

DICOM Correction Item

| | |
|--|------------------|
| Correction Number | CP-520 |
| Log Summary: More image derivation codes | |
| Type of Modification | Name of Standard |
| Correction | PS 3.16 2004 |
| Rationale for Correction | |
| The image derivation codes used in Derived Image Sequence references needs more codes for common CT and MR operations. | |
| Sections of documents affected | |
| PS 3.16 CID 7203, Annex D | |
| Correction Wording: | |

CID 7203 Image Derivation

**Context ID 7203
Image Derivation**

Type: Extensible Version: ~~20020904~~ 20050822

| Coding Scheme Designator (0008,0102) | Code Value (0008,0100) | Code Meaning (0008,0104) |
|---|---------------------------|--|
| DCM | 113040 | Lossy Compression |
| DCM | 113041 | Apparent Diffusion Coefficient |
| DCM | 113042 | Pixel by pixel addition |
| DCM | 113043 | Diffusion weighted |
| DCM | 113044 | Diffusion Anisotropy |
| DCM | 113045 | Diffusion Attenuated |
| DCM | 113046 | Pixel by pixel division |
| DCM | 113047 | Pixel by pixel mask |
| DCM | 113048 | Pixel by pixel Maximum |
| DCM | 113049 | Pixel by pixel mean |
| DCM | 113050 | Metabolite Maps from spectroscopy data |
| DCM | 113051 | Pixel by pixel Minimum |
| DCM | 113052 | Mean Transit Time |
| DCM | 113053 | Pixel by pixel multiplication |
| DCM | 113054 | Negative Enhancement Integral |
| DCM | 113055 | Regional Cerebral Blood Flow |
| DCM | 113056 | Regional Cerebral Blood Volume |
| DCM | 113057 | R-Coefficient Map |

| | | |
|-------------------|----------------------|---|
| DCM | 113058 | Proton Density map |
| DCM | 113059 | Signal Change Map |
| DCM | 113060 | Signal to Noise Map |
| DCM | 113061 | Standard Deviation |
| DCM | 113062 | Pixel by pixel subtraction |
| DCM | 113063 | T1 Map |
| DCM | 113064 | T2* Map |
| DCM | 113065 | T2 Map |
| DCM | 113066 | Time Course of Signal |
| DCM | 113067 | Temperature encoded |
| DCM | 113068 | Student's T-Test |
| DCM | 113069 | Time To Peak map |
| DCM | 113070 | Velocity encoded |
| DCM | 113071 | Z-Score Map |
| <u>DCM</u> | <u>113072</u> | <u>Multiplanar reformatting</u> |
| <u>DCM</u> | <u>113073</u> | <u>Curved multiplanar reformatting</u> |
| <u>DCM</u> | <u>113074</u> | <u>Volume rendering</u> |
| <u>DCM</u> | <u>113075</u> | <u>Surface rendering</u> |
| <u>DCM</u> | <u>113076</u> | <u>Segmentation</u> |
| <u>DCM</u> | <u>113077</u> | <u>Volume editing</u> |
| <u>DCM</u> | <u>113078</u> | <u>Maximum intensity projection</u> |
| <u>DCM</u> | <u>113079</u> | <u>Minimum intensity projection</u> |
| <u>DCM</u> | <u>113085</u> | <u>Spatial resampling</u> |
| <u>DCM</u> | <u>113086</u> | <u>Edge enhancement</u> |
| <u>DCM</u> | <u>113087</u> | <u>Smoothing</u> |
| <u>DCM</u> | <u>113088</u> | <u>Gaussian blur</u> |
| <u>DCM</u> | <u>113089</u> | <u>Unsharp mask</u> |
| <u>DCM</u> | <u>113090</u> | <u>Image stitching</u> |

DICOM Code Definitions (Coding Scheme Designator "DCM" Coding Scheme Version "01")

| Code Value | Code Meaning | Definition | Notes |
|------------|--------------------------------|--|-------|
| 113040 | Lossy Compression | <u>Lossy compression has been applied to an image.</u> | |
| 113041 | Apparent Diffusion Coefficient | <u>The image is derived by calculation of the apparent diffusion coefficient.</u> | |

| | | | |
|--------|--|---|--|
| 113042 | Pixel by pixel addition | <u>The image is derived by the pixel by pixel addition of two images.</u> | |
| 113043 | Diffusion weighted | <u>The image is derived by calculation of the diffusion weighting.</u> | |
| 113044 | Diffusion Anisotropy | <u>The image is derived by calculation of the diffusion anisotropy.</u> | |
| 113045 | Diffusion Attenuated | <u>The image is derived by calculation of the diffusion attenuation.</u> | |
| 113046 | Pixel by pixel division | <u>The image is derived by the pixel by pixel division of two images.</u> | |
| 113047 | Pixel by pixel mask | <u>The image is derived by the pixel by pixel masking of one image by another.</u> | |
| 113048 | Pixel by pixel Maximum | <u>The image is derived by calculating the pixel by pixel maximum of two or more images.</u> | |
| 113049 | Pixel by pixel mean | <u>The image is derived by calculating the pixel by pixel mean of two or more images.</u> | |
| 113050 | Metabolite Maps from spectroscopy data | <u>The image is derived by calculating from spectroscopy data pixel values localized in two dimensional space based on the concentration of specific metabolites (i.e. at specific frequencies).</u> | |
| 113051 | Pixel by pixel Minimum | <u>The image is derived by calculating the pixel by pixel minimum of two or more images.</u> | |
| 113052 | Mean Transit Time | <u>The image is derived by calculating mean transit time values.</u> | |
| 113053 | Pixel by pixel multiplication | <u>The image is derived by the pixel by pixel multiplication of two images.</u> | |
| 113054 | Negative Enhancement Integral | <u>The image is derived by calculating negative enhancement integral values.</u> | |
| 113055 | Regional Cerebral Blood Flow | <u>The image is derived by calculating regional cerebral blood flow values.</u> | |

| | | | |
|--------|--------------------------------|--|--|
| 113056 | Regional Cerebral Blood Volume | <u>The image is derived by calculating regional cerebral blood volume values.</u> | |
| 113057 | R-Coefficient Map | <u>The image is derived by calculating R-Coefficient map values</u> | |
| 113058 | Proton Density map | <u>The image is derived by calculating proton density values.</u> | |
| 113059 | Signal Change Map | <u>The image is derived by calculating signal change values.</u> | |
| 113060 | Signal to Noise Map | <u>The image is derived by calculating the signal to noise ratio.</u> | |
| 113061 | Standard Deviation | <u>The image is derived by calculating the standard deviation of two or more images.</u> | |
| 113062 | Pixel by pixel subtraction | <u>The image is derived by the pixel by pixel subtraction of two images.</u> | |
| 113063 | T1 Map | <u>The image is derived by calculating T1 values.</u> | |
| 113064 | T2* Map | <u>The image is derived by calculating T2* values.</u> | |
| 113065 | T2 Map | <u>The image is derived by calculating T2 values.</u> | |
| 113066 | Time Course of Signal | <u>The image is derived by calculating values based on the time course of signal.</u> | |
| 113067 | Temperature encoded | <u>The image is derived by calculating values based on temperature encoding.</u> | |
| 113068 | Student's T-Test | <u>The image is derived by calculating the value of the Student's T-Test statistic from multiple image samples.</u> | |
| 113069 | Time To Peak map | <u>The image is derived by calculating values based on the time to peak.</u> | |
| 113070 | Velocity encoded | <u>The image is derived by calculating values based on velocity encoded (e.g., phase contrast).</u> | |
| 113071 | Z-Score Map | <u>The image is derived by calculating the value of the Z-</u> | |

| | | | |
|----------------------|---|--|--|
| | | <u>Score statistic from multiple image samples.</u> | |
| <u>113072</u> | <u>Multiplanar reformatting</u> | <u>The image is derived by reformatting in a flat plane other than that originally acquired.</u> | |
| <u>113073</u> | <u>Curved multiplanar reformatting</u> | <u>The image is derived by reformatting in a curve plane other than that originally acquired.</u> | |
| <u>113074</u> | <u>Volume rendering</u> | <u>The image is derived by volume rendering of acquired data.</u> | |
| <u>113075</u> | <u>Surface rendering</u> | <u>The image is derived by surface rendering of acquired data.</u> | |
| <u>113076</u> | <u>Segmentation</u> | <u>The image is derived by segmentation (classification into tissue types) of acquired data.</u> | |
| <u>113077</u> | <u>Volume editing</u> | <u>The image is derived by selectively editing acquired data (removing values from the volume), such as in order to remove obscuring structures or noise.</u> | |
| <u>113078</u> | <u>Maximum intensity projection</u> | <u>The image is derived by maximum intensity projection of acquired data.</u> | |
| <u>113079</u> | <u>Minimum intensity projection</u> | <u>The image is derived by minimum intensity projection of acquired data.</u> | |
| <u>113085</u> | <u>Spatial resampling</u> | <u>The image is derived by spatial resampling of acquired data.</u> | |
| <u>113086</u> | <u>Edge enhancement</u> | <u>The image is derived by edge enhancement.</u> | |
| <u>113087</u> | <u>Smoothing</u> | <u>The image is derived by smoothing.</u> | |
| <u>113088</u> | <u>Gaussian blur</u> | <u>The image is derived by Gaussian blurring.</u> | |
| <u>113089</u> | <u>Unsharp mask</u> | <u>The image is derived by unsharp masking.</u> | |
| <u>113090</u> | <u>Image stitching</u> | <u>The image is derived by stitching two or more images together.</u> | |