The `cmsrb` package

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1 Why `cmsrb`?

The `cm-super` package provides great support for Cyrillic script in various languages, but there's a problem with italic variants of some letters for Serbian and Macedonian. The `cmsrb` package includes the correct shapes for italic letters \cyrg, \cyrd, \cyrp, \cyrt and letter \cyrb. This package also has some improvements in letters and accents used in Serbian language.

2 Package Features

The `cmsrb` fonts are the extensions of the Computer Modern fonts for Serbian and Macedonian languages for TEX (LATEX). Support files are provided for T1, TS1, T2A, X2 and OT2 encodings. Supported font styles are serif, sans-serif and mono, for size 10pt.

This package is very simple to use: just put

\usepackage{cmsrb}

in preamble of the document.

cmsrb	cm-super	cmsrb	cm-super	cmsrb	cm-super
бῑgū̄ū̄	*бг∂nm*	***бῑgū̄ū̄***	***бг∂nm***	ђħ	ђħ
бｂбб	бｂбб	āĀЙ̄	āĀЙ̄	*dₔ*	*dₔ*

Table 1: Some `cm-super` and `cmsrb` differences.

3 OT2 Features

The OT2 encoding is modified to match the rules of Latin to Cyrillic transcription in Serbian language. Therefore, the `ts`, `kh`, `ch` and similar ligatures are removed from the encoding (see Table 2).

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In OT2 encoding Macedonian letters Ѓ and Ќ are added, with Montenegrin letters Ć and Ʒ́.

However, it is not recommended to use the OT2 encoding; better choice for Serbian language is T2A encoding and utf8 input. One can use OT2 encoding if they already have a document written in Latin—in which case it would be easy to transcribe it to Cyrillic.

4   T1 Features

The T1 encoding now support conversion from Cyrillic to Latin script (see Example 7).

5   Math

The cmsrb package load default Computer Modern math fonts, but load only fonts with size lower or equal 10pt, for better visual effect. Also, it change integral sign from $\int$ to $\int$ (upright integral is traditionally used in Serbian language, with \limits option). To prevent change for the integral symbols, it's enough to use noint option:

```
\usepackage[noint]{cmsrb}
```

Also, in Serbian language is better to use the symbols $\leqslant$ and $\geqslant$ than the symbols $\leq$ и $\geq$. If one use package amssymb, this signs will be replaced automatically (also $\nleqslant$ and $\ngeqslant$ will be used). Of course, one can stop this change with option nosymb:

```
\usepackage[nosymb]{cmsrb}
```

However, one can use nomath option to prevent any change in math fonts:

```
\usepackage[nomath]{cmsrb}
```

6   Examples

Example 1:

```
\documentclass{article}
\usepackage{cmsrb}
\usepackage[OT2,T1]{fontenc}
\usepackage[serbian]{babel}
\newcommand{\test}%
{Ljubazni fenjerd\v zija \v ca\dj avog lica ho\'ce da mi poka\v ze \v stos.}
\begin{document}
\test \\
\fontencoding{OT2}\selectfont \test \\
Akcenti: \'a\'a\C a\f a\=a\^a\"a\u a
\end{document}
```

Input	Output	Input	Output	Input	Output	Input	Output
A	А	B	Б	C	Ц	D	Д
E	Е	F	Ф	G	Г	H	Х
I	И	J	Ј	K	К	L	Л
M	М	N	Н	O	О	P	П
Q	Ч	R	Р	S	С	T	Т
U	У	V	В	W	Щ	X	Ш
Y	Ы	Z	З	\#	Ђ		
a	а	b	б	c	ц	d	д
e	е	f	ф	g	г	h	х
i	и	j	ј	k	к	l	л
m	м	n	н	o	о	p	п
q	ч	r	р	s	с	t	т
u	у	v	в	w	щ	x	ш
y	ы	z	з	+	ђ		
C1	Ћ	D1	Ђ	D2	Џ	D3	Ѕ
E0	Ё	E1	Э	E2	Є	I0	Й
I1	І	J1	Я	J2	Ю	L1	Љ
N0	№	N1	Њ	P1	Ь	P2	Ъ
Z1	Ж	\v {C}	Ч	\'C	Ћ	\DJ	Ђ
\v {S}	Ш	\v {Z}	Ж	LJ	Љ	Lj	Љ
NJ	Њ	Nj	Њ	D\v {Z}	Џ	D\v {z}	Џ
c1	ћ	d1	ђ	d2	џ	d3	ѕ
e0	ё	e1	э	e2	є	i0	й
i1	і	j1	я	j2	ю	l1	љ
\i	ı	n1	њ	p1	ь	p2	ъ
z1	ж	\v {c}	ч	\'c	ћ	\dj	ђ
\v {s}	ш	\v {z}	ж	lj	љ		
nj	њ			d\v {z}	џ		
\char 20	Ѵ	\char 21	Ѳ	\char 28	ѵ	\char 29	ѳ
\'G	Ѓ	\'K	Ќ	\'g	ѓ	\'k	ќ
\'S	Ћ	\'Z	Ѕ	\'s	ћ	\'z	ѕ

Table 2: OT2 encoding in cmsrb package.

Result 1:

Ljubazni fenjerdžija čađavog lica hoće da mi pokaže štos.

Љубазни фењерџија чађавог лица хоће да ми покаже штос.

Акценти: áàãāâáâǎă

Example 2:

```
\documentclass{article}
\usepackage{cmsrb}
\usepackage[OT2,T1]{fontenc}
\usepackage[utf8]{inputenc}
\usepackage[serbian]{babel}
\newcommand{\test}%
{Ljubazni fenjerdžija čađavog lica hoće da mi pokaže štos.}
\begin{document}
\textit{\test} \\
\fontencoding{OT2}\selectfont \textit{\test}
\end{document}
```

Result 2:

Ljubazni fenjerdžija čađavog lica hoće da mi pokaže štos.

Љубазни фењерџија чађавог лица хоће да ми покаже штос.

Example 3:

```
\documentclass{article}
\usepackage{cmsrb}
\usepackage[T2A]{fontenc}
\usepackage[utf8]{inputenc}
\usepackage[serbianc]{babel}
\DeclareTextSymbolDefault{\dj}{T1}
\begin{document}
\textit{Ljubazni fenjerdžija čađavog lica hoće da mi pokaže štos.\\
Љубазни фењерџија чађавог лица хоће да ми покаже штос.} \\
Акценти: \'{и}\`{и}\C{и}\f{и}\={и}\^{и}\"{и}\u{и}
\end{document}
```

Result 3:

Ljubazni fenjerdžija čađavog lica hoće da mi pokaže štos.

Љубазни фењерџија чађавог лица хоће да ми покаже штос.

Акценти: и́ѝи̌ӣи̂и̂ӥй

Example 4:

```
\documentclass{article}
\usepackage{cmsrb}
\usepackage[T2A]{fontenc}
\usepackage[utf8]{inputenc}
\usepackage[serbianc]{babel}
\begin{document}
\textit{абвгдђѓежз\'{з}sијклљмнњопрс\'{с}тћќуфхцчџш}
\end{document}
```

Result 4:

абвгдђѓежззѕијклљмнњопрссћќуфхцчџш

Example 5:

```
\documentclass{article}
\usepackage{cmsrb}
\newcommand{\ud}{\,\mathrm{d}}
\begin{document}
$$ \int_0^1 e^x\ud x \geq 0 $$
\end{document}
```

Result 5:

$$\int\limits_0^1 e^x \, \mathrm{d}x \geqslant 0$$

Example 6:

```
\documentclass{article}
\usepackage[nomath]{cmsrb}
\newcommand{\ud}{\,\mathrm{d}}
\begin{document}
$$ \int_0^1 e^x\ud x \geq 0 $$
\end{document}
```

Result 6:

$$\int_0^1 e^x \, \mathrm{d}x \geq 0$$

Example 7:

```
\documentclass{article}
\usepackage{cmsrb}
\usepackage[T1]{fontenc}
\usepackage[utf8]{inputenc}
\usepackage[serbian]{babel}
\begin{document}
Љубазни фењерџија чађавог лица хоће да ми покаже штос.
\end{document}
```

Result 7:
Ljubazni fenjerdžija čađavog lica hoće da mi pokaže štos.

7 Version history

3.1

- Bugs fixed.

- Options noint and nosymb are active.

- Symbols $\leq$, $\geq$, $\nleq$, $\ngeq$ are changed.

3.0

- Letter б is modificated.

- Cyrillic to Latin conversion is added.

- Math fonts are changed (nomath option is active).

- Upright integral sign is added.

2.0

- Added support for the letters ѓ, ќ, ћ, ѕ.

1.1

- The separate .map files merged into one.