



White Paper

Canon imagePROGRAF

# Disk Erase

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## 1 Introduction

The Canon imagePROGRAF series is equipped with a disk erase feature that erases print jobs sent to the printer from the printer's hard disk. This feature completely erases data sent to the printer, such as classified data and private information, so that it is not leaked to third parties. Generally, data written to hard disks on computers or printers is not completely erased when the memory is deleted or initialized in the usual way. You can use data recovery software to recover deleted data and retrieve information. This is precisely why preventing data recovery and completely deleting data is so important.

The disk erase feature included with the Canon imagePROGRAF series responds to the need for an increased level of security.

## 2 Disk Erase Features

The disk erase feature included with the Canon imagePROGRAF has the following 3 modes.

### ■ Secure Erase Mode

This is the highest level of erasure. It meets to U.S. Department of Defense requirements (DoD 5220-22.M) for the erasure of disk media.

Data stored on the printer's hard disk is overwritten multiple times and then checked after the final overwrite. This makes hard disk analysis used during disk recovery impossible, preventing data recovery. For more information, see "5 How Secure Erasure Mode Works".

### ■ Secure Quick Erase Mode

In this mode, data stored on the printer's hard disk is overwritten once with random data. This prevents data from being recovered using software. This mode erases data quicker than Secure Erase Mode.

### ■ High-speed Erase Mode

In this mode, the file management information for the data stored on the printer's hard disk is initialized. Because only the file management information is initialized, the data still remains on the hard disk.

#### **Important**

The disk erase feature does not guarantee that data stored on the printer's hard disk is completely erased. To further ensure that data cannot be recovered, we recommend physically or magnetically destroying the printer's hard disk. In these cases, the hard disk cannot be reused.

#### **Note**

- You can select and execute disk erasure from the front panel of the Canon imagePROGRAF. On the front panel, select [Erase HDD Data].
- By setting [Save: Common Box] to [Off], you can ensure that print data does not remain on the printer's hard disk after printing is finished. However, even in this case, we recommend using the disk erase feature to erase data from the printer's hard disk to prevent data recovery.

### 3 Data Targeted by Disk Erase

Data targeted by the data erase feature includes temporary files created during the printing process, saved print jobs, proofs, jobs on hold, and print histories.

### 4 Executing Disk Erase

Executing the disk erase feature forcibly clears all partitions on the printer's hard disk. Cleaning takes a few seconds in High-speed Erase Mode, about 40 minutes in Secure Quick Erase Mode, and about 20 to 30 hours in Secure Erase Mode.

### 5 How Secure Erase Mode Works

Secure Erase Mode uses the following methods to erase data.

1. Overwrites each byte of data with a fixed character pattern (binary 01001000)
2. Checks to see if the data has been properly overwritten
3. Overwrites each byte of data with the complement (binary 01001000) of the fixed character pattern from (1) above
4. Checks to see if the data has been properly overwritten
5. Overwrites each byte of data with a random character string
  - a: A 32 kb random character string is generated using the printer boot time
  - b: Overwrites each byte of data again with the generated character string
6. Checks to see if the data has been properly overwritten

### 6 Applicable Printers

The new disk erase feature is integrated into the following printers.

Canon imagePROGRAF iPF820/iPF810/iPF6200/iPF6000S

### 7 Q&A

**Q1:** Can you execute Disk Erase, without using the front panel, from various utilities?

**A1:** Disk Erase can only be executed from the front panel.

**Q2:** Can you cancel erasure while it is in progress?

**A2:** You can forcibly turn the printer's power off by pressing the power button. However, the hard disk remains in the state it was when erasure was canceled. Immediately after turning on the printer, a [Format error (operation error)] appears, and you are asked to execute Disk Erase.