

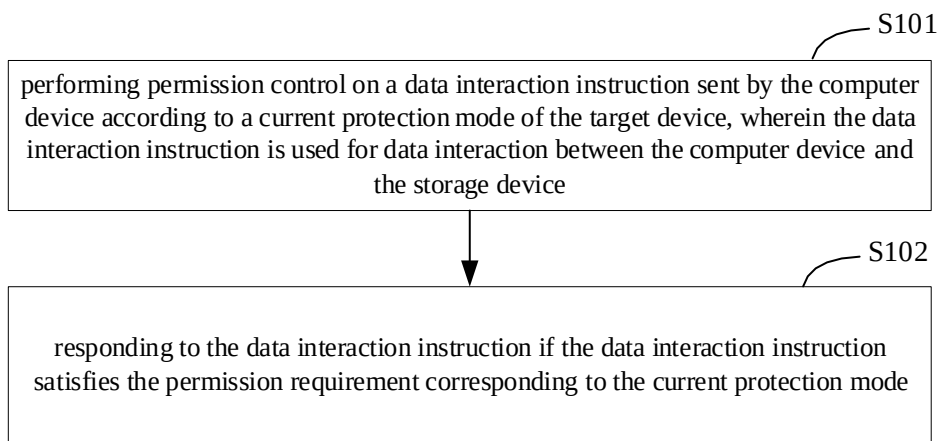


FIG. 1

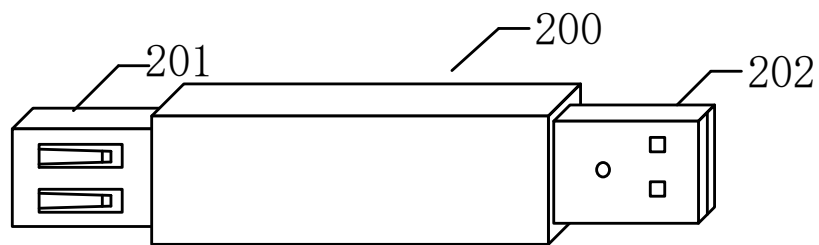


FIG. 2a

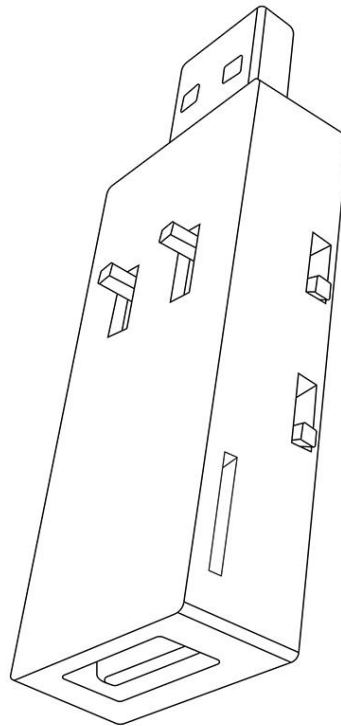


FIG. 2b

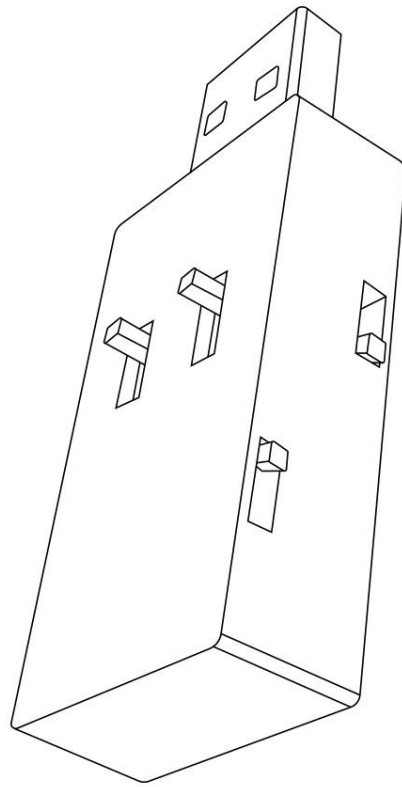


FIG. 2c

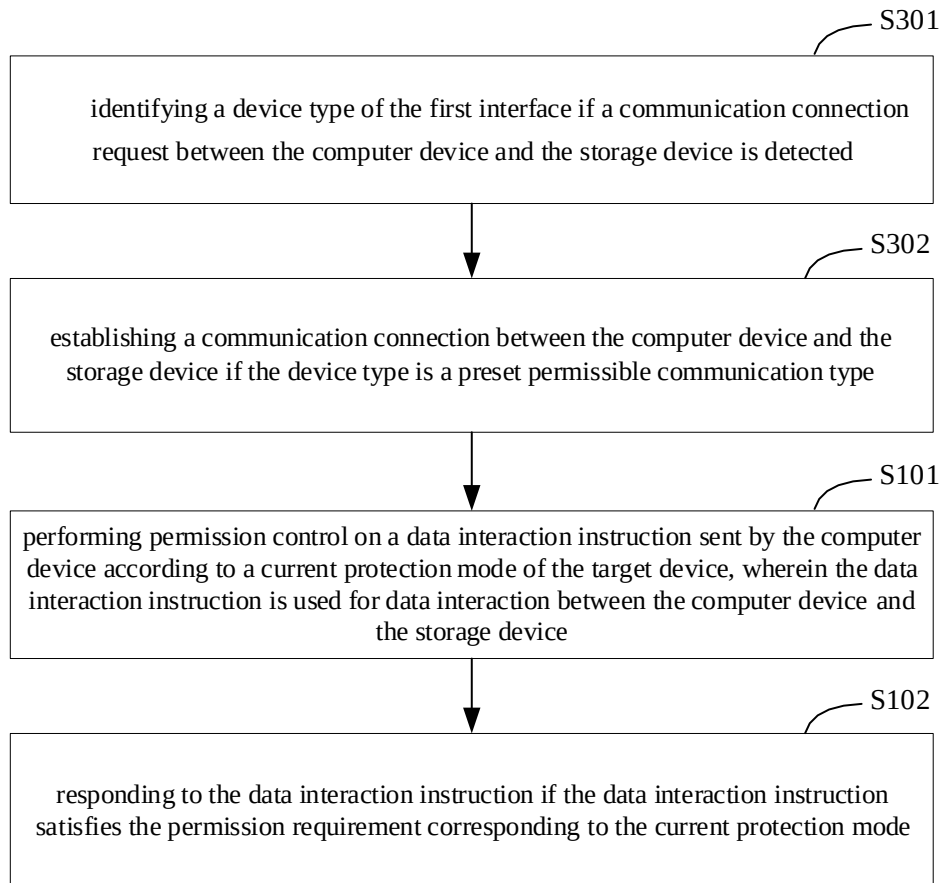


FIG. 3

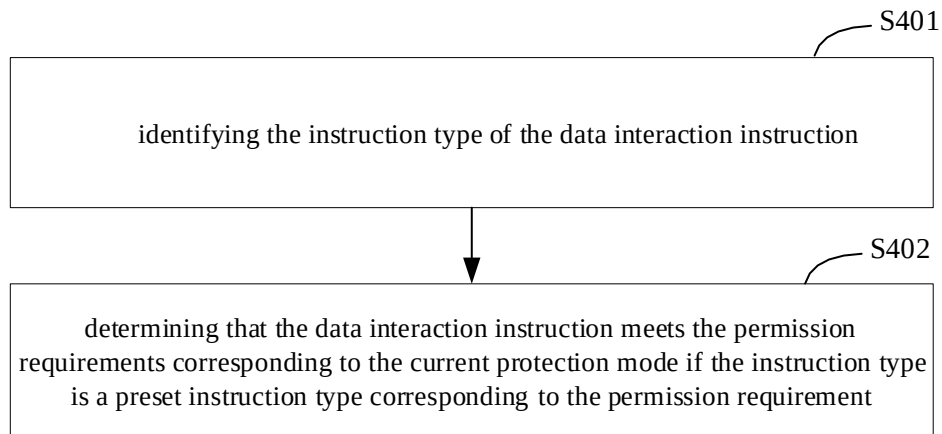


FIG. 4

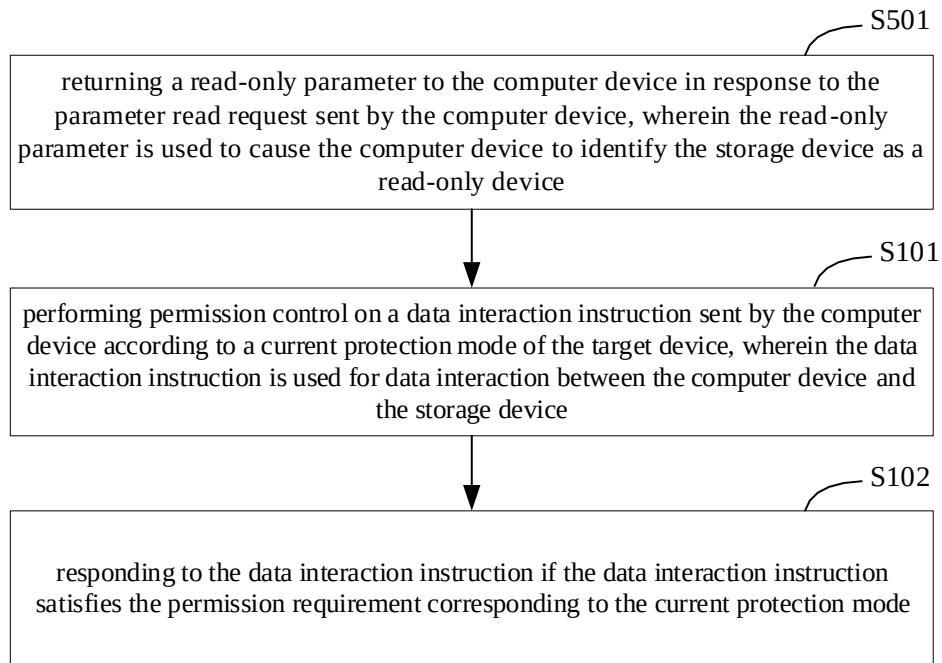


FIG. 5

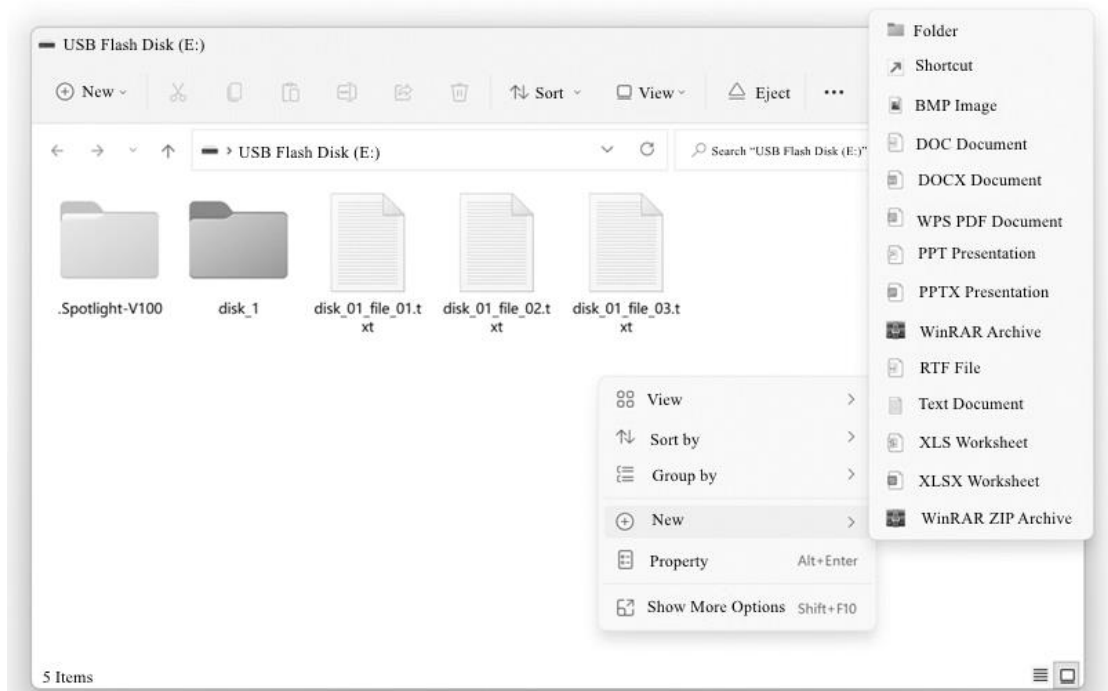


FIG. 6a

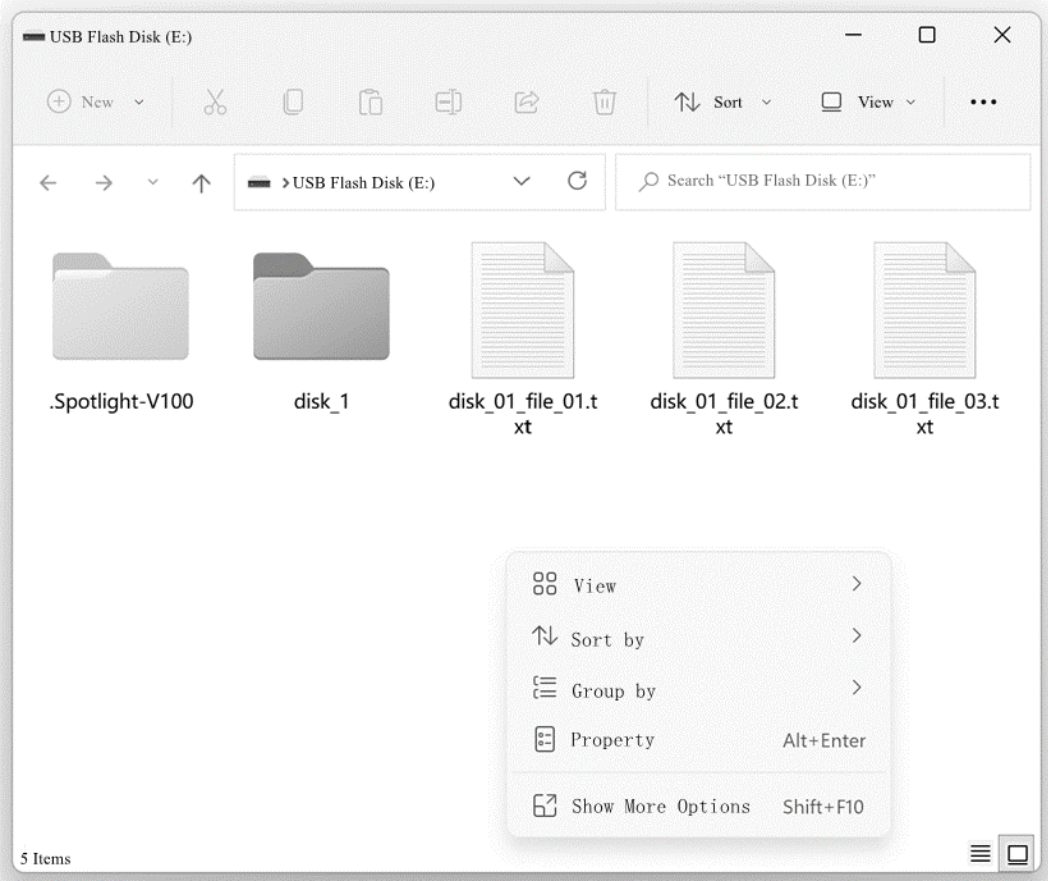


FIG. 6b

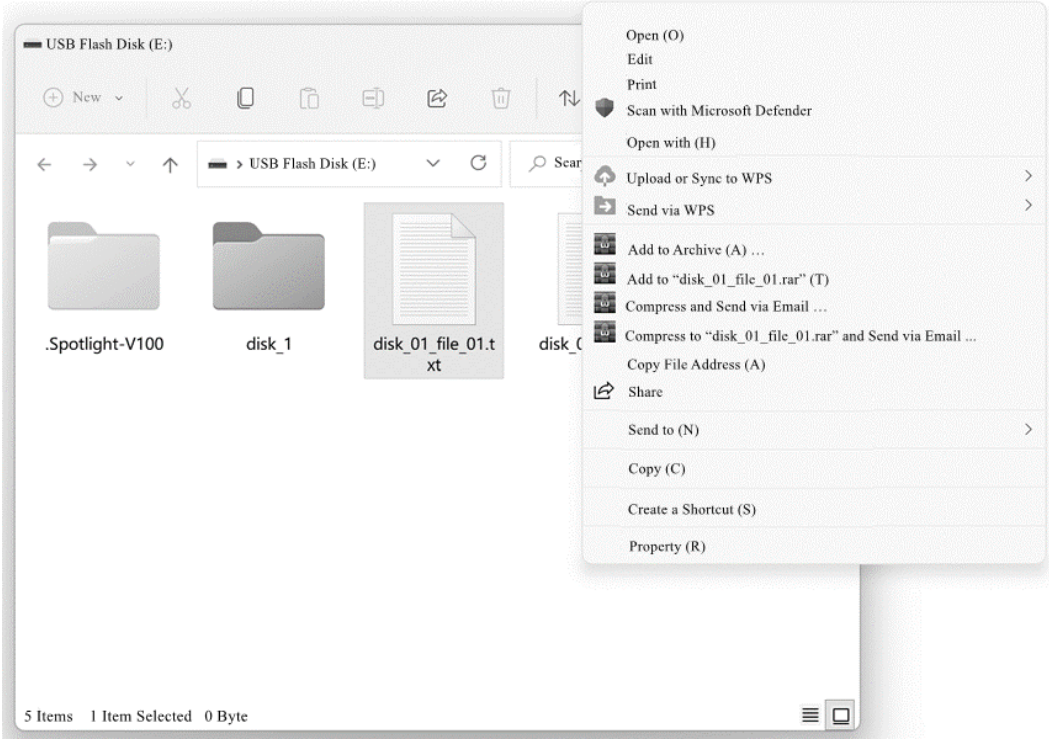


FIG. 6c

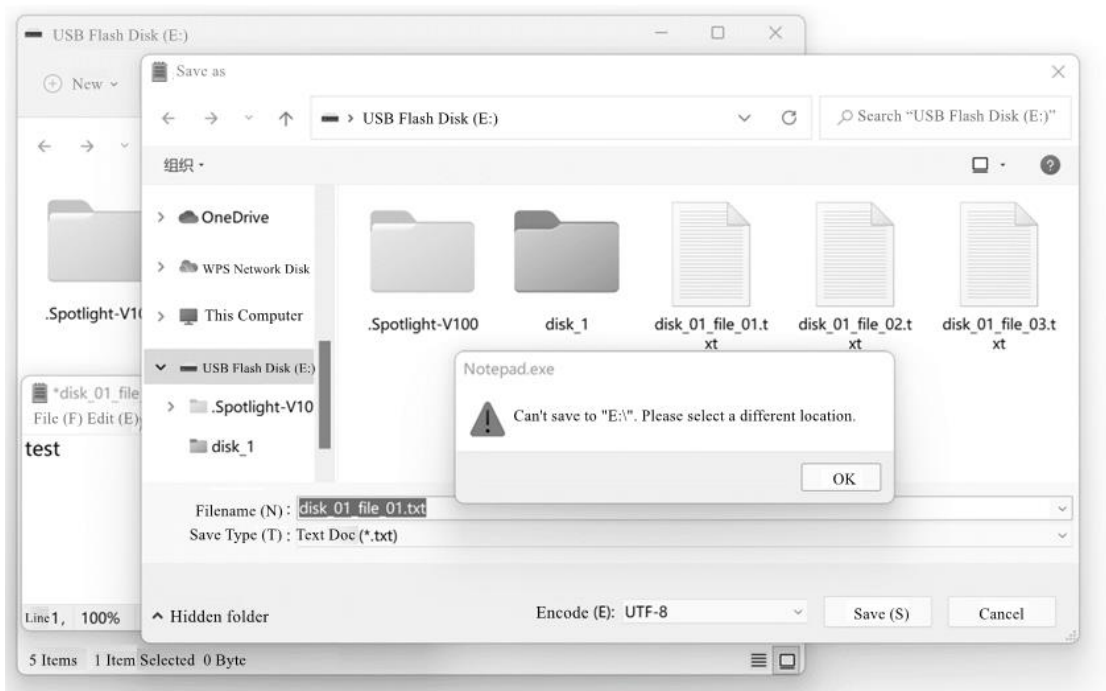


FIG. 6d

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performing read/write operation on the target file in the storage device in response to the data interaction instruction, wherein the read/write operation include at least one of a read operation and a write operation.

FIG. 7

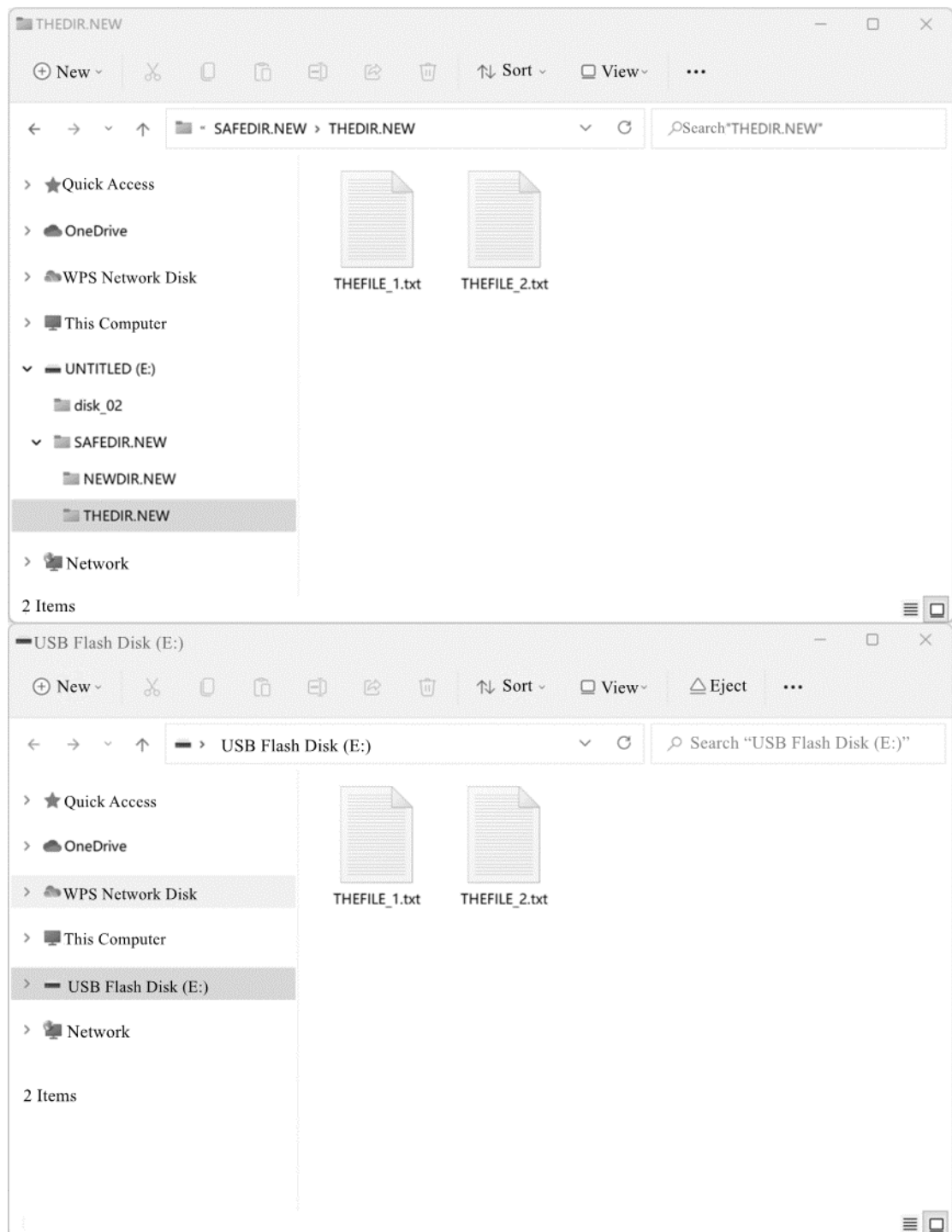


FIG. 8

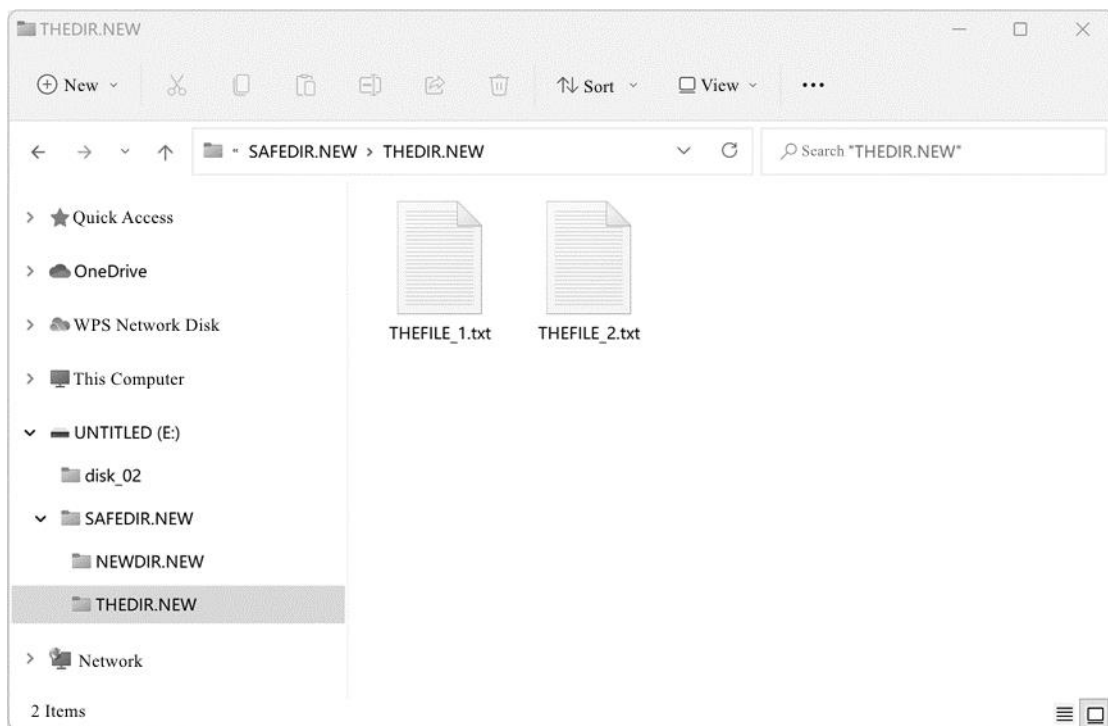


FIG. 9a

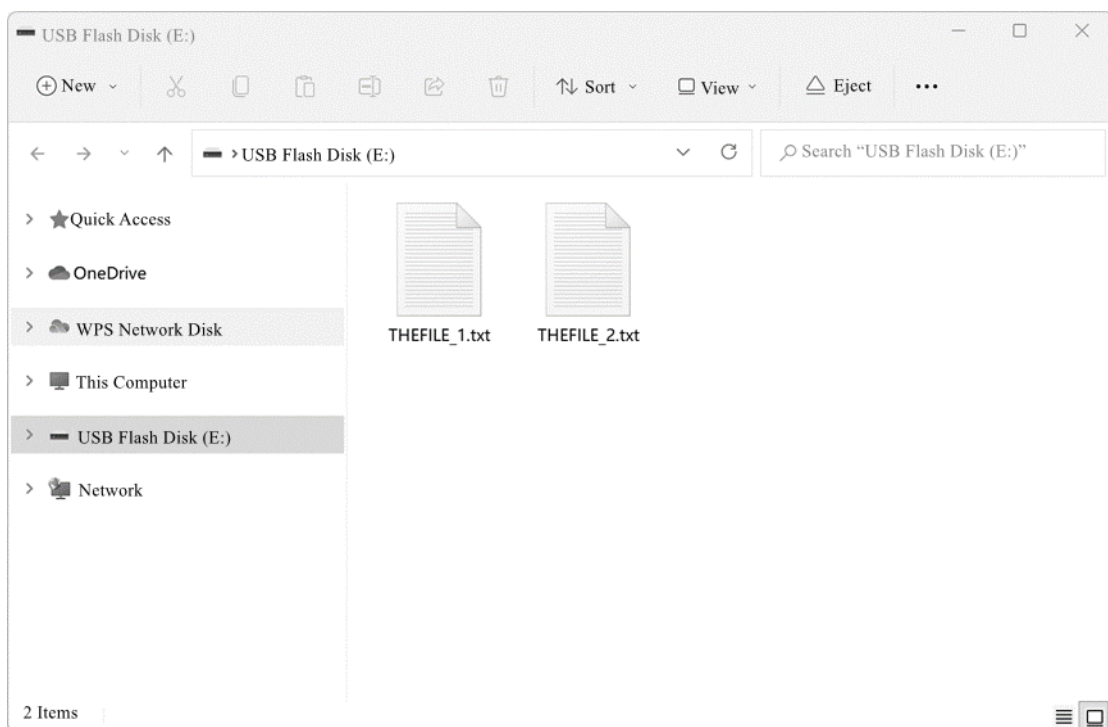


FIG. 9b

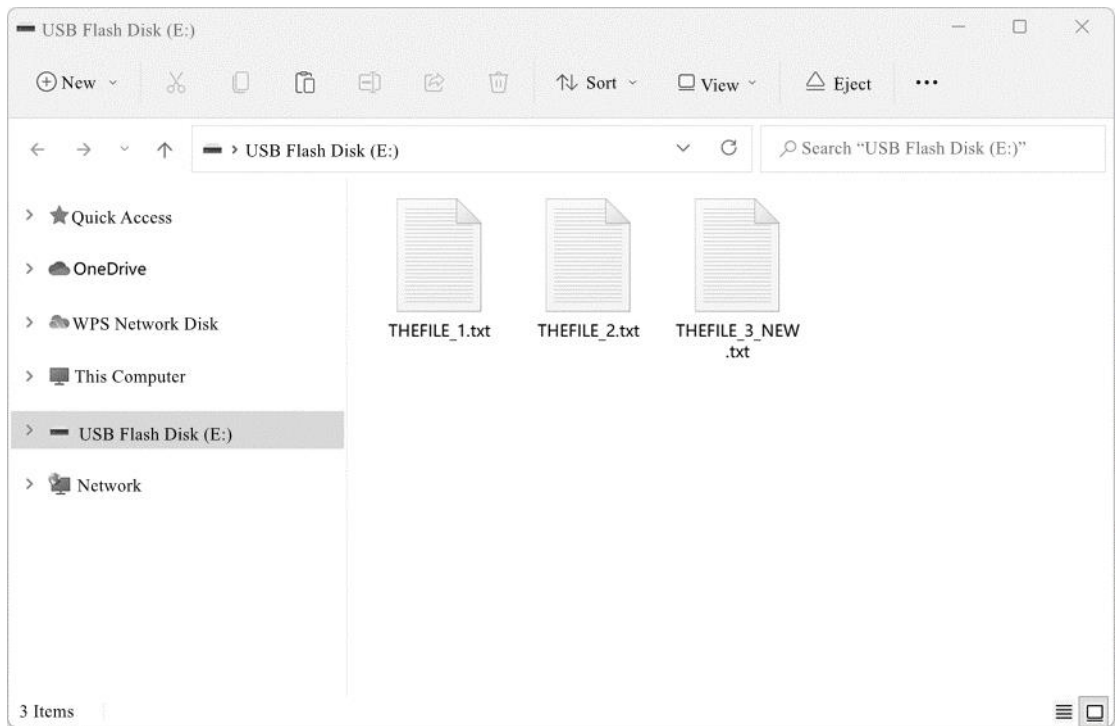


FIG. 9c

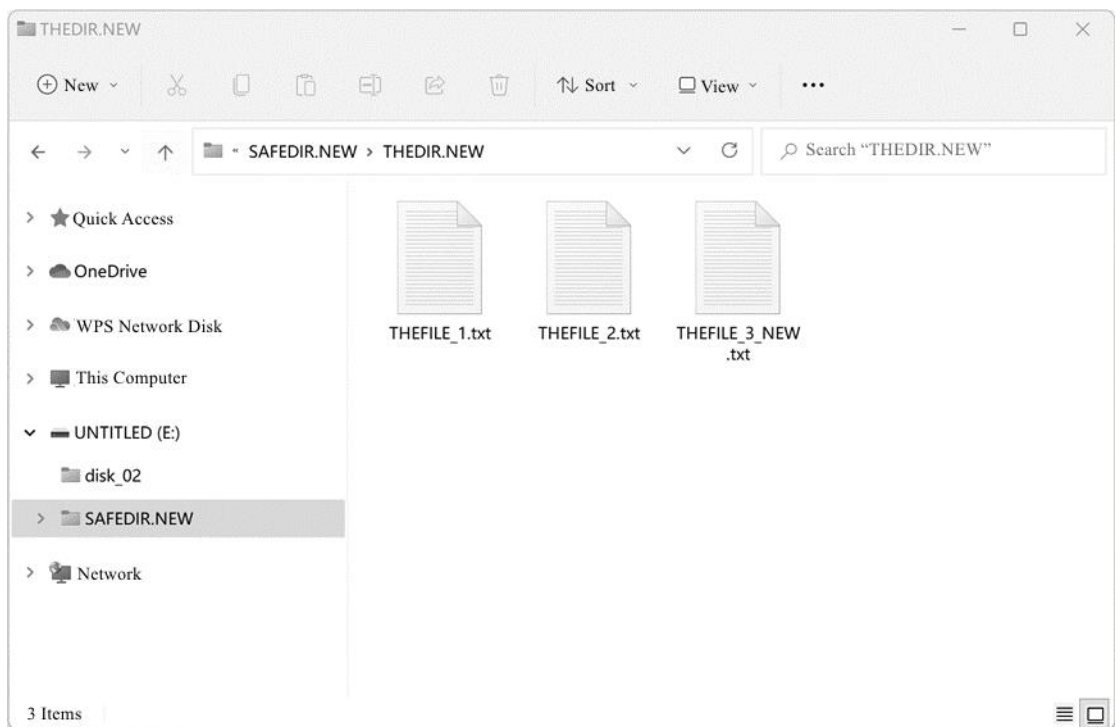


FIG. 9d

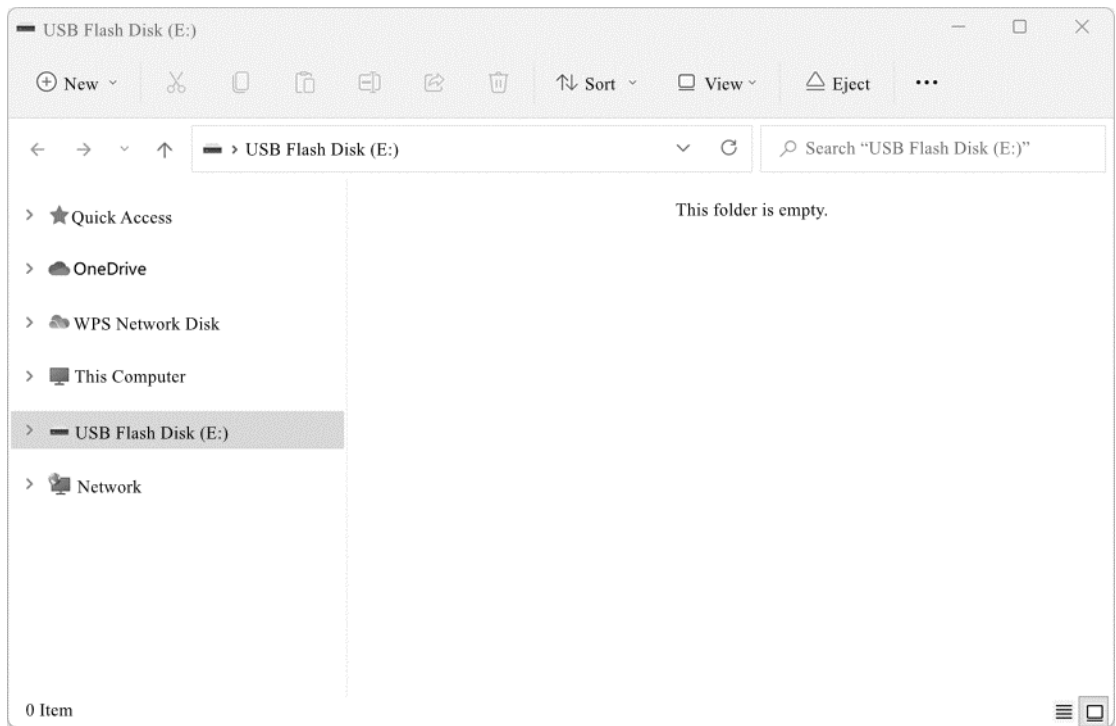


FIG. 10a

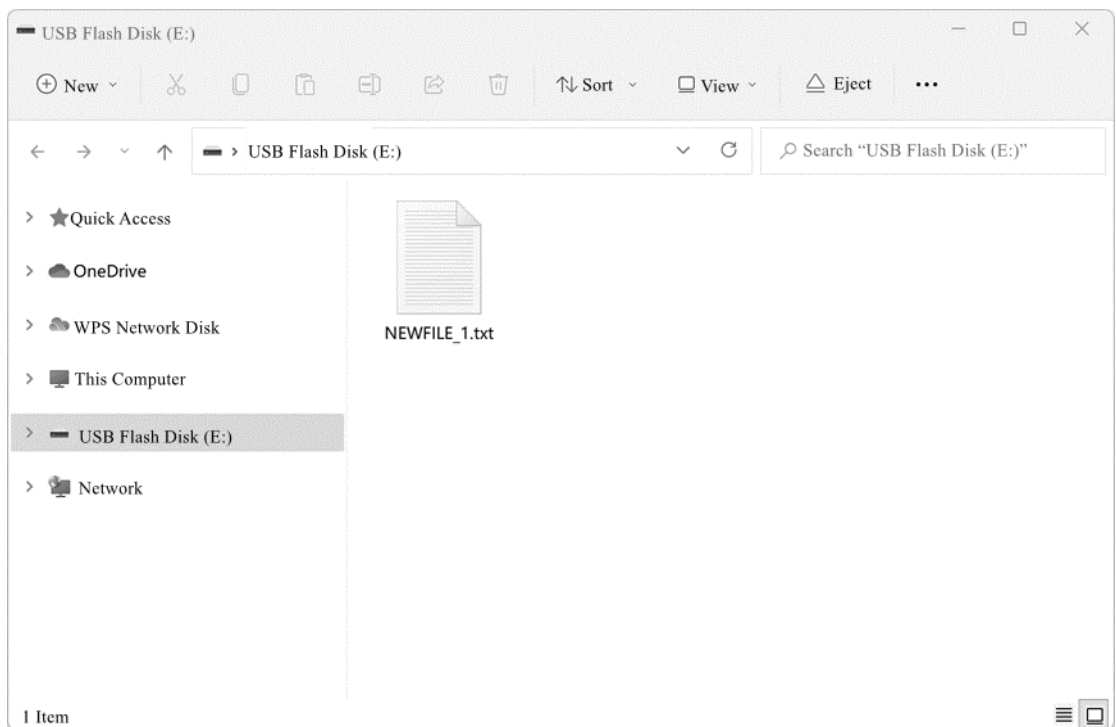


FIG. 10b

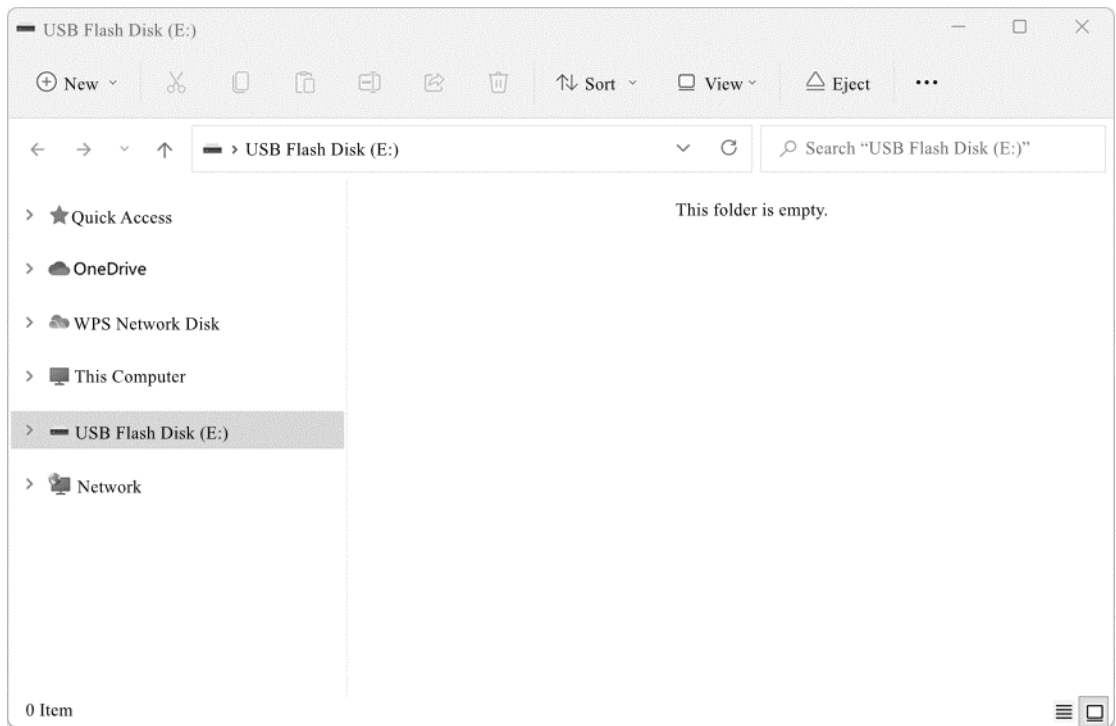


FIG. 10c

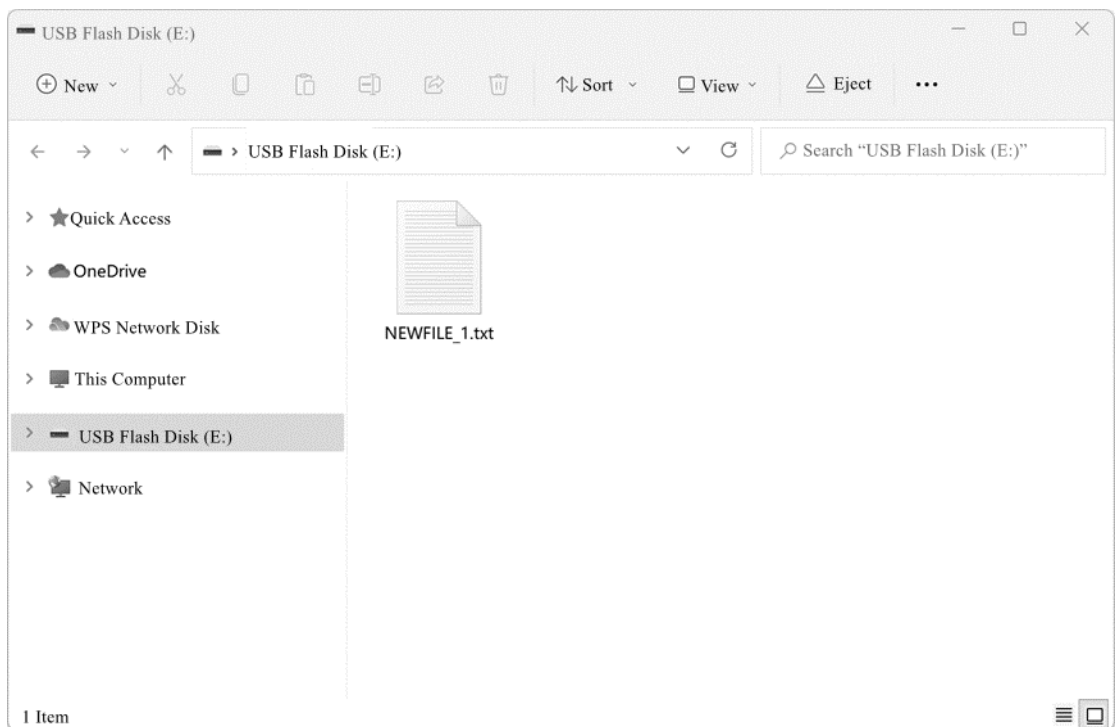


FIG. 10d

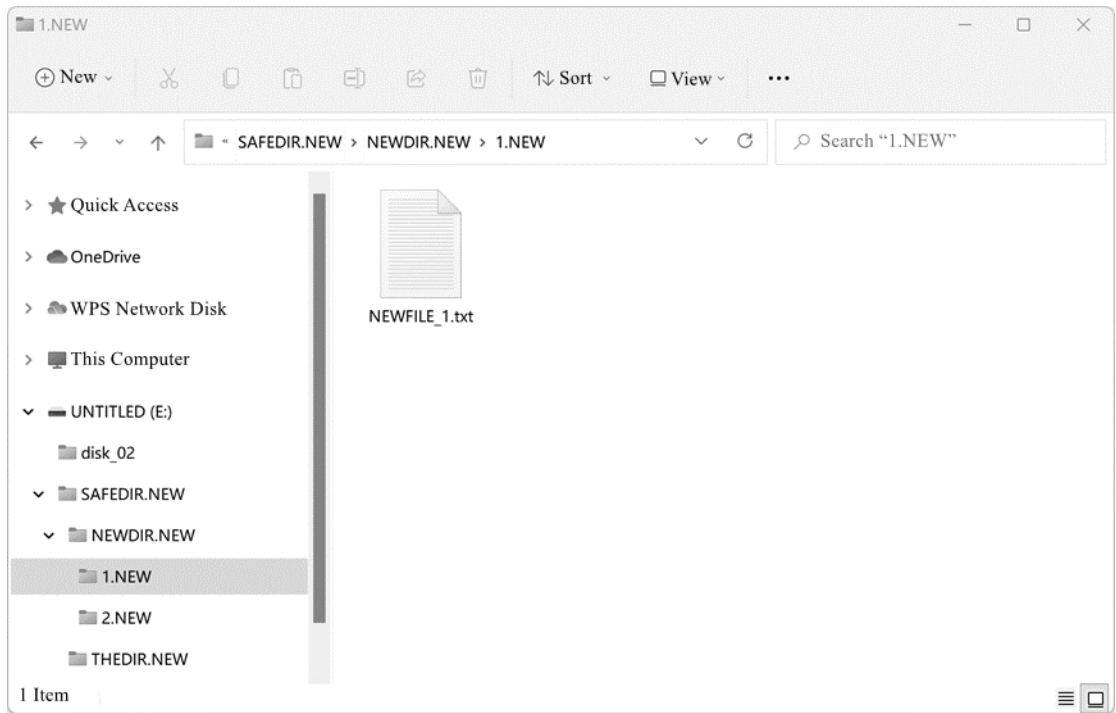


FIG. 11a

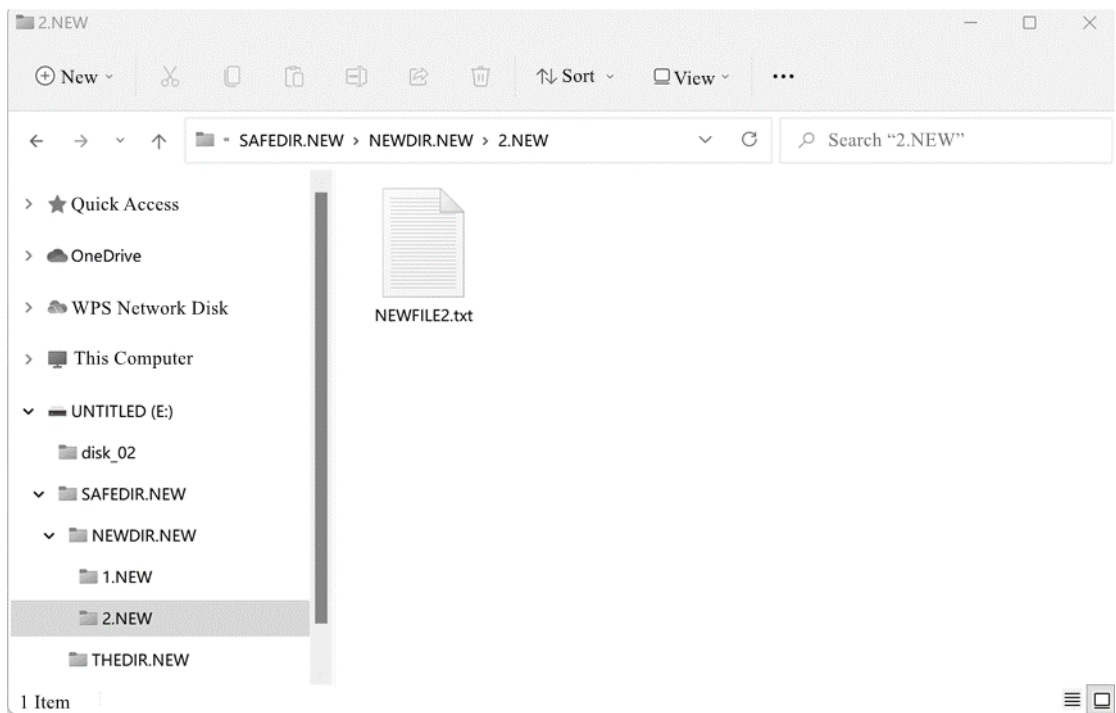


FIG. 11b

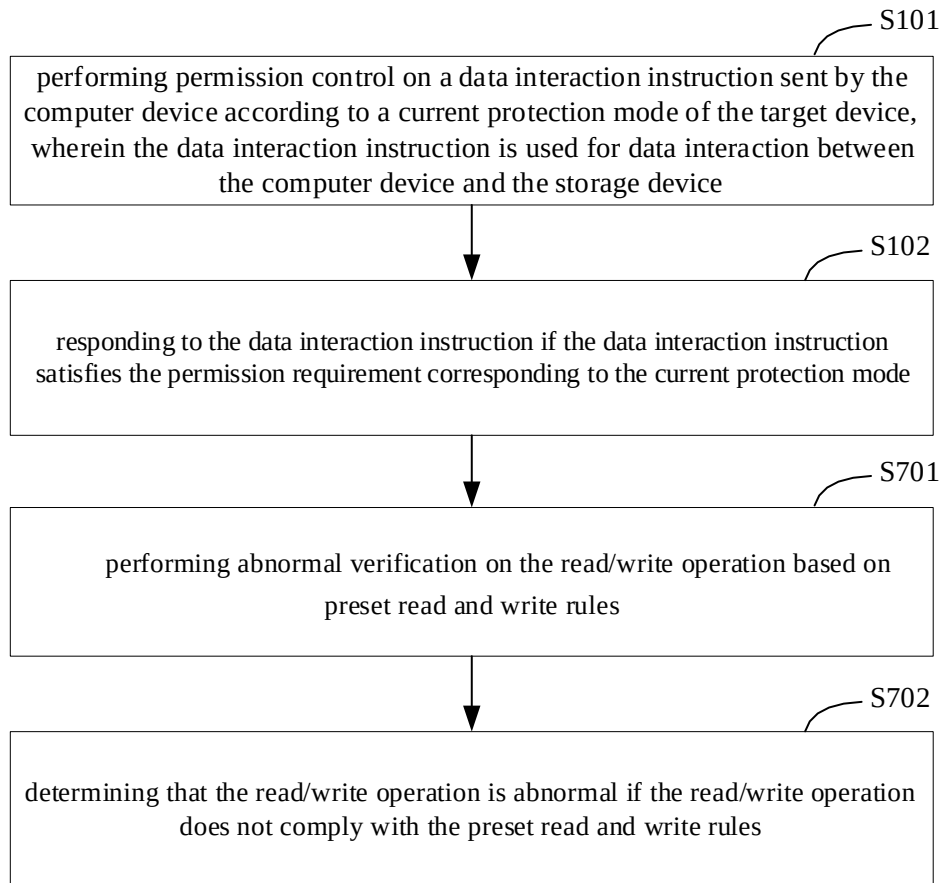


FIG. 12

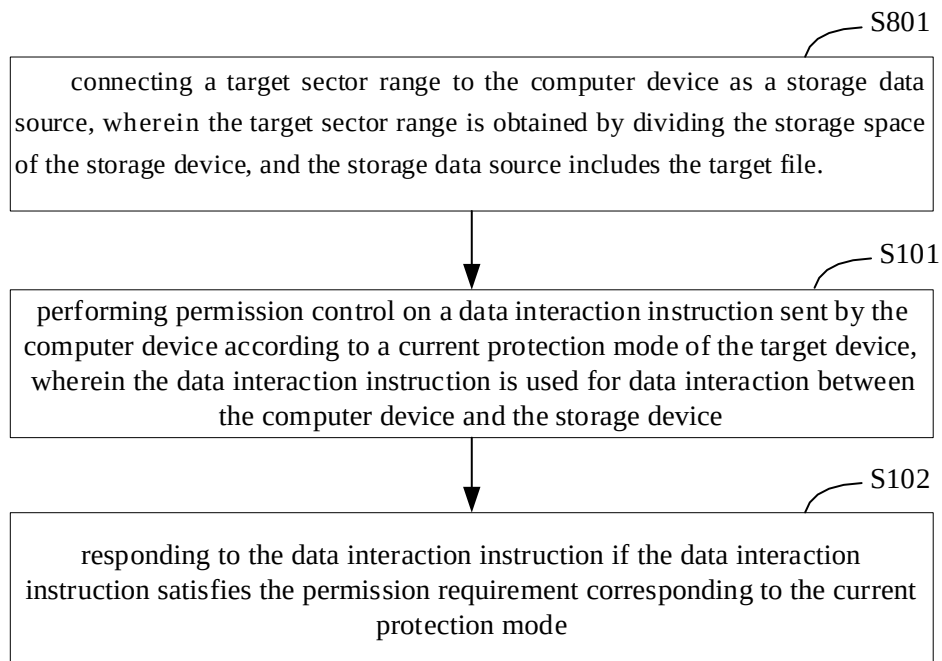


FIG. 13

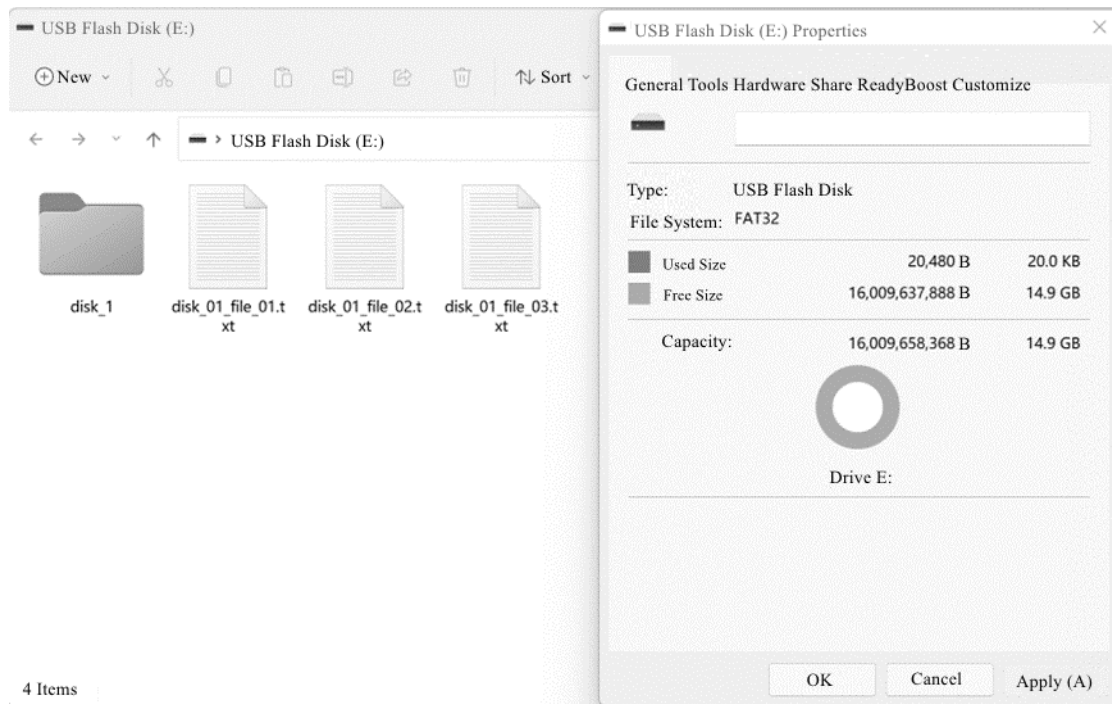


FIG. 14a

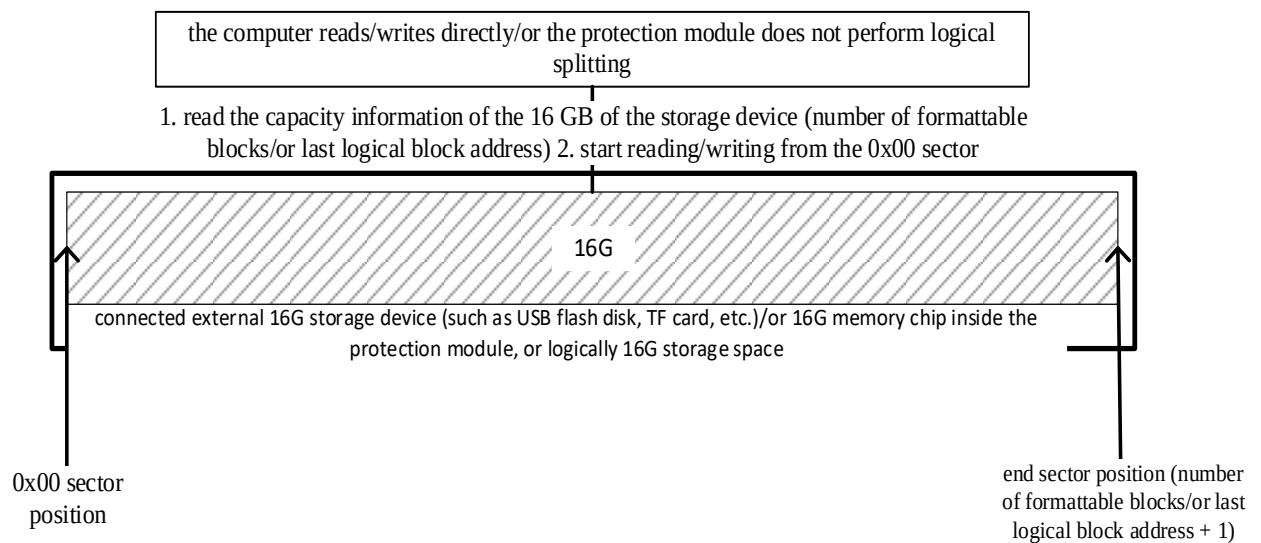


FIG. 14b

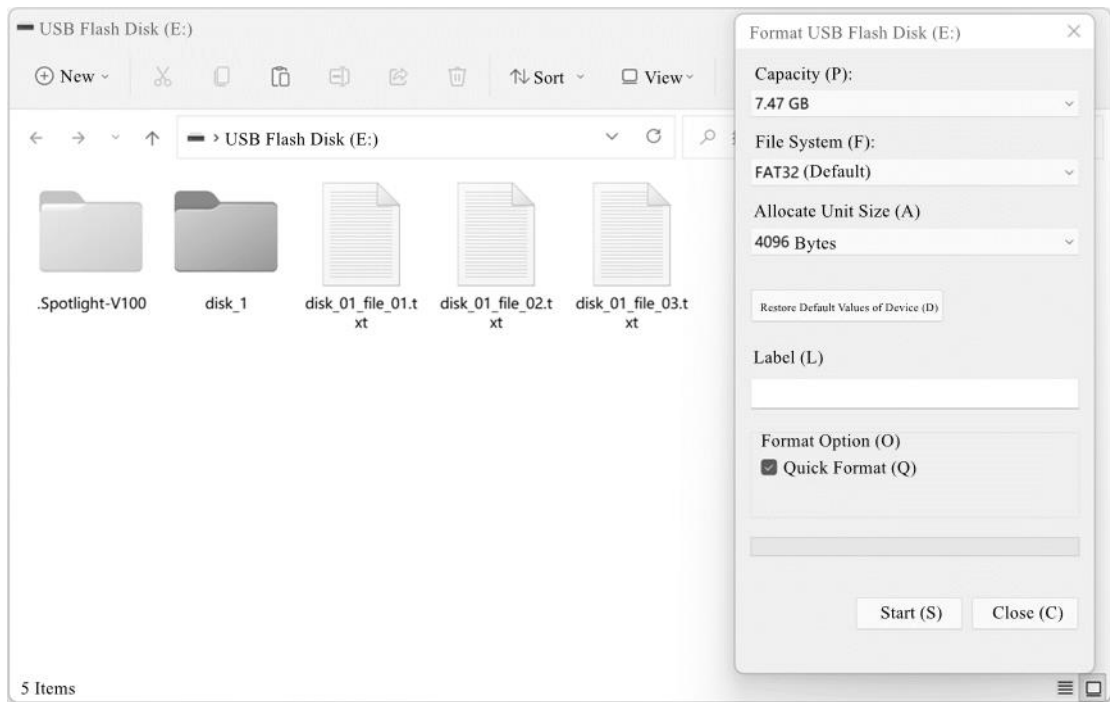


FIG. 14c

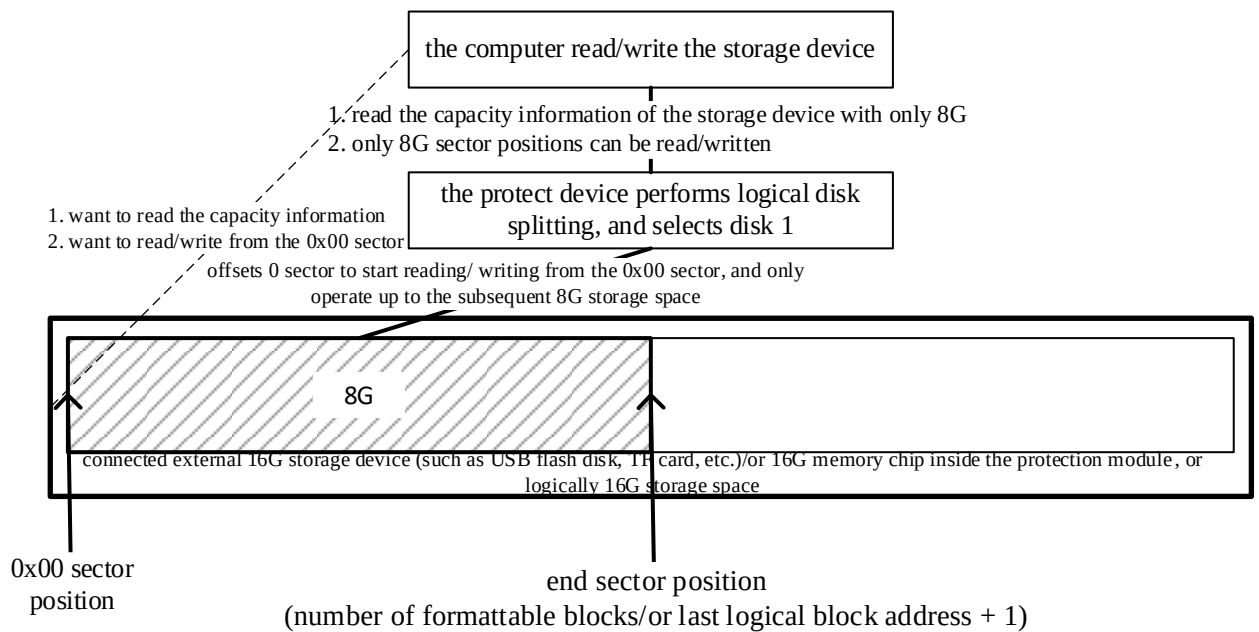


FIG. 14d

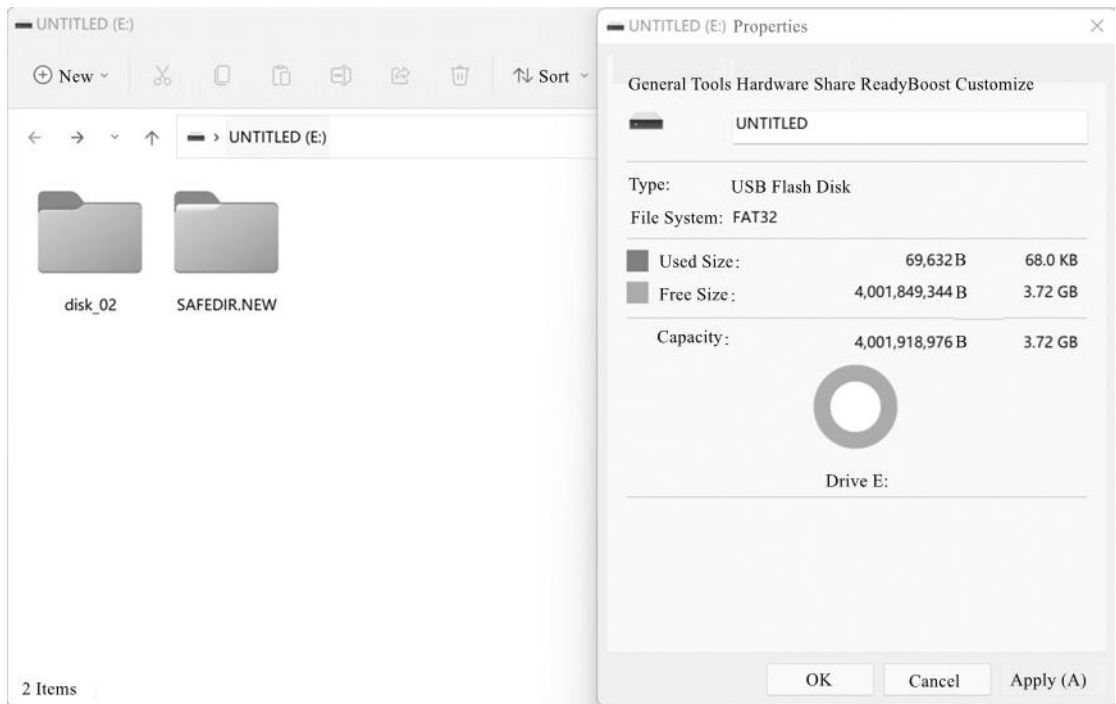


FIG. 14e

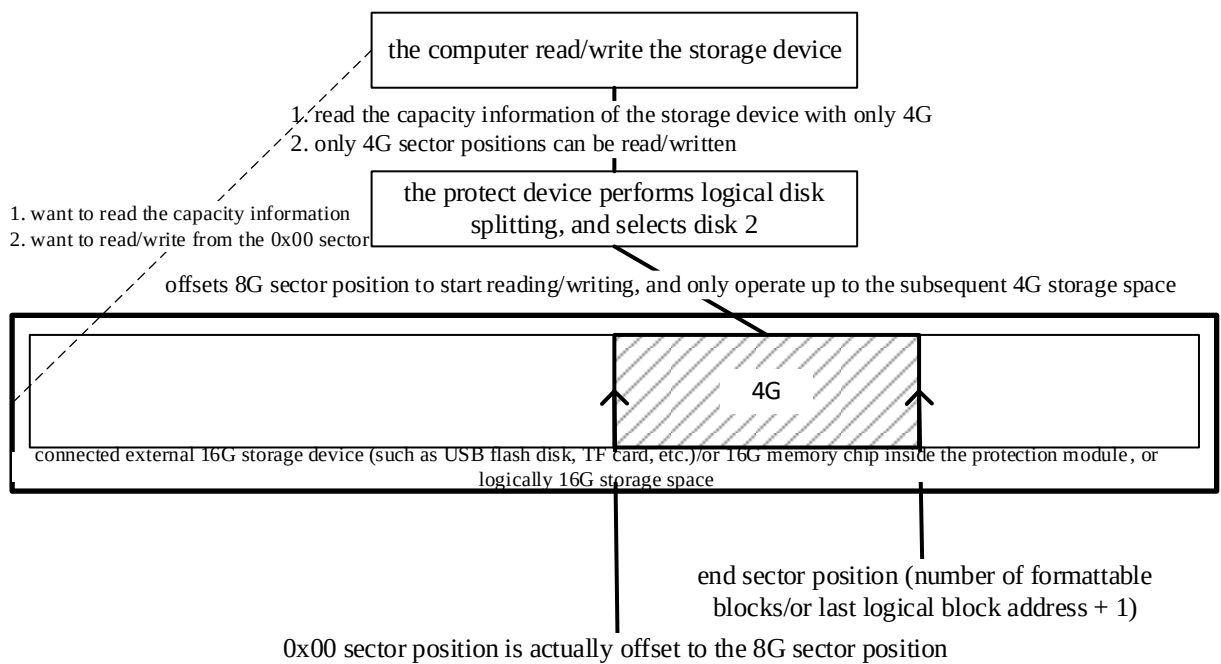


FIG. 14f

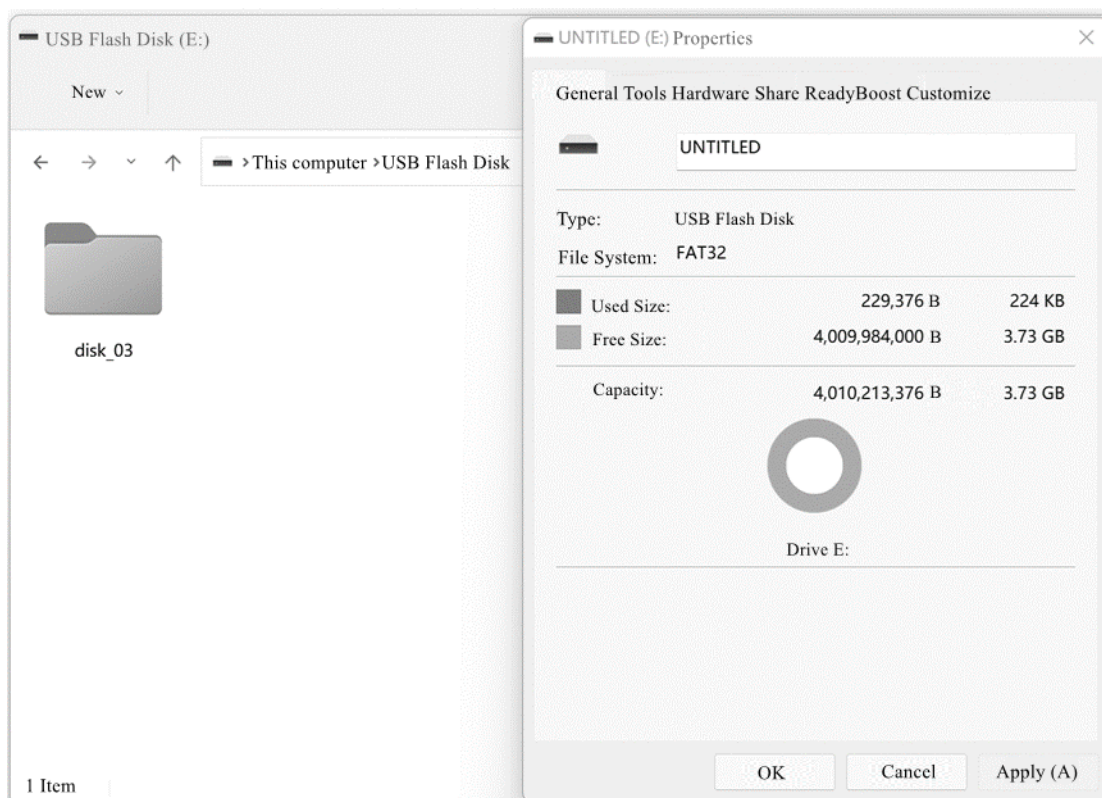


FIG. 14g

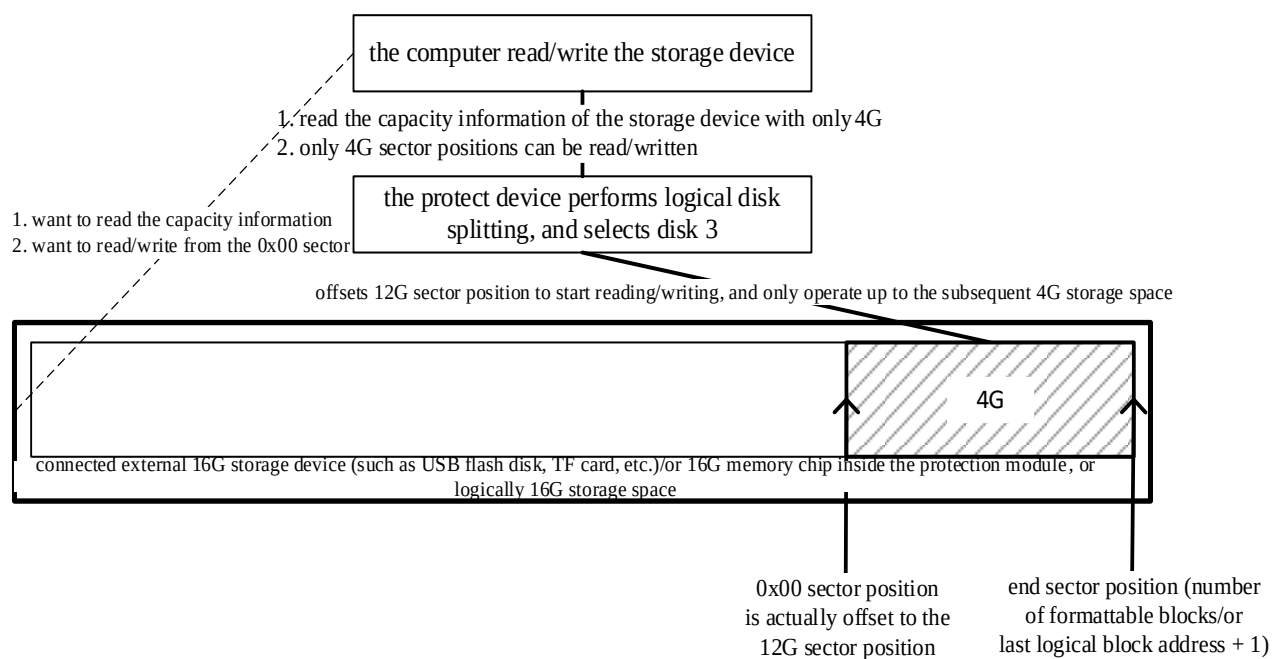


FIG. 14h

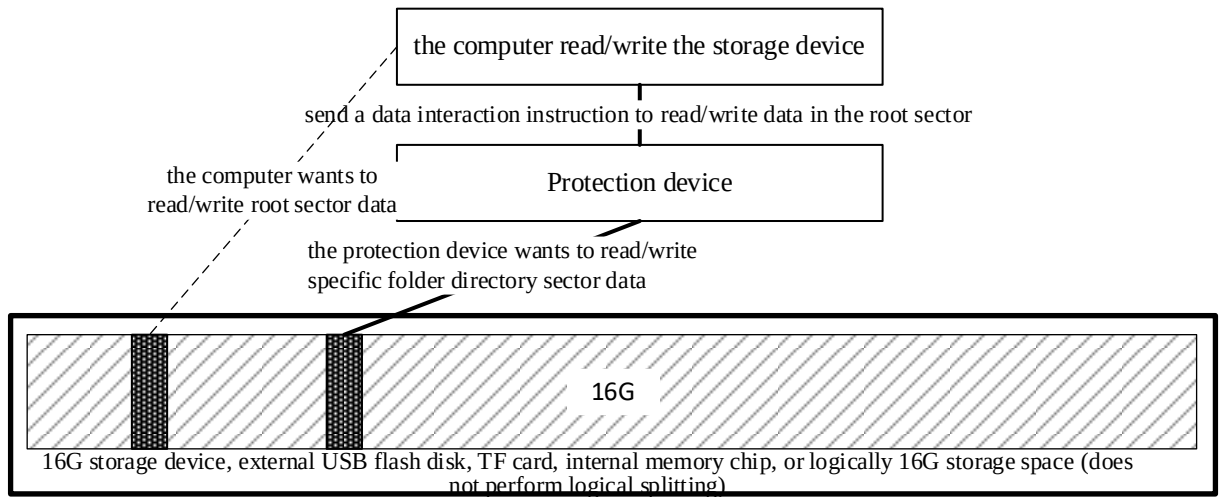


FIG. 14i

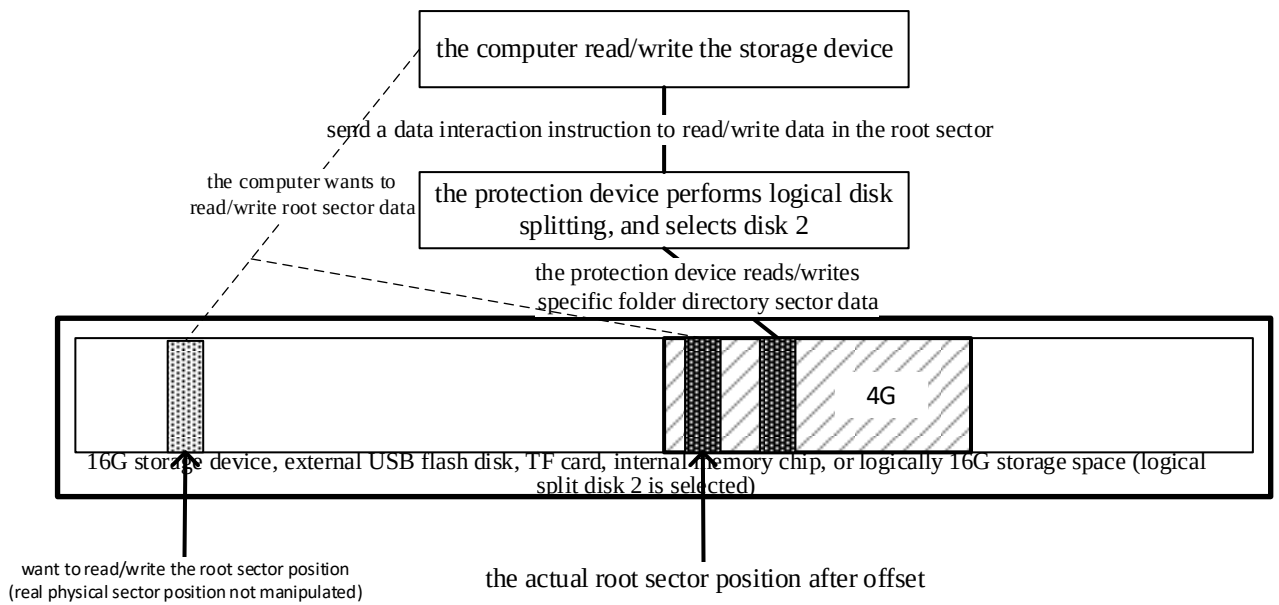


FIG. 14j

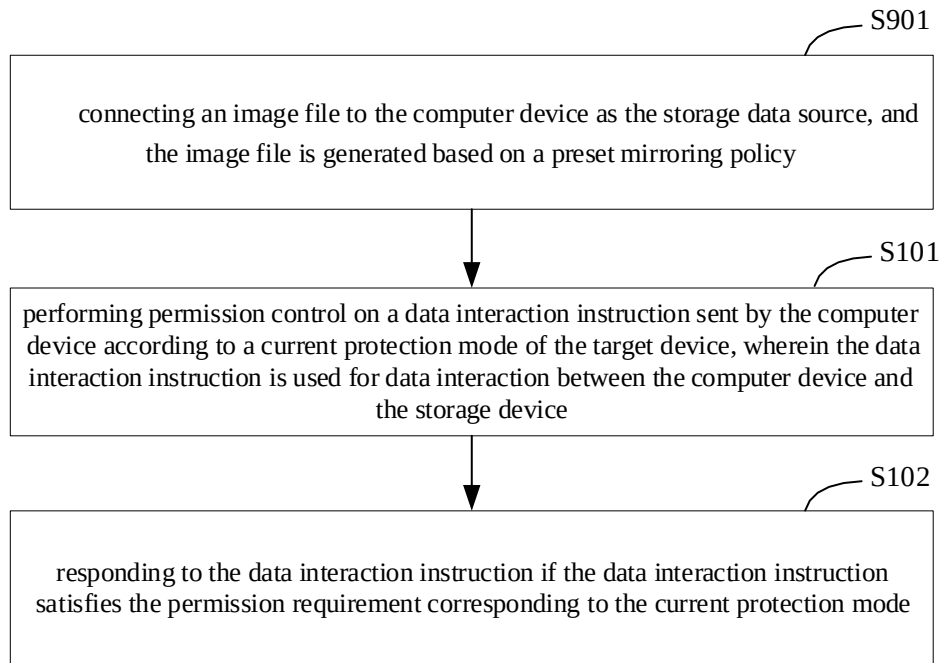


FIG. 15

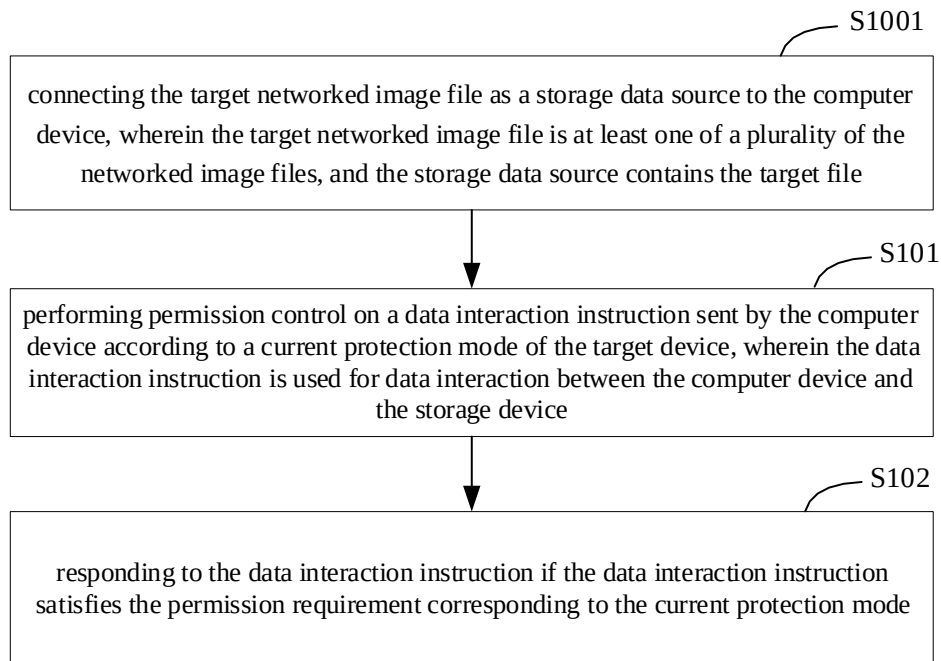


FIG. 16

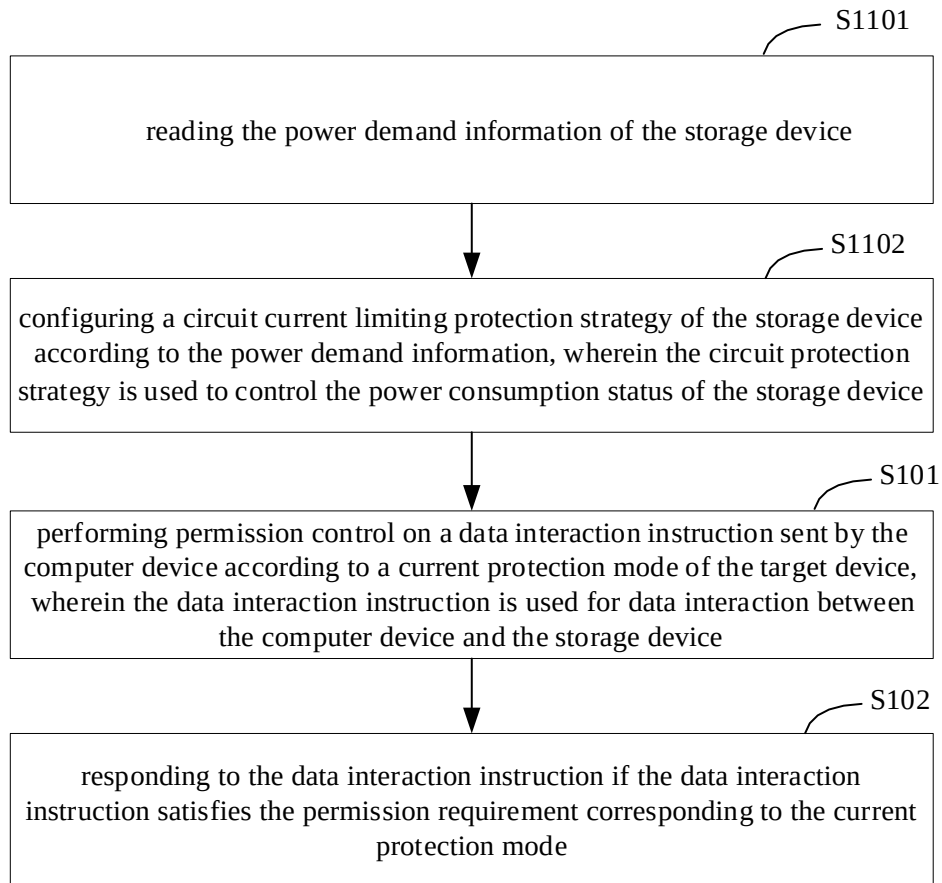


FIG. 17

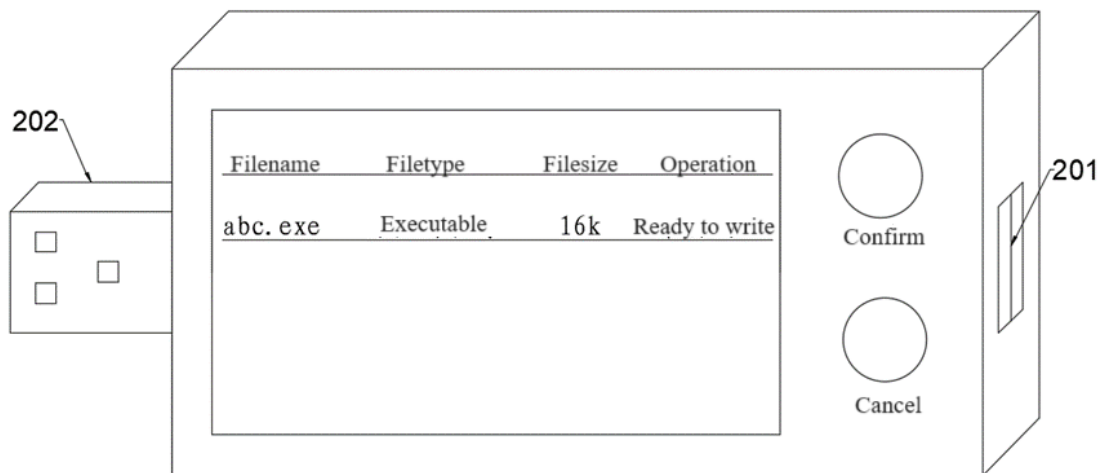


FIG. 18a

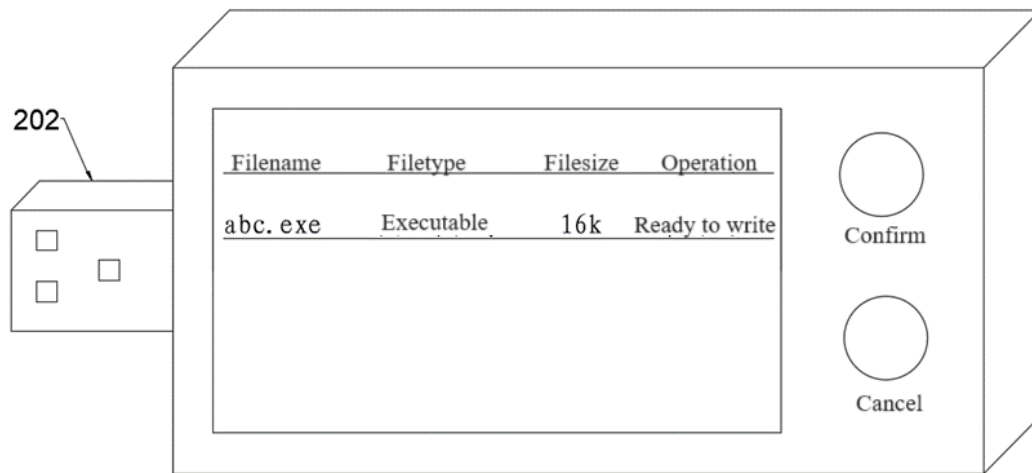


FIG. 18b

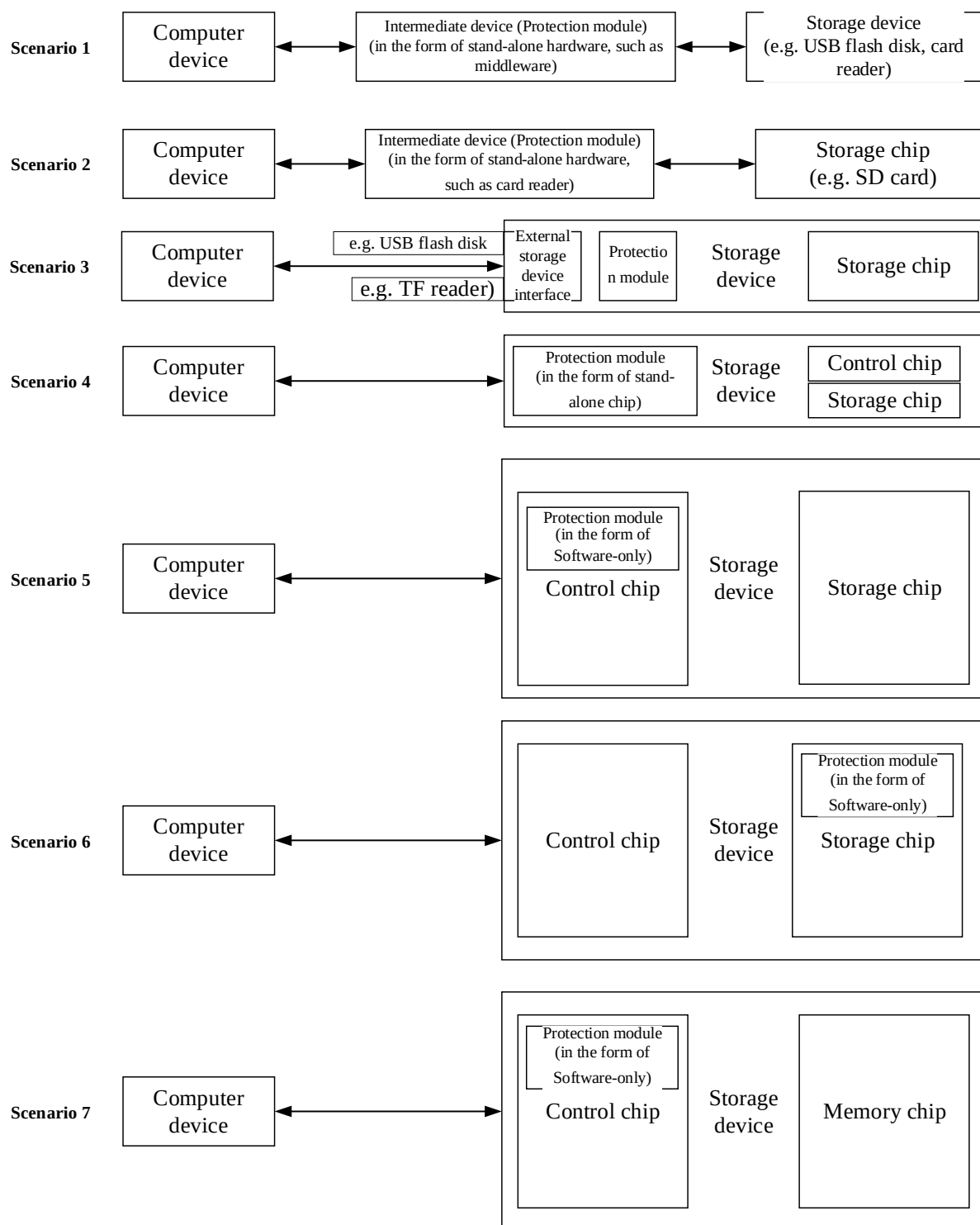


FIG. 19

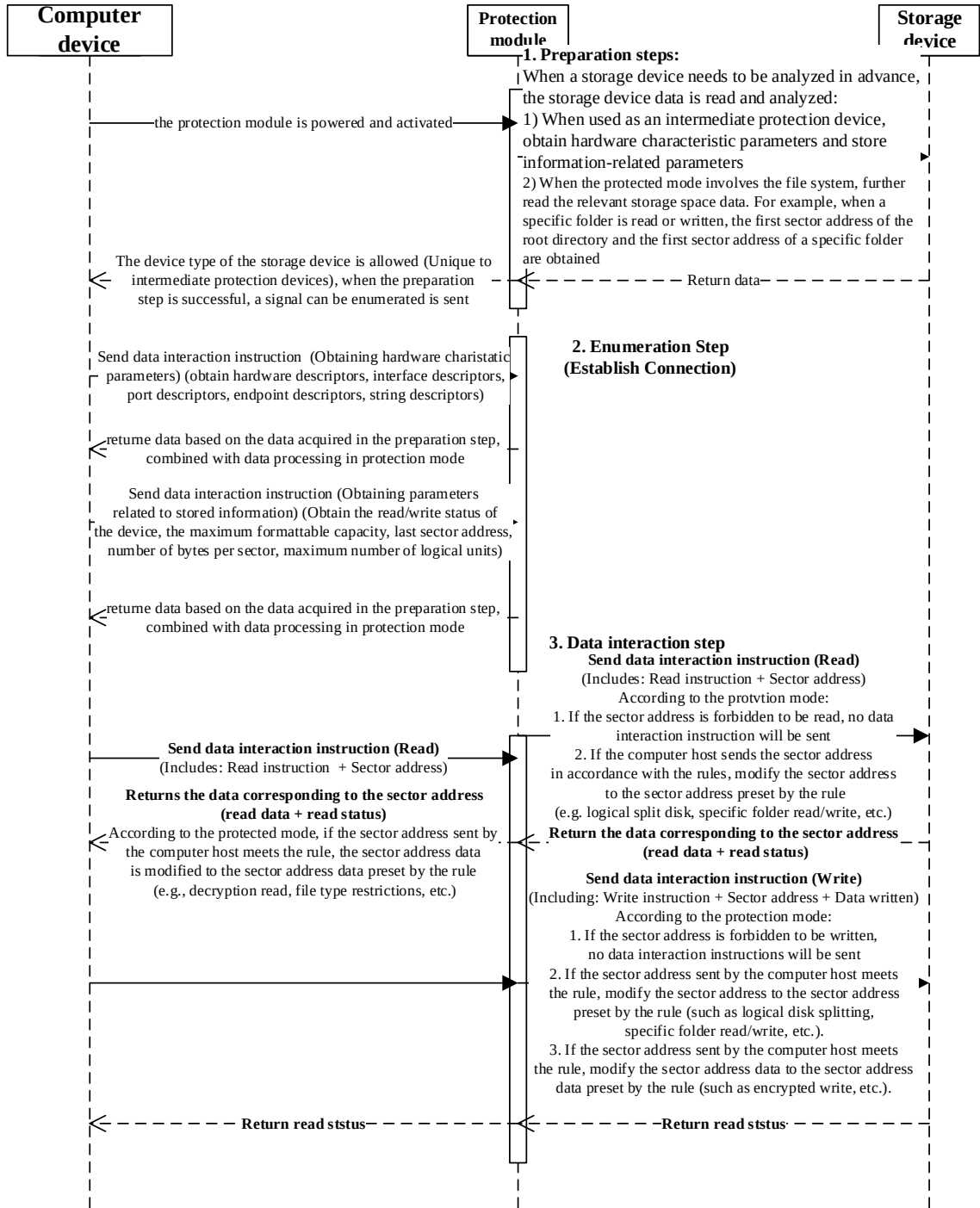


FIG. 20a

Computer host		Protection module (1, 2, and 3 are non-hierarchical progressive relationships below) (Executions that fall under the following rules can be performed automatically or manually confirmed.)		Storage device
Enumeration phase Establish an interface connection		1. Access control. According to the access control rules, the descriptor data of the storage device is read to determine whether the preset requirements are met, and the computer device is allowed/prohibited from establishing a connection. 2. Content modifications. According to the content modification rules, the modified or replaced descriptor data is returned to the computer device.		Descriptor data (Hardware Descriptors, Interface Descriptors, Port Descriptors, Endpoint Descriptors, String Descriptors) (Note: The above is USB device-specific data, such as USB flash drive.) If it is a memory chip, there is no descriptor data)
Enumeration phase Read storage device information		1. Access control. According to the access control rules, the storage information data of the storage device is read, and whether the preset requirements are met, and the computer device is allowed/prohibited from establishing a connection. 2. Content modifications. According to the content modification rules, the modified or replaced storage information data is returned to the computer Device.		Storage informational data (Read/write status of the device, maximum formatable capacity, last sector address, number of bytes per sector, maximum number of logical units)
Data interaction phase Read/write storage address data When it is read out, the data corresponding to the sector address is read. When writing, data is written to the corresponding sector address.		Determine whether the read/write sector address of a computer device matches the preset: 1. Access control. Read/write operations on the sector address are allowed/prohibited by computer devices according to access control rules. 2. Address mapping. According to the address mapping rules, the data of the corresponding mapped sector address of the storage device is read/written and returned to the computer device (read data or write status). 3. Content modifications. According to the content modification rules, the corresponding sector address data of the read/write storage device is modified and returned to the computer device (read data or write status).		Data corresponding to the sector address of the storage space

FIG. 20b

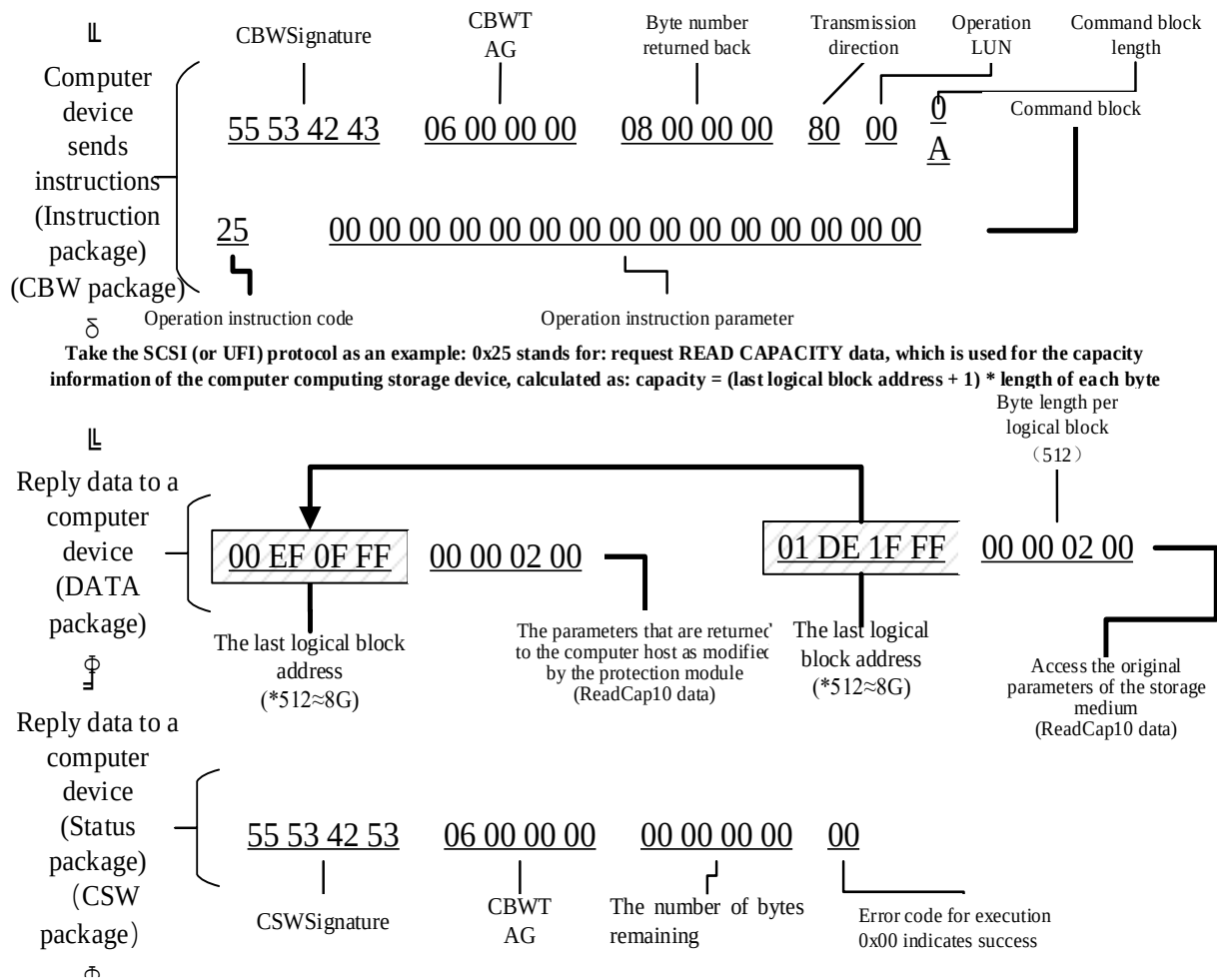


FIG. 23

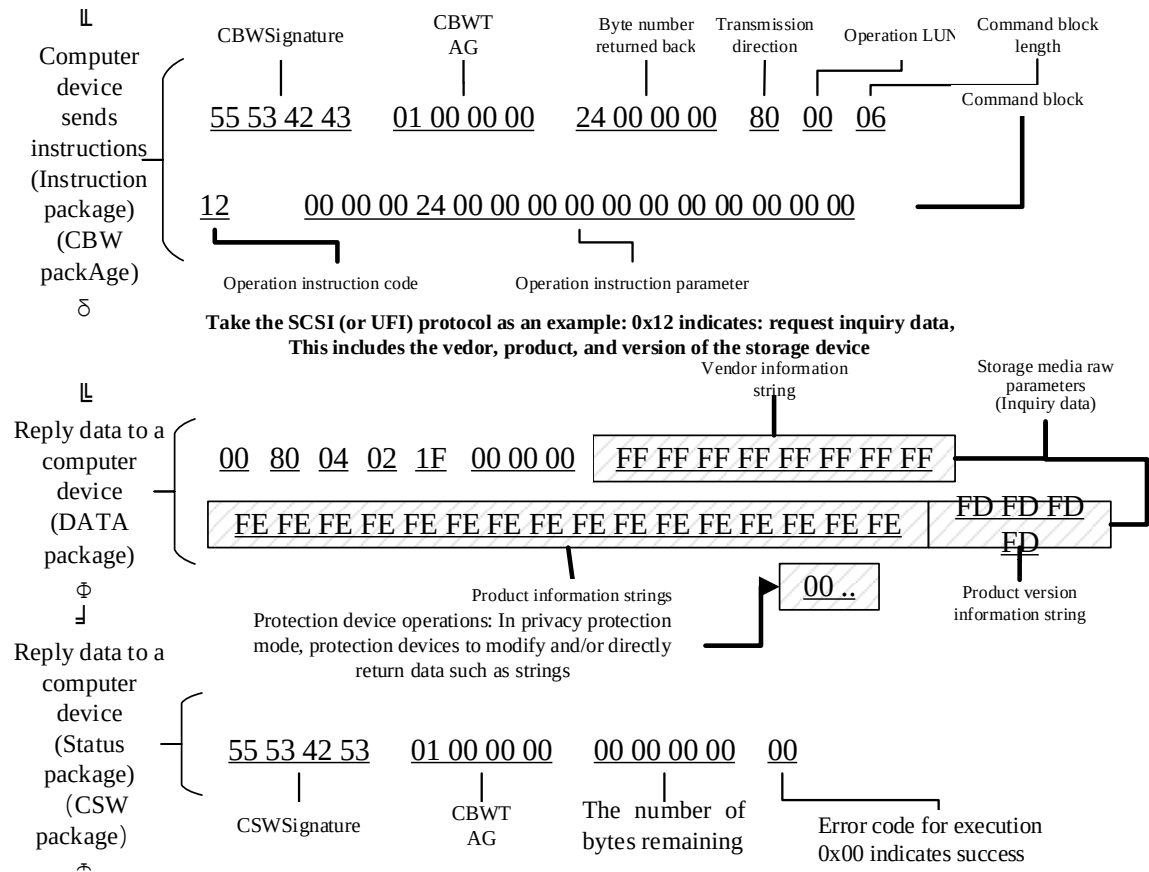


FIG. 24

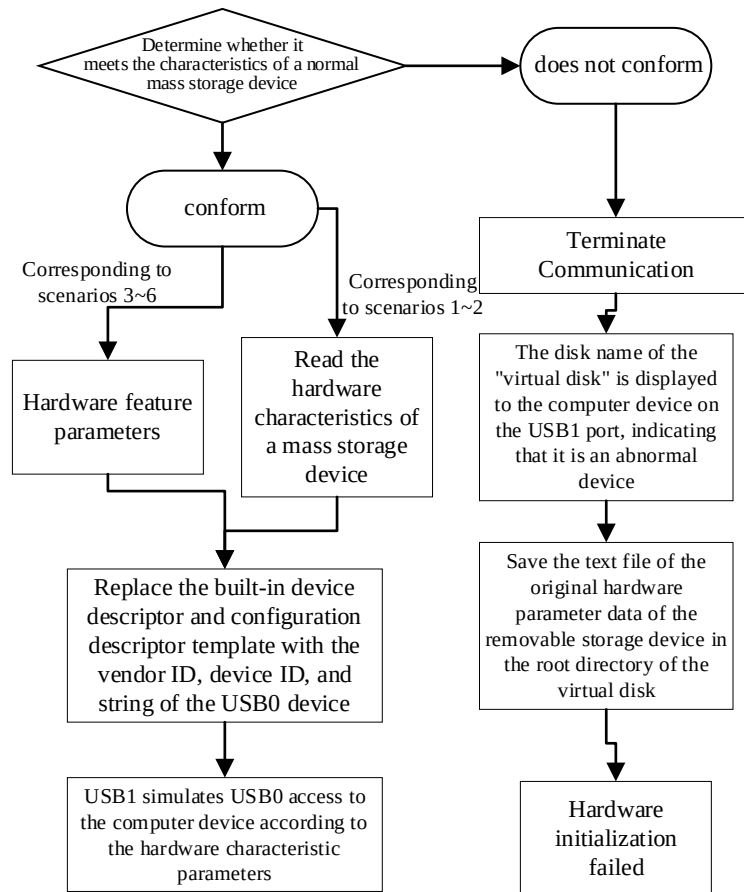


FIG. 25

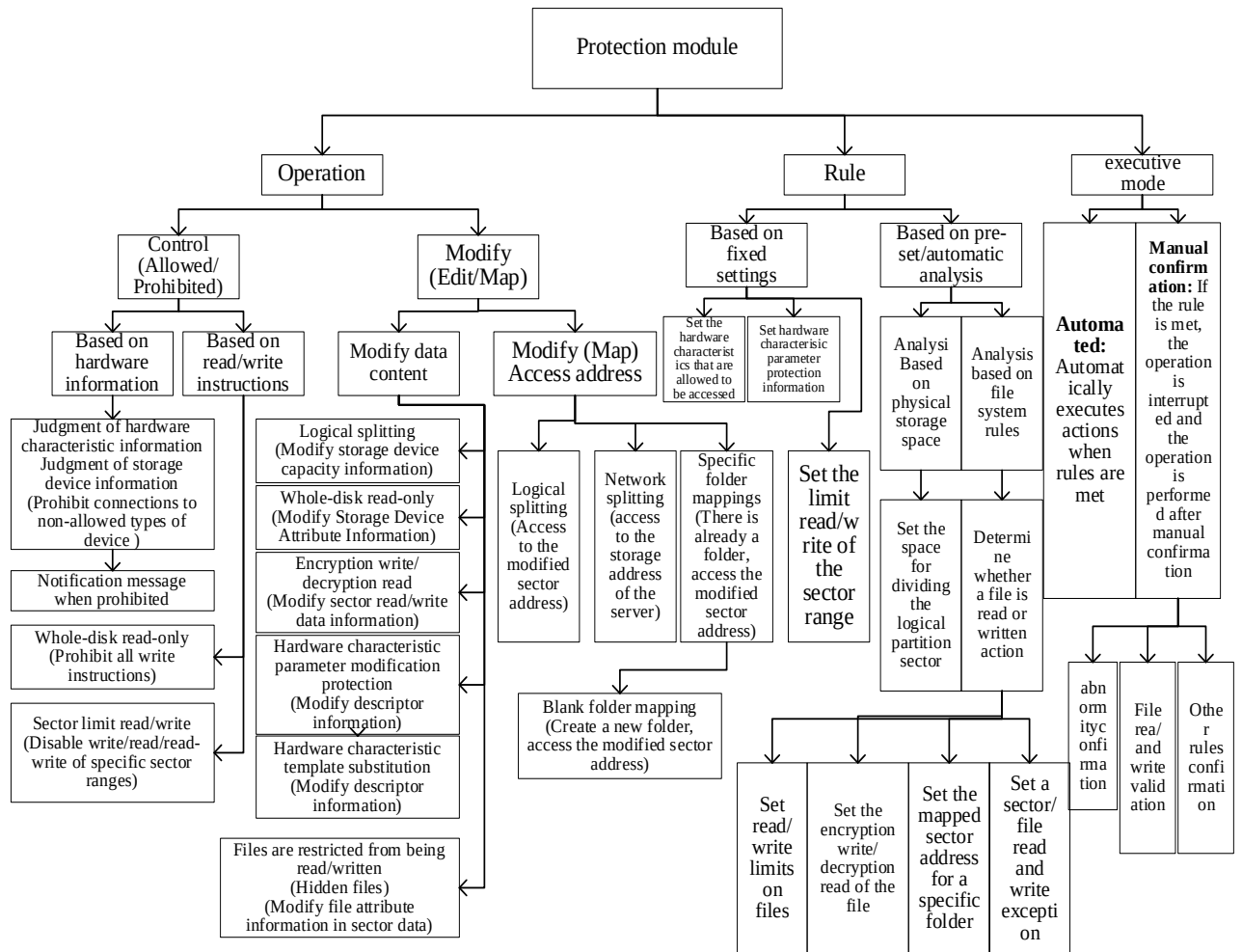


FIG. 26a

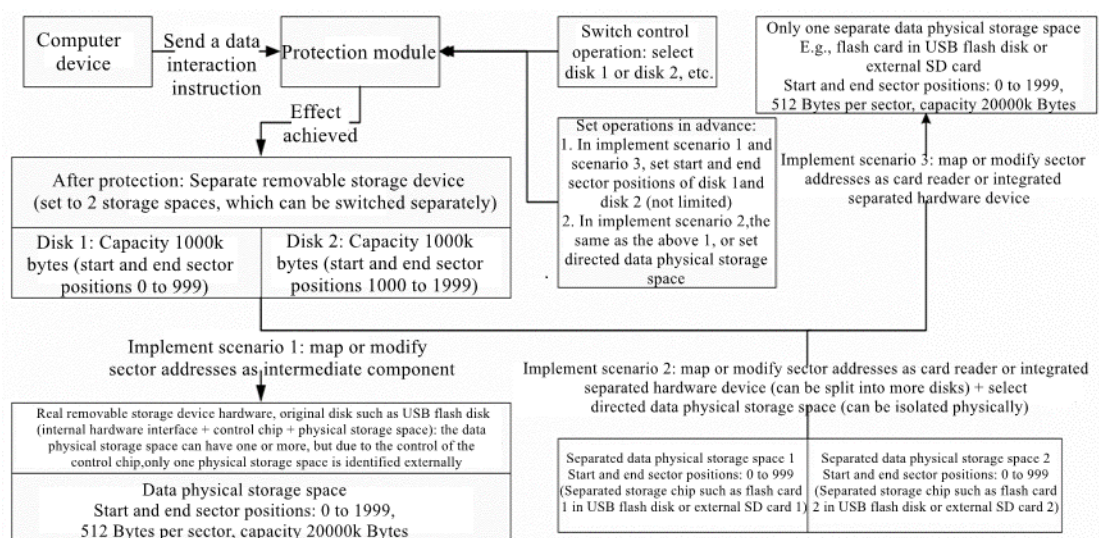


FIG. 26b

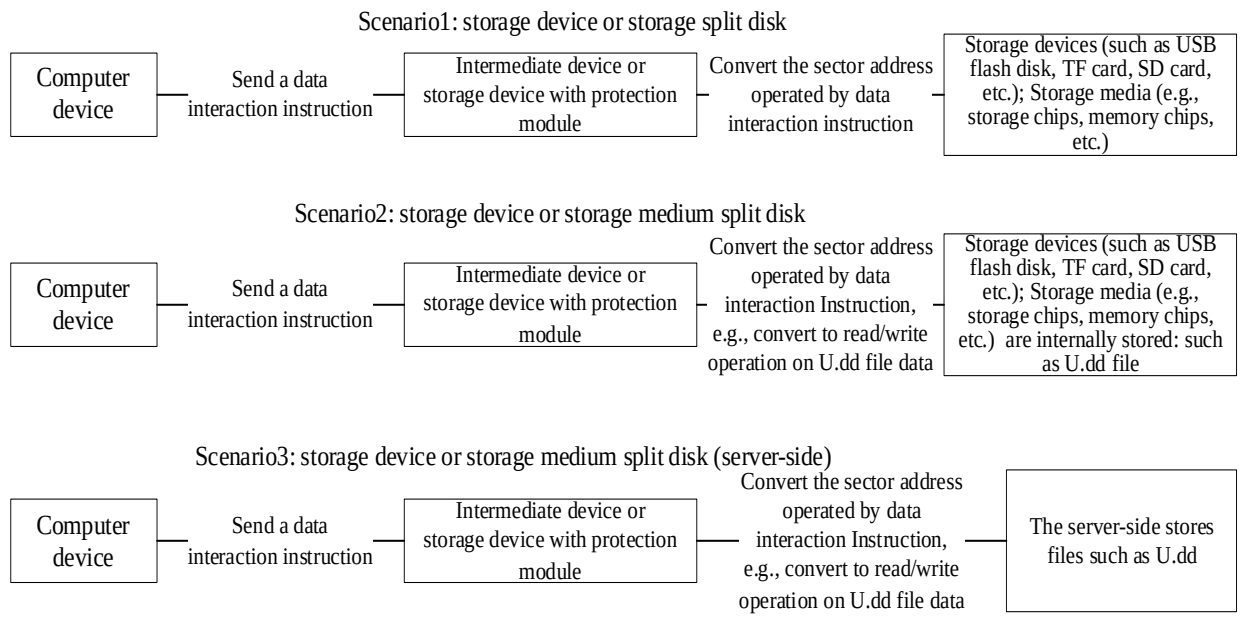


FIG. 27

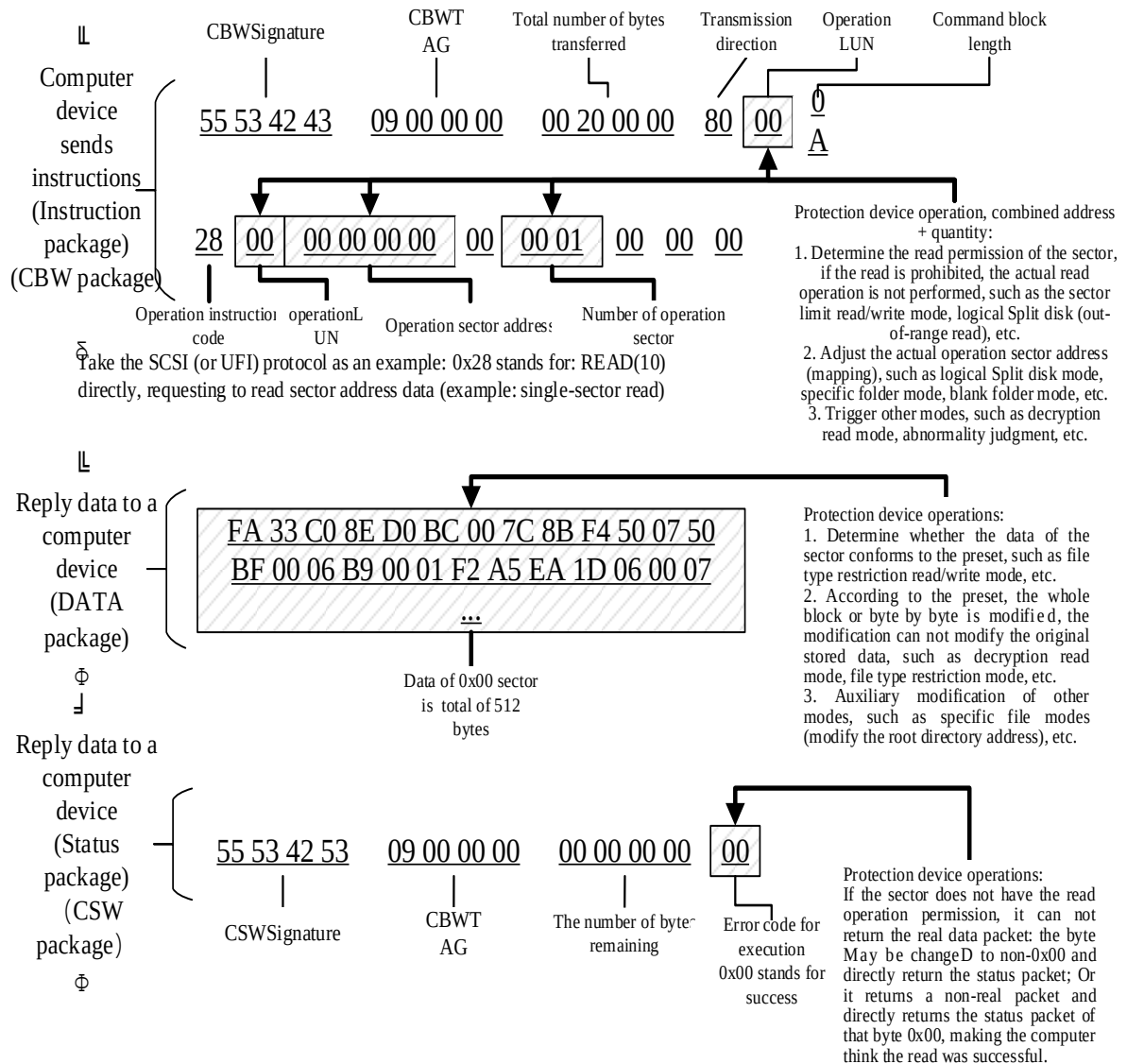


FIG. 28a

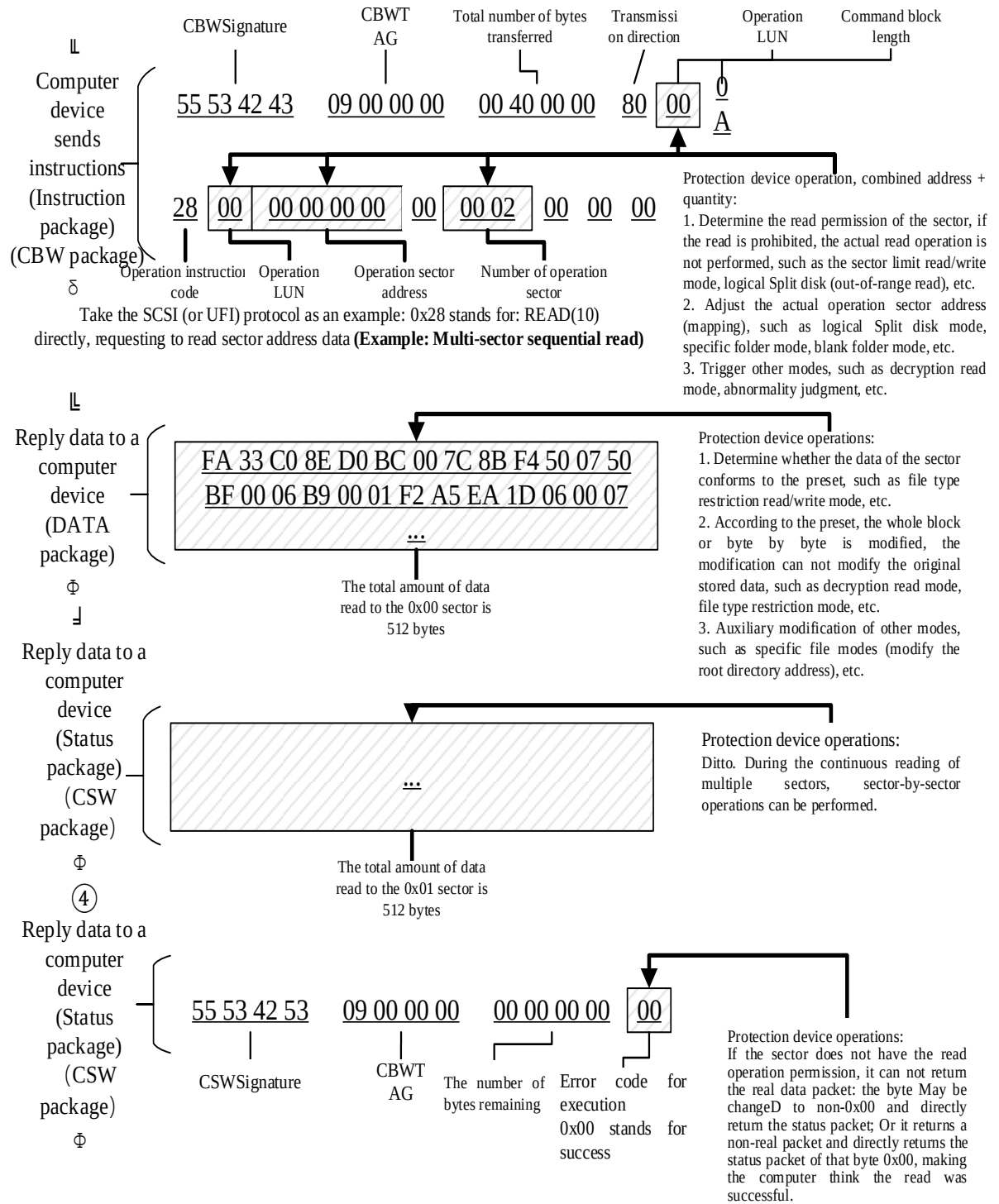


FIG. 28b

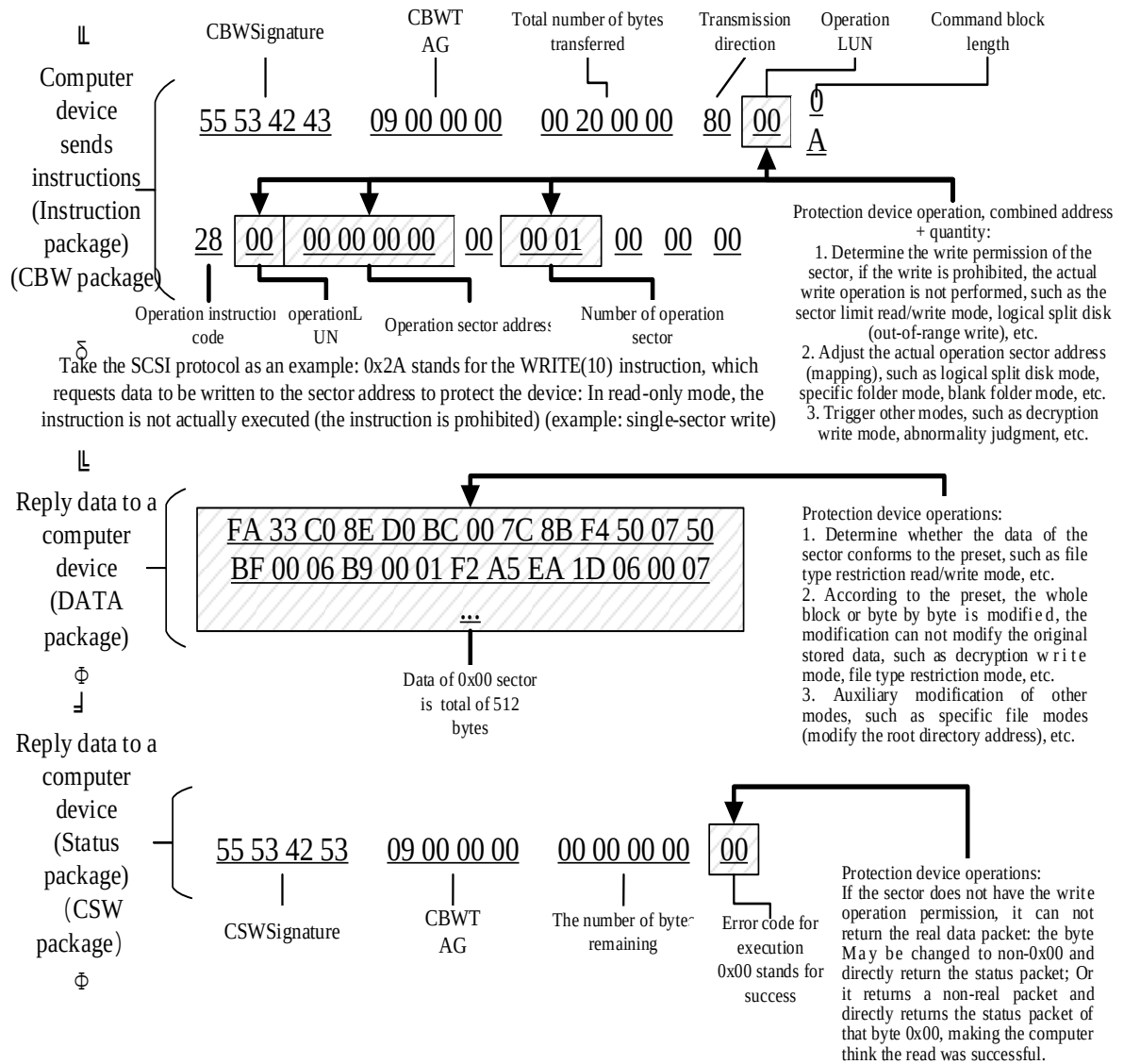


FIG. 28c

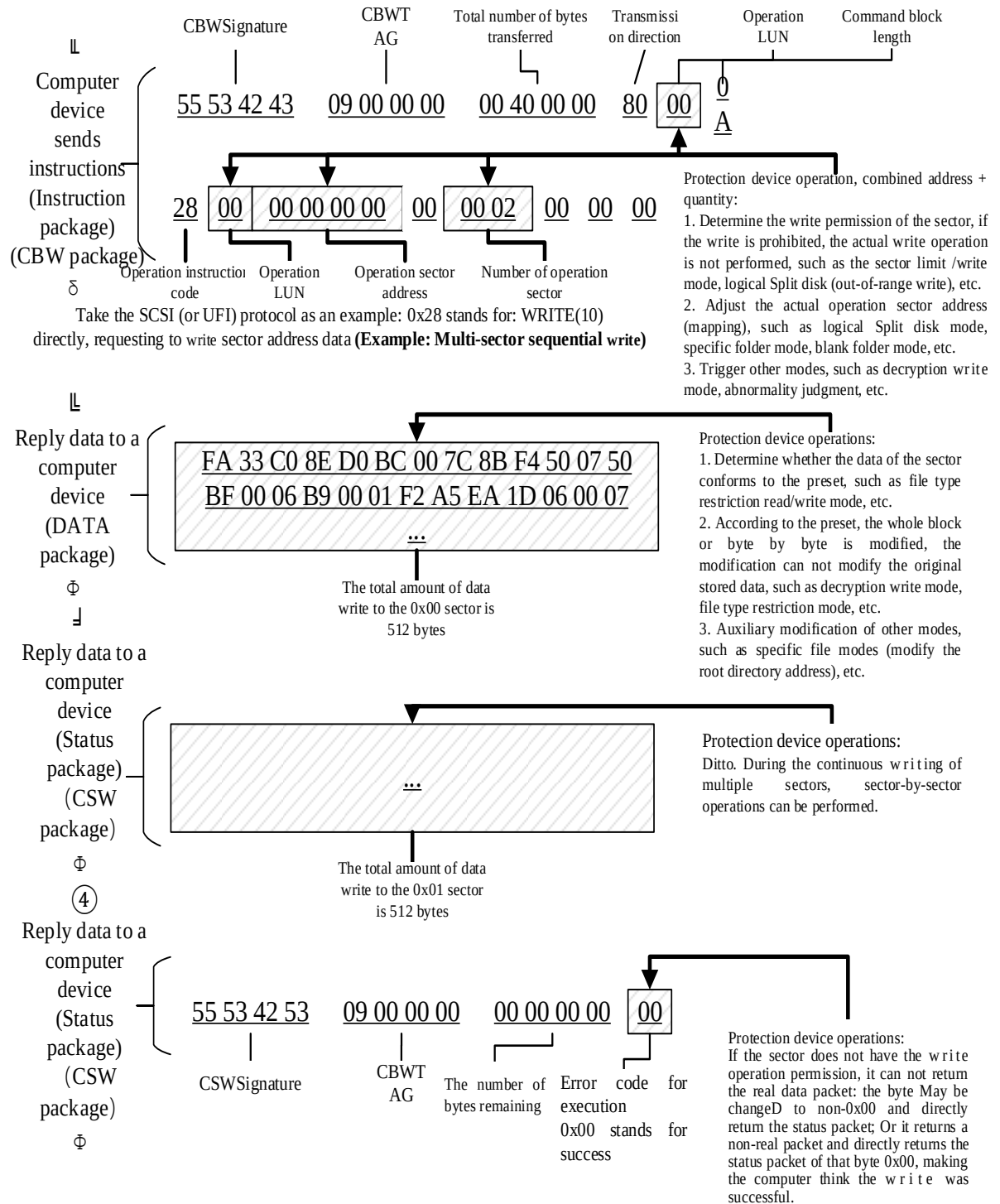


FIG. 28d

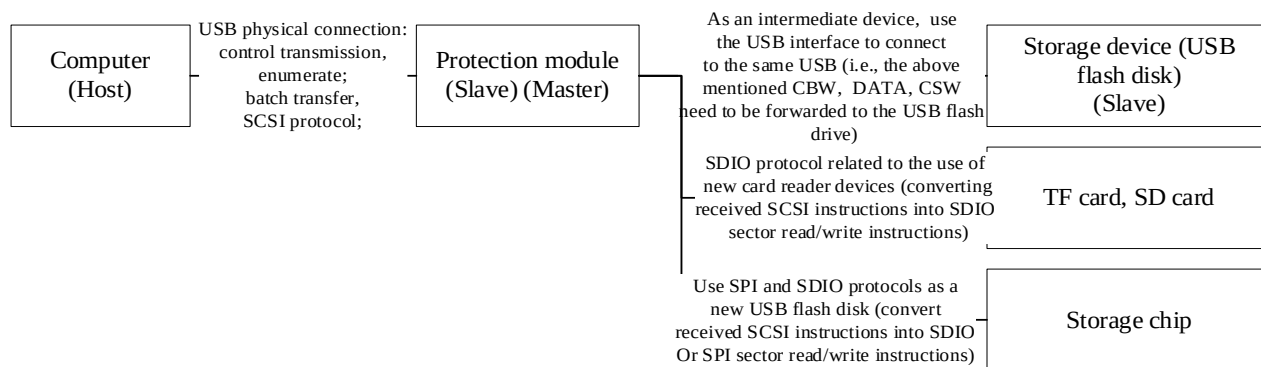


FIG. 29

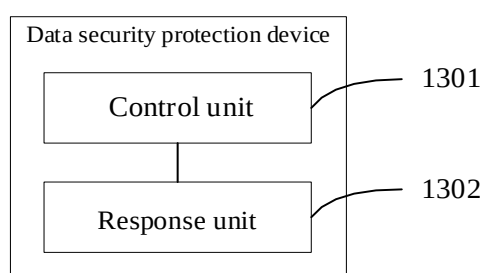


FIG. 30

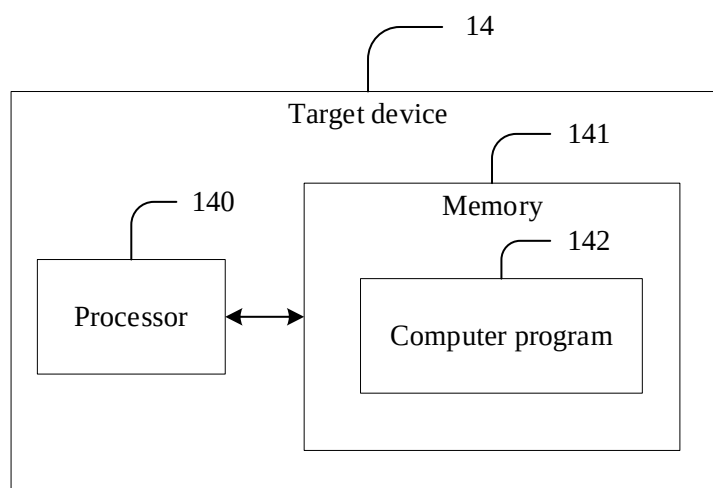


FIG. 31