

Classification	□ tDS □ tGW			tPET DS/PDS/PI	PET □ DS/PDS/PPDS		
	□ I/O Card		□ VXCCard	□ VxComm	Ľ	□ Other	
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Q: How can the Touch PAD send and display the Russian?

A:

TouchPAD can send Russian by using TCP and Modbus TCP/RTU. For the TCP part, refer to the "**TCP/IP**" example, it can send and receive Russian without the settings changed. For the Modbus part, refer to the "MXXX_ebfont_Display_XXXXX_c.zip" in the "**ebFont**" example. Put the Russian UTF-8(hex) encoding into the data of Modbus command and set the font of the display widgets.

TouchPAD can display Russian by built-in fonts or ebFont. The built-in fonts can be used by the setting changed. It does not support Russian letters eliminated and some special characters. It only Russian and English can be used at the same time. The ebFont requires additional fonts to be installed into TouchPAD. It supports all Russian letters (but does not contain some special characters). It can use multilingual characters at the same time.

The example list of TouchPAD is below:

<u>http://www.icpdas.com/en/download/show.php?num=1000&root=&model=&kw=HMIWorks</u>

The following is a detailed operation and information.

TCP

Refer to the "**TCP/IP**" example, use client_c as an example, you change the content of the send_buf to a Russian string. (displaying the Russian Label requires changing the font)

```
if (hmi_TCPState(h) == STATE_TCP_CONNECTED)
59
60
    {
61
      usprintf((char*)send buf, "DATA%05d", index); —> usprintf((char*)send_buf, "привет");
62
       //sends data and then receives data through a TCP session.
63
       hmi_TCPSendCmdEx(h, send_buf, BUF_LEN, recv_buf, BUF_LEN, TIMEOUT);
64
       recv_buf[BUF_LEN -1] = 0;
                                    // null-terminated
       LabelTextSet(&Label12, (char*)send_buf);
65
66
   3
```

	Start		Listening	
	Stop		Serve	er
C	Connection	status:	CONNECTED	
F	Receives da	ita:	привет	

Modbus TCP/RTU

Refer to the Modbus related example in the "**ebFont**". In this example, TouchPAD as a Modbus RTU Slave and displays value received on the Label as a string. The Master puts the Russian UTF-8 (hex) encoding into the data of Modbus command.

Modbus RTU Slave Send an Unicode Data (UTF-8) to the COM1							
The Master Command Example : 01 10 00 00 00 07 0E ID 1, Address 0, Write 7 AO							
D0 BF	D1 80	D0 B8	D0 B2	D0 B5	D1 82		
П	р	И	В	е	Т		
00 00 26 59 🛶 End char & CRC							
Received : привет							

UTF-8(hex) encoding can refer to the following website: http://www.fileformat.info/info/charset/UTF-8/list.htm?start=1024

Change font of the widgets to display Russian



Built-in fonts

This method uses the built-in font to display Russian. The default font is English, please follow the below procedure to change it.

The widgets can be change string when standard C run:

TextPuchButton 、 CheckBox 、 Slider 、 Label 。



Font style:

Regular, bold, italic.

Step 1: Click the "Project"→"Project Configuration" item to open the "Project Configuration" dialog box.

B Frame1 - [HMIWorks STD v2.10.38 (Nov.07, 201	8)]	_	
🛃 File Edit Layout Arrange View HMI Proj	ect Run Window Tools Help	_	- 8 ×
Workspace Toolbox	Project Configuration	Inspector Libraries	<u>×</u>
Drawing (Ctrl+1)	Open Project Folder	Frame12	•
Widget (Ctrl+2)	Open Backup Folder		
🖻 Arrow	Add to Project Ctrl+F11		
T TextPushButton	View Files Ctrl+F12		
📑 Slider			
🗺 BitButton			
HotSpot			
CheckBox			
🔛 Label			
RadioButton			
		hand	mon



Step 2: As shown below, we can select languages in the "**Others**" tab page of the "**Project Configuration**" dialog box. Select "**Russian**".

Project Configurations	×						
General Others ackup MiniOS							
User Pictures	TPD-430 Only						
Folder Name [Pictures]	Beep Frequency (Hz) 800						
	Beep Duration (ms) 100						
Ladder	User Flash Config						
I Use New Ladder Implementation	Size : Number of 0 (None) blocks						
for HMIWorks version 2.09.10 or above	Note : Each block has size of 4KB						
Below functions only for H/Mx and 7" Ethernet a NTP DST Enable NTP DST Time zone : 10 e.g8.5 Update Frequency : 15 Unit : sec IP address or DNS Name : time.stdtime.gov.tw	nd RTC series : Language Support C English Russian C German, Italian, Spanish C French						
<u>Q</u> K <u>C</u> ancel							

Step 3: Click the **"Text"** object in the **"Drawing"** section of the **"Toolbox"** pane, and then click the desired position on the design frame to place the text.



Step 4: In the "Inspector" pane, enter strings ГПривет in the "Text" field.



Step 5: In the **"Inspector**" pane, click the " ^{....} " button for the **"Font**" field to open the custom font dialog.











The lcpdas_cs_cyrillic and lcpdas_rc_cyrillic font support characters (does not support red part)

<u> </u>	<u>a pur (</u>		
Unicode	Char	Unicode	Char
U+00B0	0	U+0420	Р
U+0410	А	U+0421	С
U+0411	Б	U+0422	Т
U+0412	В	U+0423	У
U+0413	Г	U+0424	Φ
U+0414	Д	U+0425	Х
U+0415	Е	U+0426	Ц
U+0416	Ж	U+0427	Ч
U+0417	3	U+0428	Ш
U+0418	И	U+0429	Щ
U+0419	Й	U+042A	Ъ
U+041A	К	U+042B	Ы
U+041B	Л	U+042C	Ь
U+041C	М	U+042D	Э
U+041D	Н	U+042E	Ю
U+041E	0	U+042F	Я
U+041F	П	U+0430	а

Unicode	Char	Unicode	Char
U+0431	б	U+0442	т
U+0432	В	U+0443	у
U+0433	г	U+0444	ф
U+0434	д	U+0445	х
U+0435	e	U+0446	ц
U+0436	ж	U+0447	Ч
U+0437	3	U+0448	ш
U+0438	И	U+0449	щ
U+0439	й	U+044A	Ъ
U+043A	к	U+044B	Ы
U+043B	л	U+044C	Ь
U+043C	м	U+044D	Э
U+043D	н	U+044E	ю
U+043E	о	U+044F	я
U+043F	п	U+0401	Ë
U+0440	р	U+0451	ë
U+0441	C	U+20BD	₽
		U+2116	N⁰



ebFont :

This method requires to install ebFont into TouchPAD. For detailed steps, please refer to: <u>FAQ030: How to show multilingual text with ebFont on TouchPAD?</u>. **You can use multilingual characters at the same time.**

The widgets can be change string when standard C run:

TextPushButton 、 Checkbox 、 Label 。



Support models:

\checkmark	TPD-28xU-H/Mx	V	ТРД-430-Н
\checkmark	TPD-433-H/Mx	\checkmark	TPD-43xF-H
\checkmark	TPD-703 (-64)	\checkmark	VPD-13x-H
\checkmark	VPD-14x-H	\checkmark	VPD-173N/X (-64)

Font style:

Regular.



The lcpdas_eb font support characters (does not support red port)

Unicode	Char	Unicode	Char	Unicode	Char	Unicode	Char
U+0410	А	U+0428	Ш	U+0440	р	U+0460	ω
U+0411	Б	U+0429	Щ	U+0441	С	U+0461	w
U+0412	В	U+042A	Ъ	U+0442	т	U+0462	ъ
U+0413	Г	U+042B	Ы	U+0443	у	U+0463	ъ
U+0414	Д	U+042C	Ь	U+0444	ф	U+0466	A
U+0415	Е	U+042D	Э	U+0445	Х	U+0467	A
U+0416	Ж	U+042E	Ю	U+0446	Ц	U+0468	Ж
U+0417	3	U+042F	Я	U+0447	Ч	U+0469	ы
U+0418	И	U+0430	а	U+0448	ш	U+046A	Ж
U+0419	Й	U+0431	б	U+0449	щ	U+046B	ж
U+041A	К	U+0432	В	U+044A	Ъ	U+046C	K
U+041B	Л	U+0433	Г	U+044B	ы	U+046D	Ж
U+041C	М	U+0434	д	U+044C	Ь	U+046E	Š
U+041D	Н	U+0435	е	U+044D	Э	U+046F	Š
U+041E	0	U+0436	ж	U+044E	ю	U+0470	Ψ
U+041F	П	U+0437	3	U+044F	я	U+0471	Ψ
U+0420	Р	U+0438	и	U+0401	Ë	U+0472	Θ
U+0421	С	U+0439	Й	U+0451	ë	U+0473	Θ
U+0422	Т	U+043A	к	U+20BD	₽	U+0474	V
U+0423	У	U+043B	Л	U+2116	Nº	U+0475	v
U+0424	Φ	U+043C	М	U+0405	S	U+0476	Ϋ́
U+0425	Х	U+043D	н	U+0406	I	U+0477	Ϋ́
U+0426	Ц	U+043E	о	U+0456	i		
U+0427	Ч	U+043F	П	U+0455	S		