1.1 **STATIC PRESENTATION PROCESSING (E.G., PROCESSING DATA FOR PRINTER, ETC.)**
1.2 .Size, resolution, or scale control
1.3 .Plotter
1.4 .Plural marking means
1.5 .Position or velocity determined
1.6 .Specific to image source
1.7 .Flying dot (e.g., laser beam, etc.)
1.8 .Dot matrix array (e.g., printheads, etc.)
1.9 .Attribute control
2.1 ..Processing based on at least two different image attributes (e.g., character, graphic, photo, line, edge, gray-level, color)
2.99 ..Bi-level image reproduction (e.g., character or line reproduction)
3.01 ..Multi-level image reproduction (e.g., gray level reproduction)
3.02 ...Print element property varied to represent gray level
3.03 ...Error diffusion in gray level or halftone generation
3.04 ....Property of error weighting filter (e.g., adaptive, deterministic, random)
3.05 ....Adaptive error diffusion
3.06 ...Halftoning (e.g., a pattern of print elements used to represent a gray level)
3.07 ....Rescreening (e.g., converting spatial resolution)
3.08 ....Descreening (e.g., inverse halftone conversion)
3.09 ....Print element property varied to effect halftone pattern
3.1 .....Density of print element (e.g., multi-level halftone)
3.11 .....Shape of print element
3.12 .....Size of print element
3.13 ....Dithering (e.g., spatial distribution of print elements by threshold matrix)
3.14 .....Adaptive dithering
3.15 ......Edge adaptive
3.16 .....Ordered dithering (e.g., deterministic or systematic)
3.17 ......Clustered pattern
3.18 ......Dispersed pattern
3.19 .....Stochastic or random dithering
3.2 ....Screen property or geometry (e.g., shape, period, symmetry, aspect ratio)
3.21 ...Adaptive multi-level image reproduction
3.22 ....Variable threshold determined by image or other condition (e.g., adaptive thresholding)
3.23 ...Look-up table for image processing or print attribute data (e.g., threshold value, print element property)
3.24 ..Adaptive image reproduction
3.26 ..Distortion control in image reproduction (e.g., removing, reducing or preventing image artifacts)
3.27 ..Enhancement control in image reproduction (e.g., smoothing or sharpening edges)
3.28 ..Embedding a hidden or unobtrusive code or pattern in a reproduced image (e.g., a watermark)
3.29 ..Engraving or perforating material to form a printing surface (e.g., printing plate, cylinder, or stencil)
3.3 ...Halftone pattern formed on printing surface
3.31 ...Character or design formed on printing surface (e.g., intaglio)
3.32 ...Mechanical arrangement for forming a printing surface
1.11 .Character or font
1.12 .Detail of medium positioning (e.g., movement to or from presentation location of medium, etc.)
1.13 .Emulation or plural modes
1.14 .Data corruption, power interruption, or print prevention
1.15 .Communication
1.16 .Memory
1.17 ..Page or frame memory
1.18 .Detail of image placement or content
500 **NATURAL COLOR FACSIMILE**

501 .Image reproduction
502 ..Ink-Jet
503 ..Thermal
504 .Measuring, testing, and calibrating
505 .Scanning
506 ..Transparency image scanning
507 ..Cathode-ray tube
508 ..Transceiver
509 ..Illumination
510 ...Coherent light
511 ..With prism
512 ..With color filters
513 ..Solid-state
514 ...With plural sensors
515 .Color separation
516 ..White balance correction
517 ..Color masking
518 .Color correction
519 ..Gamma correction
520 ..Hue, saturation and luminance
521 ..Gradation
522 ..With histogram
523 ..With memory for storage of conversion data
524 .Intermediate storage
525 .Interpolation
526 .With mark-forming function
527 .Color photography previewer
528 .Size variation
529 .Black signal synthesis
530 .Specific image-processing circuitry
531 ..Electronic retouch
532 ..Sharpness emphasizing
533 ..Moire reduction
534 ..Halftone processing
535 ...Matrix
536 ...Halftone screening
537 ..Image editing
538 ..Image portion selection
539 ..Image coding (encoder/decoder)
540 ..Composite image
400 **FACSIMILE**
401 .Image reproduction system
402 .Electronic mailbox
403 .Document filing and retrieval system
404 .Facsimile memory monitoring
405 .Image transmission accuracy verification
406 .Facsimile measuring, testing, or calibrating
407 .Facsimile relay system
408 .Plural scanner station
409 .Synchronization
410 ..Sync or phase pulse generator
411 ..Facsimile carrier as synchronization signal
412 ..Phase or speed regulation
413 ...Start-stop
414 ...With particular clutch mechanism
415 ...With pendulum
416 ...With tuning fork
417 ...With strobe
418 ...With movable phase shifter
419 ...Receiver motor power transmitted from transmitter
420 ...Receiver motor power source frequency change
421 ...Receiver motor power source voltage change
422 ...Receiver motor power source interruption
423 ...With resistance variable in receiver motor power source
424 ...Stylus
425 .Multiplex
426.01 .Reduced time or bandwidth for static image communication
426.02 ..Condition based selection or control of image coding technique or communication arrangement
426.03 ...Transfer rate of an uncoded or decoded image
426.04 ...Processing or analysis of an uncoded or decoded image
426.05 ...Storage arrangement or capacity
426.06 ...Amount of image data or code
426.07 ...Coding or decoding rate
426.08 ...Bandwidth or property of a communication medium
426.09 ...Communication error rate or level
426.1 ...Fill bit or dummy signal used
426.11 ...Coded image communication rate
426.12 ..Auxiliary information transmitted (e.g., required to perform or identify decoding technique)
426.13 ..Combined with lossless coding technique (e.g., fixed or variable run-length coding)

426.14 ..Combined with lossy coding technique (e.g., coding of quantized transform coefficients)
426.15 ..Coding for analog facsimile equipment (e.g., Group 1 or 2)
426.16 ..Coding for digital facsimile equipment (e.g., Group 3 or 4)
434 .Auxiliary signal
435 ..Transmitter and receiver both supply auxiliary signal(s)
436 ...Auxiliary signal controls apparatus at both transmitter and receiver
437 ..Interruption detection and control
438 ..Transmitter supplies auxiliary signal(s)
439 ..Receiver supplies auxiliary signal(s)
440 ..Telephone number or address of designator
441 ..Facsimile alarm
442 .Facsimile system interface
443 .Specific signal processing circuitry
444 ..Memory interface
445 ..Signal sampling and conversion
446 ..Signal voltage or gain control
447 ..Signal enhancing
448 ..Image processing
461 ...Shade correction
449 ...Document size detection
450 ...Plural images combined into a single image
451 ...Picture size conversion
452 ...Image editing
453 ...Image portion selection
462 ...Text and image detection and processing
463 ...Noise elimination
464 ...To distinguish intelligence from background
465 ...Picture signal thresholding
466 ....Variable thresholding technique
468 ..Facsimile control unit
469 ..Carrier wave modulation
470 .Coded character
471 .Picture signal generator
472 ..Combined read and write head
473 ..Hand-held reader
474 ..Scanning
475 ...Facsimile illumination control
476 ...Transceiver
477 ...Nonlight
478 ....Stylus type
479 ...Facsimile video
480 ...Coherent light
481 ....Including a polygon reflector
482 ...Solid state
483 ....Charge coupled device
484 ...Fiber optics or optical waveguides
485 ...Cathode-ray tube
486 ...Scan rate or document movement variation in accordance with data presence
487 ...Facsimile transparency image scanning
488 ...Document position detection
489 ...Helical scanning pattern
490 ....Transparent drum
491 .....Internal scan
492 ....Specified sheet clamp
493 ...Curved scanning surface
494 ...Linear scanning pattern
495 ....Spiral or helix aperture with linear aperture
496 ....Document moves during scanning
497 ....Scanning element moves relative to a flat stationary document
498 ...Document feed
296 .Recording apparatus
300 ..Electrostatic or electrolytic
301 ..Magnetic
302 ..Photographic
303 ..Pressure (e.g., on carbon paper)
304 ..With paper cutter
305 **MISCELLANEOUS**

**CROSS-REFERENCE ART COLLECTIONS**

901.1 **FIBER OPTICS**
906 **HAND-HELD CAMERA WITH RECORDER IN A SINGLE UNIT**
907 **TRACK SKIPPERS (I.E., "GROOVE SKIPPERS")**
908 **PAUSE CONTROL (I.E., "COMMERCIAL KILLERS")**
909.1 **ELECTRONIC STILL CAMERA OR SCENE REPRODUCER**

**FOREIGN ART COLLECTIONS**

FOR 000 **CLASS-RELATED FOREIGN DOCUMENTS**

Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or non-patent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

FOR 142 **STATIC PRESENTATION PROCESSING (E.G., FOR A PRINTER) (395/101)**
FOR 143 .Size or scale control (395/102)
FOR 144 .Plotter (395/103)
FOR 145 .Plural marking means (395/104)
FOR 146 .Position or velocity determined (395/105)
FOR 147 .Specific to image source (395/106)
FOR 148 .Flying dot (e.g., laser beam) (395/107)
FOR 149 .Dot matrix array (e.g., printheads) (395/108)
FOR 150 .Attribute control (395/109)
FOR 151 .Character or font (395/110)
FOR 152 .Details of medium positioning (e.g., movement to or from presentation location of medium) (395/111)
FOR 153 .Emulation or plural modes (395/112)
FOR 154 .Data corruption, power interruption, or print prevention (395/113)
FOR 155 .With communications (e.g., data compression, data expansion, plural devices) (395/114)
FOR 156 .Memory (395/115)
FOR 157 ..Page or frame memory (395/116)
FOR 158 .Details of image placement or content (395/117)

**FACSIMILE**

FOR 159 .Time or bandwidth compression (358/426)
FOR 160 ..Run length encoding (358/261.1)
FOR 161 ...Predictive or adaptive encoding (358/261.2)
FOR 162 ...Two dimensional encoding (358/261.3)
FOR 163 ...Using Huffman code (358/427)
FOR 164 ...Having addressable memory (358/261.4)
FOR 165 ..Two level to three level (358/262.1
FOR 166 ..Interpolation (358/428)
FOR 167 ..Halftone or grey level processing (358/429)
FOR 168 ..Adaptive or predictive (358/430)
FOR 169 ..Fill bits or dummy signal (358/431)
FOR 170 ..Two dimensional or orthogonal (358/432)
FOR 171 ...Block (358/433)
FOR 172 ...Moire effect elimination (358/454)
FOR 173 ...Gray level processing (358/455)
FOR 174 ....Halftone (358/456)
FOR 175 .....Dither matrix (358/457
FOR 176 ....Gradation or spatial processing (358/458)
FOR 177 .....Variable halftone dot shape or size (358/459)
FOR 178 .....Addressable storage (358/460)
FOR 179 ...Image classification and coding (358/467)
FOR 180 ..Ablative (358/297)
FOR 181 ..Halftone (358/298)
FOR 182 ...Engraving (358/299)