some other old Ukrainian fonts?

So, you've been writing documents in Ukrainian forever, but you want to start using the Microsoft fonts, because Unicode is where the world is heading. What about all the documents you've amassed? You certainly can't go throwing them away, since you'll need them in the future. Not only that, but you'll also likely need to modify them some day...

The fonts you've been using are most likely either the ER fonts that you found on some Ukrainian Web site, or (worse yet) some fonts that you purchased somewhere. The "worse yet" part is because chances are that your purchased fonts don't conform to one of the many "standard" Ukrainian font encodings (most early fonts were created before *any* standard encodings existed), and you'll have to go through some hoops.

If the fonts you've been using are the widely available ER fonts, or any other CP1251 or KOI8 fonts, you're in luck, since the solution is relatively easy. We've taken the CP1251 and KOI8 versions of the ER fonts and added Unicode encoding to them. This means that you can start using the Microsoft Ukrainian keyboard driver as described in this document, together with our modified ER fonts, and continue to read and edit your existing documents, while you create new ones using just the Microsoft Unicode fonts. To do this, download our modified ER fonts (from the CYM Web site, click on Help and you'll see them). Install them on your computer (*Control Panel, Fonts, Install*), and try editing one of your old documents. Should work fine.

If you were using a CP1251 or KOI8 font that was *not* the ER fonts, follow the instructions above, but then select the entire text of your document and change its font to one of the ER fonts, after you've installed them (making sure to choose either CP1251 or KOI8, as appropriate). If the font you have is neither CP1251 nor KOI8 (you can determine this easily: if you've tried the above instructions, and they don't work for you, then your old font was neither of these), then a conversion of your old font will be necessary. Unless you're a tech weenie (like us), you probably won't have the tools to do this yourself, but if you ask us, and if it turns out to be legal (i.e. whoever you purchased the fonts from won't mind) we might be able to do it for you. The conversion involves shifting the existing encoded characters into their appropriate Unicode positions. If you don't understand this, don't worry – you probably want to find a tech weenie to do it for you...

8. Additional Sources of Information

Still can't get it to work quite right? A number of sources containing information about Ukrainian fonts, drivers, and Ukrainianization of computers in general exist on the Internet. Here are URL's for a few of them which may help you. Most are not CYM sites, so we can neither guarantee that the URL's will remain valid, nor that the information provided at these sites is correct, but we have found most to be helpful and to provide useful insights...

- **(CYM site): 41 neat Ukrainian fonts (accessible to CYM members only)**
<http://www.cym.org> (Click on 'FONTS')
- **(CYM site): Phonetic keyboard drivers for Windows**
<http://www.cym.org>
- **Ukrainianization of MS Internet Explorer 5 and Outlook Express**
Note: If you are using IE and Outlook, reading this is a must! It is written in Ukrainian, so to view, your browser must already be set up to read Cyrillic fonts...
http://ourworld.compuserve.com/Homepages/Valeri_Jourakhovski/ukr-IE5.htm
- **Brama: Detailed configuration info for specific browsers, word processors, email, etc.**
A good source of details for setting up individual software packages for Ukrainian support. Note that the ER fonts here are different than those at the CYM site (see document above for details). You should use the ER fonts from the CYM site instead.
<http://www.brama.com/compute/configpc.html>
- **Janko's Keyboard Generator**
Note: Want to create your own Ukrainian keyboard layout for Windows? This is the site for you!
<http://solair.eunet.yu/~janko/engload.htm>

Looking for information on Operating Systems other than Microsoft Windows?

- **Ukrainianization of Macintosh**
<http://www.brama.com/compute/macukr.html>
- **UNIX Ukrainian Fonts HOWTO** (also covers Linux)
http://www.accessone.com/~bobick/software/unix_fonts_howto.html

More on Internationalization (i18n) standards for the internet (for techies only!):

- **"HTML Unleashed", chapter 39: "Internationalizing HTML Character Set and Language tags"**
<http://www.webreference.com/dlab/books/html/39-0.html>
- **Creating a Multilingual Web Site**
http://babel.alis.com:8080/web_ml/index.html
- **Internationalization of HTML**
<http://www.alis.com:8085/ietf/html/index.en.html>