

Link Tool between Optical Disk Filing System and Macintosh*

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1 Introduction

With the trend toward open systems and downsizing growing stronger, the number of personal computers in offices has been increasing, LANs using personal computers have come into wide use, and the improvement of job efficiency using personal computers has attracted attention. Against this background, there is a growing need to use valuable assets such as conventional drawings and technical documents in a new environment. In order to meet this requirement, Kawasaki Steel Systems R&D Corp. has developed a link tool between an optical disk filing system and Macintosh that links an optical disk filing system (Panafire****) with Macintoshes*****.

2 Outline and Features of Link Tool between Optical Disk Filing System and Macintosh

2.1 Outline of Tool

The system configuration is shown in Fig. 1. The link tool between the optical disk filing system and Macintosh works as a client of PanaCILKS****. The use of this tool makes it possible to retrieve the image information filed in Panafire through PanaCILKS from a Macintosh, display the retrieved information, and output the retrieved information on a Macintosh printer in the LAN. Furthermore, the high-level GUI of Macintosh enables the retrieved image to be copied in other appli-

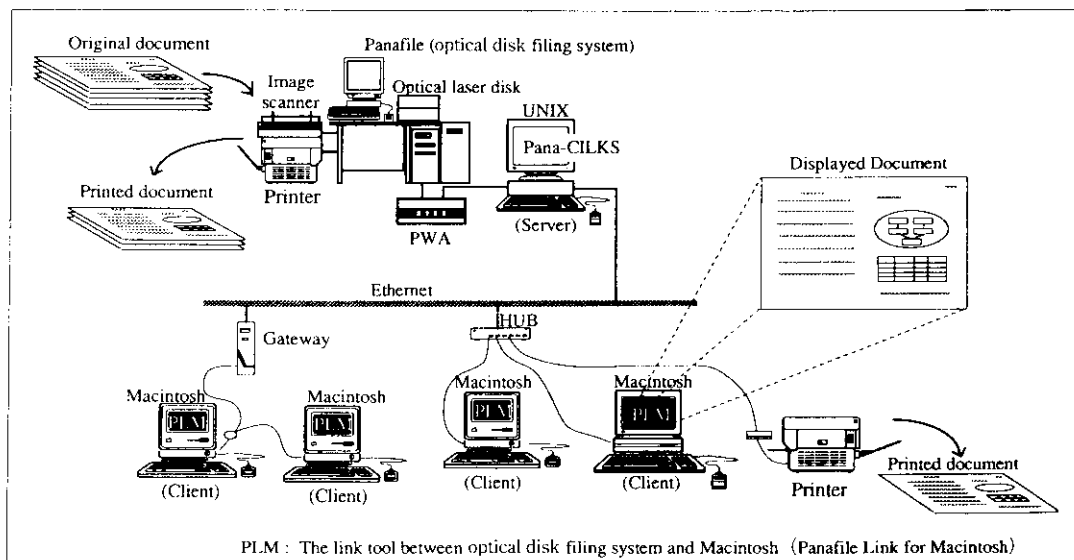


Fig. 1 Overview of the link tool between optical disk filing system and Macintosh

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**** Panafire is the trademark of Matsushita Electric Industrial Co., Ltd.
 ***** Macintosh is the trademark of Apple Computer Inc.
 ***** PanaCILKS is the trademark of Matsushita Electric Industrial Co., Ltd.

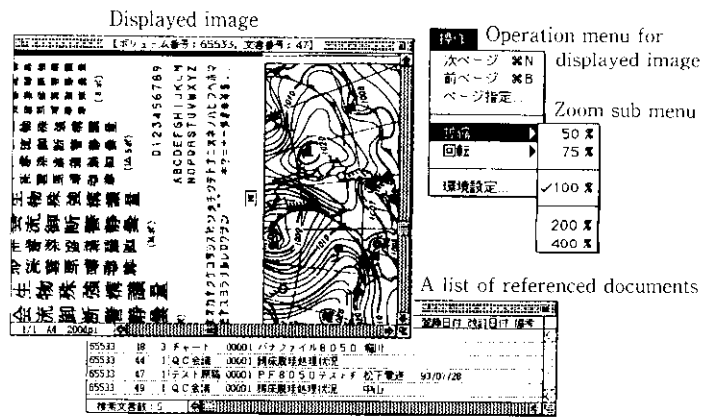


Fig. 2 An example of image displays

cations (copy & paste) or to be fed to a Macintosh.

2.2 Features of Tool

(1) Image Display Function

The original image is made more easily visible by enlargement (twice), reduction (1/2) and turning (90° right and left, 180°). When the image to be displayed is too large for the screen, the whole image can be seen by high-speed scroll (Fig. 2).

(2) Print Function

The displayed image can be output on a Macintosh printer in the LAN. Printing is possible at the resolution (up to 400 dpi) of the original stored in Panafite. If the specifications of paper size and resolution do not agree with those of the Macintosh printer, it is possible for a Macintosh to request output from the printer connected to Panafite proper.

(3) Retrieval Function

The retrieval function provided by Panafite can be designated from a Macintosh. Retrieval is made possible by specifying part of a key as in the theoretical relationship between keys, correspondence of the first half of each key, and correspondence of the latter half

of each key.

(4) Operability

Operability is based on the excellent GUI of Macintosh. This tool can be used easily by a standard simple operation method of Macintosh, such as mouse, pulldown menu, and shortcut key.

3 Applicable Types of Machine and Working Environment

This tool requires Panafite proper and PanaCILKS (server system) as the working environment. Panafite needs a machine to which a PWA (personal computer work-station adapter) can be connected. PanaCILKS (server system) is a system that works on a UNIX machine, such as SUN. To introduce this tool, this hardware is required as the working environment. A machine with a large CPU capacity is recommended because images are handled by the Macintosh. A display of 17 inches and more is also recommended. Concrete applicable types of machines and working environments are shown in Table 1.

Table 1 System component and running environments

System component	Hardware		Software
Panafite (Optical disk filing system)	PF8050 PF3000	PWA (personal computer work-station adapter)	Basic software for Panafite
PanaCILKS (Panafite code & image link system)	SUN PanaStation	Memory 48 MB Hard disk 1 GB	SunOS 4.1.2 or 4.1.3 or Solaris2.X JLE 1.1.3 Rev.C Japanese Open Windows 2.0.1 PanaCILKS IWS(image server work-station)
Macintosh client system (The link tool between optical disk filing system and Macintosh)	Macintosh	CPU : 68030, 68040, Power PC Memory 12 MB Hard disk 80 MB 17" monitor (recommend)	MacOS System 6.0.7 MacOS KANJI Talk7 7.1 MacOS KANJI Talk7 7.5 MacTCP Fixed width MINCHO font

4 Examples of Application and Direction of Use

When an optical disk filing system was introduced in the past, it was necessary to physically go to the place where the system was installed; therefore, many people did not use the system. Furthermore, how to use the information stored in paper form was a problem in the promotion of office automation.

In this system, retrieval, reference, and print output from remote places are made possible by connecting Macintoshes with an optical disk filing system using a LAN. This tool can support office automation as shown below by effectively using existing optical disk filing systems and by combination with optical disk filing systems.

- (1) The link with a drawing control system enables the contents of drawings to be checked and drawings to be output from a Macintosh at remote locations.
- (2) Integrated control of handwritten technical information and feeding of this information to a Macintosh

enable it to be used again (copy & paste on a personal computer).

- (3) Quality information including illustrations that permit only handwriting can be controlled.

5 Concluding Remarks

This product was completed in January 1995. Inquiries have been received from several companies which use Macintoshes since the state of development, and this product has obtained a good reputation.

The use of an optical disk filing system has a variety of needs. To meet these needs, we intend to fulfill the expectations of customers by developing individual systems through the modification of this tool and supplying systems of higher added value.

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