

STANDARDIZING CYRILLIC SOFTWARE

Maturing industry leaves pioneer developer behind

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THE MOVE TOWARD standardization of Cyrillic fonts for the Macintosh is good news for translators and desktop publishers of Russian, but bad news for many of the smaller Cyrillic font software developers, whose business is being threatened by larger companies. Software developer David Moffat designed a Cyrillic font character set which proved so successful it helped put his own company, glps, out of business.

Although numerous incompatible Cyrillic font systems still abound, the adoption in 1992 of Moffat's Extended Apple Cyrillic by the two largest Cyrillic font publishers in the United States, Casady & Greene and Linguist's Software, is significant. "Since they make more Cyrillic fonts than anybody in the country, when you put them together, it's the de facto standard," Moffat explained. "The neat thing about it is that you can type text with fonts from either company and it's 100% compatible, and that was the first time ever on the Macintosh that two companies used the same Cyrillic character set."

Moffat never even had the chance to convert his own company's software products to his newly designed Extended Apple Cyrillic before going out of business in March 1993. Enthusiastic about the prospect of a font system standard, Moffat also resold fonts from Casady & Greene and Linguist's Software, even though the superior fonts competed with his own products. "There were lots of

other commercially available Cyrillics by the time I quit, but I didn't want to sell any of them, because I didn't believe in any of them. If I had wanted to do that I probably would have done better [in business], but I couldn't see seducing people into buying non-standard products."

CYRILLIC THE OLD-FASHIONED WAY

MOFFAT, A COMPUTER programmer with no prior font development experience, became interested in Macintosh software shortly after that computer was introduced in 1984. "I bought my first Mac in 1985, and I started taking Russian classes after a twenty-year hiatus. I started putting two and two together, and decided I wanted to do Russian on the Mac. At that time the tools were pretty primitive and the Mac was in no way ready for internationalization," he recalled. "I implemented Cyrillic the old-fashioned way, which was to take a standard font, go through and change the letters in the font into Cyrillic letters wherever they fell on the keyboard." He followed one of the standard Russian keyboard layouts used for typewriters. The result was a font program Moffat named MakABTOP, which he began distributing as shareware in 1986.

THE BIRTH OF GLPS

THE COMPANY WAS formed in 1988 and named Generic Language Processing Systems, since the technique used to

implement Russian and English was generic enough to apply to other languages. It was soon abbreviated to glps, and later the name <Russian Works> was used for marketing the software sold through mail order.

Moffat revised his font system three times, the latest version being ABTOP III-2, which became his most successful product. "I really spent a lot of time designing the character set to get the right characters and make it really work so you could do alphabetization. I found ways to add the stress marks that teachers love to put in books to show you how to pronounce." Later font set versions were also bilingual to include both Cyrillic and Latin, meaning that all the letters of both alphabets were contained within one font by assigning the Cyrillic characters to the second 128, or "upper," ASCII codes. This led to another innovative feature of glps products, which was the ability to switch between the two alphabets in the same font by using the caps lock key as a toggle switch. Moffat's ABTOP III was the first Macintosh product on the market with this feature. Since then a few other companies have come out with it. "It makes it easy to mix Russian and English in the same document. You never even have to leave the keyboard," Moffat explained. ABTOP III-2 also came with keyboard templates and optional higher-quality, laser printer fonts, the Leed fonts. Moffat went on to develop similar versions for other languages combined with English and called the prod-

CYRILLIC ACADEMIC MARKET

Problems with the academic market

The failure of glps is largely due to its reliance on the academic market.

Moffat's emphasis on incorporating stress marks and dictionary symbols among his character codes was intended to cater to the needs of the academic community. The purpose of one of Moffat's first products, Vocabulary Creator, was to assist in creating lengthy glossaries.

A subsequent product, Text Oasis, could alphabetize short word lists, perform word counts and globally alter capitalization.

However, the academic market took a lot of convincing to buy these products, since it traditionally has had less interest in purchasing software. "It turned out that a lot of people who could do Russian on a computer like a Mac don't understand what it is you're talking about, why it would be better than a typewriter, or how one software package is better than another, because they've never focused on that kind of thing in their careers. So I had a lot of problems convincing people that you could actually do more on the computer than on the typewriter," Moffat explained.

People were slow to adopt Cyrillic software products, Moffat said, "And then once they did, they were slow to change.

Two months after I quit my company, a woman called me saying that she wanted to upgrade, finally. She had the original ABTOP from 1986.

So that was the problem—trying to convince people that there were improvements. That, and the fact that it was a small market niche, essentially doomed me to low income. So I finally had to quit."

When he left the business, about 50% of Moffat's clients were in the education field, almost all of whom were professors, not students. "So, don't try to market any Russian product to students," Moffat advised. "Their teachers probably want them to learn handwriting, anyway."

The commercial clientele of glps was divided between professional translators and representatives of large corporations. "Of translators, the majority of them still use PCs, and most still use DOS and use WordPerfect Russian system, which is pretty good as far as it goes, but of course it is kind of dated software," Moffat observed.

Educators have less money to spend on software than those who use it in business. "Even the lonely translator has more money than the lonely professor. And students didn't want to spend any money." The problems are echoed by other Cyrillic font companies. "Our customers tend to be people who don't want to spend a lot of money," said Mike Wright of Casady & Greene. Moffat concluded, "If I were pushing foreign language software again, I would skip academia altogether."

uct series Bilingual Solutions. The other language combinations, however, did not sell as well and were subsequently dropped.

Another early glps product was Vocabulary Creator, a utility to alphabetize word lists in Russian, English, and other languages. This took advantage of the fact that Moffat had assigned the Russian font letters in alphabetical order. "I found out that there was a piece of software in the Mac called a keyboard driver, which is a little program that handles your keyboard key presses," Moffat said. "Knowing that, I could go in and I could make a rational font design, where the letters would be in some kind of order inside the font and still be assigned to the keys I wanted them assigned to. Having done that, then I had the Cyrillic letters in alphabetic order. So then I set about to write software to sort Russian words."

ANTICIPATING APPLE

MEANWHILE, APPLE CAME out with a Russian system for the Mac called Apple Cyrillic, which is a character set programmed into the operating system software. Up to now, however, it has only been distributed in the former Soviet Union. Moffat took a keen interest in the project, also a bilingual Latin/Cyrillic character set using 256 ASCII codes, while it was still in development. "I knew they were doing it about a year and half or so before they actually came out with the Russian system. So, I was trying to convince the people working on it that they should, for example, put in stress marks, and some other characters that teachers and dictionary makers and so on use. Well, ultimately that fell on deaf ears."

Believing that Apple was about to set a Cyrillic standard for the Macintosh, Moffat decided to develop a font system based on Apple Cyrillic, but including the additional characters of interest to academicians, and called it Extended Apple Cyrillic.

"In consultation with a bunch of people who were working on Russian fonts, commercial developers, I started with [Apple's] character set and threw away some symbols that I knew people in the humanities didn't use very often, such as ∞, ±, †, and some other odd characters, and put in their place the characters for stress marks, both grave and acute accents, umlaut over the ē, the yat character for old Russian and the Ukrainian hard g." It covered the six basic Cyrillic languages: Russian, Belorussian, Ukrainian, Macedonian, Bulgarian, and Serbian. Although Moffat at first designed this character set also in alphabetical order, other font

developers rejected it as too radical, so he revised it.

The fact that Extended Apple Cyrillic was based on Apple Cyrillic, a character set code incorporated into Macintosh operating system software, suggested that this character set, if any, would be the one destined to become a standard. Font designer Mike Wright of Casady & Greene concurs: "We were really looking for something that would be a standard...We jumped in as early as we could. It didn't make sense to stick with an old non-standard." The addition of stress marks, which the Extended Apple Cyrillic featured appealed to font vendors as well. "It made sense for our market," explained Wright. "A lot of them are educational people."

Moffat also convinced Casady and Greene and Linguist's Software to implement the feature of the alphabet toggle switch key.

Apple Extended Cyrillic is a character set design which anyone can follow, not a software product for sale. However, Moffat would like to see this as his most influential software development. "I'm hoping that this will essentially displace other character sets, and everybody can gather around a standard and start sharing texts and set up databases." Now there are several other companies working on fonts to be compatible with apple Extended Apple Cyrillic.

RUSSIAN CENTRAL

MOFFAT HAS ADDRESSED the problem of continued incompatibility of Cyrillic fonts in another way. "A lot of people expressed distress at the fact that there were over forty commercially available Cyrillic character sets for the Mac and PC, but none of them were compatible (this was before the Extended Apple Cyrillic). So, I designed a product that could take Russian text that was created with one Russian character set and convert it into the character codes you need for some other font. So you could give Russian text to people or accept Russian text from others and convert it to or from your font. And that was a first.

"I designed it as a desk accessory so you could sit down at the Mac and you could bring up a document that somebody gave you, some off-the-wall Russian or Cyrillic character set, and pretty quickly convert it to your own and it would be displayed in correct Russian characters. I called that product Russian Central. The reason I called it that is because you could convert any other Russian into ABTOP III and then convert from ABTOP

III into any other. So ABTOP III is the central."

Russian Central sold fairly well. Although now there is a program similar to it for the PC, none is sold anymore for the Macintosh. As character set standardization comes to the Macintosh, Moffat predicts that Russian Central's functionality will be limited to a one-time use "to convert all your old stuff." Nevertheless, this is the one software product that Moffat is still considering putting back on the market through another software publisher.

LEAVING THE STAGE

MOFFAT PULLED ALL his products from the market, having started working for another company as a Macintosh software developer of consumer products. He will be missed in the Cyrillic field. "I think

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the demise of glps/Russian Works is a great loss to the Russian computing community,"

said Gabe Bokor, editor of *Sci-Tech Newsletter*, "I certainly hope that David Moffat will one day revive his operation in some form."

But perhaps Moffat, a programmer rather than a font designer, feels he is no longer needed as much in this field. "Now the state of the art is pretty good. Now that you have this stuff from Extended Apple Cyrillic, fonts, and keyboard software, you can do just about anything you want. So, anyone who's getting into it now has a great advantage over those of us who got into it early." 🌐