

## Statement of Volatility imagePROGRAF PRO Series

The information contained in this document will:

Identify and describe the memory components contained in the imagePROGRAF printer's circuit boards with regards to the memory component type, memory volatility of each memory component, type of data stored on each respective memory component, as well as the data written / data clear method utilized for each respective memory component.

### Main Board Unit

Type of Memory	Flash ROM
Storage Medium	Flash ROM (SROM)
Volatility	Non volatile
Data Type	<ol style="list-style-type: none"> <li>1. Boot program</li> <li>2. Printer control firmware</li> <li>3. Device setting parameters</li> </ol>
Presence of User Data	No
Description	The Flash ROM is located on the Main Board Unit. It contains mainly printer control firmware. Some areas are used to store device setting parameters.
Data Written Method	Boot program, Printer control firmware and default device setting parameters are written at the Canon factory. User customized device settings parameters are revised by printer control firmware after user printer operations are performed. The printer control firmware also can be updated by user operations.
Data Initialize Method	Data is initialized utilizing a special tool at the Canon factory.
Type of Memory	Flash ROM
Storage Medium	Flash ROM (NAND)
Volatility	Non volatile
Data Type	<ol style="list-style-type: none"> <li>1. Printer control firmware</li> <li>2. User customized device setting information</li> </ol>
Presence of User Data	No
Description	The Flash ROM is located on the Main Board Unit. It contains mainly user customized media information. Some areas are used to store printer control firmware.
Data Written Method	Printer control firmware and default media related data are written at the Canon factory. User customized media information and the printer control firmware can be updated by user operations.
Data Initialize Method	Data is initialized utilizing a special tool at the Canon factory.

Type of Memory	NVRAM
Storage Medium	EEPROM
Volatility	Non volatile
Data Type	1. User customized device settings data 2. Device usage history data
Presence of User Data	No
Description	The NVRAM is located on the Main Board Unit. It contains user customized device setting data and device usage history.
Data Written Method	Default data are written at the Canon factory. User customized device settings data and device usage history data are revised by printer control firmware after user printer operations are performed.
Data Initialize Method	Data is initialized utilizing a special tool at the Canon factory.
Type of Memory	DRAM
Storage Medium	DDR3
Volatility	Volatile
Data Type	1. Printer control firmware 2. Temporary storage of user printing data
Presence of User Data	Yes
Description	The DRAM is located on the Main Board Unit. It is used to execute printer control firmware. Additionally it is used to temporarily store user printing data.
Data Written Method	The boot program will read the printer control firmware from the Flash ROM and write it to the DRAM. User printing data will also be written in the DRAM temporarily when printing is performed.
Data Initialize Method	Data is cleared immediately after removing power from the DRAM by turning off the power switch.

**Hard Disk Drive (HDD) Unit**

Type of Memory	HDD
Storage Medium	2.5 inch 320GB Hard disk drive. This HDD is non-removable disk drive.
Volatility	Non volatile
Data Type	1. Print data 2. Printing history data (Job history data) *1
Presence of User Data	Yes
Description	The HDD is located next to the Main Board Unit. It contains print data and Job history data.
Data Written Method	Print data is written during printing operations. Job Log data are revised by printer control firmware after user printer operations are performed.
Data Initialize Method	Data is cleared using the operation panel functions.

**\*1: Information stored in the Job history**

Item	Description
Time of job history	Time and date job log was stored
Print start time	Date and time when the print job was executed.
Print end time	Date and time when the print job was completed.
Print result	The status when the print job was completed.
Amount of ink used	Usage amount of ink for each job/each color
Paper consumed	Usage area of paper for each job.
Document name	Name of printed job.
User name	Name of print job user.
Media Information	Printing paper type, ID and paper supply tray.
Printing Quality	Printing quality setting and printing mode.

**Backup PCB Unit**

Type of Memory	NVRAM
Storage Medium	EEPROM
Volatility	Non volatile
Data Type	Back up the main board unit NVRAM
Presence of User Data	No
Description	EEPROM is located on the Backup PCB Unit. It contains the backup data of NVRAM located on the Main Board Unit.
Data Written Method	Default data are written at the Canon factory. The stored data are revised by printer control firmware after user printer operations are performed.
Data Initialize Method	Data is initialized utilizing a special tool at the Canon factory.