



DICOM Conformance Statement
Fuji Medical Dry Imager
DRYPIX 7000/DRYPIX 5000

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4th Edition

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Revision History

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1 Introduction

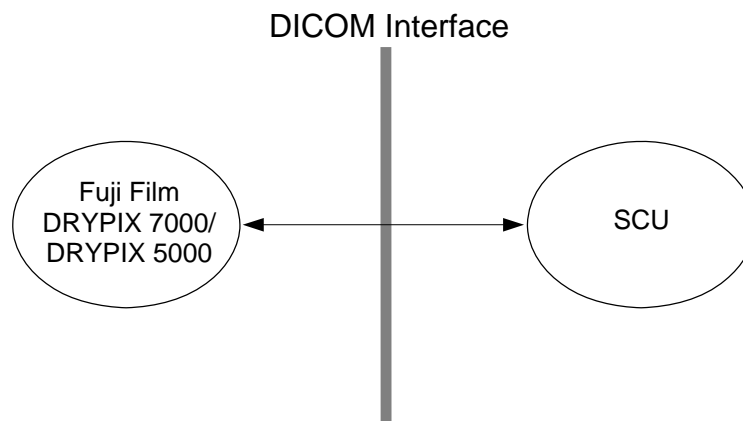
This document provides the DICOM conformance statement for the FUJIFILM DRYPIX 7000/DRYPIX 5000 product.

2 Implementation Model

The FUJIFILM DRYPIX 7000/DRYPIX 5000 is an Application Entity which provides the services of a DICOM Print Management Service Class.

2.1 Data Flow Diagram

The FUJIFILM DRYPIX 7000/DRYPIX 5000 receives images from a DICOM Print Management Service Class User, and prints them.



2.2 Functional Definitions of Application Entities

The FUJIFILM DRYPIX 7000/DRYPIX 5000 provides the DICOM Print Management Service Class support required to print images from one or more SCUs. The following functionality is supported:

- DICOM Association Management
- Management of DICOM Film Sessions, Film Boxes and Image Boxes
- Print Job Status Tracking
- Image Buffering
- Printing
- Printer Status Tracking

2.3 Sequencing of Real World Activities

Not applicable for Real World Activities.

3 Application Entity Specification

As the SCP, the DRYPIX 7000/DRYPIX 5000 conforms to the following DICOM SOP Classes ¹.

| SOP Class Name | SOP Class UID |
|--|------------------------|
| Verification SOP Class | 1.2.840.10008.1.1 |
| Basic Grayscale Print Management Meta SOP Class | 1.2.840.10008.5.1.1.9 |
| Print Job SOP Class | 1.2.840.10008.5.1.1.14 |
| Basic Annotation Box SOP Class | 1.2.840.10008.5.1.1.15 |
| Presentation LUT SOP Class (Supplement 22) | 1.2.840.10008.5.1.1.23 |
| Print Queue Management SOP Class (Supplement 13) | 1.2.840.10008.5.1.1.26 |

¹ The following Correction Proposals are applied: CP16, 19, 20, 35, 49, 55, 56, 80, 81, 85, 94, 108, 173

4 Association

4.1 Association Establishment Policies

- ◆ General
 - The SCU AE attempts to initiate a new Association for each print session.
 - Only the SCU AE shall release an Association.
 - The Association may be aborted by the SCU or the SCP.
 - The Maximum PDU Size for the PDUs offered by the SCP equals 32Kbytes.
- ◆ Number of Associations
 - Maximum 10 associations at a time. Further associations will be rejected with the reason 'busy'.
- ◆ Asynchronous Nature
 - Not support negotiation of multiple outstanding transactions.
- ◆ Implementation ID information
 - Implementation Class UID is 1.2.392.200036.9125.5396.1
(For both DRYPIX 7000 and DRYPIX 5000.)

4.2 Association Initiation

This application does not initiate any DICOM associations.

4.3 Association Acceptance Policy

This application accepts an association.

- ◆ Associated Real-World Activity

When an association is established, one of the following activities may occur.

 - 1) The SCU instructs the printing of a set of images. The SCP prints the set of images.
 - 2) The SCU requires the status of print job or the printer. The SCP will respond it.
 - 3) The SCU sends a verification request. The SCP will respond it.
- ◆ Proposed Presentation Contexts

The following transfer syntax is acceptable.

Table-1

| Name | UID |
|---------------------------------|-------------------|
| DICOM Implicit VR Little Endian | 1.2.840.10008.1.2 |

The following presentation contexts are acceptable.

| No. | Abstract Syntax | | Transfer syntax | Role | Extended Negotiation |
|-----|---|------------------------|-----------------|------|----------------------|
| | Name | UID | | | |
| 1 | Verification SOP Class | 1.2.840.10008.1.1 | Table-1 | SCP | None |
| 2 | Basic Grayscale Print Management Meta SOP Class | 1.2.840.10008.5.1.1.9 | Table-1 | SCP | None |
| 3 | Print Job SOP Class | 1.2.840.10008.5.1.1.14 | Table-1 | SCP | None |
| 4 | Printer SOP Class | 1.2.840.10008.5.1.1.16 | Table-1 | SCP | None |

| | | | | | |
|---|----------------------------------|------------------------|---------|-----|------|
| 5 | Presentation LUT SOP Class | 1.2.840.10008.5.1.1.23 | Table-1 | SCP | None |
| 6 | Print Queue Management SOP Class | 1.2.840.10008.5.1.1.26 | Table-1 | SCP | None |
| 7 | Basic Annotation Box SOP Class | 1.2.840.10008.5.1.1.15 | Table-1 | SCP | None |

The 3rd and 4th SOP Classes that have been negotiated so far only by combined with the 2nd SOP Class are now permitted to be negotiated with no combination. The 3rd and 4th SOP Classes may inhibit SCP’s resource consumption rather than when negotiated being combined with the 2nd SOP Class, resulting in improving SCP’s processing speed (CP-81). The 6th SOP Class can be negotiated solely with no combination or being combined with any other.

◆ SOP Specific Conformance

- The DRYPIX 7000/DRYPIX 5000 may return the following error codes in response to any message received.

| Code | Status | Meaning |
|-------|---------|---|
| 0122H | Failure | SOP class not supported |
| 0211H | Failure | Unrecognized operation : the command is not supported for the SOP class (e.g. N_CREATE for Image Box SOP class) |

- For 0107H, 0116H and B604H Warning Status, it is possible to disregard them and individually specify so that they are processed same as the “Success: (0000H).”
- It is possible to specify so that the N-EVENT-REPORT message is not issued.
- When the same Image Position (2020,0010) has been specified one or more times by N-SET in Basic Grayscale Image BOX, the Image Position specified the last will be effective. N-ACTION for Basic Film Session or Basic Film Box will quit normally, not resulting in C604H error (CP-80).
- In Failure status, no message will be returned by “Attribute List.”
- In Success/Warning status when in N-CREATE, all supported attributes included in the instance that has been created as the “Attribute List” will be returned.
- In Success/Warning when in N-SET, items that have been properly updated in the items specified by the SCU will be returned as the “Attribute List.” However, Preformatted grayscale image sequence in the Basic Grayscale Image Box will not be returned.
- When Status (0000,0900) = 0107H (Attribute list error), the Attribute Identifier List (0000,1005) will not be returned.
- In certain Failure/Warning status, the Error Comment (0000,0902) will be returned.

See Appendix D.

5 Verification SOP Class (1.2.840.10008.1.1)

The DRYPIX 7000/DRYPIX 5000 provides standard conformance to the DICOM Verification Service Class as an SCP.

Upon receipt from an SCU of a verification of communication request, the DRYPIX 7000/DRYPIX 5000 will issue a confirmation.

6 Basic Film Session SOP Class (1.2.840.10008.5.1.1.1)

The following DIMSE services are supported.

- N-CREATE
- N-SET
- N-DELETE
- N-ACTION

6.1 N-CREATE

◆ Description

- Creates a Basic Film Session SOP instance and initializes it using the value sent from the SCU (default if no value is sent from the SCU).
- Creating instance of this SOP is required before creating the Basic Film Box SOP instance.
- An Association may have only one Basic Film Session SOP instance at a time. To use several Basic Film Session SOP instances, delete older ones and create new ones.

◆ Attribute Information

| Tag | Name | Usage | Supported | Default |
|-----------|--------------------|-------|--------------------------|-------------|
| 2000,0010 | Number of Copies | U/M | 1-99 | Config |
| 2000,0020 | Print Priority | U/M | HIGH, MED LOW | LOW |
| 2000,0030 | Medium Type | U/M | CLEAR FILM, BLUE FILM | Config |
| 2000,0040 | Film Destination | U/M | PROCESSOR BIN_i | PROCESSOR |
| 2000,0050 | Film Session Label | U/U | Up to 64 characters | Null string |
| 2000,0060 | Memory Allocation | U/U | 1-131072 | None |
| 2100,0160 | Owner ID | U/U | | None |

* (2000,0040) "BIN_i" specifies sorter bins on the printer provided with sorter. "i" is the pin number, ranging from 1 to the number of bins (max.10). If the printer is not provided with sorter, "BIN_i" is not effective and is substituted by PROCESSOR.

* (2000,0060) is used for reserving Disk space in KByte.

◆ Status

- Use defaults and return "Success:0000H" if no element values have been specified.
- Create a UID using SCP and return "Success:0000H" if there is no Affected SOP Instance UID (0000,1000) or it has been sent in length 0.
- If element values exceed specified ranges, use defaults and return "Warning:0116H."
- "Warning:0116H" will be returned if a film type that is not loaded in the Laser Imager for output has been specified using Medium Type (2000,0030).
- Basic Film Session SOP instance is created even with Warning and processing is possible continuously.
- Basic Film Session SOP instance will not be created in Failure status.

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | Film session successfully created. The actual values assigned to attributes are returned. |
| 0107H | Warning | Attribute list error. Attributes not applicable to the Basic Film Session SOP instance have been specified. |
| 0110H | Failure | Processing failure. An attempt was made to create the 2nd Basic Film Session SOP instance. |
| 0116H | Warning | Attribute Value Out of Range. |
| 0117H | Failure | Invalid Object Instance. Returned if a given instance UID has violated the UID construction rules. |
| 0213H | Failure | Resource Limitation. The requested allocation can temporarily not be provided. |

◆ Remarks

- The following attributes of Basic Film Session IOD are not open to an SCU. These attributes are set up within an SCP when a Basic Film Box SOP instance is created.

| Tag | Name |
|-----------|-------------------------------|
| 2000,0500 | Referenced Film Box Sequence |
| 0008,1150 | > Referenced SOP Class UID |
| 0008,1155 | > Referenced SOP Instance UID |

6.2 N-SET

◆ Description

- Update attributes of the Basic Film Session SOP instance. It is possible to change all attributes that can be specified using N-CREATE.

◆ Status

- For a Warning status, attributes will not be updated, remaining in previous values. Processing can be continued.
- For a Failure status, attributes will not be updated, remaining in previous values. Processing can be continued.

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | Specified attributes of the SOP instance have been updated. The actual values assigned to attributes are returned. |
| 0107H | Warning | Attribute list error. Attributes that cannot be applied to the Basic Film Session SOP Instance have been specified. |
| 0116H | Warning | Attribute Value out of Range. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |
| 0213H | Failure | Resource Limitation. The requested allocation can temporarily not be provided. |

6.3 N-DELETE

◆ Description

- Deletes all information hierarchies rooted in the Basic Film Session SOP Instance. Releases assigned resources.

◆ Status

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | The specified SOP Instance hierarchy has been deleted. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |

6.4 N-ACTION

◆ Description

- After copying all information hierarchies rooted in the Basic Film Session SOP Instance, prints all relevant films. If one or more Film Boxes are included, Printing order will, for example, be as follows.
1-1-2-2-3-3
- Film Size IDs (2010,0050) of all Basic Film Box SOP Instances related with the Basic Film Session SOP Instance should be the same. If different IDs are included, returns “Failure:0110H” and prints no films. In such a case, N-ACTION should be issued to each Basic Film Box SOP Instance.
- The SCU will continuously be able to update and/or operate all information hierarchies rooted in the Basic Film Session SOP Instance, which will not affect print operation as instructed by N-ACTION.
- Creates the Print Job SOP Instance and returns its UID, if agreed according to Association setup.

◆ Parameters

Action Type Name = PRINT, Action Type ID = 1

| Tag | Attribute | Usage | Comment |
|-----------|-------------------------------|-------|---|
| 2100,0500 | Referenced Print Job Sequence | -/MC | If Print Job SOP Class or Print Queue Management SOP Class is negotiated. |
| 0008,1150 | >Referenced SOP Class UID | -/MC | If Print Job SOP Class is negotiated. |
| 0008,1155 | >Referenced SOP Instance UID | -/MC | If Print Job SOP Class is negotiated. |
| 2100,0010 | >Print Job ID | -/MC | If Print Queue Management SOP Class is negotiated. |

◆ Status

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | Films in the film session have been queued for printing. |
| 0110H | Failure | Processing failure. Basic Film Box SOP Instance of different film sizes are present. |
| 0115H | Failure | Invalid Argument Value. Returned if the Action Type provided by the SCU is not recognized. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |
| B602H | Warning | Film Session SOP instance hierachy does not contain Image Box SOP Instance. Empty page will not be printed. |
| C600H | Failure | Film Session SOP Instance hierachy does not contain Film Box SOP Instances. |
| C601H | Failure | Unable to create Print Job SOP Instance. Print queue if full. |

7 Basic Film Box (1.2.840.10008.5.1.1.2)

The following DIMSE services are supported.

- N-CREATE
- N-SET
- N-DELETE
- N-ACTION

7.1 N-CREATE

◆ Description

- Creates a Basic Film Box SOP instance and initializes it using the value sent from the SCU (default if no value is sent from the SCU).
- Initialization is effected so as to link “2000,0500” (Referenced Film Box Sequence) of Basic Film Session SOP instance to the created Basic Film Box SOP instance.
- Creates Basic Grayscale Image Box SOP Instances as many as necessary in accordance with (2010,0010) (Image Display Format), and specifies them to (2010,0510) (Referenced Image Box Sequence) of the Basic Film Box SOP Instance. Returns these values to the SCU as a Response.
- Creates Basic Annotation Box SOP Instances as many as necessary in accordance with (2010,0030) (Annotation Display Format ID), and specifies (2010,0520) (Referenced Basic Annotation Box Sequence). Returns these values to the SCU as a Response. If the use of a Basic Annotation Box SOP Class is not agreed upon, no Basic Annotation Box SOP instance is created.²

◆ Attribute Information

(Basic Film Box Presentation Module)

| Tag | Name | Usage | Supported | Default |
|-----------|------------------------------|-------|--|---------|
| 2010,0010 | Image Display Format | M/M | See Appendix A. | |
| 2010,0030 | Annotation Display Format ID | U/U | FORMAT1 | FORMAT1 |
| 2010,0040 | Film Orientation | U/M | PORTRAIT LANDSCAPE | Config |
| 2010,0050 | Film Size ID | U/M | 14INX17IN 14INX14IN 10INX14IN 8INX10IN 10INX12IN | Config |
| 2010,0060 | Magnification Type | U/M | CUBIC NONE (No magnification/reduction) | CUBIC |
| 2010,0080 | Smoothing type | U/U | SHARP SMOOTH MEDIUM | Config |
| 2010,0100 | Border Density | U/U | BLACK WHITE 0-300 | Config |

² No matter whether this situation arises, annotation Text for which Configuration setup is completed will be recorded onto film.

| | | | | |
|-----------|---------------------------|------|------------------|------------------------|
| 2010,0110 | Empty Image Density | U/U | (Not supported) | |
| 2010,0120 | Min Density | U/U | 0-300 | Config |
| 2010,0130 | Max Density | U/M | 0-400 | Config |
| 2010,0140 | Trim | U/U | YES NO | Config |
| 2010,0150 | Configuration Information | U/M | See Appendix B. | Config |
| 2010,015E | Illumination | U/MC | | 2000 cd/m ² |
| 2010,0160 | Reflective Ambient Light | U/MC | | 10 cd/m ² |
| 2020,0050 | Requested Resolution ID | U/U | STANDARD HIGH | |

(Basic Film Box Relationship Module)

| Tag | Name | Usage | Supported | Default |
|-----------|--|-------|-----------|---------|
| 2010,0500 | Referenced Film Session Sequence | M/M | | |
| 0008,1150 | >Referenced SOP Class UID | M/M | | |
| 0008,1155 | >Referenced SOP instance UID | M/M | | |
| 2010,0510 | Referenced Image Box Sequence | -/M | | |
| 0008,1150 | >Referenced SOP Class UID | -/M | | |
| 0008,1155 | >Referenced SOP instance UID | -/M | | |
| 2010,0520 | Referenced Basic Annotation Box Sequence | -/MC | | |
| 0008,1150 | >Referenced SOP Class UID | -/MC | | |
| 0008,1155 | >Referenced SOP instance UID | -/MC | | |
| 2050,0500 | Referenced Presentation LUT Sequence | U/MC | | |
| 0008,1150 | >SOP Class UID | U/MC | | |
| 0008,1155 | >SOP Instance UID | U/MC | | |

- * If 11INX14IN is specified for (2010,0050) Film Size ID, it will be handled as a 26×36cm film, same as 10INX14IN.
- * Specifying low densities in (2010,0100), (2010,0120) or (2010,0130) will affect film base densities.
- * A value larger than 361 can be specified for Max Density (2010,0130) only when the DI-ML type film is used.
- * If “HIGH” is specified for (2020,0050) Requested Resolution ID, double-density image recording (20 lines/mm) will be performed.

◆ Status

- If an attribute specified for the Basic Film Box SOP, but not supported by the DRYPIX 7000/DRYPIX 5000, returns “Warning:0107H.”
- Returns “Success:0000H” with the UID generated using the SCP, if no Affected SOP Instance UID (0000,1000) is available or it has been sent in length 0.
- Returns "Success:0000H" using the defaults, if values of "Usage SCU=U" elements have not been specified.
- Returns “Warning:0116H” using the defaults, if values of “Usage SCU=U” elements exceed the range.

- When a size that has not been loaded was specified for Film Size ID (2010,0050), “Warning: 0166H” or “Failure (an error code can be set up)” will be returned accordingly
- Returns “Failure:0102H” if values of “Usage SCU=M” elements have not been specified. This also applies for when no values have been sent as the DataSet.
- Returns “Failure:0116H” if values of “Usage SCU=M” elements exceed the range.
- Even for the Warning status, a Basic Film Box SOP instance will be created, enabling to continue with processing.
- For the Failure status, no Basic Film Box SOP instance will be created. At this time, the Affected SOP Instance UID (0000,1000) will not be returned.
- Returns "Failure:0106H" if a value less than 360 was specified for Max Density (2010,0130) in spite of a setting made according to the Configuration so as not to accept a value less than 360 for Max Density (2010,0130), when the DI-ML type film is used.

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | Film Box is successfully created. The actual values assigned to attributes are returned. |
| 0106H | Failure | Invalid Attribute Value. Mandatory attribute had illegal value. |
| 0107H | Warning | Attribute list error. An attribute not supported by the DRYPIX 7000/DRYPIX 5000 has been specified. An attribute not applicable to the Basic Film Box SOP instance has been specified. |
| 0110H | Failure | Processing failure. Returned if the number of film boxes exceeds 32. |
| 0111H | Failure | Duplicate SOP instance. Instance UID given is already in use. |
| 0116H | Warning | Attribute Value Out of Range. |
| 0117H | Failure | Invalid Object Instance. Returned if a given instance UID has violated the UID construction rules. |
| 0120H | Failure | Missing attribute. Returned if a mandatory attribute is missing. |
| B605H | Warning | Requested Min Density or Max Density outside of printer's operating range. The printer will use its respective minimum or maximum density value instead. |

7.2 N-SET

- ◆ Description
 - Updates Basic Film Box SOP Instance attributes created the last.
- ◆ Attributes that can be updated

| Tag | Name | Usage | Supported |
|-----------|--------------------|-------|--|
| 2010,0060 | Magnification Type | U/M | CUBIC NONE (No magnification /reduction) |
| 2010,0080 | Smoothing type | U/U | SHARP SMOOTH MEDIUM |
| 2010,0100 | Border Density | U/U | BLACK WHITE |

| | | | |
|-----------|--------------------------------------|------|-----------------|
| | | | 0-300 |
| 2010,0110 | Empty Image Density | U/U | (Not supported) |
| 2010,0120 | Min Density | U/U | 0-300 |
| 2010,0130 | Max Density | U/M | 0-400 |
| 2010,0140 | Trim | U/U | YES NO |
| 2010,0150 | Configuration Information | U/M | See Appendix B. |
| 2010,015E | Illumination | U/MC | |
| 2010,0160 | Reflective Ambient Light | U/MC | |
| 2050,0500 | Referenced Presentation LUT Sequence | U/MC | |
| 0008,1150 | >SOP Class UID | U/MC | |
| 0008,1155 | >SOP Instance UID | U/MC | |

* A value larger than 361 can be specified for Max Density (2010,0130) only when the DI-ML type film is used.

◆ Status

- Returns “Failure:0120H” if no values have been sent as a DataSet.
- For the Warning status, attributes will not be updated, with values remaining unchanged. Processing can be continued.
- For the Failure status, attributes will not be updated, with values remaining unchanged. Processing can be continued.

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | Specified attributes of the SOP instance have been updated. The actual values assigned to attributes are returned. |
| 0106H | Failure | Invalid Attribute Value. Mandatory attribute had illegal value. |
| 0107H | Warning | Attribute list error. An attribute not supported by the DRYPIX 7000/DRYPIX 5000 has been specified. An attribute not applicable to the Basic Film Box SOP instance has been specified. |
| 0110H | Failure | Processing failure. The instance created the last was not specified. |
| 0116H | Warning | Attribute Value Out of Range. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |
| 0120H | Failure | Missing attribute. Returned if no DataSet is provided by the SCU. |
| B605H | Warning | Requested Min Density or Max Density outside of printer’s operating range. The printer will use its respective minimum or maximum density value instead. |

7.3 N-DELETE

◆ Description

- Deletes the Basic Film Box SOP instance hierarchy created the last.
- Deletes the relevant part of (2000,0500) (Referenced Film Box Sequence) of the Basic Film Session SOP Instance.

◆ Status

| Code | Status | Meaning |
|------|--------|---------|
|------|--------|---------|

| | | |
|-------|---------|--|
| 0000H | Success | The specified SOP Instance hierarchy has been deleted. |
| 0110H | Failure | Processing failure. The instance created the last was not specified. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |

7.4 N-ACTION

◆ Description

- After copying all information hierarchies rooted in the specified Basic Film Box SOP Instance, prints all relevant films.
- The SCU will continuously be able to update and/or operate all information hierarchies rooted in the Basic Film Box SOP Instance, which will not affect print operation as instructed by N-ACTION.
- Creates the Print Job SOP Instance and returns its UID, if agreed according to Association setup.

◆ Parameters

Action Type Name = PRINT, Action Type ID = 1

| Tag | Attribute | Usage | Comment |
|-----------|-------------------------------|-------|---|
| 2100,0500 | Referenced Print Job Sequence | -/MC | If Print Job SOP Class or Print Queue Management SOP Class is negotiated. |
| 0008,1150 | >Referenced SOP Class UID | -/MC | If Print Job SOP Class is negotiated. |
| 0008,1155 | >Referenced SOP Instance UID | -/MC | If Print Job SOP Class is negotiated. |
| 2100,0010 | >Print Job ID | -/MC | If Print Queue Management SOP Class is negotiated. |

◆ Status

| Code | Status | Meaning |
|-------|---------|---|
| 0000H | Success | Success is normally returned. |
| 0115H | Failure | Invalid Argument Value. Returned if the Action Type provided by the SCU is not recognized. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |
| B603H | Warning | Film Box SOP Instance hierarchy does not contain Image Box SOP Instances (empty page). Empty page will not be printed. |
| C602H | Failure | Unable to create Print Job SOP Instance. Print queue if full. |

8 Basic Grayscale Image Box (1.2.840.10008.5.1.1.4)

The following DIMSE service is supported.

- N-SET

8.1 N-SET

◆ Description

- Updates attribute information of the Basic Grayscale Image Box SOP instance belonging to the Film Box SOP instance created the last.
- (2010,0060) (Magnification Type), (2010,0080) (Smoothing Type) and (2010,0150) (Configuration Information) will prevail over values specified for the Film Box SOP instance.
- It is possible to erase image by sending (2020,0110) (Preformatted Grayscale Sequence) in length 0.
- When “2020,0030” (requested image size) is specified, “2010,0060” (magnification type) is unconditionally processed as CUBIC.
- When two or more images are set in the same Image position (2020,0010), the last one takes effect.

◆ Attributes that can be Specified

(Basic Image Box Presentation Module)

| Tag | Name | Usage | Supported | Default |
|-----------|---------------------------------------|-------|---|----------------------|
| 2020,0010 | Image position | M/M | 1-x (See Appendix A.) | None |
| 2020,0020 | polarity | U/M | NORMAL REVERSE | Config |
| 2010,0060 | magnification type | U/U | CUBIC NONE (No magnification/reduction) | Basic Film box Value |
| 2010,0080 | smoothing type | U/U | SHARP SMOOTH MEDIUM | Basic Film box Value |
| 2010,0120 | Min Density | U/U | 0-300 | Basic Film box Value |
| 2010,0130 | Max Density | U/U | 0-400 | Basic Film box Value |
| 2010,0150 | Configuration Information | U/U | See Appendix B. | Basic Film box Value |
| 2020,0030 | requested image size | U/U | See Appendix A. | None |
| 2020,0040 | Requested Decimate/Crop Behavior | U/U | DECIMATE,CROP,FAIL | Config |
| 2020,0110 | preformatted grayscale image sequence | M/M | | |
| 0028,0002 | >samples per pixel | M/M | 1 | None |
| 0028,0004 | >photometric interpretation | M/M | MONOCHROME1 MONOCHROME2 | None |
| 0028,0010 | >rows | M/M | 1-8800 | None |
| 0028,0011 | >columns | M/M | 1-8800 | None |
| 0028,0034 | >pixel aspect ratio | MC/M | R\C (Vertical\Horizontal) R,C=1-65535 | 1\1 |
| 0028,0100 | >bits allocated | M/M | 8, 16 | None |

| | | | | |
|-----------|-----------------------|-----|-----------|------|
| 0028,0101 | >bits stored | M/M | 8, 10, 12 | None |
| 0028,0102 | >high bit | M/M | 7, 9, 11 | None |
| 0028,0103 | >pixel representation | M/M | 0 | None |
| 7fe0,0010 | >pixel data | M/M | (any) | None |

(Basic Image Box Relationship Module)

| Tag | Name | Usage | Supported | Default |
|-----------|---|-------|-----------------|---------|
| 2020,0130 | referenced image overlay box sequence ^(note) | U/MC | (Not supported) | |
| 0008,1150 | >referenced sop class uid | MC/M | (Not supported) | |
| 0008,1155 | >referenced sop instance uid | MC/M | (Not supported) | |
| 2050,0500 | Referenced Presentation LUT Sequence | U/U | | |
| 0008,1150 | >SOP Class UID | U/U | | |
| 0008,1155 | >SOP Instance UID | U/U | | |

* A value larger than 361 can be specified for Max Density (2010,0130) only when the DI-ML type film is used.

◆ Status

- Returns “Success:0000H” using the defaults, if values of “Usage SCU=U” elements have not been Specified.
- Returns “Warning:0116H” using the defaults, if values of “Usage SCU=U” elements exceed the range.
- Returns “Failure:0102H” if values of “Usage SCU=M” elements have not been specified. This also applies for when no values have been sent as the DataSet.
- Returns “Failure:0106H” if values of “Usage SCU=M” elements exceed the range.
- Returns “Failure:0106H” with regard to (7fe0,0010) (pixel data), if the data length calculated from (0028,0010) (rows), (0028,0011) (columns) and (0028,0100) (bits allocated) does not agree with that of (7fe0,0010) (pixel data).
- For the Warning status, updates attributes. Processing can be continued.
- For the Failure status, does not update attributes, remaining the same. Processing can be continued.
- If “CROP” is specified for (2020,0040) (Requested Decimate/Crop Behavior) so as to reduce the image size that is larger than the frame, fit centers of the image and the frame with each other and then cut away the exceeding portion.
- When no value or “DECIMATE” is specified for (2020,0040) (Requested Decimate/Crop Behavior), the maximum size will be used to return “Warning: 0116H”, if (2020,0030) (requested image size) exceeds the maximum size to be determined by (2010,0010) (Image Display Format), (2010,0050) (Film Size ID) and (2020,0010) (Image position). When “CROP” is specified for that tag, “Warning: B609H” will be returned, and the relevant image is magnified/reduced to a value specified by Requested Image Size and then the exceeding portion is cut away by fitting centers of the images that exceeded the maximum size with each other. When “FAIL” is specified, “Failure: C603H” is returned and image reception is rejected consequently.

- When “NONE” has been specified for (2010,0060) (Magnification Type), changes (2010,0060) (Magnification Type) from “NONE” to “CUBIC” and returns “Warning:B604H” if (0028,0010) (Rows) and (0028,0011) (Columns) exceed the maximum size determined by (2010, 0010) (Image Display Format), (2010,0050) (Film Size ID), (2020,0010) (Image Position) and (2010,0040) (Film Orientation). When no value is specified for (2020,0040) (Requested Decimate/Crop Behavior), “Warning: B604H” will be returned, and “Warning: B60AH” for “DECIMATE”, “Warning: B609H” for “CROP”, and “Failure: C603H” for “FAIL”, respectively.

| Code | Status | Meaning |
|-------|---------|---|
| 0000H | Success | Image instance has been updated successfully. |
| 0106H | Failure | Invalid attribute value. Mandatory attribute has illegal value. |
| 0107H | Warning | Attribute list error. |
| 0110H | Failure | Processing failure. The Basic Grayscale Image Box SOP instance not belonging to the Film Box SOP instance created the last has been specified. |
| 0116H | Warning | Attribute Value Out of Range. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |
| 0120H | Failure | Missing attribute Returned if a mandatory attribute of the Data Set, provided by the SCU AE, is missing. |
| B604H | Warning | Image size is larger than image box size, the image has been demagnified. |
| B605H | Warning | Requested Min Density or Max Density outside of printer's operating range. The printer will use its respective minimum or maximum density value instead. |
| B609H | Warning | Image size is larger than the Image Box size. The Image has been cropped to fit. |
| B60AH | Warning | Image size or Combined Print Image size is larger than the Image Box size. Image or Combined Print Image has been decimated to fit. |
| C603H | Failure | Image size is larger than image box size. |
| C605H | Failure | Insufficient memory in printer to store images. |

9 Print JOB SOP Class (1.2.840.10008.5.1.1.14)

The following DIMSE services are supported.

- N-EVENT-REPORT
- N-GET

9.1 Overview

- One Print Job SOP Class instance represents one or more film print jobs belonging to the same film session and is possible to monitor execution of the job.
- The Print Job SOP Class instance will be created as requested by N-ACTION for Film Session SOP Class or Film Box SOP Class.
- The Print Job SOP Class instance will be deleted at the completion of the printing job or when Failure status results.

9.2 N-EVENT-REPORT

◆ Description

- As the status changes, N-EVENT-REPORT will be issued to the SCU of the Association that created the relevant instance. (No notice will be issued if the Association has been released.)
- After FAILURE or DONE status results, deletes the instance if the relevant confirmation has been received from the SCU.

◆ Event Types and Attributes

| Event type name | Event type ID | Attribute | Tag | Usage |
|-----------------|---------------|----------------------|-----------|-------|
| PENDING | 1 | Print Job ID | 2100,0010 | U/MC |
| | | Printer Name | 2110,0030 | U/U |
| | | Film Session Label | 2000,0050 | U/U |
| | | Excution Status Info | 2100,0030 | U/M |
| PRINTING | 2 | Print Job ID | 2100,0010 | U/MC |
| | | Printer Name | 2110,0030 | U/U |
| | | Film Session Label | 2000,0050 | U/U |
| | | Excution Status Info | 2100,0030 | U/M |
| DONE | 3 | Print Job ID | 2100,0010 | U/MC |
| | | Printer Name | 2110,0030 | U/U |
| | | Film Session Label | 2000,0050 | U/U |
| | | Excution Status Info | 2100,0030 | U/M |
| FAILURE | 4 | Print Job ID | 2100,0010 | U/MC |
| | | Printer Name | 2110,0030 | U/U |
| | | Film Session Label | 2000,0050 | U/U |
| | | Excution Status Info | 2100,0030 | U/M |

* The Print Job ID (2100,0010) will be returned only when the Print Queue Management SOP Class is negotiated.

9.3 N-GET

◆ Description

- Returns instance-specified attribute information, with the assigned UID. Returns all attribute information if the DataSet has not come.

◆ Attributes that can be Obtained

| Tag | Name | Usage | Supported |
|-----------|-----------------------|-------|--|
| 2100,0020 | Execution Status | U/M | PENDING PRINTING DONE FAILURE |
| 2100,0030 | Execution Status Info | U/M | Execution Status is DONE NORMAL Execution Status is PRINTING NORMAL Execution Status is FAILURE UNKNOWN Execution Status is PENDING See Appendix C. |
| 2000,0020 | Print Priority | U/M | HIGH, MED, LOW |
| 2100,0040 | Creation Date | U/U | |
| 2100,0050 | Creation Time | U/U | |
| 2110,0030 | Printer Name | U/U | Up to 16 characters (set at installation) |
| 2100,0070 | Originator | U/U | |

◆ Status

- Returns “Warning:0107H” if an attribute defined as an attribute of the Basic Film Box SOP instance, but not supported by the DRYPIX 7000/DRYPIX 5000, has been specified.

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | Print Job information is returned. |
| 0107H | Warning | Attribute list error. An attribute not applicable to the Print Job SOP instance has been specified. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |

10 Printer SOP Class (1.2.840.10008.5.1.1.16)

The following DIMSE services are supported.

- N-EVENT-REPORT
- N-GET

10.1 Overview

- Used to represent the printer and to obtain printer status.
- At time of printer startup, the SCP automatically creates instance and awaits the “well known SOP instance UID.” The value will be “1.2.840.10008.5.1.1.17.”

10.2 N-EVENT-REPORT

- ◆ Description
 - As the printer status changes, N-EVENT-REPORT will be issued to all associated SCUs for using the relevant printer.
- ◆ Events Types and Attributes

| Event type name | Event type ID | Attribute | Tag | Usage |
|-----------------|---------------|---------------------|-----------|-------|
| Normal | 1 | | | |
| Warning | 2 | Printer Name | 2110,0030 | U/U |
| | | Printer Status Info | 2110,0020 | U/M |
| Failure | 3 | Printer Name | 2110,0030 | U/U |
| | | Printer Status Info | 2110,0020 | U/M |

10.3 N-GET

- ◆ Description
 - Returns printer-instance-specified attribute information. Returns all attribute information if the DataSet has not come.
- ◆ Attributes that can be Obtained

| Tag | Name | Usage | Supported |
|-----------|------------------------|-------|--|
| 2110,0010 | printer status | U/M | NORMAL WARNING FAILURE |
| 2110,0020 | printer status info | U/M | Printer Status is NORMAL NORMAL Printer Status is WARNING See Appendix C. Printer Status is FAILURE UNKNOWN |
| 2110,0030 | printer name | U/U | Up to 16 characters (set at installation) |
| 0008,0070 | manufacture | U/U | FUJIFILM CO., LTD |
| 0008,1090 | manufacture model name | U/U | DRYPIX 7000/DRYPIX 5000 |

| | | | |
|-----------|--------------------------|-----|---------------|
| 0018,1000 | device serial number | U/U | Not supported |
| 0018,1020 | software versions | U/U | |
| 0018,1200 | date of last calibration | U/U | Not supported |
| 0018,1201 | time of last calibration | U/U | Not supported |

* (0018,1020) are represented by the “major.minor” format. The “major” represents an alphabet from A to Z and the “minor,” a two-digit decimal number from 00 to 99.

◆ Status

- Returns “Warning:0107H” if an attribute defined as an attribute of the Basic Film Box SOP instance, but not supported by the DRYPIX 7000/DRYPIX 5000, has been specified.

| Code | Status | Meaning |
|-------|---------|---|
| 0000H | Success | Printer information is returned. |
| 0107H | Warning | Attribute list error. An attribute not supported by the DRYPIX 7000/DRYPIX 5000 has been specified. An attribute not applicable to the Print Job SOP instance has been specified. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |

11 Presentation LUT (1.2.840.10008.5.1.1.23)

The following DIMSE services are supported.

- N-CREATE
- N-DELETE

11.1 N-CREATE

◆ Description

- Creates the Presentation LUT SOP instance and initializes it according to values sent by the SCU.
- To combine the instance thus created to the Basic Film Session SOP instance, Basic Film Box SOP instance or Basic Grayscale Image Box SOP instance, it is necessary to set the UID of this instance for each instance using the N-CREATE or N-SET function.
- Settings using the Presentation LUT prevail those using the Configuration Information (2010, 0150).

◆ Attribute Information

| Tag | Name | Usage | Supported | Default |
|-----------|---------------------------|-------|---|---------|
| 2050,0010 | Presentation LUT Sequence | MC/M | | None |
| 0028,3002 | >LUT Descriptor | MC/M | The first value represents the number of elements that (0028,3006) includes. The second value represents the value of pixels to be mapped to the first element of (0028,3006). The third value represents the valid bit numbers of the elements that (0028,3006) includes. Ignore this value. | None |
| 0028,3003 | >LUT Explanation | U/U | Any value is OK. Ignore this value. | None |
| 0028,3006 | >LUT Data | MC/M | | None |
| 2050,0020 | Presentation LUT Shape | MC/M | IDENTITY LIN OD | None |

* (2050,0020) is valid only when (2050,0010) has not been specified. When both have been specified, make sure to use (2050,0010).

◆ Status

- If values of each element of “Usage SCU=U” have not been specified, uses the default values and returns “Success:0000H.”
- If values of each element of “Usage SCU=MC” have not been specified although needed, returns “Failure:0120H.” This applies also when no DataSet has come.
- If values of each element of “Usage SCU=M” exceed the range, returns “Failure:0106H.”
- The LUT Data (0028,3006) length must be twice as large as the first value of the LUT Descriptor (0028,3002). For other than this, returns “Failure:0106H” to the LUT Descriptor (0028,3002).
- For a Failure case, the Presentation LUT SOP instance will not be created and the Affected SOP Instance UID (0000,1000) will not be returned.

- Returns “Warning:0116H” when an attempt was made to specify to the LUT Explanation (0028,3003) a character string that exceeds 64 characters.

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | Presentation LUT is successfully created. |
| 0106H | Failure | Invalid attribute LUT value. Mandatory attribute has illegal value. |
| 0107H | Warning | Attribute list error. |
| 0111H | Failure | Duplicate SOP instance. Instance UID given is already in use. |
| 0116H | Warning | Attribute Value Out of Range. |
| 0117H | Failure | Invalid Object Instance. Returned if a given instance UID has violated the UID construction rules. |
| 0120H | Failure | Missing attribute. Returned if a mandatory attribute of the Data Set, provided by the SCU AE, is missing. |

11.2 N-DELETE

◆ Description

- Deletes the Presentation LUT SOP instance, which, however, cannot be deleted when it is referenced by the Basic Film Session SOP instance, Basic Film Box SOP instance or Basic Grayscale Image Box SOP instance.

◆ Status

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | The specified SOP Instance has been deleted. |
| 0110H | Failure | Processing failure. An attempt was made to delete an instance that has been referenced to. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |

12 Basic Annotation Box SOP Class (1.2.840.10008.5.1.1.15)

The following DIMSE service is supported.

- N-SET

12.1 N-NET

◆ Description

- Updates the Attribute Information of the Basic Annotation Box SOP instance belonging to the Film Box SOP instance that was created the last.
- The Annotation already specified can be deleted if (2030,0020)(Text String) is specified with the length set to 0.
- When a multiple number of settings have been made to the same (2030,0010)(Annotation position), those made the last will be taken valid.

◆ Attribute Information

(Basic Annotation Presentation Module)

| Tag | Name | Usage | Supported | Default |
|-----------|-----------------------------|-------|---|--------------------|
| 0008,0005 | Specific Character Set | U/U | ISO_IR 6, ISO_IR 100, ISO_IR 13, ISO 2022 IR 13\ ISO 2022 IR 87 | None (ISO_IR 6) |
| 2030,0010 | Annotation position | M/M | 1-6 ³ | None |
| 2030,0020 | Text String | U/M | | NULL |
| 2031,1020 | Annotation Image Sequence | U/U | | |
| 0028,0002 | >Samples Per Pixel | M/M | 1 | None |
| 0028,0004 | >Photometric Interpretation | M/M | MONOCHROME1 MONOCHROME2 | None |
| 0028,0010 | >Rows | M/M | 1-8800 | None |
| 0028,0011 | >Columns | M/M | 1-8800 | None |
| 0028,0034 | >Pixel Aspect Ratio | MC/M | R\C(Verticle\Horizontal) R,C=1-65535 | 1\1 |
| 0028,0100 | >Bits Allocated | M/M | 8,16 | None |
| 0028,0101 | >Bits Stored | M/M | 8,10,12 | None |
| 0028,0102 | >High Bit | M/M | 7,9,11 | None |
| 0028,0103 | >Pixel Representation | M/M | 0 | None |
| 7fe0,0010 | >Pixel Data | M/M | (any) | None |
| 2031,1021 | Annotation Image Polarity | U/U | NORMAL REVERSE | None |

When both 2030,0020 and 2031,1020 are specified, 2031,1020 will be used.

- * “2031,1020 Annotation Image Sequence” is a Private tag to be used between Fuji equipment units. The description above is presented for the purpose of releasing necessary specifications to equipment units for connection to Fuji equipment, and not included in the Conformance Statement that will be on public view.

³ There are six Annotation Boxes as follows. 1: Top left, 2: Top center, 3: Top right, 4: Bottom left, 5: Bottom center, 6: Bottom right. Character fonts will depend on the configuration settings. Cut the end of a line if it is too long for printing.

◆ Status

- When no values have been specified for each element of “Usage SCU=U,” uses the defaults and returns “Success:0000H.”
- When no values have been specified for each element of “Usage SCU=M,” returns “Failure:0120H.” This applies also when no DataSet has come.
- If values of each element of “Usage SCU=M” exceed the range, returns “Failure:0106H.”
- For a Failure case, attributes will not be updated, with the values remaining the same as before. Processing can be continued.

| Code | Status | Meaning |
|-------|---------|---|
| 0000H | Success | Annotation Box instance has been updated successfully. |
| 0106H | Failure | Invalid attribute value. Mandatory attribute has illegal value. |
| 0107H | Warning | Attribute list error. |
| 0111H | Failure | Processing failure. The Basic Annotation Box SOP instance not belonging to the Film Box SOP instance that was created the last has been specified. |
| 0116H | Warning | Attribute Value Out of Range. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |
| 0120H | Failure | Missing attribute. Returned if a mandatory attribute of the Data Set, provided by the SCU AE, is missing. |

13 Print Queue Management SOP Class (1.2.840.10008.5.1.1.26)

The following DIMSE services are supported.

- N-EVENT-REPORT
- N-GET
- N-ACTION

13.1 Overview

- Used for monitoring the Print Queue and the print job. Also used for deleting the print job and changing the order of job priority.
- When the printer is started up, the SCP automatically creates the Print Queue. As the “well known SOP Instance UID,” this queue will be provided with the value of “1.2.840.10008.5.1.1.25.”
- Jobs remaining in the Print Queue when the printer was shut down the last time will be restored automatically.

13.2 N-EVENT-REPORT

- ◆ Description
 - Notifies status changes in the print queue, issuing the N-EVENT-REPORT, when status actually changes, to all SCUs that have agreed on with regard to the Print Queue Management SOP Class.

- ◆ Event Type

| Event type name | Event type ID | Description | Attribute | Tag | Usage |
|-----------------|---------------|----------------------------|-----------|-----|-------|
| HALTED | 1 | Queue operation is halted. | — | — | U/M |
| FULL | 2 | Queue is full. | — | — | U/M |
| NORMAL | 3 | Queue is operational. | — | — | U/M |

13.3 N-GET

- ◆ Description
 - Acquires information on all print jobs included in the Print Queue. Information on a job that has been deleted from the Print Queue because the job processing was completed will not be returned.

- ◆ Attributes that can be Obtained

| Tag | Name | Usage | Supported |
|-----------|--------------------------------|-------|--------------------------|
| 2120,0010 | Queue Status | U/M | NORMAL FULL HALTED |
| 2120,0050 | Print Job Description Sequence | U/MC | |
| 2100,0010 | >Print Job ID | U/MC | |

| | | | |
|-----------|--------------------------------|------|---|
| 2100,0020 | >Execution Status | U/MC | PENDING PRINTING DONE FAILURE |
| 2100,0030 | >Execution Status Info | U/MC | Execution Status is DONE. NORMAL Execution Status is PRINTING. NORMAL Execution Status is PENDING. See Appendix C. |
| 2100,0040 | >Creation Date | U/U | |
| 2100,0050 | >Creation Time | U/U | |
| 2000,0020 | >Print Priority | U/MC | HIGH MED LOW |
| 2100,0070 | >Origin AE | U/U | |
| 2100,0140 | >Destination AE | U/U | |
| 2110,0030 | >Printer Name | U/MC | Up to 16 characters (set at installation) |
| 2000,0040 | >Film Destination | U/U | Not supported |
| 2000,0050 | >Film Session Label | U/U | |
| 2000,0030 | >Medium Type | U/U | CLEAR FILM BLUE FILM |
| 2100,0170 | >Number Of Films | U/U | |
| 2120,0070 | >Referenced Print Job Sequence | U/MC | |
| 0008,1150 | >>Referenced SOP Class UID | U/MC | |
| 0008,1155 | >>Referenced SOP Instance UID | U/MC | |

◆ Status

- Returns “Warning:0107H” if an attribute not supported by the DRYPIX 7000/DRYPIX 5000 has been specified, even though it is specified as the attribute of the Print Queue Management SOP instance.

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | Print Queue information is returned. |
| 0107H | Warning | Attribute list error. An attribute that is not applied to the Print Queue Management SOP instance has been specified. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |

13.4 N-ACTION

◆ Description

- Changes the order of priority for print jobs specified.
- Deletes print jobs specified.

◆ Parameters

| Action type name | Action type ID | Description | Attribute | Tag | Usage |
|------------------|----------------|--------------------------------|----------------|-----------|-------|
| PRIORITIZE | 1 | Change priority of queue entry | Print Job ID | 2100,0010 | M/M |
| | | | Print Priority | 2000,0020 | M/M |
| | | | Owner ID | 2100,0160 | M/M |
| DELETE | 2 | Delete queue entry | Print Job ID | 2100,0010 | M/M |
| | | | Owner ID | 2100,0160 | M/M |

◆ Status

| Code | Status | Meaning |
|-------|---------|--|
| 0000H | Success | Operation successfully completed. |
| 0106H | Failure | Invalid Attribute Value. Returned if illegal print job ID is set. |
| 0107H | Warning | Attribute list error. An attribute not supported by the DRYPIX 7000/DRYPIX 5000 has been specified. |
| 0115H | Failure | Invalid argument value. Returned if the Action type provided by the SCU is not recognized. |
| 0119H | Failure | Class-Instance Conflict. Returned if the SOP class Instance UID is not defined for the given SOP Class. |
| 0120H | Failure | Missing Attribute. Returned if a mandatory attribute of the Data Set, provided by the SCU AE, is missing. |
| C651H | Failure | Print queue is halted. |
| C652H | Failure | Mismatch of owner ID. |
| C653H | Failure | Action failed because the job was in process. |

14 Communication Profiles

14.1 Supported Communication Stacks

The DRYPIX 7000/DRYPIX 5000 Print Server provides DICOM V3.0 TCP/IP Network Communication support as defined in Part 8 of the DICOM Standard.

15 Extensions / Specializations / Privatizations

SOP Class : Basic Grayscale Image Box

- ◆ Attribute : bits stored (0028,0101)
10 bits stored is supported. DICOM only specifies 8 and 12 for number of bits stored.
- ◆ Attribute : high bit (0028,0102)
High bit position 9th is supported. DICOM specifies 7th or 11th bit.
- ◆ Attribute: magnification type (2010,0060)
If Requested Image Size (2020,0030) is specified, this SOP Class will be processed unconditionally as a CUBIC.

General

After the session has been established, initiates monitoring “time for data transmission timeout” set in Configuration. The timeout monitoring will be reset every time a piece of data is received from the SCU. The session closes when a data transfer timeout occurs.

Reserves the following attributes using the Basic Annotation Box SOP class function.

- (2031,1020)
- (2031,1021)

16 Configuration

- ◆ Specifying the entire DRYPIX 7000/ DRYPIX 5000
 - Host Name
 - IP Address
 - Subnet Mask
 - TCP Port Number used by SCP
 - AE title (the two types for standard density and double density can be handled.)
 - Data transmission timeout
 - Annotation Text & Font
- ◆ Specifying for each SCU AE title (defaults are used for unregistered AEs)
 - Whether 0107H status is effective or not
 - Whether 0116H status is effective or not
 - Whether B604H status is effective or not

- Whether N-EVENT-REPORT is effective or not
- Film substitution
- Whether data transmission timeout is applied or not
- Whether Presentation LUT is applied or not
- Whether precede picking up is applied or not
- Whether density (Max/Min Density) is specified or not
- Number of Copies (2000,0010)
- Medium Type (2000,0030)
- Film orientation (2010,0040)
- Film Size ID (2010,0050)
- Smoothing type (2010,0080)
- Border Density (2010,0100)
- Min Density (2010,0120)
- Max Density (2010,0130)
- Trim (2010,0140)
- Configuration Information (2010,0150)
- Polarity (2020,0020)
- Requested Decimate/Crop Behavior (2020,0040)
- Annotation Text & Font

17 Support of Extended Character Sets

For elements whose VR is SH, LO, ST, PN, LT or UT, there are cases where extended characters are used by specifying a range for extended characters to Specific Character Set (0008,0005).

A supported range of extended characters includes the following.

ISO_IR 6,

ISO_IR 100,

ISO_IR 13,

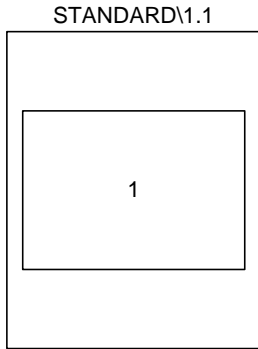
ISO 2022 IR 13\ISO 2022 IR 87

Appendix A

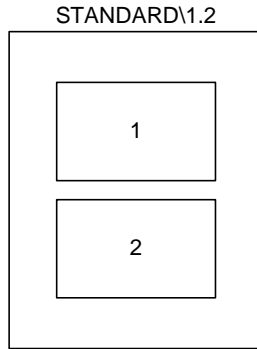
■ Image Display Format (2010,0010)

Image Position (2010,0010)

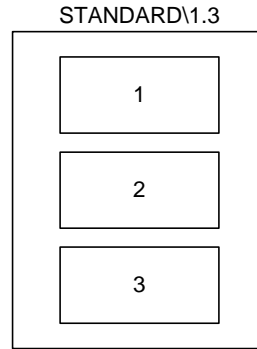
1. 14"× 17" (35cm × 43cm) PORTRAIT



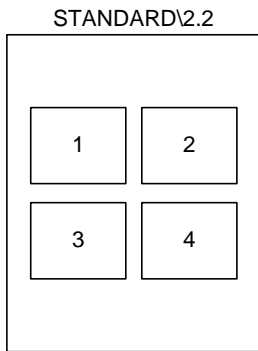
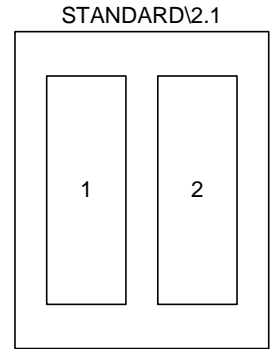
HP01



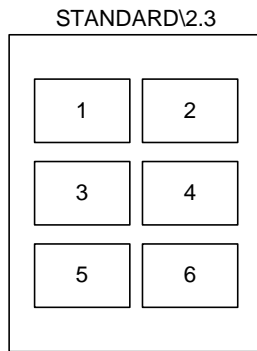
HP02



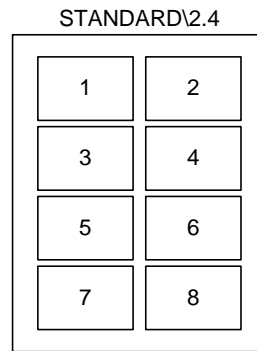
HP03



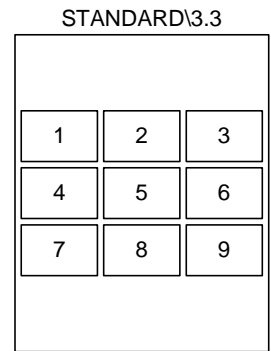
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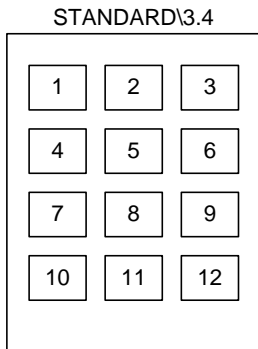
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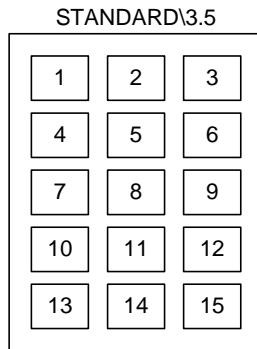
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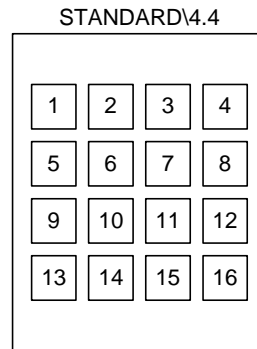
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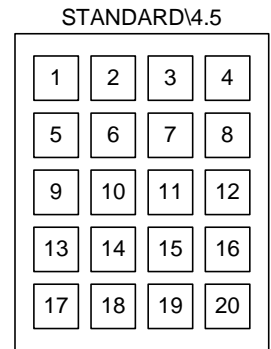
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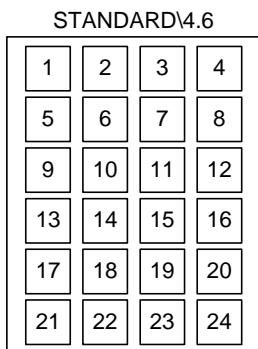
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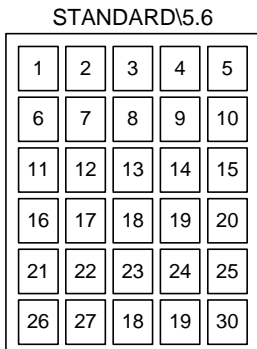
HP16



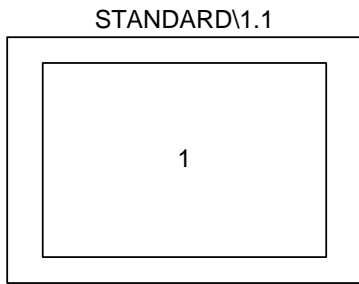
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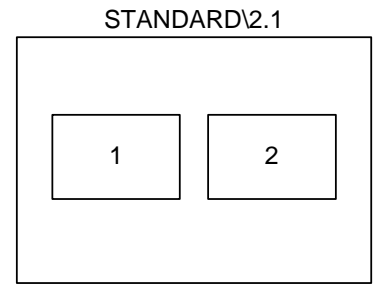
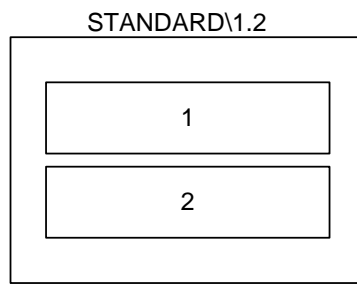
HP24



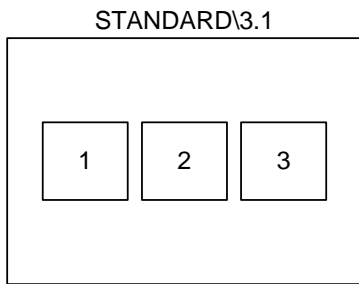
2. 14" x 17" (35cm x 43cm) LANDSCAPE



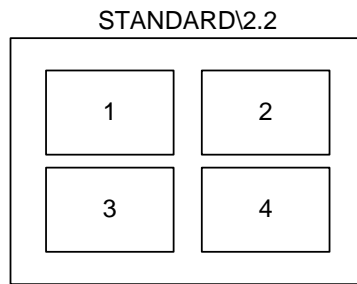
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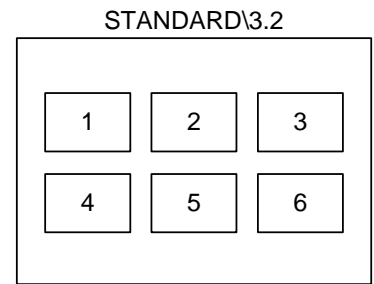
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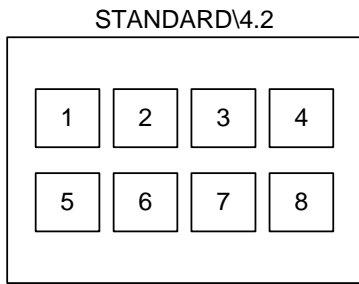
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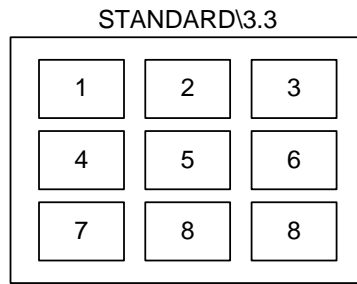
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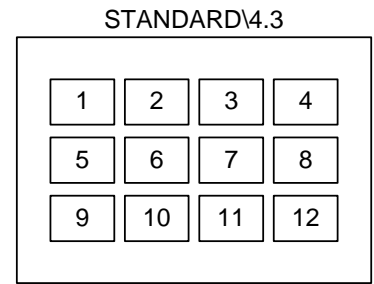
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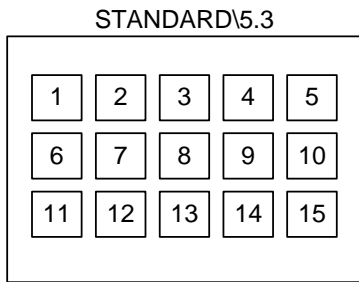
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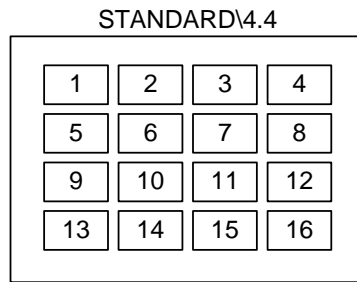
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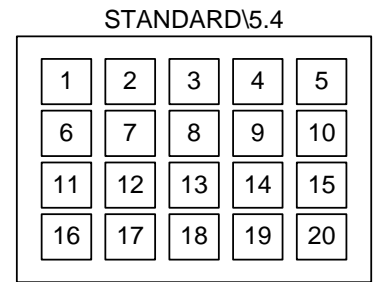
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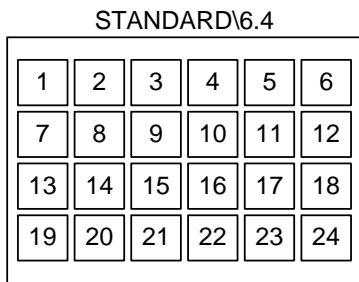
HL15



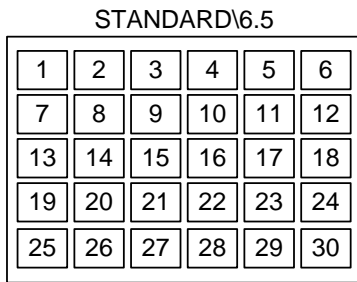
HL16



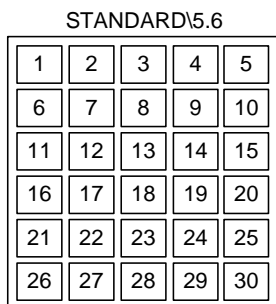
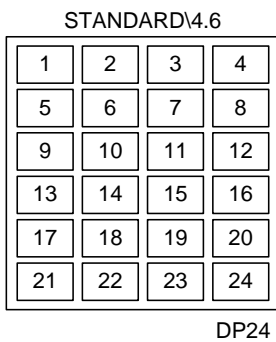
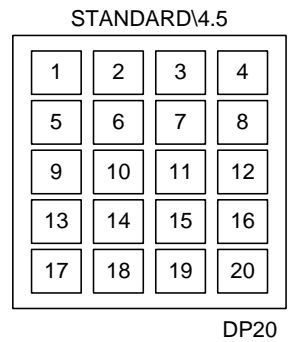
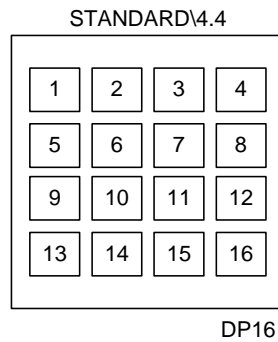
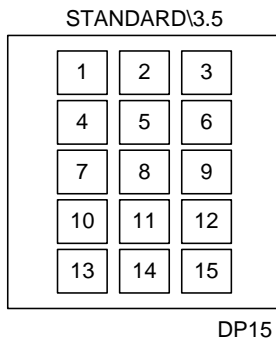
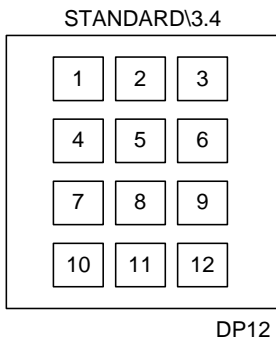
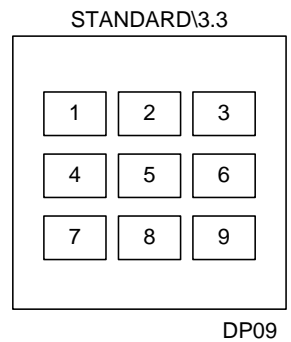
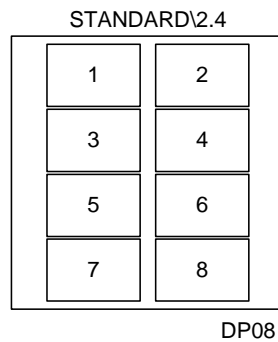
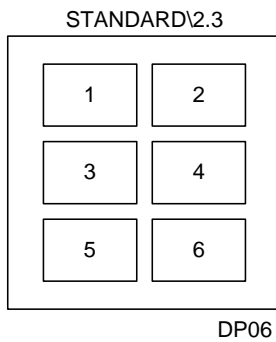
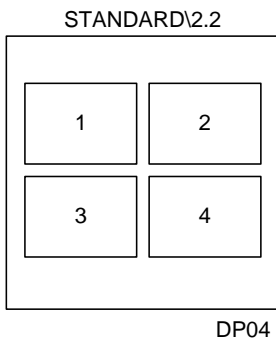
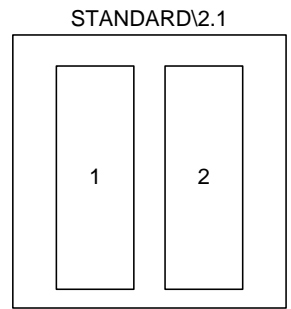
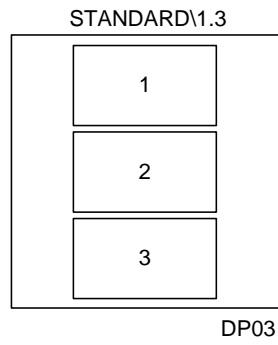
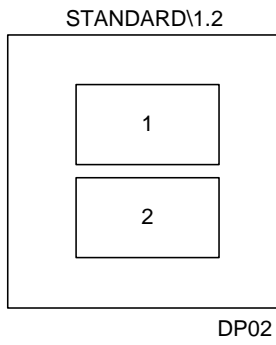
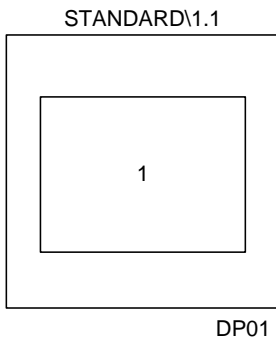
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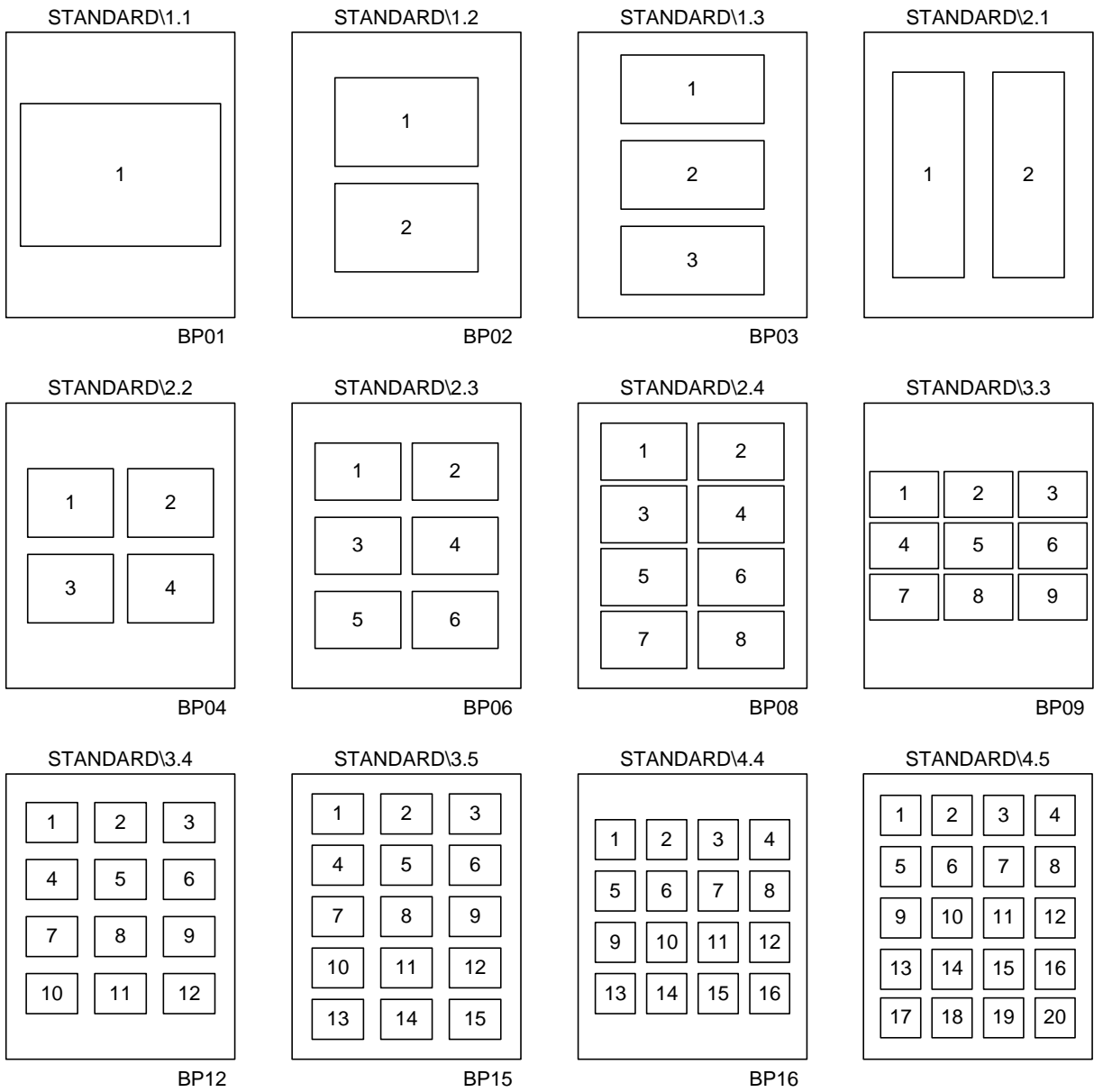
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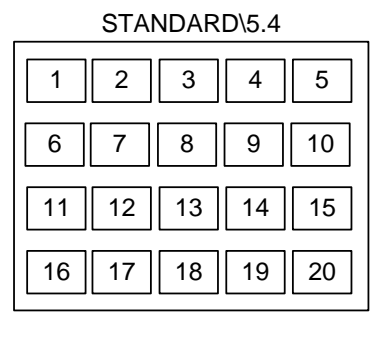
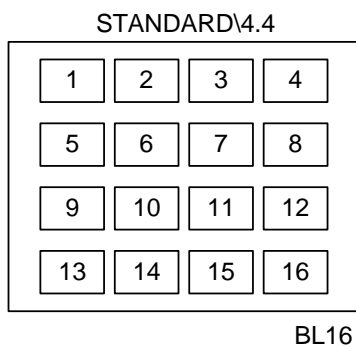
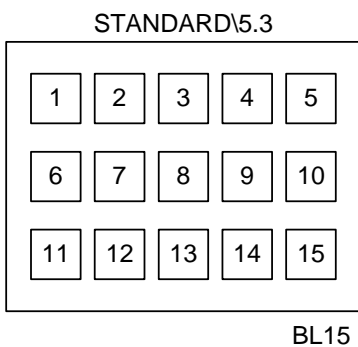
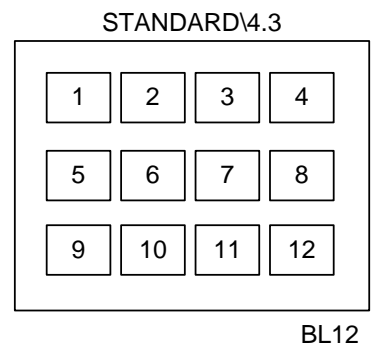
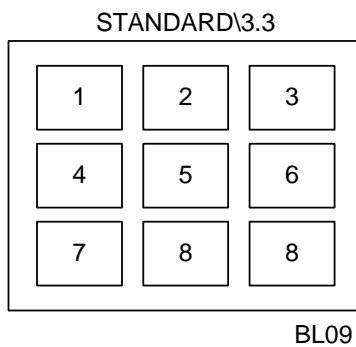
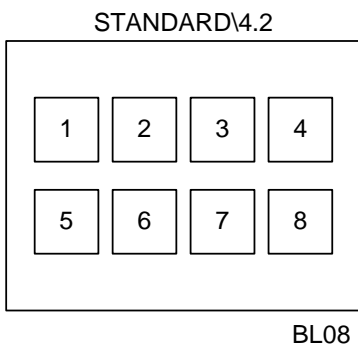
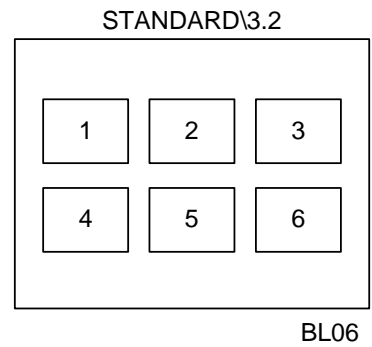
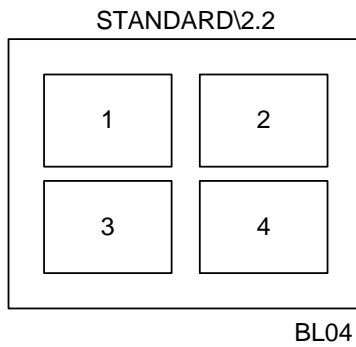
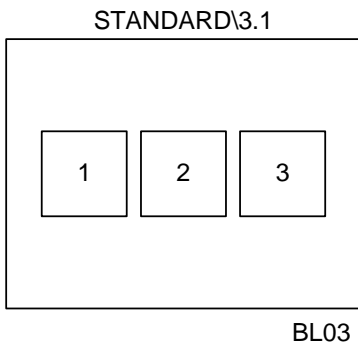
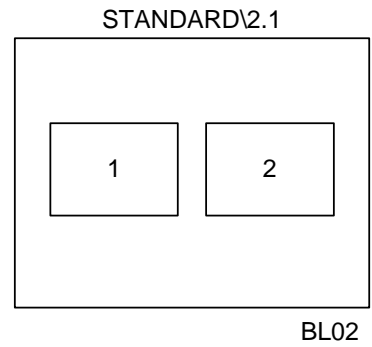
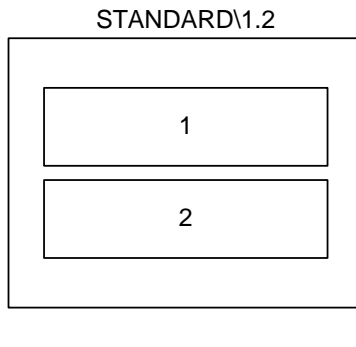
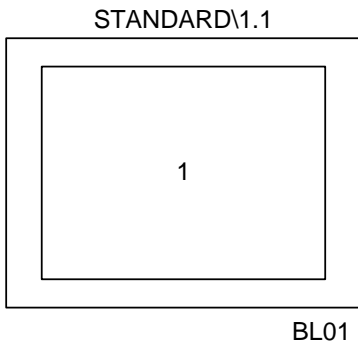
3. 14" x 14" (35cm x 35cm)



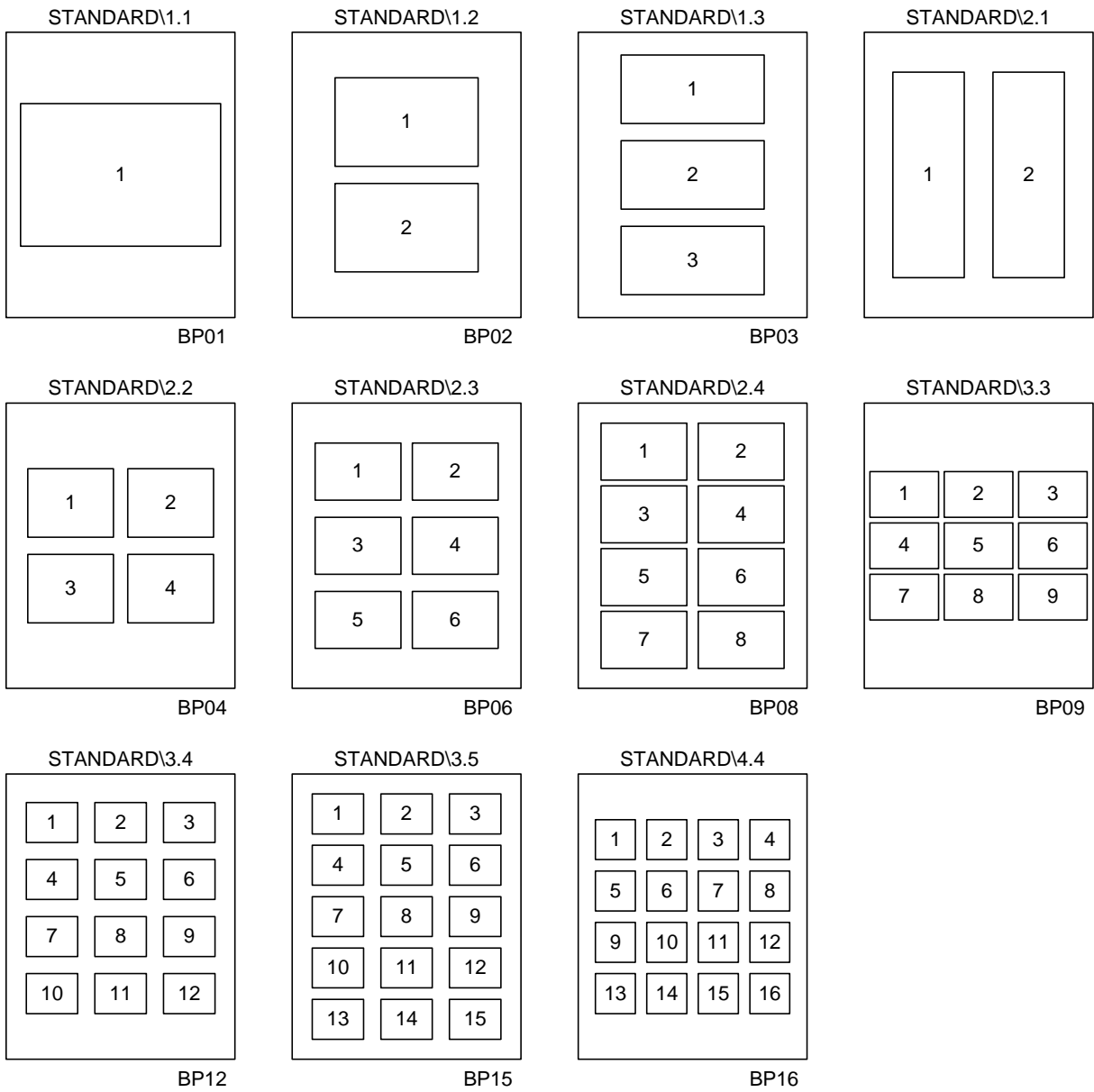
4. 10" x 14" (26cm x 36cm) PORTRAIT



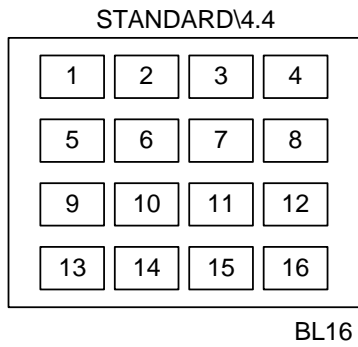
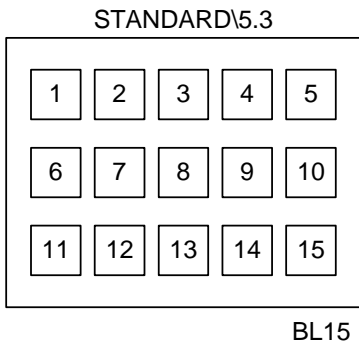
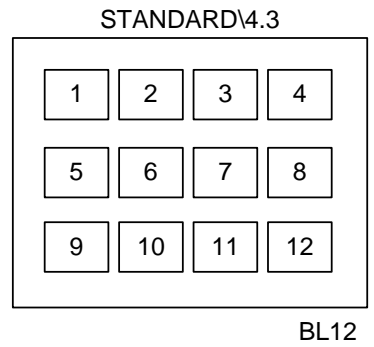
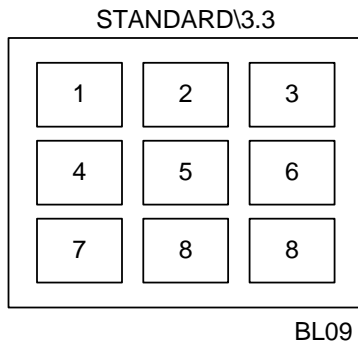
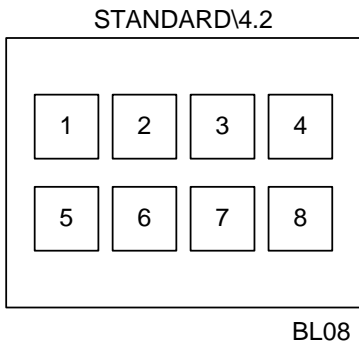
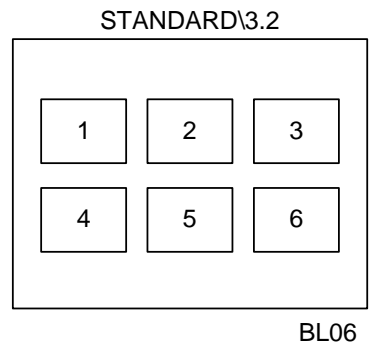
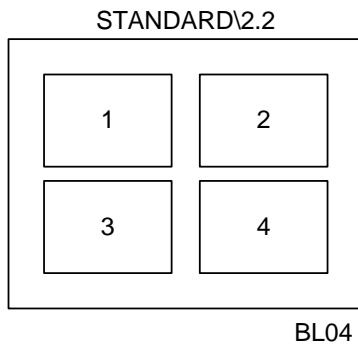
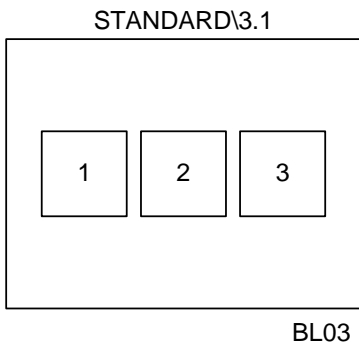
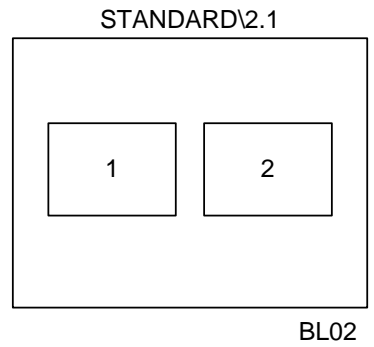
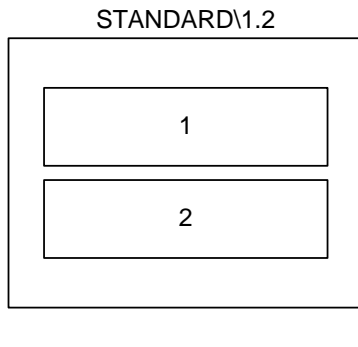
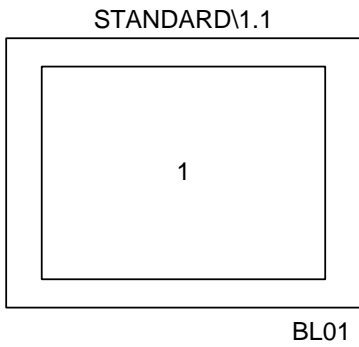
5. 10" x 14" (26cm x 36cm) LANDSCAPE



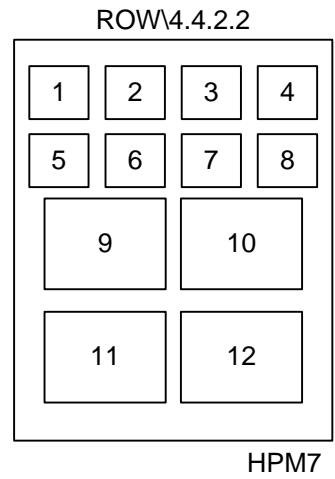
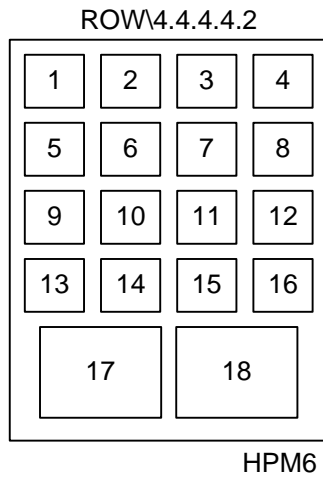
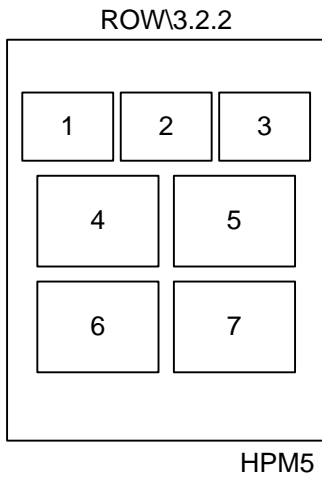
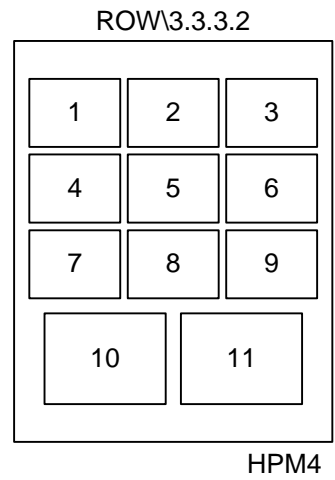
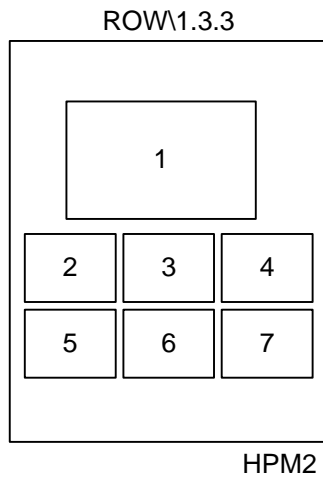
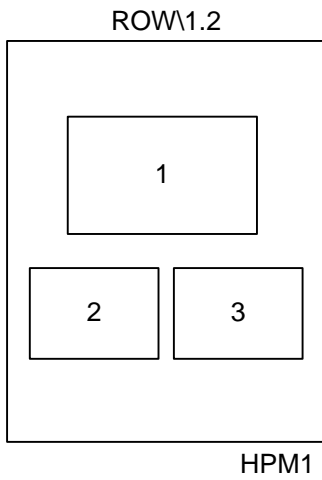
6. 8" × 10" (20cm × 25cm) PORTRAIT



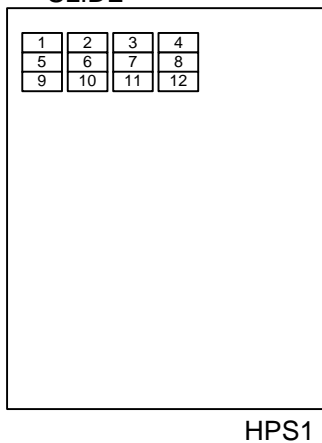
7. 8" x 10" (20cm x 25cm) LANDSCAPE



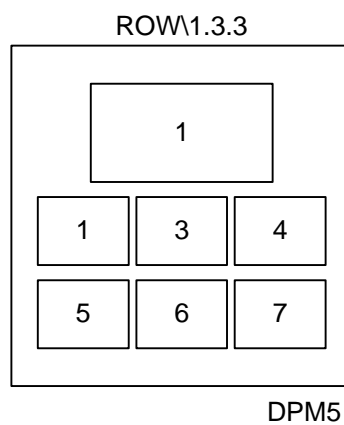
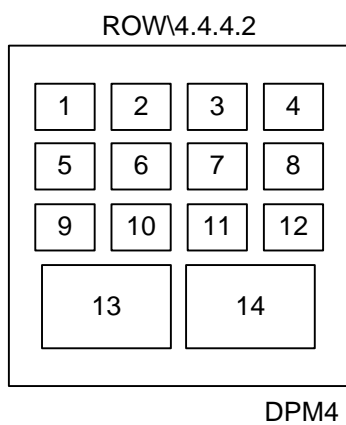
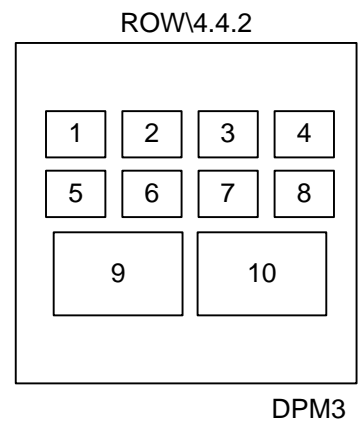
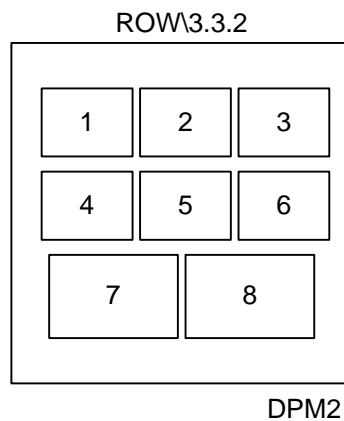
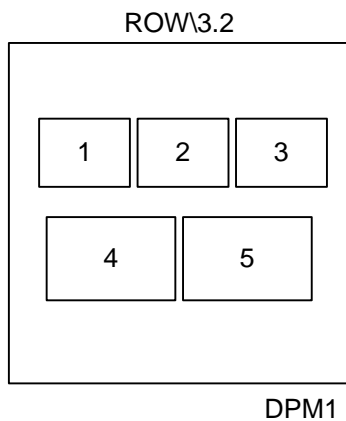
8. 14" x 17" (35cm x 43cm) PORTRAIT MIXED FORMAT



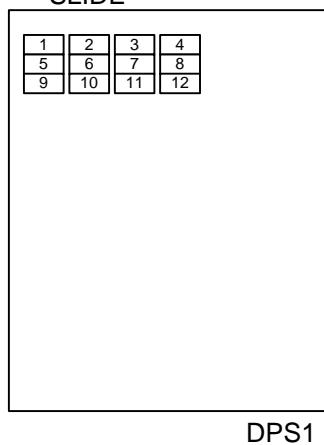
Portrait Slide Format
SLIDE



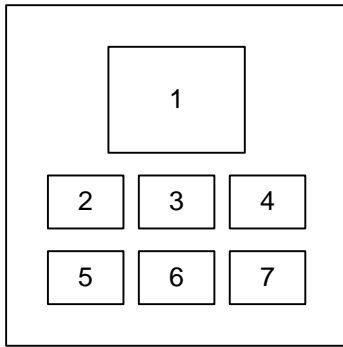
9. 14" x 14" (35cm x 35cm) MIXED FORMAT



Portrait Slide Format
SLIDE

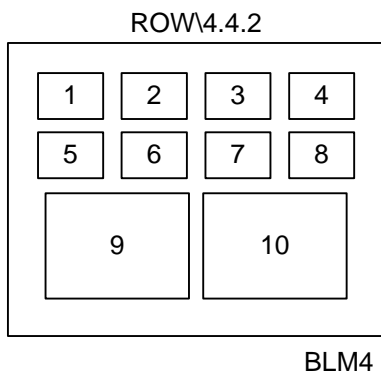
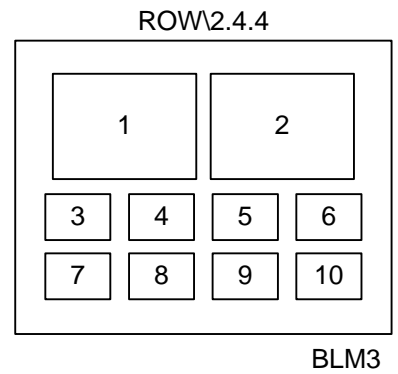
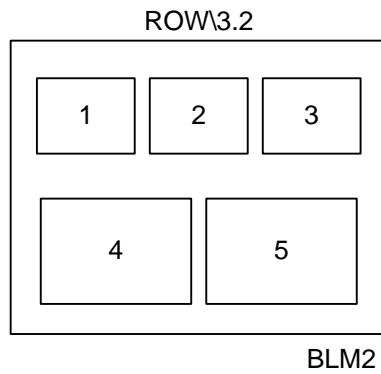
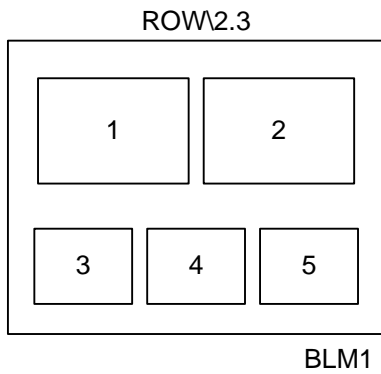


10. 10" × 14" (26cm × 36cm) PORTRAIT MIXED FORMAT

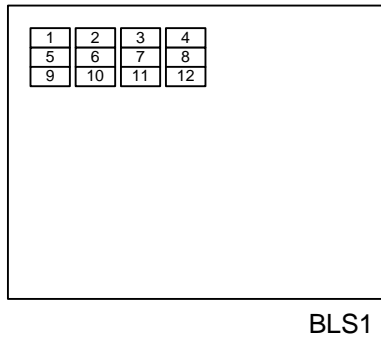


BPM1

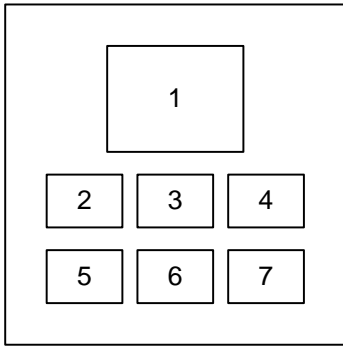
11. 10" x 14" (26cm x 36cm) PORTRAIT MIXED FORMAT



Portrait Slide Format
SLIDE

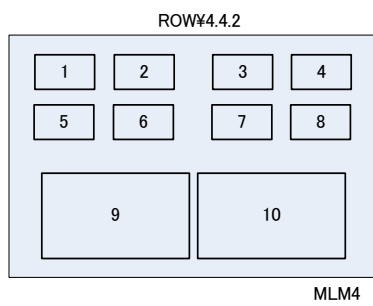
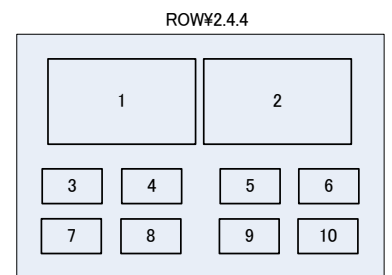
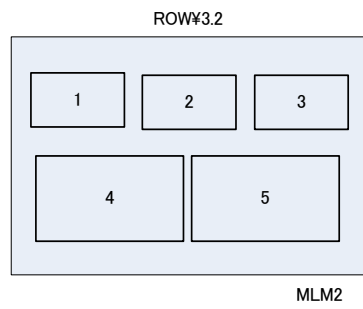
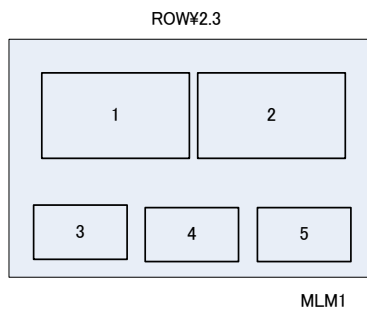
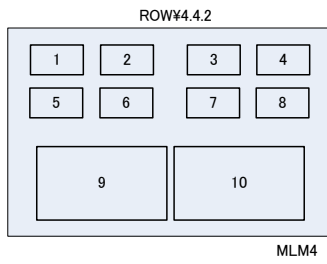
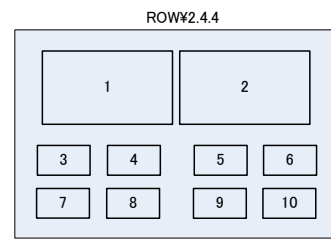
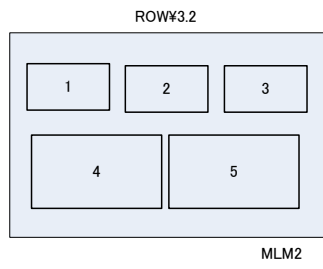
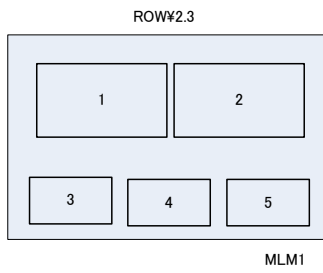


12. 8" × 10" (20cm × 25cm) PORTRAIT MIXED FORMAT

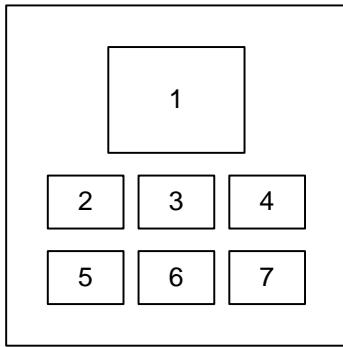


BPM1

13. 8" × 10" (20cm × 25cm) LANDSCAPE MIXED FORMAT

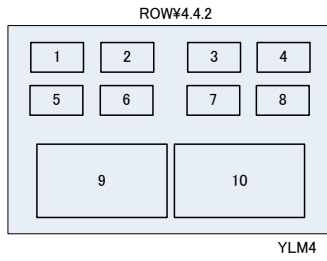
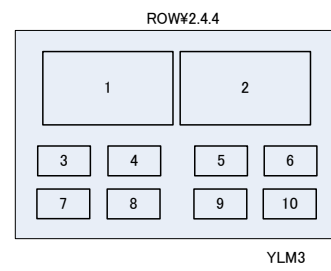
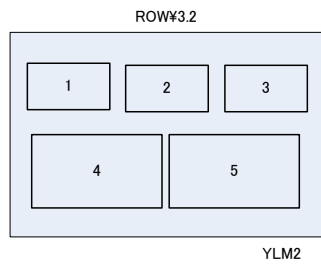
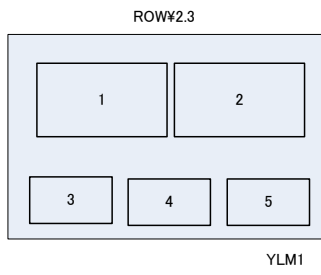


14. 10" × 12" (25cm × 30cm) PORTRAIT MIXED FORMAT



YPM1

15. 10" × 12" (25cm × 30cm) LANDSCAPE MIXED FORMAT



Requested Image Size (2020,0030)

- Requested Image Size

The tables presented herein show the maximum number of pixels that can be recorded without reducing the image size. Calculate the maximum value of the requested image size⁴ based on values shown in the Column of those tables.

Image recording in standard density pixel size A value divided by 10
 (the printer's image recording density is 10 lines/mm.)

Image recording in double density pixel size A value divided by 20
 (the printer's image recording density is 20 lines/mm.)

The above values are given on the assumption that the frame width to be 0 and interval between each image data to be 20 for the configuration settings with the DRYPIX 7000/DRYPIX 5000.

Increasing the frame width by 1 will reduce the size by 2. If interval between each image data is changed, such a change will be reflected or assigned equally to each image data.

Note that values shown in "Column" are applicable to the X dimension (horizontal) and "Row", the Y dimension (vertical).

⁴ It used to be specified "Length in mm that Image rows of the Image are to be printed". But, it has been changed to "Width (X-dimension) in mm of the image to be printed" according to CP108. Thus, calculate it based on the values shown in Column.

◆ 14"×17" Portrait

| Format | Standard Density Recording | | Double Density Recording | | |
|---------------|----------------------------|------|--------------------------|------|------|
| | Column | Row | Column | Row | |
| STANDARD\1,1 | 3500 | 4170 | 6999 | 8339 | |
| STANDARD\1,2 | 3500 | 2075 | 6999 | 4159 | |
| STANDARD\1,3 | 3500 | 1376 | 6999 | 2766 | |
| STANDARD\2,1 | 1740 | 4170 | 3489 | 8339 | |
| STANDARD\2,2 | 1740 | 2075 | 3489 | 4159 | |
| STANDARD\2,3 | 1740 | 1376 | 3489 | 2766 | |
| STANDARD\2,4 | 1740 | 1027 | 3489 | 2069 | |
| STANDARD\3,3 | 1153 | 1376 | 2319 | 2766 | |
| STANDARD\3,4 | 1153 | 1027 | 2319 | 2069 | |
| STANDARD\3,5 | 1153 | 818 | 2319 | 1651 | |
| STANDARD\3,6 | 1153 | 678 | 2319 | 1373 | |
| STANDARD\4,4 | 860 | 1027 | 1734 | 2069 | |
| STANDARD\4,5 | 860 | 818 | 1734 | 1651 | |
| STANDARD\4,6 | 860 | 678 | 1734 | 1373 | |
| STANDARD\4,7 | 860 | 578 | 1734 | 1174 | |
| STANDARD\4,8 | 860 | 503 | 1734 | 1024 | |
| STANDARD\5,5 | 684 | 818 | 1383 | 1651 | |
| STANDARD\5,6 | 684 | 678 | 1383 | 1373 | |
| STANDARD\5,7 | 684 | 578 | 1383 | 1174 | |
| STANDARD\5,8 | 684 | 503 | 1383 | 1024 | |
| STANDARD\6,6 | 566 | 678 | 1149 | 1373 | |
| STANDARD\6,7 | 566 | 578 | 1149 | 1174 | |
| STANDARD\6,8 | 566 | 503 | 1149 | 1024 | |
| STANDARD\6,9 | 566 | 445 | 1149 | 908 | |
| STANDARD\6,10 | 566 | 399 | 1149 | 815 | |
| STANDARD\7,7 | 482 | 578 | 982 | 1174 | |
| STANDARD\7,8 | 482 | 503 | 982 | 1024 | |
| STANDARD\7,9 | 482 | 445 | 982 | 908 | |
| STANDARD\7,10 | 482 | 399 | 982 | 815 | |
| STANDARD\8,8 | 420 | 503 | 857 | 1024 | |
| STANDARD\8,9 | 420 | 445 | 857 | 908 | |
| STANDARD\8,10 | 420 | 399 | 857 | 815 | |
| ROW1,2 | 1 | 3500 | 2076 | 6999 | 4151 |
| | 2-3 | 1740 | 2074 | 3489 | 4147 |
| ROW1,3,3 | 1 | 3500 | 2066 | 6999 | 4131 |
| | 2-7 | 1153 | 1032 | 2319 | 2073 |
| ROW3,3,3,2 | 1-9 | 1153 | 948 | 2319 | 1909 |
| | 10-11 | 1740 | 1266 | 3489 | 2531 |
| ROW3,2,2 | 1-3 | 1153 | 1204 | 2319 | 2407 |
| | 4-7 | 1740 | 1463 | 3489 | 2985 |
| ROW4,4,4,4,2 | 1-16 | 860 | 682 | 1734 | 1378 |
| | 17-18 | 1740 | 1362 | 3489 | 2723 |
| ROW4,4,2,2 | 1-8 | 860 | 685 | 1734 | 1379 |
| | 9-12 | 1740 | 1370 | 3489 | 2749 |

◆ 14"×17" Landscape

| Format | Standard Density Recording | | Double Density Recording | |
|---------------|----------------------------|------|--------------------------|------|
| | Column | Row | Column | Row |
| STANDARD\1,1 | 4240 | 3442 | 8479 | 6883 |
| STANDARD\2,1 | 2110 | 3442 | 4229 | 6883 |
| STANDARD\3,1 | 1400 | 3442 | 2813 | 6883 |
| STANDARD\1,2 | 4240 | 1711 | 8479 | 3431 |
| STANDARD\2,2 | 2110 | 1711 | 4229 | 3431 |
| STANDARD\3,2 | 1400 | 1711 | 2813 | 3431 |
| STANDARD\4,2 | 1045 | 1711 | 2104 | 3431 |
| STANDARD\3,3 | 1400 | 1134 | 2813 | 2281 |
| STANDARD\4,3 | 1045 | 1134 | 2104 | 2281 |
| STANDARD\5,3 | 832 | 1134 | 1679 | 2281 |
| STANDARD\6,3 | 690 | 1134 | 1396 | 2281 |
| STANDARD\4,4 | 1045 | 845 | 2104 | 1705 |
| STANDARD\5,4 | 832 | 845 | 1679 | 1705 |
| STANDARD\6,4 | 690 | 845 | 1396 | 1705 |
| STANDARD\7,4 | 588 | 845 | 1194 | 1705 |
| STANDARD\8,4 | 512 | 845 | 1042 | 1705 |
| STANDARD\5,5 | 832 | 672 | 1679 | 1360 |
| STANDARD\6,5 | 690 | 672 | 1396 | 1360 |
| STANDARD\7,5 | 588 | 672 | 1194 | 1360 |
| STANDARD\8,5 | 512 | 672 | 1042 | 1360 |
| STANDARD\6,6 | 690 | 557 | 1396 | 1130 |
| STANDARD\7,6 | 588 | 557 | 1194 | 1130 |
| STANDARD\8,6 | 512 | 557 | 1042 | 1130 |
| STANDARD\9,6 | 453 | 557 | 924 | 1130 |
| STANDARD\10,6 | 406 | 557 | 829 | 1130 |
| STANDARD\7,7 | 588 | 474 | 1194 | 966 |
| STANDARD\8,7 | 512 | 474 | 1042 | 966 |
| STANDARD\9,7 | 453 | 474 | 924 | 966 |
| STANDARD\10,7 | 406 | 474 | 829 | 966 |
| STANDARD\8,8 | 512 | 412 | 1042 | 842 |
| STANDARD\9,8 | 453 | 412 | 924 | 842 |
| STANDARD\10,8 | 406 | 412 | 829 | 842 |

◆ 14"×14"

| Format | Standard Density Recording | | Double Density Recording | | |
|---------------|----------------------------|------|--------------------------|------|------|
| | Column | Row | Column | Row | |
| STANDARD\1,1 | 3500 | 3410 | 6999 | 6819 | |
| STANDARD\1,2 | 3500 | 1695 | 6999 | 3399 | |
| STANDARD\1,3 | 3500 | 1123 | 6999 | 2259 | |
| STANDARD\2,1 | 1740 | 3410 | 3489 | 6819 | |
| STANDARD\2,2 | 1740 | 1695 | 3489 | 3399 | |
| STANDARD\2,3 | 1740 | 1123 | 3489 | 2259 | |
| STANDARD\2,4 | 1740 | 837 | 3489 | 1689 | |
| STANDARD\3,3 | 1153 | 1123 | 2319 | 2259 | |
| STANDARD\3,4 | 1153 | 837 | 2319 | 1689 | |
| STANDARD\3,5 | 1153 | 666 | 2319 | 1347 | |
| STANDARD\3,6 | 1153 | 551 | 2319 | 1119 | |
| STANDARD\4,4 | 860 | 837 | 1734 | 1689 | |
| STANDARD\4,5 | 860 | 666 | 1734 | 1347 | |
| STANDARD\4,6 | 860 | 551 | 1734 | 1119 | |
| STANDARD\4,7 | 860 | 470 | 1734 | 957 | |
| STANDARD\4,8 | 860 | 408 | 1734 | 834 | |
| STANDARD\5,5 | 684 | 666 | 1383 | 1347 | |
| STANDARD\5,6 | 684 | 551 | 1383 | 1119 | |
| STANDARD\5,7 | 684 | 470 | 1383 | 957 | |
| STANDARD\5,8 | 684 | 408 | 1383 | 834 | |
| STANDARD\6,6 | 566 | 551 | 1149 | 1119 | |
| STANDARD\6,7 | 566 | 470 | 1149 | 957 | |
| STANDARD\6,8 | 566 | 408 | 1149 | 834 | |
| STANDARD\6,9 | 566 | 361 | 1149 | 739 | |
| STANDARD\6,10 | 566 | 323 | 1149 | 663 | |
| STANDARD\7,7 | 482 | 470 | 982 | 957 | |
| STANDARD\7,8 | 482 | 408 | 982 | 834 | |
| STANDARD\7,9 | 482 | 361 | 982 | 739 | |
| STANDARD\7,10 | 482 | 323 | 982 | 663 | |
| STANDARD\8,8 | 420 | 408 | 857 | 834 | |
| STANDARD\8,9 | 420 | 361 | 857 | 739 | |
| STANDARD\8,10 | 420 | 323 | 857 | 663 | |
| ROW\3,2 | 1-3 | 1153 | 1412 | 2319 | 2823 |
| | 4-5 | 1740 | 1978 | 3489 | 3955 |
| ROW\3,3,2 | 1-6 | 1153 | 842 | 2319 | 1693 |
| | 7-8 | 1740 | 1686 | 3489 | 3371 |
| ROW\4,4,2 | 1-8 | 860 | 842 | 1734 | 1693 |
| | 9-10 | 1740 | 1686 | 3489 | 3371 |
| ROW\4,4,4,2 | 1-12 | 860 | 609 | 1734 | 1231 |
| | 13-14 | 1740 | 1523 | 3489 | 3045 |
| ROW\1,3,3 | 1 | 3500 | 1392 | 6999 | 2783 |
| | 2-7 | 1153 | 989 | 2319 | 1988 |

◆ 26×36cm Portrait

| Format | Standard Density Recording | | Double Density Recording | | |
|---------------|----------------------------|------|--------------------------|------|------|
| | Column | Row | Column | Row | |
| STANDARD\1,1 | 2538 | 3522 | 5075 | 7043 | |
| STANDARD\1,2 | 2538 | 1751 | 5075 | 3511 | |
| STANDARD\1,3 | 2538 | 1160 | 5075 | 2334 | |
| STANDARD\2,1 | 1259 | 3522 | 2527 | 7043 | |
| STANDARD\2,2 | 1259 | 1751 | 2527 | 3511 | |
| STANDARD\2,3 | 1259 | 1160 | 2527 | 2334 | |
| STANDARD\2,4 | 1259 | 865 | 2527 | 1745 | |
| STANDARD\3,3 | 832 | 1160 | 1678 | 2334 | |
| STANDARD\3,4 | 832 | 865 | 1678 | 1745 | |
| STANDARD\3,5 | 832 | 688 | 1678 | 1392 | |
| STANDARD\3,6 | 832 | 570 | 1678 | 1157 | |
| STANDARD\4,4 | 619 | 865 | 1253 | 1745 | |
| STANDARD\4,5 | 619 | 688 | 1253 | 1392 | |
| STANDARD\4,6 | 619 | 570 | 1253 | 1157 | |
| STANDARD\4,7 | 619 | 486 | 1253 | 989 | |
| STANDARD\4,8 | 619 | 422 | 1253 | 862 | |
| STANDARD\5,5 | 491 | 688 | 999 | 1392 | |
| STANDARD\5,6 | 491 | 570 | 999 | 1157 | |
| STANDARD\5,7 | 491 | 486 | 999 | 989 | |
| STANDARD\5,8 | 491 | 422 | 999 | 862 | |
| STANDARD\6,6 | 406 | 570 | 829 | 1157 | |
| STANDARD\6,7 | 406 | 486 | 829 | 989 | |
| STANDARD\6,8 | 406 | 422 | 829 | 862 | |
| STANDARD\6,9 | 406 | 373 | 829 | 764 | |
| STANDARD\6,10 | 406 | 334 | 829 | 686 | |
| STANDARD\7,7 | 345 | 486 | 707 | 989 | |
| STANDARD\7,8 | 345 | 422 | 707 | 862 | |
| STANDARD\7,9 | 345 | 373 | 707 | 764 | |
| STANDARD\7,10 | 345 | 334 | 707 | 686 | |
| STANDARD\8,8 | 299 | 422 | 616 | 862 | |
| STANDARD\8,9 | 299 | 373 | 616 | 764 | |
| STANDARD\8,10 | 299 | 334 | 616 | 686 | |
| ROW\1,3,3 | 1 | 2538 | 1722 | 5075 | 3443 |
| | 2-7 | 832 | 885 | 1678 | 1780 |

◆ 26×36cm Landscape

| Format | Standard Density Recording | | Double Density Recording | | |
|---------------|----------------------------|------|--------------------------|------|------|
| | Column | Row | Column | Row | |
| STANDARD\1,1 | 3600 | 2460 | 7199 | 4919 | |
| STANDARD\2,1 | 1790 | 2460 | 3589 | 4919 | |
| STANDARD\3,1 | 1186 | 2460 | 2386 | 4919 | |
| STANDARD\1,2 | 3600 | 1220 | 7199 | 2449 | |
| STANDARD\2,2 | 1790 | 1220 | 3589 | 2449 | |
| STANDARD\3,2 | 1186 | 1220 | 2386 | 2449 | |
| STANDARD\4,2 | 885 | 1220 | 1784 | 2449 | |
| STANDARD\3,3 | 1186 | 806 | 2386 | 1626 | |
| STANDARD\4,3 | 885 | 806 | 1784 | 1626 | |
| STANDARD\5,3 | 704 | 806 | 1423 | 1626 | |
| STANDARD\6,3 | 583 | 806 | 1183 | 1626 | |
| STANDARD\4,4 | 885 | 600 | 1784 | 1214 | |
| STANDARD\5,4 | 704 | 600 | 1423 | 1214 | |
| STANDARD\6,4 | 583 | 600 | 1183 | 1214 | |
| STANDARD\7,4 | 497 | 600 | 1011 | 1214 | |
| STANDARD\8,4 | 432 | 600 | 882 | 1214 | |
| STANDARD\5,5 | 704 | 476 | 1423 | 967 | |
| STANDARD\6,5 | 583 | 476 | 1183 | 967 | |
| STANDARD\7,5 | 497 | 476 | 1011 | 967 | |
| STANDARD\8,5 | 432 | 476 | 882 | 967 | |
| STANDARD\6,6 | 583 | 393 | 1183 | 803 | |
| STANDARD\7,6 | 497 | 393 | 1011 | 803 | |
| STANDARD\8,6 | 432 | 393 | 882 | 803 | |
| STANDARD\9,6 | 382 | 393 | 782 | 803 | |
| STANDARD\10,6 | 342 | 393 | 701 | 803 | |
| STANDARD\7,7 | 497 | 334 | 1011 | 685 | |
| STANDARD\8,7 | 432 | 334 | 882 | 685 | |
| STANDARD\9,7 | 382 | 334 | 782 | 685 | |
| STANDARD\10,7 | 342 | 334 | 701 | 685 | |
| STANDARD\8,8 | 432 | 290 | 882 | 597 | |
| STANDARD\9,8 | 382 | 290 | 782 | 597 | |
| STANDARD\10,8 | 342 | 290 | 701 | 597 | |
| ROW\2,3 | 1-2 | 1790 | 1424 | 3589 | 2847 |
| | 3-5 | 1186 | 1016 | 2386 | 2031 |
| ROW\3,2 | 1-3 | 1186 | 1016 | 2386 | 2031 |
| | 4-5 | 1790 | 1424 | 3589 | 2847 |
| ROW\2,4,4 | 1-2 | 1790 | 1210 | 3589 | 2419 |
| | 3-10 | 885 | 605 | 1784 | 1219 |
| ROW\4,4,2 | 1-8 | 885 | 605 | 1784 | 1219 |
| | 9-10 | 1790 | 1210 | 3589 | 2419 |

◆ 8"×10" Portrait

| Format | Standard Density Recording | | Double Density Recording | | |
|---------------|----------------------------|------|--------------------------|------|------|
| | Column | Row | Column | Row | |
| STANDARD\1,1 | 1954 | 2410 | 3907 | 4819 | |
| STANDARD\1,2 | 1954 | 1195 | 3907 | 2399 | |
| STANDARD\1,3 | 1954 | 790 | 3907 | 1593 | |
| STANDARD\2,1 | 967 | 2410 | 1943 | 4819 | |
| STANDARD\2,2 | 967 | 1195 | 1943 | 2399 | |
| STANDARD\2,3 | 967 | 790 | 1943 | 1593 | |
| STANDARD\2,4 | 967 | 587 | 1943 | 1189 | |
| STANDARD\3,3 | 638 | 790 | 1289 | 1593 | |
| STANDARD\3,4 | 638 | 587 | 1289 | 1189 | |
| STANDARD\3,5 | 638 | 466 | 1289 | 947 | |
| STANDARD\3,6 | 638 | 385 | 1289 | 786 | |
| STANDARD\4,4 | 473 | 587 | 961 | 1189 | |
| STANDARD\4,5 | 473 | 466 | 961 | 947 | |
| STANDARD\4,6 | 473 | 385 | 961 | 786 | |
| STANDARD\4,7 | 473 | 327 | 961 | 671 | |
| STANDARD\4,8 | 473 | 283 | 961 | 584 | |
| STANDARD\5,5 | 374 | 466 | 765 | 947 | |
| STANDARD\5,6 | 374 | 385 | 765 | 786 | |
| STANDARD\5,7 | 374 | 327 | 765 | 671 | |
| STANDARD\5,8 | 374 | 283 | 765 | 584 | |
| STANDARD\6,6 | 309 | 385 | 634 | 786 | |
| STANDARD\6,7 | 309 | 327 | 634 | 671 | |
| STANDARD\6,8 | 309 | 283 | 634 | 584 | |
| STANDARD\6,9 | 309 | 250 | 634 | 517 | |
| STANDARD\6,10 | 309 | 223 | 634 | 463 | |
| STANDARD\7,7 | 262 | 327 | 541 | 671 | |
| STANDARD\7,8 | 262 | 283 | 541 | 584 | |
| STANDARD\7,9 | 262 | 250 | 541 | 517 | |
| STANDARD\7,10 | 262 | 223 | 541 | 463 | |
| STANDARD\8,8 | 226 | 283 | 470 | 584 | |
| STANDARD\8,9 | 226 | 250 | 470 | 517 | |
| STANDARD\8,10 | 226 | 223 | 470 | 463 | |
| ROW\1,3,3 | 1 | 1954 | 1155 | 3907 | 2309 |
| | 2-7 | 638 | 608 | 1289 | 1225 |

◆ 8"×10" Landscape

| Format | Standard Density Recording | | Double Density Recording | | |
|---------------|----------------------------|------|--------------------------|------|------|
| | Column | Row | Column | Row | |
| STANDARD\1,1 | 2466 | 1898 | 4931 | 3795 | |
| STANDARD\2,1 | 1223 | 1898 | 2455 | 3795 | |
| STANDARD\3,1 | 808 | 1898 | 1630 | 3795 | |
| STANDARD\1,2 | 2466 | 939 | 4931 | 1887 | |
| STANDARD\2,2 | 1223 | 939 | 2455 | 1887 | |
| STANDARD\3,2 | 808 | 939 | 1630 | 1887 | |
| STANDARD\4,2 | 601 | 939 | 1217 | 1887 | |
| STANDARD\3,3 | 808 | 619 | 1630 | 1251 | |
| STANDARD\4,3 | 601 | 619 | 1217 | 1251 | |
| STANDARD\5,3 | 477 | 619 | 970 | 1251 | |
| STANDARD\6,3 | 394 | 619 | 805 | 1251 | |
| STANDARD\4,4 | 601 | 459 | 1217 | 933 | |
| STANDARD\5,4 | 477 | 459 | 970 | 933 | |
| STANDARD\6,4 | 394 | 459 | 805 | 933 | |
| STANDARD\7,4 | 335 | 459 | 687 | 933 | |
| STANDARD\8,4 | 290 | 459 | 598 | 933 | |
| STANDARD\5,5 | 477 | 363 | 970 | 743 | |
| STANDARD\6,5 | 394 | 363 | 805 | 743 | |
| STANDARD\7,5 | 335 | 363 | 687 | 743 | |
| STANDARD\8,5 | 290 | 363 | 598 | 743 | |
| STANDARD\6,6 | 394 | 299 | 805 | 615 | |
| STANDARD\7,6 | 335 | 299 | 687 | 615 | |
| STANDARD\8,6 | 290 | 299 | 598 | 615 | |
| STANDARD\9,6 | 256 | 299 | 530 | 615 | |
| STANDARD\10,6 | 228 | 299 | 475 | 615 | |
| STANDARD\7,7 | 335 | 254 | 687 | 525 | |
| STANDARD\8,7 | 290 | 254 | 598 | 525 | |
| STANDARD\9,7 | 256 | 254 | 530 | 525 | |
| STANDARD\10,7 | 228 | 254 | 475 | 525 | |
| STANDARD\8,8 | 290 | 219 | 598 | 456 | |
| STANDARD\9,8 | 256 | 219 | 530 | 456 | |
| STANDARD\10,8 | 228 | 219 | 475 | 456 | |
| ROW2,3 | 1-2 | 1223 | 1082 | 2455 | 2163 |
| | 3-5 | 808 | 797 | 1630 | 1593 |
| ROW3,2 | 1-3 | 808 | 761 | 1630 | 1521 |
| | 4-5 | 1223 | 1118 | 2455 | 2235 |
| ROW2,4,4 | 1-2 | 1223 | 914 | 2455 | 1827 |
| | 3-10 | 601 | 472 | 1217 | 954 |
| ROW4,4,2 | 1-8 | 601 | 454 | 1217 | 918 |
| | 9-10 | 1223 | 950 | 2455 | 1899 |

◆ 10"×12" Portrait

| Format | Standard Density Recording | | Double Density Recording | | |
|---------------|----------------------------|------|--------------------------|------|------|
| | Column | Row | Column | Row | |
| STANDARD\1,1 | 2460 | 2916 | 4919 | 5831 | |
| STANDARD\1,2 | 2460 | 1448 | 4919 | 2905 | |
| STANDARD\1,3 | 2460 | 958 | 4919 | 1930 | |
| STANDARD\2,1 | 1220 | 2916 | 2449 | 5831 | |
| STANDARD\2,2 | 1220 | 1448 | 2449 | 2905 | |
| STANDARD\2,3 | 1220 | 958 | 2449 | 1930 | |
| STANDARD\2,4 | 1220 | 714 | 2449 | 1442 | |
| STANDARD\3,3 | 806 | 958 | 1626 | 1930 | |
| STANDARD\3,4 | 806 | 714 | 1626 | 1442 | |
| STANDARD\3,5 | 806 | 567 | 1626 | 1150 | |
| STANDARD\3,6 | 806 | 469 | 1626 | 955 | |
| STANDARD\4,4 | 600 | 714 | 1214 | 1442 | |
| STANDARD\4,5 | 600 | 567 | 1214 | 1150 | |
| STANDARD\4,6 | 600 | 469 | 1214 | 955 | |
| STANDARD\4,7 | 600 | 399 | 1214 | 815 | |
| STANDARD\4,8 | 600 | 347 | 1214 | 711 | |
| STANDARD\5,5 | 476 | 567 | 967 | 1150 | |
| STANDARD\5,6 | 476 | 469 | 967 | 955 | |
| STANDARD\5,7 | 476 | 399 | 967 | 815 | |
| STANDARD\5,8 | 476 | 347 | 967 | 711 | |
| STANDARD\6,6 | 393 | 469 | 803 | 955 | |
| STANDARD\6,7 | 393 | 399 | 803 | 815 | |
| STANDARD\6,8 | 393 | 347 | 803 | 711 | |
| STANDARD\6,9 | 393 | 306 | 803 | 630 | |
| STANDARD\6,10 | 393 | 273 | 803 | 565 | |
| STANDARD\7,7 | 334 | 399 | 685 | 815 | |
| STANDARD\7,8 | 334 | 347 | 685 | 711 | |
| STANDARD\7,9 | 334 | 306 | 685 | 630 | |
| STANDARD\7,10 | 334 | 273 | 685 | 565 | |
| STANDARD\8,8 | 290 | 347 | 597 | 711 | |
| STANDARD\8,9 | 290 | 306 | 597 | 630 | |
| STANDARD\8,10 | 290 | 273 | 597 | 565 | |
| ROW\1,3,3 | 1 | 2460 | 1420 | 4919 | 2839 |
| | 2-7 | 806 | 728 | 1626 | 1466 |

◆ 10"×12" Landscape

| Format | Standard Density Recording | | Double Density Recording | | |
|---------------|----------------------------|------|--------------------------|------|------|
| | Column | Row | Column | Row | |
| STANDARD\1,1 | 2972 | 2404 | 5943 | 4807 | |
| STANDARD\2,1 | 1476 | 2404 | 2961 | 4807 | |
| STANDARD\3,1 | 977 | 2404 | 1967 | 4807 | |
| STANDARD\1,2 | 2972 | 1192 | 5943 | 2393 | |
| STANDARD\2,2 | 1476 | 1192 | 2961 | 2393 | |
| STANDARD\3,2 | 977 | 1192 | 1967 | 2393 | |
| STANDARD\4,2 | 728 | 1192 | 1470 | 2393 | |
| STANDARD\3,3 | 977 | 788 | 1967 | 1589 | |
| STANDARD\4,3 | 728 | 788 | 1470 | 1589 | |
| STANDARD\5,3 | 578 | 788 | 1172 | 1589 | |
| STANDARD\6,3 | 478 | 788 | 973 | 1589 | |
| STANDARD\4,4 | 728 | 586 | 1470 | 1186 | |
| STANDARD\5,4 | 578 | 586 | 1172 | 1186 | |
| STANDARD\6,4 | 478 | 586 | 973 | 1186 | |
| STANDARD\7,4 | 407 | 586 | 831 | 1186 | |
| STANDARD\8,4 | 354 | 586 | 725 | 1186 | |
| STANDARD\5,5 | 587 | 464 | 1172 | 945 | |
| STANDARD\6,5 | 478 | 464 | 973 | 945 | |
| STANDARD\7,5 | 407 | 464 | 831 | 945 | |
| STANDARD\8,5 | 354 | 464 | 725 | 945 | |
| STANDARD\6,6 | 478 | 384 | 973 | 784 | |
| STANDARD\7,6 | 407 | 384 | 831 | 784 | |
| STANDARD\8,6 | 354 | 384 | 725 | 784 | |
| STANDARD\9,6 | 312 | 384 | 642 | 784 | |
| STANDARD\10,6 | 279 | 384 | 576 | 784 | |
| STANDARD\7,7 | 407 | 326 | 831 | 669 | |
| STANDARD\8,7 | 354 | 326 | 725 | 669 | |
| STANDARD\9,7 | 312 | 326 | 642 | 669 | |
| STANDARD\10,7 | 279 | 326 | 576 | 669 | |
| STANDARD\8,8 | 354 | 283 | 725 | 583 | |
| STANDARD\9,8 | 312 | 283 | 642 | 583 | |
| STANDARD\10,8 | 279 | 283 | 576 | 583 | |
| ROW2,3 | 1-2 | 1476 | 1392 | 2961 | 2783 |
| | 3-5 | 977 | 993 | 1967 | 1985 |
| ROW3,2 | 1-3 | 977 | 993 | 1967 | 1985 |
| | 4-5 | 1476 | 1392 | 2961 | 2783 |
| ROW2,4,4 | 1-2 | 1476 | 1183 | 2961 | 2365 |
| | 3-10 | 728 | 771 | 1470 | 1191 |
| ROW4,4,2 | 1-8 | 728 | 591 | 1470 | 1191 |
| | 9-10 | 1476 | 1183 | 2961 | 2365 |

Appendix B

■ Configuration Information (2010,0150)

Specifies gradation tables in the DRYPIX 7000/DRYPIX 5000. Eight types of gradation tables can be registered for each SCU AE, which will be specified by “1” to “8” or “CS000” to “CS999.” For the latter, used LUTs are as follows.

| Specified Value | Used LUT |
|-----------------|----------|
| CS000–CS199 | 1 |
| CS200–CS299 | 2 |
| CS300–CS399 | 3 |
| CS400–CS499 | 4 |
| CS500–CS599 | 5 |
| CS600–CS699 | 6 |
| CS700–CS799 | 7 |
| CS800–CS999 | 8 |

Appendix C

■ 2100,0030/2110,0020 Values

Applicable to (2100,0030) and (2110,0020) when (2100,0020)=PENDING and (2110,0010)=WARNING/FAILURE.

| | |
|-----------------|--|
| BAD RECEIVE MGZ | There is a problem with the film receive magazine. Films from the printer cannot be transported into the magazine. |
| BAD SUPPLY MGZ | There is a problem with a film supply magazine. Films from this magazine cannot be transported into the printer. |
| COVER OPEN | One or more printer or processor covers, drawers, doors are open. |
| FILM JAM | A film transport error has occurred and a film is jammed in the printer or processor. |
| PRINTER OFFLINE | The printer has been disabled by an operator or service person. |
| QUEUED | Print job in Queue |
| SUPPLY EMPTY | The printer is out of film |
| UNKNOWN | There is an unspecified problem. |

Appendix D

■ Error Comment

Specify Error Comment (0000,0902) when returning the following Status. (Maximum 64 characters)

| Code | Description | Error Comment (0000,0902) |
|-------|---|--|
| 0110H | An attempt was made to create 2nd Basic Film Session SOP instance. | Unable to handle multiple film session (BFS, N-CREATE) |
| 0110H | The number of instances exceeded 32 in BFB N-CREATE. | Number of film boxes exceeds 32 (BFB, N-CREATE) |
| 0110H | The instance created the last using BFB N-SET has not been specified. | Unable to handle a instance not created lastly (BFB, N-SET) |
| 0110H | The instance created the last using BFB N-DELETE has not been specified. | Unable to handle a instance not created lastly (BFB, N-DELETE) |
| 0110H | The instance not belonging to the BFB created the last using the BIB N-SET has been specified. | The instance doesn't belong to the last created FB (BIB, N-SET) |
| 0110H | The instance that should be referred to by Presentation LUT N-DELETE has been specified. | Can't delete a instance which is referred to (LUT, N-DELETE) |
| 0110H | BFBs of different film sizes were present in BFS N-ACTION. | Unable to print mixed film size Basic Film Boxes (BFS, N-ACTION) |
| 0110H | No films of specified size are loaded. | Requested film size does not exist on printer (BFB, N-CREATE) |
| 0122H | A SOP class that is not supported has been specified. | SOP class not supported. |
| B602H | There were no Image Boxes while executing BFS N-ACTION. | No Image Box SOP instance (BFS, N-ACTION) |
| B603H | There were no Image Boxes while executing BFB N-ACTION. | No Image Box SOP instance (BFB, N-ACTION) |
| B604H | As the image is larger than the image size box, it should be reduced while executing BIB N-SET. | Image size is larger than image box demagnified (BIB, N-SET) |
| B605H | Maximum and minimum densities exceeded the specified ranges. | Requested Min Density or Max Density outside of printer's range. |
| C600H | There were no Film Boxes while executing BFS N-ACTION. | No Film Box SOP instance (BFS, N-ACTION) |
| C601H | Because the print queue was full, jobs could not be created while executing BFS N-ACTION. | Unable to create Print Job: Resource limitation (BFS, N-ACTION) |
| C602H | Because the print queue was full, jobs could not be created while executing BFB N-ACTION. | Unable to create Print Job: Resource limitation (BFB, N-ACTION) |
| C605H | No image storage areas were available while executing BIB N-SET. | Unable to store image data : Resource limitation (BIB, N-SET) |

Appendix E

■ Behaviors as Specified by (2020,0040) (Requested Decimate/Crop Behavior)

| Parameters | | (2020,0040) specified | | | |
|---------------------------------------|--|---|---|--|--|
| | | Not specified particularly | DECIMATE | CROP | FAIL |
| (2010,0060)=CUBIC | | Returns (0000H)(S). CUBIC interpolation is applied. | | | |
| (2010,0060)=NONE | When the image size is larger than the image frame. | Returns (B604H)(W). ^{*1} CUBIC interpolation is applied by (2010,0060)=CUBIC. | Returns (B60AH)(W). ^{*2} CUBIC interpolation is applied by (2010,0060)=CUBIC. | Returns (B609H)(W). ^{*2} Image edges are cut off by matching the specified image with the image frame at their centers. | Returns (C603H)(F). No images are received. |
| | When the image size is smaller than the image frame. | Returns (0000H)(S). No interpolation processing is applied. | | | |
| Size specified by (2020,0030). | When the specified size is larger than the image frame. | Returns (0116H)(W). (2020,0030) is disregarded, applying CUBIC interpolation. | | Returns (B609H)(W). ^{*2} An image is created based on the specified image size, and the edges are cut off by matching the two images at their centers. | Returns (C603H)(F). No images are received. |
| | When the specified size is smaller than the image frame. | Returns (0000H)(S). CUBIC interpolation is applied. | | | |

*1) (0000H)(S) is returned when the (B604H)(W) notification of reducing an image that cannot be accommodated within the image frame is disregarded, as determined by Config settings.

*2) (0000H)(S) is returned when both (B60AH)(W) and (B609H)(W) disregard (B604H)(W).

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