

Release Notes for DICOM PS 3 - 2006.

2006/04/22.

The following changes have been made relative to the published PS 3 2004 standard, by incorporating the changes specified in the supplements and correction items.

The Final Text of all applied Supplements and Correction Proposals is available at:

<ftp://ftp.nema.org/medical/dicom/final/>

Changes to Parts

Part 1

- Sup 98 done
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Part 2

- Sup 60 done
- Sup 83 done
- Sup 94 done
- Sup 98 done
- Sup 100 done
- Sup 103 done
- Sup 104 done
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- CP 512 done
- CP 610 done
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Part 3

- Add Block Mounting Position (300A,00FB) to RT Beams Module as specified in CP 223 (was not done in 2003)
- Put In-Concatenation Total Number back in (in Multi-frame Functional Groups Module), since it was inadvertently deleted by Sup 58 when moving concatenation attributes there from MR-specific module.
- Add KO modality to General Series module
- Tidy up typo in Frame Anatomy Macro with respect to modifiers using CID 2
- Tidy up wrong use of enhanced contrast/bolus module in Annex A overview table for enhanced MR
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- Sup 60 done (and added to big IOD table)
- Sup 83 done – use CID 4042 for anatomy; inserted > before Irradiation Event UID in Irradiation Event Identification Sequence

- Sup 86 done
- Sup 94 done
- Sup 98 done
- Sup 100 done
- Sup 101 done
- Sup 102 done
- Sup 103 done
- Sup 104 done
- Sup 106 done
-
- CP 393 done
- CP 414 done
- CP 416 done
- CP 434 done
- CP 442 was already done
- CP 452 done
- CP 457 done
- CP 465 done
- CP 467 done
- CP 468 done
- CP 469 done
- CP 470 done (already partially done)
- CP 474 done
- CP 475 done
- CP 476 done
- CP 480 done
- CP 481 done
- CP 482 done
- CP 483 done
- CP 484 done
- CP 485 done
- CP 486 done
- CP 487 done
- CP 489 done
- CP 490 done
- CP 491 done
- CP 498 done
- CP 499 done
- CP 500 done
- CP 501 done
- CP 502 done
- CP 503 done
- CP 507 done
- CP 510 done
- CP 515 done
- CP 516 done

- CP 517 done
- CP 518 done
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- CP 522 done
- CP 525 done
- CP 528 done
- CP 529 done
- CP 530 done
- CP 533 done
- CP 534 done
- CP 535 done
- CP 536 done
- CP 537 done
- CP 543 done
- CP 544 done
- CP 545 done
- CP 548 done
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- CP 551 done
- CP 553 done
- CP 554 done
- CP 555 done
- CP 556 done
- CP 557 done
- CP 558 done
- CP 560 done
- CP 561 done
- CP 563 done
- CP 564 done
- CP 566 done
- CP 569 done
- CP 571 done
- CP 572 done
- CP 575 done
- CP 577 done
- CP 578 done
- CP 579 done (including tables A.1-1 and -2)
- CP 582 done
- CP 583 done
- CP 585 done
- CP 586 done
- CP 587 done
- CP 589 done
- CP 593 done
- CP 604 done

- CP 606 done
- CP 610 done
- CP 611 done

Part 4

- Sup 60 done
- Sup 83 done
- Sup 94 done
- Sup 98 done
- Sup 100 done
- Sup 101 done
- Sup 102 done
- Sup 103 done
- Sup 104 done
- Sup 106 done
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- CP 414 done
- CP 461 done
- CP 466 done
- CP 467 done
- CP 475 done
- CP 479 done
- CP 497 done
- CP 506 done
- CP 537 done
- CP 538 done
- CP 546 done (was already partially done by Sup 101)
- CP 569 done
- CP 573 done
- CP 574 done
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- Added PET SOP Classes to Annex I table
- Correct Error ID and Error Comment tag values to match PS 3.7 Annex E
- Added Procedure Log to list in B.5.1.5 (was in Sup 66 but left in 2004; OK in I.4.1.2)

Part 5

- Fix typo in hex character representation of Chinese Unicode and GB18030 examples
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- Sup 98 done
- Sup 105 done
- Sup 106 done
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- CP 415 done
- CP 513 done
- CP 532 done

- CP 548 done
- CP 565 done
- CP 592 done
- CP 607 done (tidied up note)
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Part 6

- Sup 83 done – add missing tag for Frame Acquisition Sequence; use (0028,9474) not (0028,9475) for LUT Function to be consistent with Part 3 changes
- Sup 86 done
- Sup 94 done
- Sup 98 done
- Sup 100 done
- Sup 101 done
- Sup 102 done
- Sup 103 done
- Sup 104 done
- Sup 105 done
- Sup 106 done
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- CP 393 done
- CP 442 was already done
- CP 465 done
- CP 467 done
- CP 476 done
- CP 483 done
- CP 484 done
- CP 486 done
- CP 487 done
- CP 490 done
- CP 491 done
- CP 507 done
- CP 530 done
- CP 550 done (chose necessary VRs since they were missing from CP final text)
- CP 551 done
- CP 553 done (used data elements as described in Sup 102)
- CP 559 done
- CP 563 done
- CP 564 done
- CP 586 done
- CP 587 done (and corrected element number from first FT version, which conflicted)
- CP 593 done
- CP 607 done (tidied up note)
- CP 608 done
- CP 609 done
- CP 610 done

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- Rename (2100,0500) from Referenced Print Job Sequence to Referenced Print Job Sequence (Pull Stored Print) and flag as retired, to avoid name conflict with (2120,0070) Referenced Print Job Sequence, which is used in Print Queue Mx.
- Rename Referenced Overlay Sequence (50xx,2600) to Curve Referenced Overlay Sequence to avoid conflict with (0008,1130)
- Add (0018,9445) and mark as retired, even though it is not in any supplement or CP, since it has been inadvertently used in a product
- Rename old ACR comment attributes so that they are distinct

Part 7

- Sup 99 done
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- CP 494 done
- CP 607 done (tidied up note)
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Part 8

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Part 10

- Unable to edit figure 6.2-1 to correct spelling of “independence”
- Remove mention of point-to-point and Part 9 from Figure 6.2-2
- CP 532 done
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- Sup 98 done
- Sup 101 done
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Part 11

- Fix various typos in element names and table captions
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- Sup 98 done
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Part 12

- Sup 98 done
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- CP 547 done
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Part 14

- Sup 100 done
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Part 15

- Sup 83 done
- Sup 86 done
- Sup 99 done
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- CP 472 done
- CP 563 done
- CP 581 done
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Part 16

- Correct yes/no meaning swap in TID 230 from Sup 66 (see also impending CP 671)
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- Sup 60 done – codes conflict – fixed by CP 580 final text
- Sup 83 done
- Sup 86 done
- Sup 94 done
- Sup 97 done
- Sup 101 done – used 20050615 as new CID version date where unspecified
- Sup 103 done
- Sup 104 done
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- CP 393 done
- CP 427 done
- CP 448 done
- CP 449 done
- CP 460 done
- CP 462 done
- CP 465 done
- CP 477 done
- CP 478 done
- CP 479 done
- CP 480 done
- CP 492 done
- CP 493 done
- CP 504 done
- CP 505 done
- CP 508 done
- CP 509 done
- CP 511 done
- CP 520 done
- CP 523 done
- CP 524 done
- CP 527 done
- CP 531 done
- CP 533 done

- CP 539 done
- CP 540 done
- CP 541 done
- CP 542 done
- CP 562 done
- CP 570 done
- CP 580 done (used new 20060125 date for context group version where unspecified)
- CP 598 done
- CP 605 done
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Part 17

- Sup 60 done
- Sup 83 done
- Sup 86 done
- Sup 89 done
- Sup 94 done
- Sup 97 done
- Sup 101 done
- Sup 106 done
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- CP 467 done
- CP 479 done
- CP 505 done
- CP 564 done
- CP 573 done
- CP 590 done
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Part 18

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Supplements Incorporated

- Sup 60 – Hanging Protocols (done, apart from bad codes)
- Sup 83 – Supplement 83: Enhanced XA Image Storage SOP Class/Enhanced XRF Image Storage SOP Class (done)
- Sup 86 – Digital Signatures for Structured Reports (done)
- Sup 89 – Worklist and Performed Procedure Step Use Cases (done)
- Sup 94 – Radiation Dose Report (done)
- Sup 97 – CT/MR Cardiovascular Analysis Report (done)
- Sup 98 – Retirement of Detached, Standalone and other Services (done)
- Sup 99 – Extended Negotiation of User Identity (done)
- Sup 100 – Color Softcopy Presentation State Storage SOP Classes (done)
- Sup 101 – HL7 Structured Document Object References (done)

Sup 102 – Radiotherapy Extensions for Ion Therapy (done)
Sup 103 – Real World Value Mapping SOP Class (done)
Sup 104 – DICOM Encapsulation of PDF Documents (done)
Sup 105 – JPEG 2000 Part 2 Multi-component Transfer Syntaxes (done)
Sup 106 – JPEG 2000 Interactive Protocol (done)

Correction Items Incorporated

CP 393 – Add Partial View Code Sequence (done)
CP 414 – Clarify Uniqueness of Pixel Padding Value (done)
CP 415 - Even length padding for Deflate Transfer Syntax (done)
CP 416 - Photometric Interpretation for JPEG 2000 and MF SC IOD (done)
CP 427 – Refine Cath Complications Reporting (done)
CP 434 – RT Dose Grid Frame Offset Vector (done)
CP 442 - RT Tissue Heterogeneity Correction (done)
CP 448 – Anatomical Terms for Grouped Body Parts (done)
CP 449 – More Vascular Ultrasound Anatomy Terms (done)
CP 452 – Consolidate SR Container attributes into a Macro (done)
CP 457– Add YBR_420 for Ultrasound MPEG (done)
CP 460 – Correction to final text Supplement 72 (done)
CP 461 – Clarify Storage Service level 2 includes Private Attributes (done)
CP 462 – Replace DCM codes with SNOMED codes (done)
CP 465 – Ultrasound Tissue Classification (done)
CP 466 – Normalized SOP Instance and Class UID requirements (done)
CP 467 – Add VOI LUT Function Attribute (done)
CP 468 – Correction tag and missing condition CTDIvol attribute (done)
CP 469 – Add Radiation Dose Comment inside sequence (done)
CP 470 – Add Multiframe Secondary Capture JPEG 2000 Photometric Interpretations (done)
CP 472 – Basic Application Level Confidentiality Profile for SR and GSPS (done)
CP 474 – Apply Image Sequence Macro where appropriate (done)
CP 476 – Add pre-coordinated view codes for cardiac ultrasound (done)
CP 475 – Add IOD for Relevant Patient Information Query (done)
CP 476 – Add pre-coordinated view codes for cardiac ultrasound (done)
CP 477 – Add PPS Discontinued Reason - Equipment Change (done)
CP 478 – Move term from CID 6054 to CID 6016 (done)
CP 479 – CAD Rendering Intent Level (done)
CP 480 – Add MG Series Attribute for Screening/Diagnostic (done)
CP 481 – Conflicting text in Fiducials Object (done)
CP 482 – Addition of stress/rest terminology to PET IOD (done)
CP 483 – RT Bolus ID and Description (done)
CP 484 – RT Brachytherapy Source Strength (done)
CP 485 – RT Brachytherapy Thickness and Transmission (done)
CP 486 – RT Control Point Dose (done)
CP 487 – RT Fixation Devices (done)
CP 489 – Retire RT Referenced Patient Setup (done)

CP 490 – RT Referenced Setup Images (done)
CP 491 – RT Setup Label (done)
CP 492 – Add Calculated Value to Mammography CAD SR (done)
CP 493 – Add View Modifiers to CID 4015 (done)
CP 494 – Clarification to Asynchronous Operations Window Negotiation (done)
CP 497 - Media creation status (done)
CP 498 - Lossy Image Compression Method for images without General Image Module (done)
CP 499 - VM of Convolution Kernel in Enhanced CT (done)
CP 500 – Conditions on Reconstruction FOV attributes in Enhanced CT (done)
CP 501 - Contrast Bolus Usage Macro should use Enumerated Values (done)
CP 502 - Contrast Bolus Agent Numbering (done)
CP 503 - Sharing of Contrast Usage Functional Group Macro (done)
CP 504 – Add additional contrast agent related codes (done)
CP 505 – Errors in echocardiography informative annex (done)
CP 506 – Issuer of Patient ID in MPPS and GP-PPS (done)
CP 507 – Modify MWL/GP-WL for clinical trial participation and anonymization (done)
CP 508 – Improve Consistency in Code Meanings (done)
CP 509 – Correct error in wall motion scoring code (done)
CP 510 – Remove Notes on IS-IS from Real World Model (done)
CP 511 – Change Hemo Annotations from DICOM to SNOMED (done)
CP 512 - New SOP Classes added to PS 3.2 SOP Class Table (done)
CP 513 - Support for Chinese Character set in note PS 3.5 section 6.1.2.4 (done)
CP 514 - Fix typo in TID 3470 (done)
CP 515 – Enhanced CT Filter Material (done)
CP 516 – Enhanced CT Reconstruction Angle (done)
CP 517 – Clarify Pixel Padding Value must not be in native image (done)
CP 518 – Identifying CT and MR acquisitions by raw data references (done)
CP 519 – CT rescale type for localizers should not be HU (done)
CP 520 – More image derivation codes (done)
CP 522 – Clarification of 8 bit LUT encoding (done)
CP 523 - Rename cath templates for cardiovascular use in general (done)
CP 524 - Change “procedure” to ”analysis” in QVA (done)
CP 525 - Correct conditions in Device Module (done)
CP 527 – Updates from BI-RADS® Atlas (done)
CP 528 – Encoding of empty Functional Group Items (done)
CP 529 – Correction NM/PET attribute description (done)
CP 530 – Clarifications to PET IOD (done)
CP 531 – Correct context group number for CID 220 (done)
CP 532 – Forbid odd groups less than 0x0008 (done)
CP 533 – Derivation history of pixel data (done)
CP 534 – Module usage abbreviations (done)
CP 535 – Restore mammography view code sequence (done)
CP 536 – Correct VL Image Photometric Interpretation for MPEG (done)
CP 537 – Add Purpose Of Reference to GP-SPS (done)
CP 538 – Remove references to private query info models (done)

CP 539 – Update Route of Administration Code (done)
CP 540 – Correct duplicate TID assignments (done)
CP 541 – Add Purpose Code for Attenuation Correction (done)
CP 542 – More Anatomical Terms for Grouped Body Parts (done)
CP 543 – Correction Radiation Dose Attributes Link (done)
CP 544 – Correction Exposed Area Attribute Unit (done)
CP 545 – Mammography CAD Relations Correction (done)
CP 546 – Clarify Specific Character Set Usage in C-FIND (done)
CP 547 – Add support for large CD-ROM media (done)
CP 548 – Notes on use of DS Value Representation for Large Arrays (done)
CP 549 – Additions to RT ROI Interpreted Type (done)
CP 550 – RT Override Sequence (done)
CP 551 – RT Plan Intent (done)
CP 553 – RT Corrected Parameters (done)
CP 554 – Isocenter position for RT Images (done)
CP 555 – RT Image Position Clarification (done)
CP 556 – Clarify Service Episode and Visit Definitions (done)
CP 557 – Usage of Modality Identification attributes (done)
CP 558 – CT Image Type Value 3 extension (done)
CP 559 – VR and VM Studies Containing Other Referenced Instances Sequence missing (done)
CP 560 – References to the Macro Tables of Enhanced MR and CT are wrong (done)
CP 561 – Add dose attributes to CT Image Module (done)
CP 562 – Correct TID 4020 (done)
CP 563 – Patient Identity Removed (done)
CP 564 – Spatial locations preserved during processing flag (done)
CP 565 – Pixel Data encoding bit order (done)
CP 566 – Fiducial Shape Type uses illegal characters in defined terms (done)
CP 569 – Add Admission (Visit) ID to PPS and Composite IODs (done)
CP 570 – Typos in QCA Templates (done)
CP 571 – Allow HAS ACQ CONTEXT relationship from NUM (done)
CP 572 – Correct Referenced Waveform (done)
CP 573 – Move Informative Sections from Part 4 to Part 17 (done)
CP 574 – Add Specific Character Set attribute to the Print related N-CREATEs (done)
CP 575 – Clarify use of Multiplexed Audio for MPEG (done)
CP 577 – Clarification for Delivered Meterset in Treatment Records (done)
CP 578 – Clarify Pixel Intensity Relationship for RT Images (done)
CP 579 – Include Enhanced Equipment in New CT/MR IODs (done)
CP 580 – Correct Abstract Prior Codes for Hanging Protocols (done)
CP 581 – Clarify De-identification in Confidentiality Profile (done)
CP 582 – Constrain Presentation LUT Shape for Enhanced CT and MR (done)
CP 583 – Concatenation Numbering and Attribute Differences (done)
CP 585 – MR Diffusion Dimension Clarification (done)
CP 586 – Pixel Spacing and Calibration in Projection Radiography (done)
CP 587 – Add Display Set Justification to Hanging Protocols (done)
CP 589 – Add Verification Status to Encapsulated PDF (done)

- CP 590 – Errors in Echocardiography Informative Annex (done)
- CP 592 – Note Inconsistency between DICOM and HL7 Patient Name (done)
- CP 593 – Extension of Cardiac Trigger Macro C.7.6.16.2.7 (done)
- CP 598 – Correction to various Templates (done)
- CP 604 – Change references to former Part 3 Annex E moved to Part 17 (done)
- CP 606 – Forbid multiple Study/Series Directory Records with equal Instance UID in DICOMDIR (done)
- CP 607 – Add VR;VM information of retired ACR/NEMA command and data elements (done)
- CP 608 – Remove duplicate registry entry for data element (0018,9022) Blood Signal Nulling (done)
- CP 609 – Replace inconsistence retired indicator for elements (0018,9195) and (0018,9196) (done)
- CP 610 – Add attribute Display Set Label to Hanging Protocol Display Set Sequence (done)
- CP 611 – Add Irradiation Event Functional Group to Enhanced CT IOD (done)