Proposed PWG Usage Counters

Glossary	
Image:	An digital representation of a a media sheet side.
Impression:	For a print job, an impression is the passage of the entire side of a sheet by the marker, whether or not any marks are made and independent of the number of passes that the side makes past the marker. Thus a four pass color process counts as a single impression, as does highlight color. Impression counters count all kinds: monochrome, highlight color, and full process color, while full color counters only count full color impressions, and high light color counters only count high light color impressions. One-sided processing involves one impression per sheet. Two-sided processing involves two impressions per sheet. If a two-sided document has an odd number of pages, the last sheet still counts as two impressions, if that sheet makes two passes through the marker or the marker marks on both sides of a sheet in a single pass. Two-up printing is the placement of two logical pages on one side of a sheet and so is still a single impression.. An impression is a media sheet side that has passed by the marker.
N-up Number-up	The placement of two or more pages on one side of a sheet (i.e. impression) so that each side or impressions counts as N pages.
Page	A page is a logical division of the original source document. Number up (N-Up) is the imposition of more than one page on a single side of a sheet.
Sheet	A sheet is a single instance of a medium, whether printing on one or both sides of the medium.

Element Name	reference
Description	
AuxiliaryImpressions	
The number of media sheet sides that pass by the marker that are not part of the user's job data (e.g. administration pages, error sheets, banner sheets, job reports, confirmation sheets etc.).	
AuxiliaryBlackImpressions	
The number of impressions using only black colorant not part of the user's job data	
AuxiliaryBlankImpressions	
The number of impressions that are not part of the user's job data for which no colorant is used. Note: Impressions that contain watermarks or forms are not counted as blank even if the watermark or form is not part of the job data.	
AuxiliaryFullColorImpressions	
The number of impressions that are not part of the user's job data for which one or more non-black colorants are used. This counter does not include HighlightColor (spot) impressions.	

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Element Name	reference
Description	
AuxiliaryHighlightColorImpressions	
The number of impressions that are not part of the user's job data that uses one (spot) non-black colorant. The image may also contain black colorant. Highlight color impressions are produced only on devices that are highlight color capable.	
CopierImpressions	
The number of media sheet sides that pass by the marker when using the device as a copier.	
CopierBlack Impressions	
The number of impressions using only black colorant when using the device as a copier.	
Copier FullColorImpressions	
The number of impressions using one or more non-black colorants when using the device as a copier. The images may also contain black colorant. [This counter does not include HighlightColor (spot) impressions.] only in printer	
EmailImagesSent	
The number of scanned sides of stock that are transmitted when using the E-mail service.	
EmailBlackImagesSent	
The number of images that are transmitted in Black and White or Grayscale Modes when using a device's e-mail service.	
EmailBlankImages ISSUE: Do we want this counter?	
The number of blank images that are transmitted when using a device's e-mail service.	
EmailFullColorImagesSent	
The number of scanned sides of stock that are transmitted in color when using the Email service.	
FaxInImages	
The number of images that are received by the device's Public Service Telephone Network (PSTN)Fax service.	
FaxInBlackImages	
The number of images that are received by the device's PSTN Fax service in Black and White or Grayscale Modes.	
FaxInFullColorImages	
The number of images that are received by the device's PSTN fax service in Full Color Mode.	
FaxInImpressions	
The number of media sheet sides that pass by the marker when using the device to print PSTN received faxes.	

Proposed PWG Usage Counters

Element Name	reference
Description	
FaxInBlackImpressions	
The number of impressions using only black colorant when using the device to print PSTN received faxes.	
FaxInBlankImpressions	
The number of impressions for which no colorant is placed on a side of a piece of media when using the device to print PSTN received faxes.	
FaxInFullColorImpressions	
The number of impressions using one or more non-black colorants when using the device as a PSTN fax machine for received faxes. The images may also contain black colorant.	
FaxOutImages	
The number of images that are sent by the device's PSTN Fax service.	
FaxOutBlackImages	
The number of images that are transmitted when using a device's PSTN fax service in Black and White or Grayscale Modes.	
FaxOutFullColorImages	
The number of images that are transmitted when using a device's PSTN fax service in Full Color Mode.	
FileOutImages ISSUE: Is images the appropriate metric for storing data	
Number of images that are stored locally or remotely..	
FileOutBlackImages ISSUE: Does B&W/Color make a difference when storing images	
Black and white or greyscale images that are stored locally or remotely	
FileOutFullColorImagesSent	
Color images that are stored locally or remotely	
MaintenanceImpressions	
The number of media sheet sides that pass by the marker while the device is in service mode.	
MaintenanceBlackImpressions	
The number of impressions using only black colorant while the device is in service mode.	
MaintenanceBlankImpressions	
The number of impressions for which no colorant is placed on a side of a piece of media while the device is in service mode.	
MaintenanceFullColorImpressions	

Proposed PWG Usage Counters

Element Name	reference
Description	
The number of impressions using only color colorant while the device is in service mode. This counter does not include HighlightColor (spot) impressions.	
MaintenanceHighlightColorImpressions	
The number of impressions that have an image that uses one (spot) non-black colorant while the device is in service mode. The image may also contain black colorant. Highlight color impressions are produced only on devices that are highlight color capable.	
NetworkFaxInImages	
The number of images that are received by the device's Network Fax service.	
NetworkFaxInBlackImages	
The number of images that are received by the device's network Fax service in Black and White or Grayscale Modes.	
NetworkFaxInFullColorImages	
The number of images that are received by the device's network fax service in Full Color Mode.	
NetworkFaxInImpressions	
The number of media sheet sides that pass by the marker when using the device to print network received faxes.	
NetworkFaxInBlackImpressions	
The number of impressions using only black colorant when using the device to print network received faxes.	
NetworkFaxInBlankImpressions	
The number of impressions for which no colorant is placed on a side of a piece of media when using the device to print network received faxes.	
NetworkFaxInFullColorImpressions	
The number of impressions using one or more non-black colorants when using the device as a network fax machine for received faxes. The images may also contain black colorant. T	
NetworkFaxOutImages	
The number of images that are sent by the device's network Fax service.	
NetworkFaxOutBlackImages	
The number of images transmitted when using a device's network Fax service in Black and White or Grayscale Modes.	
NetworkFaxOutFullColorImages	
The number of images that are transmitted when using a device's network fax service in Full Color Mode.	

Proposed PWG Usage Counters

Element Name	reference
Description	
PrintImpressions	
The number of media sheet sides that pass by the marker when using the device as a printer.	
PrintBlackImpressions	
The number of impressions using only black colorant when using the device as a printer.	
PrintBlankImpressions	
The number of impressions for which no colorant is placed on a side of a piece of media when using the device as a printer.	
PrintFullColorImpressions	
The number of impressions using one or more non-black colorants when using the device as a printer. The images may also contain black colorant. This counter does not include HighlightColor (spot) impressions.	
PrintHighlightColorImpressions	
The number of impressions that have an image that uses one (spot) non-black colorant when using the device as a printer. The image may also contain black colorant. Highlight color impressions are produced only on devices that are highlight color capable.	
ScanImages	
number of scanned sides of stock scanned i. (i.e. includes Copy, Fax, NetworkFax, ScanToFile etc.)	
ScanBlackImages	
number of scanned sides of stock scanned in Black and White or grayscale Modes. (i.e. includes Copy, Fax, NetworkFax, ScanToFile etc.)	
ScanFullColorImages	
number of scanned sides of stock scanned in full color mode. (i.e. includes Copy, Fax, NetworkFax, ScanToFile etc.)	
TotalImpressions	
The total number of media sheet sides that pass by the marker.	
TotalBlackImpressions	
The total number of impressions that have an image using black colorant only. No differentiation is made between black and white and gray scale.	
TotalBlankImpressions	
The total number of impressions for which no colorant is placed on a side of a piece of media. Note: Impressions that contain watermarks or forms are not counted as blank even if the watermark or form is not part of the job data.	
TotalFullColorImpressions	

Proposed PWG Usage Counters

Element Name	reference
Description	
The total number of impressions that have an image that uses one or more non-black colorants. The image may also contain black colorant. This counter does not include HighlightColor (spot) impressions.	
TotalHighlightColorImpressions	
The total number of impressions that have an image that uses one (spot) non-black colorant. The image may also contain black colorant. Highlight color impressions are produced only on devices that are highlight color capable.	
TotalSheets	
The total number of pieces of stock that have passed by the marker, independent of the service that initiated the job.	
TotalBlankSheets	
The total number of pieces of stock on which no colorant is placed on either side of a piece of media. Note: Sheets that contain watermarks or forms are not counted as blank even if the watermark or form is not part of the job data.	
TotalTwoSidedSheets	
The total number of media on which impressions are placed on both sides of the stock, independent of the service that initiated the job.	
TotalBlackTwoSidedSheets	
The total number of pieces of stock on which only black images are placed on both sides of the stock, independent of the service that initiated the job.	
TotalFullColorTwoSidedSheets	
The total number of pieces of stock on which images that use one or more non-black colorants are placed on both sides of the stock, independent of the service that initiated the job. The image may also contain black colorant. This counter does not include HighlightColor (spot) impressions.	
TotalHighlightColorTwoSided Sheets	
The total number of pieces of stock on which images that use one (spot) non-black colorant are placed on both sides of the stock, independent of the service that initiated the job. The images may also contain black colorant.	
ProcessingTime	

Element Name	reference
Description	
Lifetime (seconds) counter, that the device or service has been engaged in some form of "processing". Processing can include receiving and buffering data or resources either as part of a job or as a resource download, ripping, imaging, finishing etc. Responding to management queries should not be considered processing unless management and job protocols are indistinguishable. A simple way to tally ProcessingTime is to mark the tick at the start and end of "processing", accumulate these differences and compare against the running power-on counter. ProcessingTime is intended to be a low overhead metric that enables (via inverse) calculation of idle time. This information can be useful for capacity planning in a managed environment.	
DownTime	
Lifetime (seconds) counter, that the device or service has existed with an error requiring intervention or preventing operation of all or part of the device. (Do we need PrinterDownTime, ScannerDownTime, etc?). A simple way to tally DownTime is to mark the tick at the leading and trailing edges of an event, accumulate these differences and compare against the running power-on counter. DownTime is intended to be a low overhead metric that enables (via inverse) calculation of availability time. This information can be useful for service level validation in a managed environment.	
MaintenanceTime	
Lifetime (seconds) counter, that the device or service has existed in a condition where maintenance personnel have logged-in via whatever mechanism they do so for that device. (Maintenance time may be hard to calculate for a "service"). A simple way to tally MaintenanceTime is to mark the tick when personnel logs in and out, accumulate these differences and compare against the running power-on counter. MaintenanceTime can be useful for service level validation in a managed environment.	