

# Japanese Newspapers Move Toward Open Systems

BY JOEL BRECKINRIDGE

Like their commercial counterparts, Japanese newspapers have continued to rely on proprietary systems long after Western media espoused open systems. We look at one reason why—and how one vendor intends to change it.

**T**he same winds of change buffeting commercial printers in Japan are beginning to effect big-time newspaper production. This very conservative market is at a crossroads. The old mainframe-based proprietary systems created in the early '80s by IBM, NEC and others are finally being replaced. Some newspapers are playing it safe and sticking with those big vendors. At the other extreme, Asahi Newspaper, Japan's largest (circulation: 8.6 million) and oldest newspaper, is building an open system with components from eight different vendors. Amid the confusion, one trend is clear: New systems are moving away from proprietary CTS technology to PostScript-compatible RIPs and in-house fonts converted to OpenType format. Only 10 percent of newspaper-production systems now use PostScript-compatible RIPs, but this should change dramatically in the next few years.

As we've noted in these pages before, there are sound technical and business reasons why open systems did not catch on as early in Japan as in the West. Font problems lead the list, just as in commercial printing, but newspapers face an extra hurdle. The Japanese Newspaper Production Show earlier this month gave us the chance to examine some font issues specific to newspapers.

**Drawn on demand.** Special-character creation is a fact of newspaper production life. These extra characters are called *gaiji*, and every major newspaper has a dedicated team of font designers on hand, ready to instantly create new characters that are not included in traditional font sets. Sometimes these characters will be used for only one edition. Any new system must be able to create and distribute *gaiji* system-wide to meet daily deadlines.

To get a better idea of the situation, we sat down with Tomihisa Uchida of Iwata Corporation. There is probably nobody on this planet who knows more about Japanese font programming and typography than Uchida. He has been involved with Japanese digital font production from the start, working at its very heart: Shaken KK.

**Uchida:** I was with Shaken for 23 years. I entered right out of college, where I was a chemistry major. My first job there was working with analog plates and mechanical processes. That involved high-resolution plates, similar to what is used for IC chip manufacture, to produce high-quality typography. I did that for 10 years; then digital fonts came along in the early '70s. Shaken was the first Japanese vendor to have computerized layout. It also did the Japanese version of Ikarus. There wasn't any real competition and it had the market to itself.

**Seybold:** So Shaken made the transfer to digitalized fonts and computer-based layout successfully?

**Uchida:** Yes, it purchased the Japanese rights to Autologic technology to produce a hybrid product where the software was a customized Autologic engine running on Shaken hardware. That didn't last too long, as Shaken had been developing in-house technology and soon released its own original product.

We simply implemented Japanese typography and composition rules on the computer with outline fonts that output on an imagesetter using proprietary technology. At that time, Shaken systems were extensively used in newspaper production. However, Shaken lost that market because it didn't have strong network capability, which newspaper production demands.

One of the ways Shaken was able to build up a strong type library in a fairly short time was by sponsoring a typeface competition. It would pay the winner and purchase his typeface. It raised lots of young designers that way [like Suzuki-san, who would later create the Hiragino font used in Apple's MacOS X] and really expanded the market with new typefaces for comic books and such.

Later on, my job was creating different weights. The designer would create the basic design, then we'd use the Ikarus system to make the weights. That was the late '70s. The systems we designed ran on hardware from the likes of DEC and Wang. I had a group of people who were basically a font production line. When Japanese PostScript first arrived, it wasn't immediately apparent that things would change as they did. It took forever to print. Shaken systems always had excellent performance.

## Developing the tools

Of the many issues that Uchida has involved himself with throughout his career, none has occupied him

more than trying to solve the Japanese character-creation bottleneck. To this end, he joined Fontworks International, one of the first Japanese PostScript font vendors. It invested heavily in the QuickDraw GX type-creation solutions that hit the market just about the time Apple decided to drop GX. (Fontworks International stroke fonts were featured in *The Seybold Report on Publishing Systems*, Vol. 30, No. 6. It's online at [www.seyboldreports.com/SRPS/subs/3006/html/strokefonts.html](http://www.seyboldreports.com/SRPS/subs/3006/html/strokefonts.html).)

**Seybold:** It's too bad you didn't start with Fontworks earlier; you really seemed on the verge of a breakthrough.

**Uchida:** Yes, we were pretty close. If we had just had some more time.... I was only with them for five years, from just about the time when Apple started having second thoughts about QuickDraw GX. Fontworks asked me if I was interested in working on its stroke-font base-character production tool, '2 x 2', so I joined the effort and worked on the hinting and performance quality. I was always interested in font-production tools. Fontographer really isn't very good for Japanese font production. It's an issue I hope to continue working on in the future.

**Seybold:** And now you are with Iwata Corporation.

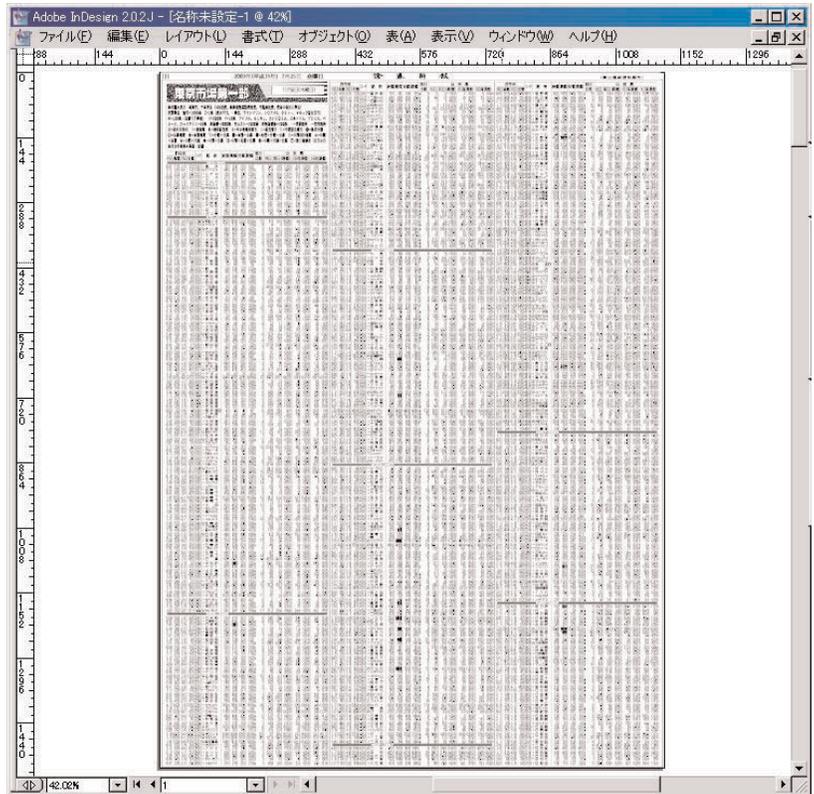
**Uchida:** Correct. I work with newspaper fonts and layout. Newspaper font designs are different because the text is always vertical. Fonts need good layout to look their best, so I'm working on them together. OpenType, for example, has fractions, third-width and quarter-width glyphs, but most applications are not OpenType layout-aware, so it's a real waste. The result is pretty ugly.

Right now, the only OpenType layout engine out there is InDesign. I haven't heard much, but it seems the next version of Quark XPress J doesn't have much OpenType support. If that's true, it means you'll have to use InDesign to access OpenType advanced typography. I'm not sure if users are really ready to make the change or not. There are still lots of old fonts out there, too. But still, no matter what kind of fancy fonts you have, they look bad with poor typography.

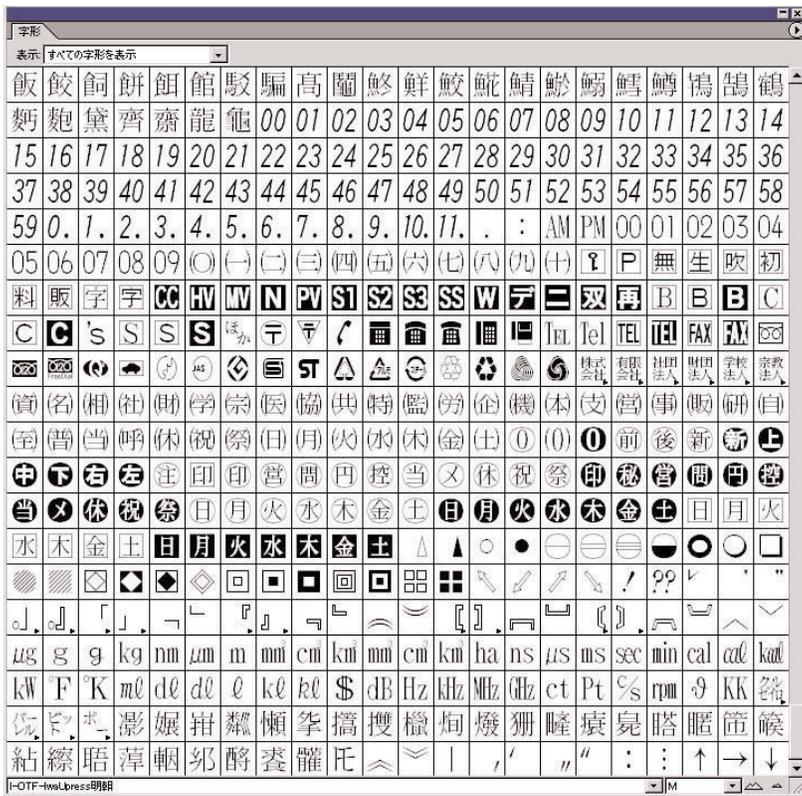
As far as newspaper production is concerned, I understand that American systems are much more open than Japanese systems, and American papers seem more adept at leveraging their content for different media. Japanese newspapers are still living in the age of proprietary systems—Hitachi, IBM, etc.—but that era is over. I think you'll see things starting to change. One of the good things I saw at JANPS was much more open solutions. The big vendors like NEC were showing more Windows-based systems, but nothing built around InDesign or Quark.

### Do the chores first

At Iwata, Uchida has been busy using his Shaken knowledge to create specialty InDesign plug-ins for difficult, tedious newspaper-composition jobs such as the stock-market page and classified ads.



**Automating hard jobs.** Japanese newspaper composition has long been the monopoly of proprietary systems from NEC and Matsushita, but change is coming. One harbinger is a set of InDesign plug-ins from Iwata Corporation that automate production of pages such as these.



Using extra characters. InDesign users can access the U-Press character set via a palette. A complete U-Press set has 15,250 newspaper-specific characters, including many *gaiji*.

The plug-ins are part of a larger server package, called Iwata Composition Software, that allows users to set up an automated workflow and batch processes for financial data. (Details can be found at [www.iwata-font.co.jp/personal/font04.htm](http://www.iwata-font.co.jp/personal/font04.htm).) It might not seem like much now, but solutions like this hold lots of promise as the newspaper industry moves away from proprietary systems.

Uchida told us, “This product release is a bit of a warm-up. The newspaper market really isn’t quite ready for InDesign-based solutions at this point. We released these with an eye to the future. As the market warms up to InDesign and notices what we have to offer, we’ll expand our product line. I have many more product ideas.”

### U-Press extends the standard

In addition to layout, Uchida has been busy migrating Iwata’s newspaper fonts to the OpenType format and adding the new U-Press character set, which is due to be added to Unicode by 2007. U-Press is an extended character set similar to the Adobe Japan 1-4 or Adobe Japan 1-5 extended character set for Japanese OpenType, but it is different in content and is strictly for newspaper production. The full U-Press set contains 15,250 characters, of which 841 are special *gaiji* developed by Iwata.

**Uchida:** One of the things about Japanese newspaper fonts is they depend on the Shift JIS encoding standard. It is difficult for newspapers if everything has to be in Unicode. That is one reason why we release our U-Press fonts in Shift JIS versions; it’s for newspaper production. Lots of applications, such as Microsoft Word, are not Unicode-aware yet, so traditional encoding is still necessary.... Iwata U-Press has some special characters that other U-Press sets do not have. Unfortunately, U-Press will not be part of any Adobe standard, so there is no official [Western] specification on how to use the characters; there is no encoding map, as there is for AJ 1-4.

Once I finish getting our U-Press OpenType fonts out the door, I’ll start working on a *gaiji*-creation tool.

### Conclusion

Font troubles complicate many aspects of Far Eastern print production, and the creation of better font tools is but one piece of the puzzle. Another piece is getting the tools adopted. Although we are impressed with Iwata’s products, we can only wait to see how they fare in the market. One thing is for sure: Uchida will continue to be at the center of any new Japanese font activity.

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### About the Author

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