Packaging Arsenal fonts for (Xe|Lua)LaTeX

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Why Arsenal?

1. Decolonization $\Rightarrow$ interest in cultural traditions, including typography.

2. Ukrainian typography is quite rich and distinct from Russian:

Russian station name

New name, design by Bohdan Hdal

3. We needed a good Ukrainian font with an open license.

Arsenal font: History I

Mystetskyi Arsenal (Art Arsenal)—an art exhibition institution in Kyiv.

Arsenal font: History II

Competition in 2011 for the best Ukrainian font
(`http://www.ukrainian-type.com/about/`):

Idea:	Mykhaylo Iľko
Sponsors:	Mystetskyi Arsenal & STAIRSFOR studio.
Award:	₴100 000 (about €10 000 at that time)
Goal:	A modern, business-like font in Ukrainian traditions.
Conditions:	The winner font changes the name to Arsenal *and is released under OFL*

Arsenal font: History III

The winner: font by Andrij Shevchenko (Berdyans'k).

- ▶ Narrow proportions, saving space.
- ▶ Moderate aperture
- ▶ Observable contrast
- ▶ Neutrality, clarity, swiftness.

After the competition: open development.

- ▶ Additional letters by Alexey Alexei Vanyashin, Marc Foley & cyreal.org.
- ▶ Vietnamese support by Nhung Nguyen

LaTeX Support

A LaTeX3 package based on *fontspec*. Provides interface to font features:

- ▶ Regular.
- ▶ *Italic*
- ▶ **Bold**
- ▶ ***Bold Italic***
- ▶ Swash
- ▶ *Swash Italic*
- ▶ **Swash Bold**
- ▶ ***Swash Bold Italic***

Some currencies: ₴, ₮, ₸, ₽. And some typographic devices: ☙, ☺, ●.

❧ ❧ ❧

Голос із того боку ріки.
Ранньої осені тихий щоденник.
Сидять, поклавши на стіл кулаки,
сільський учитель і сільський священник.

Тепло багатодітних родин.
Ловиться присмак чогось гіркого.
— Сьогодні нікого, — каже один.
— І в мене, — інший говорить, — нікого.

Гілка знадвору хилиться враз.
Тисне голка чужої кривди.
— Піду, — каже перший, — прогрію клас.
Почекаю, може хтось прийде.

— Давай, — говорить інший, — іди.
Дощі над річищем, наче квіти.
Попереду вечір і холоди.
Потрібно чекати.
Потрібно гріти.

Сергій Жадан, 07.08.21

Math support

1. Use letters from Arsenal, adding missing letters from KpSans. Does not work right with XeTeX. Default for LuaTeX.

   Theorem 1 (Residue Theorem). Let f be analytic in the region G except for the isolated singularities $a_1, a_2, \ldots, a_m$. If γ is a closed rectifiable curve in G which does not pass through any of the points a_k and if $\gamma \approx 0$ in G then

   $$\frac{1}{2\pi i} \int_\gamma f = \sum_{k=1}^m n(\gamma; a_k) \mathrm{Res}(f; a_k).$$

   Theorem 2 (Maximum Modulus). *Let G be a bounded open set in $\mathbb{C}$ and suppose that f is a continuous function on G^- which is analytic in G. Then*

   $$\max\{|f(z)| : z \in G^-\} = \max\{|f(z)| : z \in \partial G\}.$$

2. Use Iwona. Default for XeTeX

   Theorem 1 (Residue Theorem). Let f be analytic in the region G except for the isolated singularities $a_1, a_2, \ldots, a_m$. If γ is a closed rectifiable curve in G which does not pass through any of the points a_k and if $\gamma \approx 0$ in G then

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3. Use KpSans

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Font use

Lettre GUTenberg 51 (Nov 2023) chose Arsenal as the font of the issue