## 1 The Cyrillic font encodings: T2A, T2B, T2C, and X2

Since the number of Cyrillic glyphs exceeds the limit for a 'T' encoding, it is necessary to create multiple glyph containers. The output encodings 'T2A', 'T2B', and 'T2C' are the result of long discussions in various Internet mailing lists; they emerged from the 'X2' glyph container which was previously called 'T2'. Please consult section 6.4 ('Naming conventions') in the file fntguide.tex of the base  $\LaTeX$  distribution for details on the differences between  $\LaTeX$  font encodings.

When typesetting Cyrillic texts, there is a tradition to use Cyrillic letters (in some situations) inside math formulæ just like Latin letters. By default, this does not work, because symbols declared with \DeclareTextSymbol may not be used inside math. If you need to 'transparently' typeset symbols in math formulæ which are declared in encoding definition files, you could use the mathtext package available at CTAN:macros/latex/contrib/supported/t2. Note that this package uses at least one additional math alphabet per font encoding.

To make code more compact, we use the \LastDeclaredEncoding macro to share the same lines in the DTX file for different encodings. This macro appeared in the December 1998 LATEX  $2_{\varepsilon}$  release (together with the integration of Cyrillic stuff), thus we use \NeedsTeXFormat below. We will probably change this 'sharing mechanism' to use a yet-to-be-written docstrip extension (namely, substring substitution) in the future.

```
1 \( *X2 | T2A | T2B | T2C \)
2 \NeedsTeXFormat{LaTeX2e}[1998/12/01]
3 \( X2 \) \( \text{ProvidesFile} \{ x2enc.def \} \)
4 \( \text{T2A} \) \( \text{ProvidesFile} \{ t2aenc.def \} \)
5 \( \text{T2B} \) \( \text{ProvidesFile} \{ t2benc.def \} \)
6 \( \text{T2C} \) \( \text{ProvidesFile} \{ t2cenc.def \} \)
7 \[ \text{[2005/09/27 v1.0i Cyrillic encoding definition file]} \]
```

8 (X2) \DeclareFontEncoding{X2}{}{}

To assure that  $\MakeUppercase$  and  $\MakeLowercase$  will work correctly,  $\Color Color C$ 

```
9 (T2A)\DeclareFontEncoding{T2A}{}{}
10 \langle T2B \rangle \backslash DeclareFontEncoding\{T2B\}\{\}\{\}\}
11 (T2C)\DeclareFontEncoding{T2C}{}{}
12 \DeclareFontSubstitution{\LastDeclaredEncoding}{cmr}{m}{n}
  Common accents.
13 \DeclareTextAccent{\'\}{\LastDeclaredEncoding}{0}
14 \DeclareTextAccent{\','}{\LastDeclaredEncoding}{1}
15 \DeclareTextAccent{\^}{\LastDeclaredEncoding}{2}
17 \DeclareTextAccent{\"}{\LastDeclaredEncoding}{4}
18 \DeclareTextAccent{\H}{\LastDeclaredEncoding}{5}
19 \DeclareTextAccent{\r}{\LastDeclaredEncoding}{6}
20 \DeclareTextAccent{\v}{\LastDeclaredEncoding}{7}
21 \DeclareTextAccent{\u}{\LastDeclaredEncoding}{8}
22 \DeclareTextAccent{\=}{\LastDeclaredEncoding}{9}
23 \DeclareTextAccent{\.}{\LastDeclaredEncoding}{10}
24 % 11 cedilla
25 % 12 ogonek
26 % Cyrillic flex (inverted breve) accent:
27 \DeclareTextAccent{\f}{\LastDeclaredEncoding}{18}
28 % double grave ('Cyrillic umlaut') accent:
29 \DeclareTextAccent{\C}{\LastDeclaredEncoding}{19}
30 % Cyrillic breve accent:
```

31 \DeclareTextAccent{\U}{\LastDeclaredEncoding}{20}

In these definitions we no longer use the helper function \sh@ft from plain.tex since that now has two incompatible definitions.

```
32 \DeclareTextCommand{\b}{\LastDeclaredEncoding}[1]
              {\hmode@bgroup\o@lign{\relax#1\crcr\hidewidth\ltx@sh@ft{-3ex}%
                   \vbox to.2ex{\hbox{\char9}\vss}\hidewidth}\egroup}
 34
 35 \DeclareTextCommand{\c}{\LastDeclaredEncoding}[1]
 36
              37
                   \else{\ooalign{\hidewidth\char11\hidewidth
                          \crcr\unhbox\z@}}\fi}
 38
 39 \DeclareTextCommand{\d}{\LastDeclaredEncoding}[1]
              {\hmode@bgroup
 40
                \o@lign{\relax#1\crcr\hidewidth\ltx@sh@ft{-1ex}.\hidewidth}\egroup}
 41
 42 \DeclareTextCommand{\k}{\LastDeclaredEncoding}[1]
              {\oalign{\null#1\crcr\hidewidth\char12}}
 44 \DeclareTextCommand{\textperthousand}{\LastDeclaredEncoding}
              {\%\char 24 }
 45
 46 \DeclareTextCommand{\textpertenthousand}{\LastDeclaredEncoding}
              {\%\char 24\char 24 }
 48 (*!X2 & AAhack)
 49 \DeclareTextCompositeCommand{\r}{\LastDeclaredEncoding}{A}
              \rdot{rlap{\langle raise.67 \rangle hbox{\langle char6}} A}
 _{52} \; \langle /! X2 \, \& \; \mathsf{AAhack} \rangle
       Common symbolic glyphs.
 53 \end{\text{\coding}} \
Slot 22 is a 'cyrillic emdash' — \cyrdash which is longer than endash, but shorter
than english emdash (but we define an alias too).
 54 \DeclareTextSymbol{\cyrdash}{\LastDeclaredEncoding}{22}
 55 \DeclareTextSymbol{\textemdash}{\LastDeclaredEncoding}{22}
 56 \label{textcompwordmark} $$ \Delta \operatorname{LastDeclaredEncoding} {23} $$
 57 % 24 perthousandzero
 58 \label{textvisiblespace} $$ \end{\text{LastDeclaredEncoding} $$ 32} $$
 59 \DeclareTextSymbol{\textdollar}{\LastDeclaredEncoding}{36}
 60 \DeclareTextSymbol{\textless}{\LastDeclaredEncoding}{60}
 61 \DeclareTextSymbol{\textgreater}{\LastDeclaredEncoding}{62}
 62 %\DeclareTextSymbol{\texthyphenchar}{\LastDeclaredEncoding}{127}
 63 %\DeclareTextSymbol{\texthyphen}{\LastDeclaredEncoding}{45}
 64 \DeclareTextSymbol{\textbackslash}{\LastDeclaredEncoding}{92}
 65 \DeclareTextSymbol{\textasciicircum}{\LastDeclaredEncoding}{94}
 66 \DeclareTextSymbol{\textunderscore}{\LastDeclaredEncoding}{95}
 67 \DeclareTextSymbol{\textbraceleft}{\LastDeclaredEncoding}{123}
 68 \DeclareTextSymbol{\textbar}{\LastDeclaredEncoding}{124}
 69 \DeclareTextSymbol{\textbraceright}{\LastDeclaredEncoding}{125}
 70 \DeclareTextSymbol{\textasciitilde}{\LastDeclaredEncoding}{126}
 71 \DeclareTextSymbol{\textnumero}{\LastDeclaredEncoding}{157}
 72 \DeclareTextSymbol{\textcurrency}{\LastDeclaredEncoding}{158}
 73 \DeclareTextSymbol{\textsection}{\LastDeclaredEncoding}{159}
 75 \DeclareTextSymbol{\textquotedbl}{\LastDeclaredEncoding}{34}
 76 \DeclareTextSymbol{\textquoteleft}{\LastDeclaredEncoding}{96}
 77 \DeclareTextSymbol{\textquoteright}{\LastDeclaredEncoding}{39}
 78 \end{\text{\coding}} \{16\} \end{\text{\coding}} \label{textquotedblleft} \labelleft
 79 \label{textquotedblright} {\LastDeclaredEncoding} \{17\}
 80 \label{lambdase} $$ \DeclareTextSymbol{\quotedblbase}_{\LastDeclaredEncoding}_{189}$
 81 \DeclareTextSymbol{\CYRpalochka}{\LastDeclaredEncoding}{13}
 82 \DeclareTextSymbol{\cyrlangle}{\LastDeclaredEncoding}{14}
 83 \DeclareTextSymbol{\cyrrangle}{\LastDeclaredEncoding}{15}
 84 \DeclareTextSymbol{\guillemotleft}{\LastDeclaredEncoding}{190}
 85 \DeclareTextSymbol{\guillemotright}{\LastDeclaredEncoding}{191}
```

\i and \j are unused in Cyrillic languages, so are absent in X2. Slots 25,

```
26, 27 in the X2 encoding are 'cross grave', 'cross acute', and 'hcross' modifiers,
respectively.
 86 (!X2)\DeclareTextSymbol{\i}{\LastDeclaredEncoding}{25}
 87 (!X2) \DeclareTextSymbol{\ j}{\LastDeclaredEncoding}{26}
 88 \DeclareTextComposite{\.}{\LastDeclaredEncoding}{i}{'\i}
     Here are the letters common to all font encodings.
 89 \DeclareTextSymbol{\CYRA}{\LastDeclaredEncoding}{192}
 90 \label{lambda} $$90 \end{\textsubstitute} A LastDeclaredEncoding} $$\{224\} $$
 91 \DeclareTextSymbol{\CYRB}{\LastDeclaredEncoding}{193}
 92 \DeclareTextSymbol{\cyrb}{\LastDeclaredEncoding}{225}
 93 \DeclareTextSymbol{\CYRV}{\LastDeclaredEncoding}{194}
 94 \DeclareTextSymbol{\cyrv}{\LastDeclaredEncoding}{226}
 95 \DeclareTextSymbol{\CYRG}{\LastDeclaredEncoding}{195}
 96 \DeclareTextSymbol{\cyrg}{\LastDeclaredEncoding}{227}
 97 \DeclareTextSymbol{\CYRD}{\LastDeclaredEncoding}{196}
 98 \DeclareTextSymbol{\cyrd}{\LastDeclaredEncoding}{228}
 99 \DeclareTextSymbol{\CYRE}{\LastDeclaredEncoding}{197}
100 \DeclareTextSymbol{\cyre}{\LastDeclaredEncoding}{229}
101 \DeclareTextSymbol{\CYRZH}{\LastDeclaredEncoding}{198}
102 \DeclareTextSymbol{\cyrzh}{\LastDeclaredEncoding}{230}
103 \DeclareTextSymbol{\CYRZ}{\LastDeclaredEncoding}{199}
104 \DeclareTextSymbol{\cyrz}{\LastDeclaredEncoding}{231}
105 \DeclareTextSymbol{\CYRI}{\LastDeclaredEncoding}{200}
106 \DeclareTextSymbol{\cyri}{\LastDeclaredEncoding}{232}
107 \DeclareTextSymbol{\CYRISHRT}{\LastDeclaredEncoding}{201}
108 \DeclareTextSymbol{\cyrishrt}{\LastDeclaredEncoding}{233}
109 \DeclareTextSymbol{\CYRK}{\LastDeclaredEncoding}{202}
110 \DeclareTextSymbol{\cyrk}{\LastDeclaredEncoding}{234}
111 \DeclareTextSymbol{\CYRL}{\LastDeclaredEncoding}{203}
112 \DeclareTextSymbol{\cyrl}{\LastDeclaredEncoding}{235}
113 \DeclareTextSymbol{\CYRM}{\LastDeclaredEncoding}{204}
114 \DeclareTextSymbol{\cyrm}{\LastDeclaredEncoding}{236}
115 \DeclareTextSymbol{\CYRN}{\LastDeclaredEncoding}{205}
116 \DeclareTextSymbol{\cyrn}{\LastDeclaredEncoding}{237}
117 \DeclareTextSymbol{\CYRO}{\LastDeclaredEncoding}{206}
118 \DeclareTextSymbol{\cyro}{\LastDeclaredEncoding}{238}
119 \DeclareTextSymbol{\CYRP}{\LastDeclaredEncoding}{207}
120 \DeclareTextSymbol{\cyrp}{\LastDeclaredEncoding}{239}
121 \DeclareTextSymbol{\CYRR}{\LastDeclaredEncoding}{208}
122 \DeclareTextSymbol{\cyrr}{\LastDeclaredEncoding}{240}
123 \DeclareTextSymbol{\CYRS}{\LastDeclaredEncoding}{209}
124 \DeclareTextSymbol{\cyrs}{\LastDeclaredEncoding}{241}
125 \DeclareTextSymbol{\CYRT}{\LastDeclaredEncoding}{210}
126 \DeclareTextSymbol{\cyrt}{\LastDeclaredEncoding}{242}
127 \DeclareTextSymbol{\CYRU}{\LastDeclaredEncoding}{211}
128 \DeclareTextSymbol{\cyru}{\LastDeclaredEncoding}{243}
129 \DeclareTextSymbol{\CYRF}{\LastDeclaredEncoding}{212}
130 \DeclareTextSymbol{\cyrf}{\LastDeclaredEncoding}{244}
131 \DeclareTextSymbol{\CYRH}{\LastDeclaredEncoding}{213}
132 \DeclareTextSymbol{\cyrh}{\LastDeclaredEncoding}{245}
133 \DeclareTextSymbol{\CYRC}{\LastDeclaredEncoding}{214}
134 \DeclareTextSymbol{\cyrc}{\LastDeclaredEncoding}{246}
135 \DeclareTextSymbol{\CYRCH}{\LastDeclaredEncoding}{215}
136 \ensuremath{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cy}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\local{cyrch}{\
137 \DeclareTextSymbol{\CYRSH}{\LastDeclaredEncoding}{216}
138 \DeclareTextSymbol{\cyrsh}{\LastDeclaredEncoding}{248}
139 \DeclareTextSymbol{\CYRSHCH}{\LastDeclaredEncoding}{217}
140 \DeclareTextSymbol{\cyrshch}{\LastDeclaredEncoding}{249}
141 \DeclareTextSymbol{\CYRHRDSN}{\LastDeclaredEncoding}{218}
142 \DeclareTextSymbol{\cyrhrdsn}{\LastDeclaredEncoding}{250}
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143 \DeclareTextSymbol{\CYRERY}{\LastDeclaredEncoding}{219}

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144 \DeclareTextSymbol{\cyrery}{\LastDeclaredEncoding}{251}
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- 145 \DeclareTextSymbol{\CYRSFTSN}{\LastDeclaredEncoding}{220}
- 146 \DeclareTextSymbol{\cyrsftsn}{\LastDeclaredEncoding}{252}
- 147 \DeclareTextSymbol{\CYREREV}{\LastDeclaredEncoding}{221}
- 148 \DeclareTextSymbol{\cyrerev}{\LastDeclaredEncoding}{253}
- 149 \DeclareTextSymbol{\CYRYU}{\LastDeclaredEncoding}{222}
- 150 \DeclareTextSymbol{\cyryu}{\LastDeclaredEncoding}{254}
- 151 \DeclareTextSymbol{\CYRYA}{\LastDeclaredEncoding}{223}
- 152 \DeclareTextSymbol{\cyrya}{\LastDeclaredEncoding}{255}

## And now the remaining letters.

- 153 (\*X2)
- 154 \DeclareTextSymbol{\CYRGUP}{X2}{128}
- 155 \DeclareTextSymbol{\cyrgup}{X2}{160}
- 156 \DeclareTextSymbol{\CYRGHCRS}{X2}{129}
- 157 \DeclareTextSymbol{\cyrghcrs}{X2}{161}
- 158 \DeclareTextSymbol{\CYRGDSC}{X2}{130}
- 159 \DeclareTextSymbol{\cyrgdsc}{X2}{162}
- 160 \DeclareTextSymbol{\CYRGHK}{X2}{131}
- 162 \DeclareTextSymbol{\CYRSHHA}{X2}{132}
- 163 \DeclareTextSymbol{\cyrshha}{X2}{164}
- 164 \DeclareTextSymbol{\CYRZHDSC}{X2}{133}
- 165 \DeclareTextSymbol{\cyrzhdsc}{X2}{165}
- 166 \DeclareTextSymbol{\CYRZDSC}{X2}{134}
- 167 \DeclareTextSymbol{\cyrzdsc}{X2}{166}
- 168 \DeclareTextSymbol{\CYRABHDZE}{X2}{135}
- 169 \DeclareTextSymbol{\cyrabhdze}{X2}{167}
- 170 \DeclareTextSymbol{\CYRYI}{X2}{136}
- 171 \DeclareTextSymbol{\cyryi}{X2}{168}
- 172 \DeclareTextSymbol{\CYRKDSC}{X2}{137}
- 173 \DeclareTextSymbol{\cyrkdsc}{X2}{169}
- 174 \DeclareTextSymbol{\CYRKBEAK}{X2}{138}
- 175 \DeclareTextSymbol{\cyrkbeak}{X2}{170}
- 176 \DeclareTextSymbol{\CYRKHK}{X2}{139}
- 177 \DeclareTextSymbol{\cyrkhk}{X2}{171}
- 178 \DeclareTextSymbol{\CYRLHK}{X2}{140}
- 179 \DeclareTextSymbol{\cyrlhk}{X2}{172}
- 180 \DeclareTextSymbol{\CYRNDSC}{X2}{141}
- 181 \DeclareTextSymbol{\cyrndsc}{X2}{173}
- 182 \DeclareTextSymbol{\CYRNG}{X2}{142}
- 183 \DeclareTextSymbol{\cyrng}{X2}{174}
- 184 \DeclareTextSymbol{\CYRNHK}{X2}{143}
- 185 \DeclareTextSymbol{\cyrnhk}{X2}{175}
- 186 \DeclareTextSymbol{\CYROTLD}{X2}{144}
- 187 \DeclareTextSymbol{\cyrotld}{X2}{176}
- 188 \DeclareTextSymbol{\CYRSDSC}{X2}{145}
- 189 \DeclareTextSymbol{\cyrsdsc}{X2}{177}
- 190 \DeclareTextSymbol{\CYRUSHRT}{X2}{146}
- 191 \DeclareTextSymbol{\cyrushrt}{X2}{178}
- 192 \DeclareTextSymbol{\CYRY}{X2}{147}
- 193  $\DeclareTextSymbol{\cyry}{X2}{179}$
- 194 \DeclareTextSymbol{\CYRYHCRS}{X2}{148}
- 195 \DeclareTextSymbol{\cyryhcrs}{X2}{180}
- 196 \DeclareTextSymbol{\CYRHDSC}{X2}{149}
- 197 \DeclareTextSymbol{\cyrhdsc}{X2}{181}
- 198 \DeclareTextSymbol{\CYRHHK}{X2}{150}
- 199 \DeclareTextSymbol{\cyrhhk}{X2}{182} 200 \DeclareTextSymbol{\CYRCHLDSC}{X2}{151}
- 201 \DeclareTextSymbol{\cyrchldsc}{X2}{183}
- 202 \DeclareTextSymbol{\CYRCHRDSC}{X2}{152}
- 203 \DeclareTextSymbol{\cyrchrdsc}{X2}{184}
- 204 \DeclareTextSymbol{\CYRIE}{X2}{153}

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205 \DeclareTextSymbol{\cyrie}{X2}{185}
206 \DeclareTextSymbol{\CYRSCHWA}{X2}{154}
207 \DeclareTextSymbol{\cyrschwa}{X2}{186}
208 \DeclareTextSymbol{\CYREPS}{X2}{155}
209 \DeclareTextSymbol{\cyreps}{X2}{187}
210 (/X2)
211 %
212 (*T2A)
213 \DeclareTextSymbol{\CYRGUP}{T2A}{128}
214 \DeclareTextSymbol{\cyrgup}{T2A}{160}
215 \DeclareTextSymbol{\CYRGHCRS}{T2A}{129}
216 \DeclareTextSymbol{\cyrghcrs}{T2A}{161}
217 \DeclareTextSymbol{\CYRDJE}{T2A}{130}
218 \DeclareTextSymbol{\cyrdje}{T2A}{162}
219 \DeclareTextSymbol{\CYRTSHE}{T2A}{131}
220 \DeclareTextSymbol{\cyrtshe}{T2A}{163}
221 \DeclareTextSymbol{\CYRSHHA}{T2A}{132}
222 \DeclareTextSymbol{\cyrshha}{T2A}{164}
223 \DeclareTextSymbol{\CYRZHDSC}{T2A}{133}
224 \DeclareTextSymbol{\cyrzhdsc}{T2A}{165}
225 \DeclareTextSymbol{\CYRZDSC}{T2A}{134}
226 \DeclareTextSymbol{\cyrzdsc}{T2A}{166}
227 \DeclareTextSymbol{\CYRLJE}{T2A}{135}
228 \DeclareTextSymbol{\cyrlje}{T2A}{167}
229 \DeclareTextSymbol{\CYRYI}{T2A}{136}
230 \DeclareTextSymbol{\cyryi}{T2A}{168}
231 \DeclareTextSymbol{\CYRKDSC}{T2A}{137}
232 \DeclareTextSymbol{\cyrkdsc}{T2A}{169}
233 \DeclareTextSymbol{\CYRKBEAK}{T2A}{138}
234 \DeclareTextSymbol{\cyrkbeak}{T2A}{170}
235 \DeclareTextSymbol{\CYRKVCRS}{T2A}{139}
236 \DeclareTextSymbol{\cyrkvcrs}{T2A}{171}
237 \DeclareTextSymbol{\CYRAE}{T2A}{140}
238 \DeclareTextSymbol{\cyrae}{T2A}{172}
239 \DeclareTextSymbol{\CYRNDSC}{T2A}{141}
240 \DeclareTextSymbol{\cyrndsc}{T2A}{173}
241 \DeclareTextSymbol{\CYRNG}{T2A}{142}
242 \DeclareTextSymbol{\cyrng}{T2A}{174}
243 \DeclareTextSymbol{\CYRDZE}{T2A}{143}
244 \DeclareTextSymbol{\cyrdze}{T2A}{175}
245 \DeclareTextSymbol{\CYROTLD}{T2A}{144}
246 \DeclareTextSymbol{\cyrotld}{T2A}{176}
247 \DeclareTextSymbol{\CYRSDSC}{T2A}{145}
248 \DeclareTextSymbol{\cyrsdsc}{T2A}{177}
249 \DeclareTextSymbol{\CYRUSHRT}{T2A}{146}
250 \DeclareTextSymbol{\cyrushrt}{T2A}{178}
251 \DeclareTextSymbol{\CYRY}{T2A}{147}
252 \DeclareTextSymbol{\cyry}{T2A}{179}
253 \DeclareTextSymbol{\CYRYHCRS}{T2A}{148}
254 \DeclareTextSymbol{\cyryhcrs}{T2A}{180}
255 \DeclareTextSymbol{\CYRHDSC}{T2A}{149}
256 \DeclareTextSymbol{\cyrhdsc}{T2A}{181}
257 \DeclareTextSymbol{\CYRDZHE}{T2A}{150}
258 \DeclareTextSymbol{\cyrdzhe}{T2A}{182}
259 \DeclareTextSymbol{\CYRCHVCRS}{T2A}{151}
260 \DeclareTextSymbol{\cyrchvcrs}{T2A}{183}
261 \DeclareTextSymbol{\CYRCHRDSC}{T2A}{152}
262 \DeclareTextSymbol{\cyrchrdsc}{T2A}{184}
263 \DeclareTextSymbol{\CYRIE}{T2A}{153}
264 \DeclareTextSymbol{\cyrie}{T2A}{185}
265 \label{lem:cyrschwa} \{T2A\} \{154\}
266 \DeclareTextSymbol{\cyrschwa}{T2A}{186}
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267 \DeclareTextSymbol{\CYRNJE}{T2A}{155}
268 \DeclareTextSymbol{\cyrnje}{T2A}{187}
269 (/T2A)
270 %
271 (*T2B)
272 \DeclareTextSymbol{\CYRGDSCHCRS}{T2B}{128}
273 \DeclareTextSymbol{\cyrgdschcrs}{T2B}{160}
274 \DeclareTextSymbol{\CYRGHCRS}{T2B}{129}
275 \label{lem:cyrghcrs} $$161}
276 \DeclareTextSymbol{\CYRGDSC}{T2B}{130}
277 \DeclareTextSymbol{\cyrgdsc}{T2B}{162}
278 \DeclareTextSymbol{\CYRGHK}{T2B}{131}
279 \DeclareTextSymbol{\cyrghk}{T2B}{163}
280 \DeclareTextSymbol{\CYRSHHA}{T2B}{132}
281 \DeclareTextSymbol{\cyrshha}{T2B}{164}
282 \DeclareTextSymbol{\CYRZHDSC}{T2B}{133}
283 \DeclareTextSymbol{\cyrzhdsc}{T2B}{165}
284 \DeclareTextSymbol{\CYRDELTA}{T2B}{134}
285 \DeclareTextSymbol{\cyrdelta}{T2B}{166}
286 \DeclareTextSymbol{\CYRABHDZE}{T2B}{135}
287 \DeclareTextSymbol{\cyrabhdze}{T2B}{167}
288 \DeclareTextSymbol{\CYRLJE}{T2B}{136}
289 \DeclareTextSymbol{\cyrlje}{T2B}{168}
290 \DeclareTextSymbol{\CYRKDSC}{T2B}{137}
291 \DeclareTextSymbol{\cyrkdsc}{T2B}{169}
292 \DeclareTextSymbol{\CYRLDSC}{T2B}{138}
293 \DeclareTextSymbol{\cyrldsc}{T2B}{170}
294 \DeclareTextSymbol{\CYRKHK}{T2B}{139}
295 \DeclareTextSymbol{\cyrkhk}{T2B}{171}
296 \DeclareTextSymbol{\CYRLHK}{T2B}{140}
297 \DeclareTextSymbol{\cyrlhk}{T2B}{172}
298 \DeclareTextSymbol{\CYRNDSC}{T2B}{141}
299 \DeclareTextSymbol{\cyrndsc}{T2B}{173}
300 \DeclareTextSymbol{\CYRNG}{T2B}{142}
301 \DeclareTextSymbol{\cyrng}{T2B}{174}
302 \DeclareTextSymbol{\CYRNHK}{T2B}{143}
303 \DeclareTextSymbol{\cyrnhk}{T2B}{175}
304 \DeclareTextSymbol{\CYROTLD}{T2B}{144}
305 \DeclareTextSymbol{\cyrotld}{T2B}{176}
306 \label{lem:cyrsacrs} \\ \{T2B\} \\ \{145\} \\
307 \DeclareTextSymbol{\cyrsacrs}{T2B}{177}
308 \label{lem:cyrushrt} \{ 12B \} \{ 146 \}
309 \DeclareTextSymbol{\cyrushrt}{T2B}{178}
310 \DeclareTextSymbol{\CYRY}{T2B}{147}
311 \DeclareTextSymbol{\cyry}{T2B}{179}
312 \DeclareTextSymbol{\CYRHHCRS}{T2B}{148}
313 \DeclareTextSymbol{\cyrhhcrs}{T2B}{180}
314 \DeclareTextSymbol{\CYRHDSC}{T2B}{149}
315 \DeclareTextSymbol{\cyrhdsc}{T2B}{181}
316 \DeclareTextSymbol{\CYRHHK}{T2B}{150}
319 \DeclareTextSymbol{\cyrchldsc}{T2B}{183}
320 \DeclareTextSymbol{\CYRCHRDSC}{T2B}{152}
321 \DeclareTextSymbol{\cyrchrdsc}{T2B}{184}
322 \DeclareTextSymbol{\CYRNJE}{T2B}{153}
323 \DeclareTextSymbol{\cyrnje}{T2B}{185}
324 \DeclareTextSymbol{\CYRSCHWA}{T2B}{154}
325 \DeclareTextSymbol{\cyrschwa}{T2B}{186}
326 \DeclareTextSymbol{\CYREPS}{T2B}{155}
327 \DeclareTextSymbol{\cyreps}{T2B}{187}
328 (/T2B)
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329 %
330 (*T2C)
331 \DeclareTextSymbol{\CYRPHK}{T2C}{128}
332 \DeclareTextSymbol{\cyrphk}{T2C}{160}
333 \DeclareTextSymbol{\CYRTETSE}{T2C}{129}
334 \DeclareTextSymbol{\cyrtetse}{T2C}{161}
335 \DeclareTextSymbol{\CYRTDSC}{T2C}{130}
336 \DeclareTextSymbol{\cyrtdsc}{T2C}{162}
337 \DeclareTextSymbol{\CYRGHK}{T2C}{131}
338 \label{lem:cyrghk} $$138 \end{20} $$ \end{20} $$38 \end{20} $$20^{3} \end{20} $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ $$39$ 
339 \DeclareTextSymbol{\CYRSHHA}{T2C}{132}
340 \DeclareTextSymbol{\cyrshha}{T2C}{164}
341 \DeclareTextSymbol{\CYRRDSC}{T2C}{133}
342 \DeclareTextSymbol{\cyrrdsc}{T2C}{165}
343 \DeclareTextSymbol{\CYRRTICK}{T2C}{134}
344 \DeclareTextSymbol{\cyrrtick}{T2C}{166}
345 \DeclareTextSymbol{\CYRABHDZE}{T2C}{135}
346 \DeclareTextSymbol{\cyrabhdze}{T2C}{167}
347 \DeclareTextSymbol{\CYRMDSC}{T2C}{136}
348 \DeclareTextSymbol{\cyrmdsc}{T2C}{168}
349 \DeclareTextSymbol{\CYRKDSC}{T2C}{137}
350 \DeclareTextSymbol{\cyrkdsc}{T2C}{169}
351 \DeclareTextSymbol{\CYRLDSC}{T2C}{138}
352 \DeclareTextSymbol{\cyrldsc}{T2C}{170}
353 \DeclareTextSymbol{\CYRKHCRS}{T2C}{139}
354 \DeclareTextSymbol{\cyrkhcrs}{T2C}{171}
355 \DeclareTextSymbol{\CYRLHK}{T2C}{140}
356 \DeclareTextSymbol{\cyrlhk}{T2C}{172}
357 \DeclareTextSymbol{\CYRNDSC}{T2C}{141}
358 \DeclareTextSymbol{\cyrndsc}{T2C}{173}
359 \DeclareTextSymbol{\CYRMHK}{T2C}{142}
360 \DeclareTextSymbol{\cyrmhk}{T2C}{174}
361 \DeclareTextSymbol{\CYRNHK}{T2C}{143}
362 \DeclareTextSymbol{\cyrnhk}{T2C}{175}
363 \DeclareTextSymbol{\CYROTLD}{T2C}{144}
364 \DeclareTextSymbol{\cyrotld}{T2C}{176}
365 \DeclareTextSymbol{\CYRABHCH}{T2C}{145}
366 \DeclareTextSymbol{\cyrabhch}{T2C}{177}
367 \DeclareTextSymbol{\CYRABHCHDSC}{T2C}{146}
368 \label{lem:cyrabhchdsc} $$178$ and $$\mathbb{T}_{368} \end{constraints} $$178$ and $$178
369 \DeclareTextSymbol{\CYRSEMISFTSN}{T2C}{147}
370 \DeclareTextSymbol{\cyrsemisftsn}{T2C}{179}
371 \DeclareTextSymbol{\CYRISHRTDSC}{T2C}{148}
372 \DeclareTextSymbol{\cyrishrtdsc}{T2C}{180}
373 \DeclareTextSymbol{\CYRHDSC}{T2C}{149}
374 \DeclareTextSymbol{\cyrhdsc}{T2C}{181}
375 \DeclareTextSymbol{\CYRDZHE}{T2C}{150}
376 \DeclareTextSymbol{\cyrdzhe}{T2C}{182}
377 \DeclareTextSymbol{\CYRABHHA}{T2C}{151}
378 \DeclareTextSymbol{\cyrabhha}{T2C}{183}
379 \DeclareTextSymbol{\CYRCHRDSC}{T2C}{152}
380 \DeclareTextSymbol{\cyrchrdsc}{T2C}{184}
381 \DeclareTextSymbol{\CYRNLHK}{T2C}{153}
382 \DeclareTextSymbol{\cyrnlhk}{T2C}{185}
383 \DeclareTextSymbol{\CYRSCHWA}{T2C}{154}
384 \DeclareTextSymbol{\cyrschwa}{T2C}{186}
385 \DeclareTextSymbol{\CYRRHK}{T2C}{155}
386 \DeclareTextSymbol{\cyrrhk}{T2C}{187}
387 (/T2C)
388 %
389 \DeclareTextSymbol{\CYRYO}{\LastDeclaredEncoding}{156}
390 \DeclareTextSymbol{\cyryo}{\LastDeclaredEncoding}{188}
```

The final block of Cyrillic letters occupies the space covered with Latin letters in ASCII. These letters are only present in X2 encoding (which does not contain Latin letters at all). However, some Cyrillic glyphs here look exactly like some Latin analogues, and we declare them also for  $T2^*$  encodings, so that they are accessible from inputenc files. In  $T2^*$  encodings, these letters share the same slots with the corresponding Latin letters. The affected letters are: \CYRII, \CYRJE, \CYRQ, \CYRDZE, \CYRW (and lowercase forms).

```
392 \DeclareTextSymbol{\CYRAE}{X2}{65}
393 \DeclareTextSymbol{\cyrae}{X2}{97}
394 \DeclareTextSymbol{\CYRDJE}{X2}{66}
395 \DeclareTextSymbol{\cyrdje}{X2}{98}
396 \DeclareTextSymbol{\CYRTSHE}{X2}{67}
397 \DeclareTextSymbol{\cyrtshe}{X2}{99}
398 \DeclareTextSymbol{\CYRABHCH}{X2}{68}
399 \DeclareTextSymbol{\cyrabhch}{X2}{100}
400 \DeclareTextSymbol{\CYRABHCHDSC}{X2}{69}
401 \DeclareTextSymbol{\cyrabhchdsc}{X2}{101}
402 \DeclareTextSymbol{\CYRKVCRS}{X2}{70}
403 \DeclareTextSymbol{\cyrkvcrs}{X2}{102}
404 \DeclareTextSymbol{\CYRKHCRS}{X2}{71}
405 \DeclareTextSymbol{\cyrkhcrs}{X2}{103}
406 \DeclareTextSymbol{\CYRLDSC}{X2}{72}
407 \DeclareTextSymbol{\cyrldsc}{X2}{104}
408 (/X2)
409 \DeclareTextSymbol{\CYRII}{\LastDeclaredEncoding}{73}
410 \DeclareTextSymbol{\cyrii}{\LastDeclaredEncoding}{105}
411 \DeclareTextSymbol{\CYRJE}{\LastDeclaredEncoding}{74}
412 \DeclareTextSymbol{\cyrje}{\LastDeclaredEncoding}{106}
413 (*X2)
414 \DeclareTextSymbol{\CYRLJE}{X2}{75}
415 \DeclareTextSymbol{\cyrlje}{X2}{107}
416 \DeclareTextSymbol{\CYRMDSC}{X2}{76}
417 \DeclareTextSymbol{\cyrmdsc}{X2}{108}
418 \DeclareTextSymbol{\CYRNJE}{X2}{77}
419 \DeclareTextSymbol{\cyrnje}{X2}{109}
420 \DeclareTextSymbol{\CYRABHHA}{X2}{78}
421 \DeclareTextSymbol{\cyrabhha}{X2}{110}
422 \DeclareTextSymbol{\CYRPHK}{X2}{79}
423 \DeclareTextSymbol{\cyrphk}{X2}{111}
424 \DeclareTextSymbol{\CYRRDSC}{X2}{80}
425 \DeclareTextSymbol{\cyrrdsc}{X2}{112}
426 (/X2)
427 \DeclareTextSymbol{\CYRQ}{\LastDeclaredEncoding}{81}
428 \DeclareTextSymbol{\cyrq}{\LastDeclaredEncoding}{113}
430 \DeclareTextSymbol{\CYRTDSC}{X2}{82}
431 \DeclareTextSymbol{\cyrtdsc}{X2}{114}
432 (/X2)
433 (!T2A) \DeclareTextSymbol {\CYRDZE} {\LastDeclaredEncoding} {83}
434 \langle T2A \rangle \DeclareTextSymbol{\cyrdze} \{\LastDeclaredEncoding\} \{115\}
435 (*X2)
436 \DeclareTextSymbol{\CYRTETSE}{X2}{84}
437 \DeclareTextSymbol{\cyrtetse}{X2}{116}
438 \DeclareTextSymbol{\CYRDZHE}{X2}{85}
439 \DeclareTextSymbol{\cyrdzhe}{X2}{117}
440 \DeclareTextSymbol{\CYRCHVCRS}{X2}{86}
441 \DeclareTextSymbol{\cyrchvcrs}{X2}{118}
442 (/X2)
443 \DeclareTextSymbol{\CYRW}{\LastDeclaredEncoding}{87}
444 \DeclareTextSymbol{\cyrw}{\LastDeclaredEncoding}{119}
445 (*X2)
```

```
446 \DeclareTextSymbol{\CYRYAT}{X2}{88}
447 \DeclareTextSymbol{\cyryat}{X2}{120}
448 \DeclareTextSymbol{\CYRBYUS}{X2}{89}
449 \DeclareTextSymbol{\cyrbyus}{X2}{121}
450 \DeclareTextSymbol{\CYRIZH}{X2}{90}
451 \DeclareTextSymbol{\cyrizh}{X2}{122}
452 (/X2)
453 (*X2)
454 \DeclareTextSymbol{\CYRDELTA}{X2}{28}
455 \DeclareTextSymbol{\cyrdelta}{X2}{29}
456 \DeclareTextSymbol{\CYRNLHK}{X2}{30}
457 \DeclareTextSymbol{\cyrnlhk}{X2}{31}
458 (/X2)
459 (/X2 | T2A | T2B | T2C)
Text composites. The following declarations will not work for 8-bit chars generated
via inputenc unless a dblaccnt package is used.
460 \end{TextComposite} \label{lastDeclaredEncoding} \end{TextComposite} \label{lastDeclaredEncoding} \end{TextComposite} \e
461 \DeclareTextComposite{\"}{\LastDeclaredEncoding}{\cyre}{188}
462 \DeclareTextComposite{\U}{\LastDeclaredEncoding}{\CYRI}{201}
463 \DeclareTextComposite{\U}{\LastDeclaredEncoding}{\cyri}{233}
464 (*X2 | T2A)
465 \DeclareTextComposite{\"}{\LastDeclaredEncoding}{\CYRII}{136}
466 \DeclareTextComposite{\"}{\LastDeclaredEncoding}{\cyrii}{168}
467 \DeclareTextComposite{\c}{\LastDeclaredEncoding}{\CYRZ}{134}
468 \DeclareTextComposite{\c}{\LastDeclaredEncoding}{\cyrz}{166}
469 \end{areden} {\tt LastDeclaredEncoding} {\tt CYRS} {\tt 145} \\
470 \end{ared} $$ \ared Encoding {\cyrs} {177} 
471 (/X2 | T2A)
472 (*X2 | T2A | T2B)
473 \DeclareTextComposite{\U}{\LastDeclaredEncoding}{\CYRU}{146}
474 \DeclareTextComposite{\U}{\LastDeclaredEncoding}{\cyru}{178}
475 (/X2 | T2A | T2B)
476 (*X2)
478 \DeclareTextComposite{\k}{X2}{\cyrabhch}{101}
```

481 \DeclareTextComposite{\k}{T2C}{\CYRABHCH}{146} 482 \DeclareTextComposite{\k}{T2C}{\cyrabhch}{178}

479 (/X2) 480 (\*T2C)

483 (/T2C)