

## DICOM Correction Item

Correction Number	CP-905
Log Summary: Add FAT32 Format Support for USB Media	
Type of Modification	Name of the Standard
Correction	PS 3.12 - 2008
Rationale for Correction Many USB media flash drives come pre-formatted using the FAT32 file system. Currently the DICOM Standard only supports FAT16 formatting for USB media. It is unrealistic to expect users to re-format USB media, particularly as flash drives can exceed the maximum permitted volume capacity for FAT16 formatted media.	
Sections of documents affected PS 3.12, Annex R, Annex S	
Correction Wording:	
<b>Add the following reference</b>	

### 2 Normative references

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**Microsoft Extensible Firmware Initiative FAT32 File System Specification, rev. 1.03, December 6, 2000**

### Annex R – USB Connected Removable Devices

***Make the following changes to Annex R***

#### **R.1 DICOM MAPPING TO MEDIA FORMATS**

Only one DICOM file set shall be stored in the first partition of a partitioned device. If the device is not partitioned, only one DICOM file set shall be stored on the device.

##### **R.1.1 File System**

The file system employed on these media shall be **either** the FAT16 file system **or the FAT32 file system**. The ~~cluster, sector, head, and related information obtained from information in~~ the boot sector of this partition shall be utilized by the file system to determine proper access to this media (see **Annex A Microsoft Extensible Firmware Initiative FAT32 File System Specification**).

Filenames **used for DICOM files** shall be further restricted to be in compliance with the File ID rules specified in Part 10. The File ID shall be the same as the filename.

- Notes: ~~1. These rules limit the character set to being a subset of the DICOM default G0 character set, limit the filenames to be no more than 8 characters, and limit the directory tree to be no more than 8 levels deep. All of these restrictions are needed to comply with the most limited of the removable media. **The selection of FAT16 reflects the actual usage of these newer media.**~~
- ~~2. **Some operating systems default their format command for larger capacity media to use FAT32. FAT32 is not always compatible with FAT16 and should not be used.**~~

## Annex S – Compact Flash Removable Devices

<b><i>Make the following changes to Annex S</i></b>
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### S.1 DICOM MAPPING TO MEDIA FORMATS

Only one DICOM file set shall be stored in the first partition of a partitioned device. If the device is not partitioned, only one DICOM file set shall be stored on the device.

#### S.1.1 File System

The file system employed on these media shall be either the FAT16 file system or the FAT32 file system. ~~The cluster, sector, head, and related information obtained from information in the boot sector of this partition shall be utilized by the file system to determine proper access to this media (see Annex A Microsoft Extensible Firmware Initiative FAT32 File System Specification).~~

- Notes: ~~1.—These rules limit the character set to being a subset of the DICOM default G0 character set, limit the filenames to be no more than 8 characters, and limit the directory tree to be no more than 8 levels deep. All of these restrictions are needed to comply with the most limited of the removable media. **The selection of FAT16 reflects the actual usage of these newer media.**~~
- ~~2. Some operating systems default their format command for larger capacity media to use FAT32. FAT32 is not always compatible with FAT16 and should not be used.~~