

Achieve “SmartHint” Display Quality for Japanese Text

SmartHint™ technology from Monotype Imaging enables Japanese text to look clear and sharp – even small-sized text comprised of complex characters.

What is SmartHint technology?

The technology is based on character fine-tuning or “hinting” techniques to ensure that East Asian text is easy to read on low-resolution screens and small displays. At larger sizes, characters appear uniform and regular. At smaller sizes, correct spatial relationships are preserved. When displayed at the smallest sizes, strokes within characters are sometimes removed, without changing the meaning of those characters. SmartHint technology enables “intelligent scaling” to ensure that letterforms – no matter how intricate – remain clear and legible.

Patent-pending hint compression and decompression techniques are included with SmartHint technology. While traditional hinting instructions can typically increase the size of font files, Monotype Imaging’s compression method keeps files with SmartHint instructions small and manageable.

SmartHint technology also retains the benefit of scalability. Embedded bitmaps are not required to ensure high-quality display at small sizes. Multiple stored versions of bitmaps are also not needed as a way to support multiple text sizes. Additional benefits include the ability to apply anti-aliasing effects – something not possible with bitmaps – to soften jagged effects around curves and edges to improve on-screen display quality. Styles such as bold can be generated at run-time, reducing the need for separate fonts for each style.

As a standard feature supported by Monotype Imaging’s iType® font engine version 3.0 and above, SmartHint technology is part of a complete multilingual text solution. Included is Monotype Imaging’s WorldType® Layout Engine, a modular library for composing, positioning and rendering multilingual text. In addition to Japanese, SmartHint fonts are available for Simplified Chinese, Traditional Chinese and Korean languages.



Without SmartHint technology



With SmartHint technology

Japanese SmartHint font

家電製品のメーカー及び開発者として、モノタイプ・イメージングからのフォントおよび技術により質を犠牲にせず、どのよう
うに時間とコストを節約することができ
るか確かめてください。

Sample shows style attributes

Benefits of SmartHint technology

- Text remains sharp and clear, regardless of display size
- Correct spatial relationships are preserved
- Characters fit predictably within the em square
- SmartHint compression keeps file sizes small
- Bold and italic can be generated at run-time
- Anti-aliasing is possible at any display size
- Benefits of scalability prevail (embedded bitmaps are not needed)
- Available for Japanese, Simplified Chinese, Traditional Chinese and Korean languages

SmartHint Japanese typeface

- Stroke-based font based on the TB Gothic™ design by TypeBank Co. Ltd.
- 7,488 characters
- Supports the CP932 character set, encompassing the JIS 0208 and JIS 0201 character sets, as well as NEC special characters, NEC-selected IBM extended characters and IBM extended characters

Monotype Imaging Inc.

500 Unicorn Park Drive
Woburn, MA 01801
USA
phone 781 970 6000
fax 781 970 6001

Monotype Imaging Ltd.

Unit 2, Perrywood Business Park
Salfords, Redhill, Surrey RH1 5DZ
England
phone +44 (0)1737 765959
fax +44 (0)1737 769243

Monotype Imaging K. K.

Level 32, Shinjuku Nomura Building
1-26-2 Nishi-Shinjuku
Shinjuku-ku, Tokyo, Japan 163-0532
phone 81 3 5322 1377
fax 81 3 5322 2929

Linotype GmbH

Du-Pont-Straße 1
61352 Bad Homburg
Germany
phone 49 (0) 6172 484-418
fax 49 (0) 6172 484-429

China Type Design Ltd.

7A Yardley Commercial Building
3 Connaught Road West, Sheung Wan,
Hong Kong
phone 852 2575 6789
fax 852 2591 9232

www.monotypeimaging.com

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