



MIS to Prepress ICS

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1 Introduction

This ICS defines the interface between the *MIS* and *Prepress*. It defines *Gray Boxes* for a *Prepress Workflow System* that produces proofs, plates, raster data and previews for printing. An *MIS* uses *Gray Boxes* to partially specify the *Processes* that it requests a *Prepress Workflow System* to execute.

This version of the ICS defines two *Conformance Levels*. The first level is suitable when the *MIS* does not describe the *Imposition* in detail, relying upon the *Prepress* to fill in the details. The second level requires the *MIS* to describe the *Imposition* in detail and also requires the use of **JMF** messages to allow *Managers* to dynamically interact with the *Prepress Workflow System*.

1.1 Use of ICS Documents

This ICS is a CIP4 *Domain ICS*, specifically intended for the interaction between an *MIS* acting as the *Manager* and a *Prepress Workflow System* acting as the *Worker*.

The correct implementation of this *Domain ICS* requires a common way to present data and to communicate between systems; these are specified in the ▶ [Base ICS], ▶ [Messaging ICS] and ▶ [Management Information System ICS]. These ICSs should always be used in conjunction with this *Domain ICS*.

1.2 Conventions Used in this Specification

Throughout this document a number of formatting and stylistic conventions have been employed that are intended to help the reader. These are intended to align with those of the **JDF** specification. See ▶ [JDF 1.8].

1.2.1 Document References

References to other publications are collated in ▶ Appendix A References. Within the text these references use a meaningful short symbolic name that may be clicked to allow the reader to navigate directly to the full description in the appendix. These references use a common text style as described in the following section.

1.2.2 Text Styles

There are a number of text styles that are used to identify the various components of the specification. Some of the text styles support dynamic links; these allow the reader to click on the term and navigate to the definition of the term (if it is locally defined).

- **FileSpec**A **JDF** or **JMF** element. Usually these are dynamic links leading to the definition of the element.
- **Process**A *Gray Box* or specific *Process* such as **PrePressPreparation** or **Rendering**. These can be dynamic links leading to the definition of the *Process*.
- **@Attribute**A **JDF** or **JMF** attribute within the context of an element.
- **"Value"**The content of an attribute.
- **Device** (**DeviceKey**)Restricts the type of *Devices* that can be specified in the **Device** resource. **DeviceKey** is used in conjunction with ▶ Table 6.24 DeviceClass values for Device Keys to identify valid values for **Device/@DeviceClass**.
- **ResourceName** (**Plate**)Indicates that there is a specific use case for this resource.
- **JDF**/**JDF** or **JMF** are used when referring to the specification in general rather than elements with the same name.
- **Glossary Item**The document utilizes some specialist terms; these are defined in ▶ Table 1.3 Glossary and highlighted throughout the document.
- ▶ [JDF 1.8]Identifies a reference to an item within this specification (such as a particular table, section etc) or to an entry in the references appendix. These are dynamic links leading to the item itself.
- <http://www.CIP4.org>A hyperlink reference to an external item.

1.2.3 XPath Notation

- **JDF/@JobID**The document utilizes ▶ [XPath] notation when it is required to define the particular context for an item. It is particularly useful when there is a conditional term relating to the context, e.g., **JDF[@Type = "DigitalPrinting"]** identifies a **JDF** *Process* node for digital printing.

1.2.4 Modification Notes

New in ICS 1.8

To help the reader familiar with earlier versions of this ICS, this specification indicates additions and clarifications using the callouts described in ▶ Table 1.1 Modification Notes. Please note that not all changes are identified with modified call-out flags. When modification occurs in multiple versions, sometimes only the most recent version is indicated. A few changes have been made globally and are explained in the body of the document and only significant changes have been flagged with callouts, as determined by CIP4 Working Groups.

Table 1.1: Modification Notes

EXAMPLE	CALLOUT MEANING
New in ICS 1.x	New sections, attribute/elements and attribute versions.
Modified in ICS 1.x	Changed syntax or semantics of sections or attributes/elements. Might include clarification as well. Usually there is a modification note describing the change.

1.2.4.1 Location of Modification Notes

A callout occurs after one of the following document elements.

- **Section head:** applies to entire section and all subsections and contained tables.
- **Attribute/Element name:** applies to entire row for the designated attribute/element.
- **Attribute value:** applies to attribute value.

1.2.5 Specification of Cardinality

The following table illustrates the notation of *Manager* and *Worker Conformance Requirements* in ICS tables.

If an attribute, attribute value or element is not provided explicitly or implicitly by a table row of <all other values>, it is assumed to be out of scope. An empty cell for a *Conformance Level* specifies that the *Trait* is out of scope for that *Conformance Level*. Out of scope values MAY be written and MAY be processed, but a conforming processor NEED NOT support them. The implied cardinality of out of scope values is therefore w? r?.

Table 1.2: Specification of cardinality (Sheet 1 of 2)

NOTATION	NAME	DESCRIPTION
w	Write Required	When this cardinality indicator is applied to an attribute or element name, the <i>Trait</i> SHALL be written by the <i>Manager</i> or <i>Worker</i> . When this cardinality indicator is applied to an attribute value that is not a list type it specifies the only acceptable value. When this cardinality indicator is applied to an attribute value that is a list type, it specifies that the value SHALL be present in the list.
w?	Write Optional	The element, or attribute, or attribute value MAY be written by the <i>Manager</i> or <i>Worker</i> . When this cardinality indicator is applied to an attribute value that is a list type, it specifies that the value MAY be present in the list.
w←	Write Conditional	When this cardinality indicator is applied to an attribute or element name, the <i>Trait</i> SHALL be written by the <i>Manager</i> or <i>Worker</i> depending on conditions. The details of the condition will be specified in the description. When this cardinality indicator is applied to an attribute value that is not a list type, it specifies that the value is a valid selection from a list of acceptable values, one of which SHALL be present. When this cardinality indicator is applied to an attribute value that is a list type, it specifies that the value is a valid selection from a list of the values defined in this ICS that have a w←, one or more of which SHALL be present.
w!	Write Forbidden	The element, or attribute, or attribute value SHALL NOT be written by the <i>Manager</i> or <i>Worker</i> . When this cardinality indicator is applied to an attribute value that is a list type, it specifies that the value SHALL NOT be present in the list.
r	Read Required	The element, or attribute, or attribute value SHALL be read by the <i>Manager</i> or <i>Worker</i> .
r?	Read Optional	The element, or attribute, or attribute value MAY be read by the <i>Manager</i> or <i>Worker</i> .

Table 1.2: Specification of cardinality (Sheet 2 of 2)

NOTATION	NAME	DESCRIPTION
r←	Read Conditional	The element, or attribute, or attribute value SHALL be read by the <i>Manager</i> or <i>Worker</i> depending on conditions. The details of the condition will be specified in the description.

1.2.6 Conformance Terminology

This document uses exactly the same terminology as the **JDF** specification to indicate the strictness of conformance. See ▶ [JDF 1.8].

1.3 Certification

A *Manager* or *Worker* implementation is certified against one of the levels as specified in ▶ Table 2.1 Conformance Levels. Certification against the ICS for the *Worker* role is performed with three types of data:

- The physical printed output or an equivalent electronic representation.
- The **JMF** messages or returned **JDF** file.
- Operator interface on the *Device*.

Additional hints for self certification are provided in the descriptions and are marked with the label "**Conformance Test:**".

1.4 Changes from Version 1.5

This version of the MIS to Prepress ICS represents a significant revision from earlier versions. In part this is cosmetic to align the document with the latest CIP4 document standards; in part it is organizational to align the structure with all other ICS documents that have been also been revised in this cycle.

In addition to the above there have also been a number of changes made to improve the usefulness of this ICS.

The ICS version has been changed from 1.5 to 1.8.

The large magnitude of changes since version 1.5 makes it difficult to list all changes, but the following differences are notable.

1.4.1 Additions

There are no significant additions to this version of the specification.

1.4.2 Removals

There are no significant removals from this version of the specification.

1.4.3 Modifications

- The requirement for a *Manager* to specify a **PreviewGenerationParams** (**Plate**) resource in an **ImpositionRIPing** *Gray Box* has been changed from optional to conditionally required.
- The requirement for a *Manager* to specify a **RunList** (**Document Exchange**) resource in an **PageProofing** *Gray Box* has been changed from optional to required.
- The requirement for a *Manager* to specify a **RunList** (**Document Exchange**) resource in an **PageSoftProofing** *Gray Box* has been changed from optional to required.
- The requirement for a *Manager* to specify a **PreviewGenerationParams** (**Page**) resource in an **PrePressPreparation** *Gray Box* has been changed from optional to conditionally required.

1.5 Glossary

This section defines terminology used throughout this document. References to other documents are indicated with square brackets, e.g., ▶ [JDF 1.8].

Table 1.3: Glossary (Sheet 1 of 2)

TERM	DEFINITION
AssemblyID	<p>An <i>AssemblyID</i> value is used as a unique key to identify <i>Bindery Signatures</i>. It is used to link <i>Bindery Signatures</i> between a <i>StrippingParams</i> resource, an <i>Assembly</i> resource and finishing equipment. The attribute is called <i>@AssemblyIDs</i> because it can contain multiple <i>AssemblyID</i> values.</p> <p><i>Bindery Signatures</i> for different versions will have a unique <i>AssemblyID</i> for each version. If there are multiple but identical (i.e., same <i>Page</i> content and <i>Imposition</i>) <i>Bindery Signatures</i> on one <i>Sheet</i>, their <i>AssemblyID</i> values would be the same.</p>
Bindery Signature	<p><i>Bindery Signature</i> is a JDF term that is a synonym for the industry standard terms of “Signature” and “Section”. A <i>Bindery Signature</i> is the smallest entity in an <i>Assembly</i> that is provided to finishing.</p>
Coarse Assembly Resource	<p>The <i>Assembly</i> is described only per <i>Product</i> (part), not at the <i>Sheet</i> or <i>Bindery Signature</i> name level. <i>Assembly</i> section elements are not used. The <i>Assembly</i> describes the order only with <i>Assembly/@Order</i> = “None”, “Gathering” or “Collecting” for the whole <i>Product</i> part. The <i>Assembly</i> does not use “List” as a value for <i>Assembly/@Order</i>, and it does not specify how <i>Sheets</i> are assembled.</p> <p>The <i>Prepress Workflow System</i> is responsible for defining the best order of the <i>Bindery Signatures</i>, and for applying proper pagination.</p> <p>See also <i>Detailed Assembly Resource</i>.</p>
Composite	<p><i>Composite</i> indicates that the preview is in RGB format and viewable by the operator.</p>
Conformance Level	<p>See ▶ [Base ICS].</p>
Conformance Requirement	<p>See ▶ [Base ICS]</p>
Controller	<p>See ▶ [JDF 1.8].</p>
Detailed Assembly Resource	<p>The <i>Assembly</i> is described down to the <i>Bindery Signature</i> name or <i>Sheet</i> level. <i>Assembly</i> section elements are used for each <i>Signature</i>, and the tree structure of <i>Assembly</i> section elements describes how the <i>Signatures</i> are gathered or collected to assemble the <i>Final Product</i>. The <i>Assembly</i> uses only <i>Assembly/@Order</i> = “List” to indicate that <i>Assembly</i> section elements are used. <i>AssemblyIDs</i> are used to identify each <i>Signature</i>.</p> <p>See also <i>Coarse Assembly Resource</i>.</p>
Detailed Layout	<p>A <i>Detailed Layout</i> resource is one that contains <i>ContentObject</i> elements and <i>MarkObject</i> elements to describe the full <i>Imposition</i> details.</p>
Device	<p>See ▶ [JDF 1.8].</p>
Digital Print Workflow System	<p>A system that supports the <i>DigitalPrinting Process</i>. Typically the system will also support some <i>Prepress Processes</i> and perhaps some <i>Postpress Processes</i>.</p>
Domain ICS	<p>See ▶ [Base ICS].</p>
Exchange	<p>An <i>Exchange</i> resource is an empty resource that is used to link <i>Gray Boxes</i>. Typically the <i>Manager</i> specifies the resource with <i>@Status</i>=“Unavailable”, and the <i>Worker</i> adds details and sets the status appropriately when the associated <i>Process</i> is completed.</p>
Final Product	<p>See ▶ [JDF 1.8].</p>
Gray Box	<p>See ▶ [JDF 1.8].</p>
Imposed Sheet	<p>A <i>Sheet</i> (print or proof) that contains imposed pages.</p>
Imposition	<p><i>Imposition</i> is performed by a <i>Prepress</i> system to position multiple <i>Pages</i> on a <i>Sheet</i> to allow for the correct orientation and alignment of those <i>Pages</i> on both sides of the <i>Sheet</i>.</p> <p>Note: <i>Imposition</i> (the action) is performed by <i>Imposition</i> (the <i>Process</i>), which is directed by a <i>Gray Box</i> such as <i>ImpositionPreparation</i>.</p>
Layout	<p>A <i>Layout</i> describes how objects (pages/marks) are placed on the front and back surfaces of <i>Sheets</i>, and how <i>Sheets</i> and <i>Signatures</i> are organized.</p>

Table 1.3: Glossary (Sheet 2 of 2)

TERM	DEFINITION
Manager	In the context of this ICS, <i>MIS</i> is the <i>Manager</i> . See also ▶ [Base ICS].
MIS	See ▶ [JDF 1.8].
Multiple Product	This describes a <i>Sheet</i> with multiple <i>Products</i> from different jobs (i.e., the <i>Sheet</i> has jobs that have different values of <i>@JobID</i> , e.g., as a result of ganging). This ICS does not support <i>Multiple Products</i> .
Multiple Product Parts	This describes a <i>Sheet</i> with multiple <i>Partial Products</i> from different parts of a <i>Product</i> . At least one <i>Partial Product</i> on the <i>Sheet</i> is a different part of the <i>Product</i> from others, such as cover and insert, or even <i>Signature 1</i> and <i>Signature 2</i> .
Multiple Product Versions	This describes a <i>Sheet</i> with multiple <i>Partial Products</i> from different versions of the same job. At least one <i>Partial Product</i> on the <i>Sheet</i> has a different value of <i>@PartVersion</i> from the others.
Packaging Fold	A folding sequence that is not part of the <i>Product Part</i> intent. An example is a fold used to fit a poster into a magazine or a letter into an envelope. It does not influence <i>Prepress Imposition</i> .
Page	See ▶ [JDF 1.8].
Partial Product	See ▶ [JDF 1.8].
Partition	See ▶ [JDF 1.8].
Partition Key	See ▶ [JDF 1.8].
Postpress	<i>Postpress</i> defines all the <i>Processes</i> that occur after printing.
Prepress	<i>Prepress</i> defines all the <i>Processes</i> that occur after the content/design was created until it is ready for printing.
Prepress Workflow System	A <i>Device</i> or <i>Controller</i> that conforms to this ICS and consumes JDF . It communicates with other <i>Devices</i> and <i>Controllers</i> using JMF messages. A <i>Prepress Workflow System</i> may be part of a <i>Prepress Device</i> . In the context of this ICS, the <i>Prepress Workflow System</i> is the <i>Worker</i> .
Process	See ▶ [JDF 1.8].
Product	The completed output of a printing or finishing <i>Process</i> , such as a book, magazine document, brochure or single <i>Sheet</i> collateral.
RIP	A <i>RIP</i> is a <i>Device</i> that performs <i>RIPing Processes</i> .
RIPing	<i>RIPing</i> is a combination of <i>Processes</i> including Interpreting , Rendering , Separation and Screening .
Sheet	See ▶ [JDF 1.8].
Signature	See ▶ [JDF 1.8].
Trait	See ▶ [JDF 1.8].
Worker	The <i>Worker</i> is a controller of a <i>Prepress</i> system. See ▶ [Base ICS].

2 Conformance

2.1 Conformance Levels

This ICS defines two *Conformance Levels* of *Conformance Requirements*, namely Levels 1 and 2, for defining several variations of a **JDF** instance to allow an *MIS* to instruct a *Prepress Workflow System*. ▶ Table 2.1 Conformance Levels briefly describes the levels of conformance defined by this ICS.

In order to be conformant to a level of this ICS specified in the first column of ▶ Table 2.1 Conformance Levels, a *Manager* (i.e., *MIS*) SHALL conform to the *Manager* part or a *Worker* (i.e., a *Prepress Workflow System*) SHALL conform to the *Worker* part of this ICS and the ICSs and levels specified by the other ICSs in ▶ Table 2.1 Conformance Levels below.

Table 2.1: Conformance Levels

LEVEL OF THIS ICS	LEVEL OF BASE ICS	LEVEL OF MESSAGING ICS	LEVEL OF MIS ICS	DESCRIPTION
1	1	-	1	This combination of ICS levels includes: <ul style="list-style-type: none"> The <i>Manager</i> MAY describe the <i>Imposition</i> or Assembly without full details. The <i>Worker</i>, i.e., <i>Prepress</i> is then responsible for filling in the details.
2	2	1	2	This combination of ICS levels includes: <ul style="list-style-type: none"> All the functionality of the previous ICS levels. The <i>Manager</i> MAY describe the <i>Imposition</i> and Assembly in detail. <p>Note: This level is mainly for versioning and creating more complex <i>Products</i> – <i>Multiple Product Parts</i> and/or <i>Multiple Product Versions</i>.</p> Support for JMF communication.

3 JDF Instances

This ICS describes the *Conformance Requirements* for an *MIS* and a *Prepress Workflow System* to enable the successful production of a *Final Product* that may comprise one or more *Products*.

There should be a **JDF** node to describe each of these, i.e., a **JDF** node for the *Final Product* and a **JDF** node for each of its child *Products*. The *Final Product* SHOULD be described in the **JDF** root node, with each child *Product* described in a child **JDF** *Product* node.

The *Gray Boxes* that are used to describe the *Processes* required to create a single *Product* SHALL be children of the *Product*'s node.

If the *Final Product* comprises a single *Product* then the *Conformance Requirements* for a **JDF** *Product* node may be combined with the *Conformance Requirements* for a **JDF** root node.

3.1 JDF

3.1.1 JDF Root Node

The following table specifies the details of the root **JDF** specific to this ICS. For additional *Conformance Requirements*, see ▶ [Management Information System ICS].

3.1.1.1 Simple Single Product Root Node

A simple single *Product* MAY be specified in the root node by specifying **JDF** *Gray Boxes*. **JDF** *Product* nodes SHALL NOT be specified. The *Gray Boxes* SHALL be unique, i.e., the values of their *@Category* attribute SHALL be unique.

3.1.1.2 Complex Multiple Product Root Node

When multiple *Partial Product* nodes are to be combined to create a *Final Product*, the root node SHALL specify each *Partial Product* as a **JDF** *Product* node. The *Manager* MAY specify one or more **JDF** *Gray Boxes* in the root node to be used by the **JDF** *Product* nodes.

3.1.1.3 JDF Root Node sent by a Manager

Table 3.1: JDF Root Node sent by a Manager

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ICSVersions</i>	w	w	r?	r?	See ▶ [Base ICS].
MISPRE_L1-1.8	w	w!	r?		Specifies conformance to the MIS to Prepress ICS <i>Conformance Level 1</i> .
MISPRE_L2-1.8	w!	w		r?	Specifies conformance to the MIS to Prepress ICS <i>Conformance Level 2</i> .
<all other values>	w←	w←	r?	r?	@ <i>ICSVersions</i> SHALL contain all the values specified in the ICS documents that are required for conformance to this ICS as specified in ▶ Table 2.1 <i>Conformance Levels</i> .
<i>Type</i>	w	w	r	r	See ▶ [JDF 1.8].
Product	w	w	r	r	
JDF (Product)	w←	w←	r	r	At least one of JDF (Product) or JDF (Gray Box) SHALL be specified.
JDF (Gray Box)	w←	w←	r	r	At least one of JDF (Product) or JDF (Gray Box) SHALL be specified.

3.1.1.3.1 JDF Root Node sent by a Manager - Input Resources

Table 3.2: JDF Root Node sent by a Manager - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Component	w←	w←	r	r	Component SHALL be specified if <i>Partial Products</i> are specified.
CustomerInfo	w	w	r	r	See ▶ [JDF 1.8].

3.1.1.3.2 JDF Root Node sent by a Manager - Output Resources

Table 3.3: JDF Root Node sent by a Manager - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Component	w	w	r	r	See ▶ [JDF 1.8].

3.1.1.4 JDF Root Node sent by a Worker

Table 3.4: JDF Root Node sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ICSVersions</i>	r?	r?	w	w	See ▶ [Base ICS].
MISPRE_L1-1.8	r?		w	w!	Specifies conformance to the MIS to Prepress ICS <i>Conformance Level 1</i> .
MISPRE_L2-1.8		r?	w!	w	Specifies conformance to the MIS to Prepress ICS <i>Conformance Level 2</i> .
<all other values>	r?	r?	w←	w←	@ <i>ICSVersions</i> SHALL contain all the values specified in the ICS documents that are required for conformance to this ICS as specified in ▶ Table 2.1 Conformance Levels.
AuditPool	r?	r?	w?	w←	See ▶ [Management Information System ICS].

3.1.1.4.1 JDF Root Node sent by a Worker - Input Resources

See ▶ [Management Information System ICS], this ICS requires no additional *Conformance Settings*.

3.1.1.4.2 JDF Root Node sent by a Worker - Output Resources

See ▶ [Management Information System ICS], this ICS requires no additional *Conformance Settings*.

3.1.2 JDF Product Node

This ICS has no additional requirements for **JDF Product** nodes. See ▶ [Management Information System ICS].

3.1.3 JDF Gray Box

For the *Prepress* sector, most *MISs* do not have enough information to specify the *Prepress* parameters and *Processes* in detail. The *MIS* requirement for sending partially specified **JDF** Instances to *Prepress Workflow Systems* led to the invention of *Gray Boxes*.

When the *Prepress Workflow System* expands a *Gray Box*, it MAY create new **JDF** nodes. The *Worker* SHALL supply a **JDF/ @JobPartID** value that is unique in the scope of the **JDF** that the *Worker* is returning. For details, see ▶ [Base ICS].

JDF INSTANCES

Specific *Gray Boxes* supported by this ICS are specified in ▶ Chapter 4 *Gray Boxes*.

3.1.3.1 Required Gray Boxes

The *Manager* SHALL be able to create and the *Worker* SHALL support **ImpositionPreparation**, **PlateMaking** and **PrePressPreparation** *Gray Boxes*.

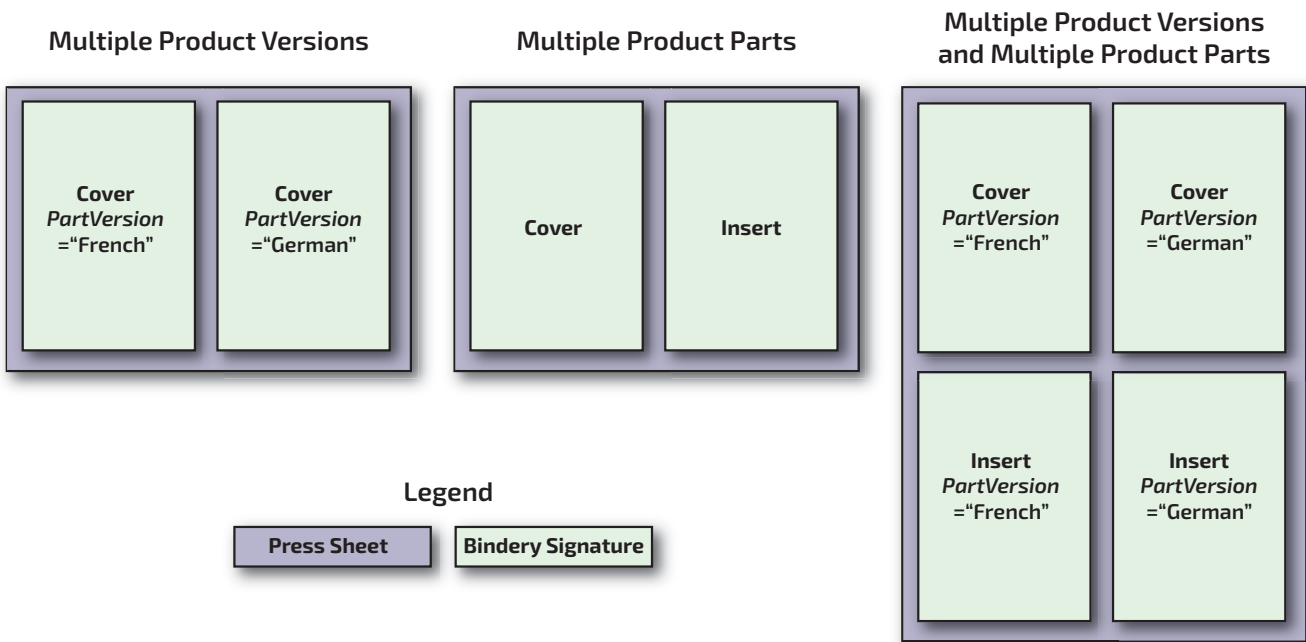
3.2 Multiple Layouts on a Sheet

3.2.1 Multiple Product Versions and Parts

► Figure 3-1: Examples of Multiple Product Versions and Multiple Product Parts below illustrates three different *Sheet* layouts.

- *Multiple Product Versions*
Illustrates how two versions of the same *Product* (e.g., a French and a German version of the cover) can be printed on the same *Sheet*.
- *Multiple Product Parts*
Illustrates how two parts for the same *Product* (e.g., a cover and an insert) can be printed on the same *Sheet*.
- *Multiple Product Versions and Multiple Product Parts*
Illustrates how both multiple versions and multiple parts can be combined and printed on the same *Sheet*.

Figure 3-1: Examples of Multiple Product Versions and Multiple Product Parts



3.2.2 Multiple Bindery Signatures

If a press Sheet contains multiple *Bindery Signatures*, the Sheet is typically cut to provide each individual *Bindery Signature* to finishing, typically a **Folding** Process.

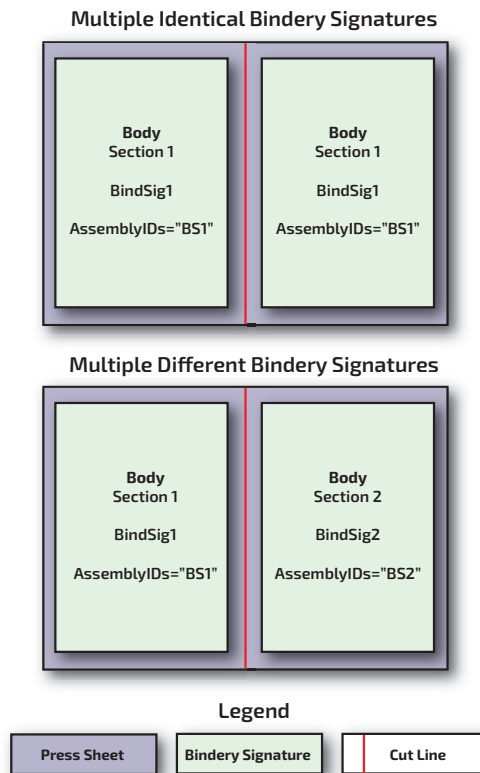
When multiple *Bindery Signatures* are used on one Sheet, the Page contents of each can either be identical or different.

Note: The `@AssemblyIDs` attribute is used to uniquely identify a *Bindery Signature*; furthermore, a *Bindery Signature* is a physical item and is different from a JDF *BinderySignature* resource, which is a subelement of *StrippingParams* and specifies how to create a *Bindery Signature*.

▶ Figure 3-2: Examples of Multiple Bindery Signatures below illustrates two different Sheet layouts.

- **Multiple Identical Bindery Signatures**
 Identical *Bindery Signatures* on a press Sheet are created by having multiple *Position* elements in the "Sheet" Partition of the *StrippingParams* resource.
 See ▶ Example 3.1: Multiple Identical Bindery Signatures.
- **Multiple Different Bindery Signatures**
 Different *Bindery Signatures* on a press Sheet are created by having multiple "BinderySignatureName" Partitions of the *StrippingParams* resource.
 ▶ Example 3.2: Multiple Different Bindery Signatures.

Figure 3-2: Examples of Multiple Bindery Signatures



Example 3.1: Multiple Identical Bindery Signatures

The following example shows how the same *Bindery Signature* is positioned in multiple locations on a *Sheet*.

```
<ResourcePool>
  <StrippingParams Class="Parameter" ID="r_000005"
    PartIDKeys="SignatureName SheetName" Status="Available">
    <StrippingParams SignatureName="Sig1">
      <StrippingParams AssemblyIDs="BS1" SheetName="Sheet1">
        <Position RelativeBox="0 0 0.5 1"/>
        <Position RelativeBox="0.5 0 1 1"/>
        <BinderySignatureRef rRef="r_000007"/>
      </StrippingParams>
    </StrippingParams>
  </StrippingParams>
</ResourcePool>
<ResourceLinkPool>
  <StrippingParamsLink Usage="Input" rRef="r_000005"/>
  <AssemblyLink Usage="Input" rRef="r_000006"/>
  <LayoutLink Usage="Output" rRef="r_000008"/>
</ResourceLinkPool>
```

Example 3.2: Multiple Different Bindery Signatures

The following example shows how multiple different *Bindery Signatures* are positioned on a *Sheet*.

Note: "*BinderySignatureName*" Partitions are nested below the required "*SignatureName*" and "*SheetName*" Partitions.

```
<ResourcePool>
  <StrippingParams Class="Parameter" ID="r_000005"
    PartIDKeys="SignatureName SheetName BinderySignatureName" Status="Available">
    <StrippingParams SignatureName="Sig1">
      <StrippingParams SheetName="Sheet1">
        <StrippingParams AssemblyIDs="BS1" BinderySignatureName="BS1">
          <Position RelativeBox="0 0 0.5 1"/>
        </StrippingParams>
        <StrippingParams AssemblyIDs="BS2" BinderySignatureName="BS2">
          <Position RelativeBox="0.5 0 1 1"/>
        </StrippingParams>
        <BinderySignatureRef rRef="r_000007"/>
      </StrippingParams>
    </StrippingParams>
  </StrippingParams>
</ResourcePool>
<ResourceLinkPool>
  <StrippingParamsLink Usage="Input" rRef="r_000005"/>
  <AssemblyLink Usage="Input" rRef="r_000006"/>
  <LayoutLink Usage="Output" rRef="r_000008"/>
</ResourceLinkPool>
```

3.3 AuditPool

Table 3.5: AuditPool Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ResourceAudit</i>		r		w←	<i>ResourceAudit</i> SHALL be specified by the <i>Worker</i> if the <i>Gray Box</i> produces <i>Media (Plate)</i> resources.

3.4 ResourceAudit

Table 3.6: ResourceAudit Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>MediaLink (Plate)</i>		r		w←	<i>MediaLink</i> SHALL be specified to track the consumption of plates. <i>MediaLink</i> SHALL reference a <i>Media (Plate)</i> resource.
<i>MediaLink (Proof)</i>		r?		w?	<i>MediaLink</i> MAY be specified to track the consumption of proofs. <i>MediaLink</i> SHALL reference a <i>Media (Proof)</i> resource.

4 Gray Boxes

4.1 Overview

For the *Prepress* sector, most *MISs* do not have enough information to specify the *Prepress* parameters and *Processes* in detail. The *MIS* requirement for sending partially-specified **JDF** Instances to *Prepress Workflow Systems* led to the invention of *Gray Boxes*.

Gray Boxes are a particular form of a **JDF** where **JDF/@Type="ProcessGroup"** and **JDF/@Types** specifies a set of *Processes*. For *Gray Boxes*, any mandatory requirement for resources that those *Processes* have (as defined in the ▶ [JDF 1.8] specification) is removed. This ICS will specify any resources required by the *Gray Box*, other resources are optional.

4.1.1 Use of RIPing as a Process Type

Some *Gray Boxes* use "RIPing" as a *Process* type; where this is specified the actual *Processes* implemented by the *Worker* SHALL include **Interpreting** and **Rendering**, and MAY include **ColorSpaceConversion**, **Trapping**, **Separation** and **Screening**. The *Manager* MAY specify resources for these *Processes*.

Note: Within this ICS, the collective *RIPing Processes* do not included an **Imposition Process**; if **Imposition** is required it is always explicitly specified. This use of *RIPing* differs from the more general use of the term in the ▶ [JDF 1.8] specification.

4.1.2 Gray Boxes

The following table lists the *Gray Boxes* specified in this ICS.

Table 4.1: *Gray Boxes*

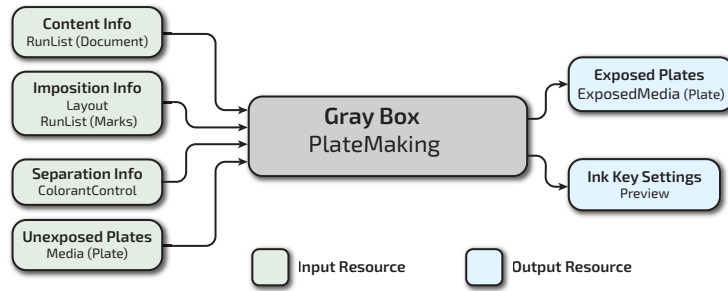
GRAY BOX	DESCRIPTION
ContentCreation	ContentCreation allows for adding barcodes to existing pages.
DigitalPrintingPreparation	DigitalPrintingPreparation creates a basic JDF node for <i>Digital Print Workflow Systems</i> . This <i>Gray Box</i> MAY refer to pages that have been produced by a <i>RIP Device</i> .
ImpositionPreparation	ImpositionPreparation creates a <i>Detailed Layout</i> and marks for <i>Imposition</i> based on high-level <i>Imposition</i> information supplied by the <i>MIS Manager</i> .
ImpositionProofing	ImpositionProofing creates an <i>Imposition</i> proof.
ImpositionRIPing	ImpositionRIPing creates imposed raster data for the PlateSetting <i>Gray Box</i> .
ImpositionSoftProofing	ImpositionSoftProofing sends files to a proofing service that manages approval of <i>Imposition</i> .
PageProofing	PageProofing produces hard copy <i>Page</i> proofs.
PageSoftProofing	PageSoftProofing sends files to a proofing service that manages approval of pages.
PlateMaking	PlateMaking uses <i>RIPing Processes</i> to produce plates.
PlateSetting	PlateSetting produces plates based on data created by a <i>RIP Device</i> .
PrePressPreparation	PrePressPreparation updates its output RunList (Document Exchange) resource with pages.

4.2 Examples

This section shows some examples of typical workflows and how they are constructed from the various *Gray Boxes* described in this ICS.

4.2.1 Plate Making

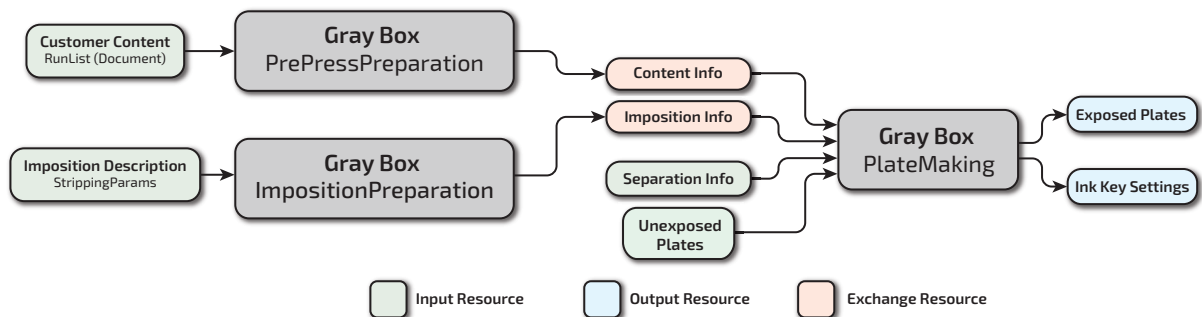
Figure 4-1: Plate Making



4.2.2 Simple Workflow

A simple workflow for plate and preview creation without proofs. The *Manager*, an MIS, supplies the number of pages, separation and media information. The *Worker*, an operator, selects the *Imposition* template.

Figure 4-2: Simple Workflow

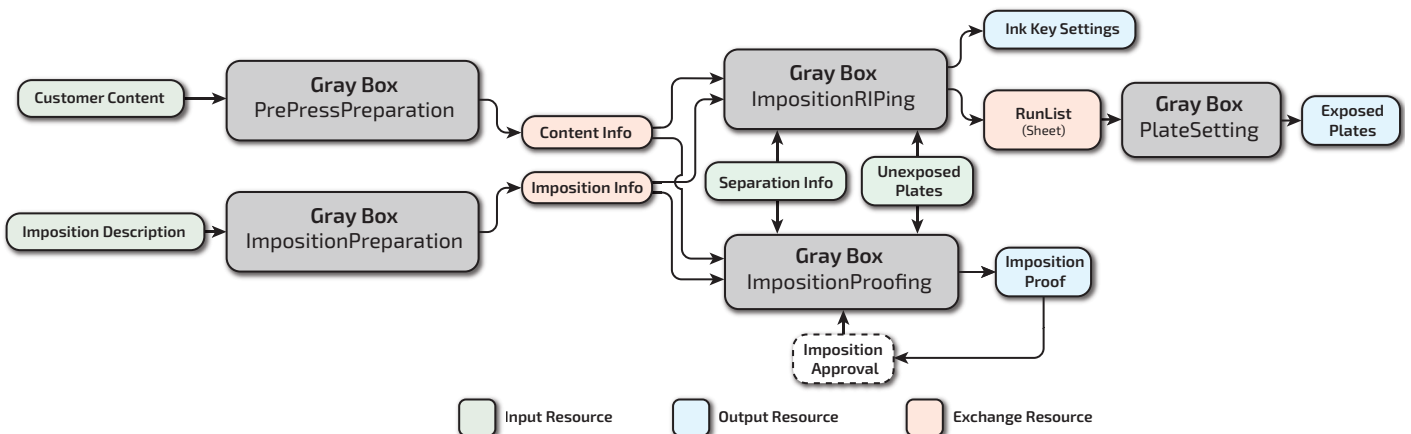


4.2.3 Complex Workflow

A complex workflow for plate, preview and proof creation. The *Manager*, an MIS, supplies the number of pages, stripping, separation and media information. The *Worker*, an operator, creates an *Imposition* proof. If this is accepted, the *Worker* then begins to manufacture plates.

Note: Some *Prepress Workflow Systems* can combine the **ImpositionRIPing** and **PlateSetting** Gray Boxes into a **PlateMaking** Gray Box.

Figure 4-3: Complex Workflow



4.3 ContentCreation

The *Worker* creates or updates content files. In this ICS, the functionality of the **ContentCreation** Gray Box is limited to adding a barcode to an existing *Page*. A *Manager* specifies this functionality with an input **RunList (Document)** and an input **LayoutElementProductionParams**. The latter is *Partitioned* on **@RunIndex**. For each *Page* in the input **RunList (Document)**

where there is a corresponding **LayoutElementProductionParams**, a barcode is added. For each *Page* in the input **RunList (Document)**, there is a corresponding *Page* in the output **RunList (Document Exchange)**.

The *Worker* updates the output **RunList (Document Exchange)**, including the value of **@Status**, which, once fully populated, becomes an input **RunList (Document)** resource to, say, the **PrePressPreparation Gray Box**.

Note: The **ContentCreation Gray Box** is used primarily within the packaging and labeling sector.

Table 4.2: ContentCreation Gray Box

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Category</i>	w	w	r	r	See ▶ [JDF 1.8].
MISPRE.ContentCreation	w	w	r	r	
<i>ICSVersions</i>	w!	w!			See ▶ [JDF 1.8].
<i>Type</i>	w	w	r	r	See ▶ [JDF 1.8].
ProcessGroup	w	w	r	r	
<i>Types</i>	w	w	r	r	If @Types is specified with values in addition to "LayoutElementProduction", they MAY be specified anywhere in the list.
LayoutElementProduction	w	w	r	r	
<all other values>	w?	w?	r?	r?	

4.3.1 ContentCreation - Input Resources

Table 4.3: ContentCreation - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
LayoutElementProductionParams	w	w	r	r	See ▶ [JDF 1.8].
RunList (Document)	w	w	r	r	See ▶ [JDF 1.8].

4.3.2 ContentCreation - Output Resources

Table 4.4: ContentCreation - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
RunList (Document Exchange)	w	w	r	r	See ▶ [JDF 1.8].

4.4 DigitalPrintingPreparation

The *Worker* produces a **JDF** node that it sends to the *Digital Print Workflow System* that SHOULD conform to the ▶ [Integrated Digital Printing ICS].

Note: The *Worker* for this *Gray Box* is the *Prepress Workflow System* that consumes the resources that the *MIS* provides. Later the *Prepress Workflow System* acts as a *Manager* for the *Digital Print Workflow System* which then acts as a *Worker*.

GRAY BOXES

This Gray Box NEED NOT contain much detail (like finishing, slip sheets), because it is more oriented towards hybrid printing.

The Worker completely handles as many of the Processes and resources that it knows and the Worker SHALL hand over the remaining unhandled Processes and resources to the Digital Print Workflow System. The Worker SHALL provide the resources that it has modified.

Imposition information can be provided in any of the following ways:

- **LayoutPreparationParams**: Prepress usually hands it over to a Digital Print Workflow System
- Input **RunList (Sheet)**: This may already point to imposed PDFs

Note: The above ways of providing Imposition information do not relate to the Imposition Methods that are specified for MIS input to sheet fed conventional printing.

Table 4.5: DigitalPrintingPreparation Gray Box

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Category</i>	w	w	r	r	See ▶ [JDF 1.8].
MISPRE.DigitalPrintingPreparation	w	w	r	r	
<i>ICSVersions</i>	w!	w!			See ▶ [JDF 1.8].
<i>Type</i>	w	w	r	r	See ▶ [JDF 1.8].
ProcessGroup	w	w	r	r	
<i>Types</i>	w	w	r	r	@Types SHALL be specified to maintain the relative order of the values listed below. The position of any other values is implementation dependent.
LayoutPreparation	w←	w←	r?	r?	
Imposition	w←	w←	r?	r?	
RIPing	w←	w←	r?	r?	The Worker SHALL perform RIPing Processes to provide a raster bytemap.
<all other values>	w←	w←	r?	r?	If the Prepress Workflow System cannot execute these extra Processes, it SHALL hand them to the Digital Print Workflow System.

4.4.1 DigitalPrintingPreparation - Input Resources

Table 4.6: DigitalPrintingPreparation - Input Resources (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ColorantControl	w?	w?	r?	r?	Contains information on color and separations.
Device (DigitalPress)	w?	w?	r?	r?	The digital print Device.
DigitalPrintingParams	w?	w?	r?	r?	See ▶ [JDF 1.8].
Layout (Exchange)	w←	w←	r?	r?	The Manager SHALL specify the Layout if it is also specified as an output resource of an ImpositionPreparation Gray Box.
LayoutPreparationParams	w?	w?	r?	r?	See ▶ [JDF 1.8].
Media (Paper)	w?	w?	r?	r?	See ▶ [JDF 1.8].

Table 4.6: DigitalPrintingPreparation - Input Resources (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
RunList (Document Exchange)	w←	w←	r	r	The Manager SHALL specify RunList (Document Exchange) if the Pages are produced by a PrePressPreparation Gray Box. The ResourceLink linking to this resource SHALL specify @ProcessUsage="Document" . The Manager SHALL specify exactly one of RunList (Document Exchange) or RunList (Sheet).
RunList (Marks Exchange)	w←	w←	r?	r?	The Manager SHALL supply a RunList (Marks Exchange) if marks are produced by an ImpositionPreparation Gray Box. The ResourceLink linking to this resource SHALL specify @ProcessUsage="Marks" .
RunList (Sheet)	w←	w←	r	r	The Manager SHALL specify RunList (Sheet) if the RunList references <i>Imposed Sheets</i> . The ResourceLink linking to this resource SHALL specify @ProcessUsage="Document" . The Manager SHALL specify exactly one of RunList (Sheet) or RunList (Document Exchange).

4.4.2 DigitalPrintingPreparation - Output Resources

Table 4.7: DigitalPrintingPreparation - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	

4.5 ImpositionPreparation

The **ImpositionPreparation** Gray Box instructs the Worker to produce a *Detailed Layout* and **RunList** (Marks Exchange); optionally it can also provide a **RunList** (Document Exchange).

The **ImpositionPreparation** Gray Box creates output resources that are then linked as input resources to other Gray Boxes that SHOULD contain an *Imposition Process* (e.g., **ImpositionProofing** and **PlateMaking**) and other *Processes*.

4.5.1 ImpositionPreparation sent by a Manager

Table 4.8: ImpositionPreparation Gray Box sent by a Manager (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Category</i>	w	w	r	r	See ▶ [JDF 1.8].
MISPRE.ImpositionPreparation	w	w	r	r	
<i>ICSVersions</i>	w!	w!			See ▶ [JDF 1.8].
<i>Type</i>	w	w	r	r	See ▶ [JDF 1.8].
ProcessGroup	w	w	r	r	
<i>Types</i>	w	w	r	r	See ▶ [JDF 1.8].

Table 4.8: ImpositionPreparation Gray Box sent by a Manager (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Stripping	w	w	r	r	
<all other values>	w!	w!			

4.5.1.1 ImpositionPreparation sent by a Manager - Input Resources

Table 4.9: ImpositionPreparation sent by a Manager - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Assembly	w←	w←	r	r	The Manager SHALL specify at least one Assembly resource if JDF/@Types contains "Stripping".
ColorantControl	w?	w?	r?	r	The Manager SHOULD specify a ColorantControl resource if it has the necessary information.
RunList (Document Exchange)	w?	w?	r	r	The Manager MAY specify a RunList (Document Exchange) resource. If specified, the RunList (Document Exchange) resource SHALL be the output resource of the PrePressPreparation Gray Box.
StrippingParams	w	w	r	r	See ▶ [JDF 1.8].

4.5.1.2 ImpositionPreparation sent by a Manager - Output Resources

Table 4.10: ImpositionPreparation sent by a Manager - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Layout (Exchange)	w	w	r	r	The Layout is an input resource for subsequent Gray Boxes that include the Imposition Process.
RunList (Marks Exchange)	w	w	r	r	The RunList (Marks Exchange) is an input resource for subsequent Gray Boxes that include the Imposition Process. The ResourceLink linking to this resource SHALL specify @ProcessUsage="Marks" .

4.5.2 ImpositionPreparation sent by a Worker

Table 4.11: ImpositionPreparation Gray Box sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Type	r	r	w	w	See ▶ [JDF 1.8].
ProcessGroup	r	r	w	w	
Types	r	r	w	w	@Types SHOULD be specified by the Worker to list the Processes executed by the Worker.

4.5.2.1 ImpositionPreparation sent by a Worker - Input Resources

Table 4.12: ImpositionPreparation sent by a Worker - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>StrippingParams</i>	r?	r?	w←	w←	The Worker SHALL specify <i>StrippingParams/Position</i> if the Manager specified <i>Position/@RelativeBox</i> .

4.5.2.2 ImpositionPreparation sent by a Worker - Output Resources

Table 4.13: ImpositionPreparation sent by a Worker - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Layout</i> (Exchange)	r?	r?	w	w	The Worker SHALL specify a <i>Detailed Layout</i> .
<i>RunList</i> (Marks Exchange)	r?	r?	w	w	See ▶ [JDF 1.8].

4.6 ImpositionProofing

The **ImpositionProofing** Gray Box instructs the *Worker* to produce an *Imposition* proof. The *Worker* delivers the *Imposition* proof to an approver if an **Approval** Process is specified.

4.6.1 ImpositionProofing sent by a Manager

Table 4.14: ImpositionProofing Gray Box sent by a Manager

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Category</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>MISPRE.ImpositionProofing</i>	w	w	r	r	
<i>ICSVersions</i>	w!	w!			See ▶ [JDF 1.8].
<i>Type</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>ProcessGroup</i>	w	w	r	r	
<i>Types</i>	w	w	r	r	<i>@Types</i> SHALL be specified to maintain the relative order of the values listed below. The position of any other values is implementation dependent.
<i>Imposition</i>	w	w	r	r	
<i>ColorSpaceConversion</i>	w?	w?	r	r	The <i>Manager</i> SHALL specify a ColorSpaceConversion Process if it wants to ensure that the <i>Worker</i> generates the proof in a proper color controlled environment, and the proof is for approval of color and not just content. The <i>Manager</i> NEED NOT supply any details of the ColorSpaceConversion Process.
<i>ProofImaging</i>	w	w	r	r	
<i>Approval</i>	w?	w?	r?	r?	
<all other values>	w?	w?	r?	r?	

4.6.1.1 ImpositionProofing sent by a Manager - Input Resources

Table 4.15: ImpositionProofing sent by a Manager - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalParams	w←	w←	r	r	The <i>Manager</i> SHALL specify ApprovalParams if <i>JDF/@Types</i> contains "Approval". If the value of <i>@Status</i> of the corresponding <i>Partition</i> of the ApprovalSuccess resource is not "Available", the <i>Worker</i> SHALL send the proof to some person. If ApprovalParams exists, the person SHALL be specified and SHOULD be specified by ApprovalParams/ApprovalPerson/Contact but MAY be specified by CustomerInfo/Contact where <i>@ContactTypes</i> contains "Approver".
ColorantControl	w	w	r	r	See ▶ [JDF 1.8].
Device (Proof)	w?	w?	r	r	See ▶ [JDF 1.8].
Layout (Exchange)	w	w	r	r	This Layout SHOULD produce the same arrangement of pages as the Layout for the PlateMaking Gray Box.
Media (Proof)	w	w	r	r	See ▶ [JDF 1.8].
RunList (Document Exchange)	w	w	r	r	The ResourceLink linking to this resource SHALL specify <i>@ProcessUsage="Document"</i> .
RunList (Marks Exchange)	w	w	r	r	The ResourceLink linking to this resource SHALL specify <i>@ProcessUsage="Marks"</i> .

4.6.1.2 ImpositionProofing sent by a Manager - Output Resources

Table 4.16: ImpositionProofing sent by a Manager - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalSuccess (Exchange)	w←	w←	r	r	The <i>Manager</i> SHALL specify ApprovalSuccess if <i>JDF/@Types</i> contains "Approval".
ExposedMedia (Imposition Proof)	w	w	r	r	The value of ExposedMedia/Media/@MediaType is "Paper".

4.6.2 ImpositionProofing sent by a Worker

Table 4.17: ImpositionProofing Gray Box sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Type	r	r	w	w	See ▶ [JDF 1.8].
ProcessGroup	r	r	w	w	
Types	r	r	w	w	<i>@Types</i> SHOULD be specified by the <i>Worker</i> to list the <i>Processes</i> executed by the <i>Worker</i> .

4.6.2.1 ImpositionProofing sent by a Worker - Input Resources

Table 4.18: ImpositionProofing - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Media (Proof)	r?	r?	w?	w?	The Worker SHOULD specify the Media with the actual values that were used.

4.6.2.2 ImpositionProofing sent by a Worker - Output Resources

Table 4.19: ImpositionProofing sent by a Worker - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalSuccess (Exchange)	r?	r?	w←	w←	The Worker SHALL specify ApprovalSuccess if JDF/@Types contains "Approval".
ExposedMedia (Imposition Proof)	r?	r?	w?	w?	The Worker SHOULD specify the ExposedMedia/Media with the actual values of the Media that were used.

4.7 ImpositionRIPing

The Worker produces imposed raster data for the **PlateSetting** Gray Box.

If the **PreviewGeneration** Process is specified, the Worker SHALL produce **Preview** (Plate) resources as specified by the Manager (as an output resource) used for ink key settings in **ConventionalPrinting** and MAY specify a **Composite Sheet Preview** (Sheet) resource used for viewing purposes.

Note: The **ImpositionRIPing** Gray Box MAY specify both **Preview** (Plate) and **Composite Sheet Preview** (Sheet) resources by specifying **@Types** = "ImpositionRIPing PreviewGeneration PreviewGeneration".

A Manager SHALL specify the **ImpositionRIPing** Gray Box when it knows that the Worker is capable of performing independent RIPing and **ImageSetting** Processes.

4.7.1 ImpositionRIPing sent by a Manager

Table 4.20: ImpositionRIPing Gray Box sent by a Manager (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Category	w	w	r	r	See ▶ [JDF 1.8].
MISPRE.ImpositionRIPing	w	w	r	r	
ICSVersions	w!	w!			See ▶ [JDF 1.8].
Type	w	w	r	r	See ▶ [JDF 1.8].
ProcessGroup	w	w	r	r	
Types	w	w	r	r	@Types SHALL be specified to maintain the relative order of the values listed below. The position of any other values is implementation dependent.
Imposition	w	w	r	r	
RIPing	w	w	r	r	The Worker SHALL perform RIPing Processes to provide a raster bytemap.

Table 4.20: ImpositionRIPing Gray Box sent by a Manager (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
PreviewGeneration	w?	w?	r	r	
<all other values>	w?	w?	r?	r?	

4.7.1.1 ImpositionRIPing sent by a Manager - Input Resources

Table 4.21: ImpositionRIPing sent by a Manager - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ColorantControl	w	w	r	r	See ▶ [JDF 1.8].
Device (Plate)	w?	w?	r	r	See ▶ [JDF 1.8].
InterpretingParams	w?	w?	r	r	See ▶ [JDF 1.8].
Layout (Exchange)	w	w	r	r	See ▶ [JDF 1.8].
PreviewGenerationParams (Plate)	w←	w←	r	r	PreviewGenerationParams (Plate) SHALL be specified by the Manager if JDF/@Types contains "PreviewGeneration" and separation previews are required.
PreviewGenerationParams (Sheet)	w?	w?	r	r	PreviewGenerationParams (Sheet) SHOULD be specified by the Manager if JDF/@Types contains "PreviewGeneration" and Composite previews are required.
RunList (Document Exchange)	w	w	r	r	The ResourceLink linking to this resource SHALL specify @ProcessUsage="Document".
RunList (Marks Exchange)	w	w	r	r	The ResourceLink linking to this resource SHALL specify @ProcessUsage="Marks".

4.7.1.2 ImpositionRIPing sent by a Manager - Output Resources

Table 4.22: ImpositionRIPing sent by a Manager - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Preview (Plate)	w←	w←	r	r	The Manager SHALL specify a Preview (Plate) resource if JDF/@Types contains "PreviewGeneration" and separation previews are required. The Preview (Plate) SHALL be Partitioned identically to the ExposedMedia (Plate) output resource of the PlateSetting Gray Box. Note: This resource is consumed by a subsequent InkZoneCalculation Process.
Preview (Sheet)	w←	w←	r?	r?	The Manager SHALL specify a Preview (Sheet) resource if JDF/@Types contains "PreviewGeneration" and a Composite previews are required.
RunList (Sheet Exchange)	w	w	r	r	Note: This resource is consumed by a subsequent PlateSetting Gray Box.

4.7.2 ImpositionRIPing sent by a Worker

Table 4.23: ImpositionRIPing Gray Box sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Type</i>	r	r	w	w	See ▶ [JDF 1.8].
<i>ProcessGroup</i>	r	r	w	w	
<i>Types</i>	r	r	w	w	@ <i>Types</i> SHOULD be specified by the <i>Worker</i> to list the <i>Processes</i> executed by the <i>Worker</i> .

4.7.2.1 ImpositionRIPing sent by a Worker - Input Resources

Table 4.24: ImpositionRIPing sent by a Worker - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	

4.7.2.2 ImpositionRIPing sent by a Worker - Output Resources

Table 4.25: ImpositionRIPing sent by a Worker - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Preview</i> (Plate)	r?	r?	w←	w←	The <i>Worker</i> SHALL specify the <i>Preview</i> (Plate) resource if provided by the <i>Manager</i> . Note: This resource is consumed by a subsequent <i>InkZoneCalculation</i> <i>Process</i> .
<i>Preview</i> (Sheet)	r?	r?	w←	w←	If the <i>Worker</i> supports creating a <i>Composite</i> preview, it SHALL specify this <i>Preview</i> (Sheet) resource.
<i>RunList</i> (Sheet Exchange)	r	r	w	w	Note: This resource is consumed by a subsequent <i>PlateSetting</i> Gray Box.

4.8 ImpositionSoftProofing

The *Worker* sends files to a soft proofing engine or service that manages the approval of the *Imposition*.

4.8.1 ImpositionSoftProofing sent by a Manager

Table 4.26: ImpositionSoftProofing Gray Box sent by a Manager (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Category</i>	w	w	r	r	See ▶ [JDF 1.8].
MISPRE.ImpositionSoftProofing	w	w	r	r	

Table 4.26: ImpositionSoftProofing Gray Box sent by a Manager (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ICSVersions	w!	w!			See ▶ [JDF 1.8].
Type	w	w	r	r	See ▶ [JDF 1.8].
ProcessGroup	w	w	r	r	
Types	w	w	r	r	@Types SHALL be specified to maintain the relative order of the values listed below. The position of any other values is implementation dependent.
Imposition	w	w	r	r	
ColorSpaceConversion	w?	w?	r	r	The Manager SHALL specify a ColorSpaceConversion Process if it wants to ensure that the Worker generates the proof in a proper color controlled environment, and the proof is for approval of color and not just content. The Manager NEED NOT supply any details of the ColorSpaceConversion Process.
Approval	w	w	r	r	
<all other values>	w?	w?	r?	r?	

4.8.1.1 ImpositionSoftProofing sent by a Manager - Input Resources

Table 4.27: ImpositionSoftProofing sent by a Manager - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalParams	w	w	r	r	The Manager SHALL specify ApprovalParams and an Approval Process in JDF/@Types. If the value of @Status of the corresponding Partition of the ApprovalSuccess resource is not "Available", the Worker SHALL send the proof to the person that ApprovalParams specifies.
ColorantControl	w?	w?	r	r	ColorantControl contains information on color and separations. Note: For content proofing, ColorantControl is not needed.
Layout (Exchange)	w	w	r	r	This Layout SHOULD produce the same arrangement of Pages as the Layout for the PlateMaking Gray Box.
RunList (Document Exchange)	w	w	r	r	The ResourceLink linking to this resource SHALL specify @ProcessUsage="Document".
RunList (Marks Exchange)	w?	w?	r	r	The ResourceLink linking to this resource SHALL specify @ProcessUsage="Marks".

4.8.1.2 ImpositionSoftProofing sent by a Manager - Output Resources

Table 4.28: ImpositionSoftProofing sent by a Manager - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalSuccess (Exchange)	w	w	r	r	See ▶ [JDF 1.8].

4.8.2 ImpositionSoftProofing sent by a Worker

Table 4.29: ImpositionSoftProofing sent by a Worker Gray Box

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Type</i>	r	r	w	w	See ▶ [JDF 1.8].
<i>ProcessGroup</i>	r	r	w	w	
<i>Types</i>	r	r	w	w	@ <i>Types</i> SHOULD be specified by the <i>Worker</i> to list the <i>Processes</i> executed by the <i>Worker</i> .

4.8.2.1 ImpositionSoftProofing sent by a Worker - Input Resources

Table 4.30: ImpositionSoftProofing sent by a Worker - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	

4.8.2.2 ImpositionSoftProofing sent by a Worker - Output Resources

Table 4.31: ImpositionSoftProofing sent by a Worker - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalSuccess (Exchange)	r?	r?	w←	w←	See ▶ [JDF 1.8].

4.9 PageProofing

The *Worker* produces *Page* proofs (mainly for content proofing but possibly also for color proofing). The *Worker* delivers the *Page* proofs to an approver if an **Approval** *Process* is specified.

4.9.1 PageProofing sent by a Manager

Table 4.32: PageProofing Gray Box sent by a Manager

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Category</i>	w	w	r	r	See ▶ [JDF 1.8].
MISPRE.PageProofing	w	w	r	r	
<i>ICSVersions</i>	w!	w!			See ▶ [JDF 1.8].
<i>Type</i>	w	w	r	r	See ▶ [JDF 1.8].
ProcessGroup	w	w	r	r	
<i>Types</i>	w	w	r	r	@Types SHALL be specified to maintain the relative order of the values listed below. The position of any other values is implementation dependent.
ColorSpaceConversion	w?	w?	r	r	The Manager SHALL specify a ColorSpaceConversion Process if it wants to ensure that the Worker generates the proof in a proper color controlled environment, and the proof is for approval of color and not just content. The Manager NEED NOT supply any details of the ColorSpaceConversion Process.
ProofImaging	w	w	r	r	
Approval	w?	w?	r?	r?	
<all other values>	w?	w?	r?	r?	

4.9.1.1 PageProofing sent by a Manager - Input Resources

Table 4.33: PageProofing sent by a Manager - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalParams	w←	w←	r	r	The Manager SHALL specify ApprovalParams if JDF/@Types contains "Approval". If the value of @Status of the corresponding Partition of the ApprovalSuccess resource is not "Available", the Worker SHALL send the proof to the person that ApprovalParams specifies.
ColorantControl	w?	w?	r	r	ColorantControl contains information on color and separations. Note: For content proofing, ColorantControl is not needed.
Device (Proof)	w?	w?	r	r	See ▶ [JDF 1.8].
Media (Proof)	w	w	r	r	See ▶ [JDF 1.8].
RunList (Document Exchange)	w	w	r	r	The Manager SHALL specify this RunList (Document Exchange) in order to specify the proof Pages.

4.9.1.2 PageProofing sent by a Manager - Output Resources

Table 4.34: PageProofing sent by a Manager - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalSuccess (Exchange)	w←	w←	r	r	The Manager SHALL specify ApprovalSuccess if <i>JDF/@Types</i> contains "Approval".
ExposedMedia (Page Proof)	w	w	r	r	See ▶ [JDF 1.8].

4.9.2 PageProofing sent by a Worker

Table 4.35: PageProofing Gray Box sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Type</i>	r	r	w	w	See ▶ [JDF 1.8].
ProcessGroup	r	r	w	w	
<i>Types</i>	r	r	w	w	<i>@Types</i> SHOULD be specified by the Worker to list the Processes executed by the Worker.

4.9.2.1 PageProofing sent by a Worker - Input Resources

Table 4.36: PageProofing sent by a Worker - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Media (Proof)	r?	r?	w?	w?	The Worker SHOULD specify the Media with the actual values of the Media that were used.

4.9.2.2 PageProofing sent by a Worker - Output Resources

Table 4.37: PageProofing sent by a Worker - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalSuccess (Exchange)	r?	r?	w←	w←	The Worker SHALL specify ApprovalSuccess if <i>JDF/@Types</i> contains "Approval".
ExposedMedia (Page Proof)	r?	r?	w?	w?	The Worker SHOULD specify the ExposedMedia/Media with the actual values of the Media that was used.

4.10 PageSoftProofing

The Worker sends files to a soft proofing engine or service that manages the approval of the Pages.

4.10.1 PageSoftProofing sent by a Manager

Table 4.38: PageSoftProofing sent by a Manager Gray Box

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Category</i>	w	w	r	r	See ▶ [JDF 1.8].
MISPRE.PageSoftProofing	w	w	r	r	
<i>ICSVersions</i>	w!	w!			See ▶ [JDF 1.8].
<i>Type</i>	w	w	r	r	See ▶ [JDF 1.8].
ProcessGroup	w	w	r	r	
<i>Types</i>	w	w	r	r	@Types SHALL be specified to maintain the relative order of the values listed below. The position of any other values is implementation dependent.
ColorSpaceConversion	w?	w?	r	r	The Manager SHALL specify a ColorSpaceConversion Process if it wants to ensure that the Worker generates the proof in a proper color controlled environment, and the proof is for approval of color and not just content. The Manager NEED NOT supply any details of the ColorSpaceConversion Process.
Approval	w	w	r	r	
<all other values>	w?	w?	r?	r?	

4.10.1.1 PageSoftProofing sent by a Manager - Input Resources

Table 4.39: PageSoftProofing sent by a Manager - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalParams	w	w	r	r	If the value of @Status of the corresponding Partition of the ApprovalSuccess resource is not "Available", the Worker SHALL send the proof to the person specified by ApprovalParams.
ColorantControl	w?	w?	r	r	ColorantControl contains information on color and separations. Note: For content proofing, ColorantControl is not needed.
RunList (Document Exchange)	w	w	r	r	The Manager SHALL specify this RunList (Document Exchange) in order to specify the proof Pages.

4.10.1.2 PageSoftProofing sent by a Manager - Output Resources

Table 4.40: PageSoftProofing - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ApprovalSuccess (Exchange)	w	w	r	r	See ▶ [JDF 1.8].

4.10.2 PageSoftProofing sent by a Worker

Table 4.41: PageSoftProofing sent by a Worker Gray Box

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Type</i>	r	r	w	w	See ▶ [JDF 1.8].
<i>ProcessGroup</i>	r	r	w	w	
<i>Types</i>	r	r	w	w	@Types SHOULD be specified by the Worker to list the Processes executed by the Worker.

4.10.2.1 PageSoftProofing sent by a Worker - Input Resources

Table 4.42: PageSoftProofing sent by a Worker - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	

4.10.2.2 PageSoftProofing sent by a Worker - Output Resources

Table 4.43: PageSoftProofing - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ApprovalSuccess</i> (Exchange)	r?	r?	w←	w←	See ▶ [JDF 1.8].

4.11 PlateMaking

The Worker produces plates using the *ExposedMedia* resource.

If the *PreviewGeneration* Process is specified, the Worker SHALL produce *Preview* (Plate) resources as specified by the Manager (as an output resource) used for ink key settings in *ConventionalPrinting* and MAY specify a *Composite Sheet Preview* (Sheet) resource used for viewing purposes.

Note: The *PlateMaking* Gray Box MAY specify both *Preview* (Plate) and *Composite Sheet Preview* (Sheet) resources by specifying @Types = "Imposition RIPing PreviewGeneration PreviewGeneration ImageSetting".

If a Process group includes the *PageProofing* and *PlateMaking* Gray Boxes, then the *PlateMaking* Gray Box can process Pages after they are approved.

4.11.1 PlateMaking sent by a Manager

Table 4.44: PlateMaking sent by a Manager Gray Box (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Category</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>MISPRE.PlateMaking</i>	w	w	r	r	
<i>ICSVersions</i>	w!	w!			See ▶ [JDF 1.8].

Table 4.44: PlateMaking sent by a Manager Gray Box (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Type	w	w	r	r	See ▶ [JDF 1.8].
ProcessGroup	w	w	r	r	
Types	w	w	r	r	@Types SHALL be specified to maintain the relative order of the values listed below. The position of any other values is implementation dependent.
Imposition	w	w	r	r	
RIPing	w	w	r	r	The Worker SHALL perform RIPing Processes to provide a raster bytemap.
PreviewGeneration	w?	w?	r	r	
ImageSetting	w	w	r	r	
<all other values>	w?	w?	r?	r?	

4.11.1.1 PlateMaking sent by a Manager - Input Resources

Table 4.45: PlateMaking sent by a Manager - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ColorantControl (Imposition)	w	w	r	r	See ▶ [JDF 1.8].
Device (Plate)	w?	w?	r	r	See ▶ [JDF 1.8].
InterpretingParams	w?	w?	r	r	See ▶ [JDF 1.8].
Layout (Exchange)	w	w	r	r	See ▶ [JDF 1.8].
Media (Plate)	w	w	r	r	See ▶ [JDF 1.8].
PreviewGenerationParams (Plate)	w?	w?	r	r	PreviewGenerationParams (Plate) SHOULD be specified by the Manager if JDF/@Types contains "PreviewGeneration" and separation previews are required.
PreviewGenerationParams (Sheet)	w?	w?	r	r	PreviewGenerationParams (Sheet) SHOULD be specified by the Manager if JDF/@Types contains "PreviewGeneration" and Composite previews are required.
RunList (Document Exchange)	w	w	r	r	The ResourceLink linking to this resource SHALL specify @ProcessUsage="Document".
RunList (Marks Exchange)	w	w	r	r	The ResourceLink linking to this resource SHALL specify @ProcessUsage="Marks".

4.11.1.2 PlateMaking sent by a Manager - Output Resources

Table 4.46: PlateMaking sent by a Manager - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ExposedMedia (Plate)	w	w	r	r	See ▶ [JDF 1.8].
Preview (Plate)	w←	w←	r	r	The <i>Manager</i> SHALL specify a Preview (Plate) resource if <i>JDF/@Types</i> contains "PreviewGeneration" and separation previews are required. The Preview (Plate) SHALL be <i>Partitioned</i> identically to the ExposedMedia (Plate) output resource of the PlateMaking Gray Box. Note: This resource is consumed by a subsequent InkZoneCalculation Process.
Preview (Sheet)	w←	w←	r?	r?	The <i>Manager</i> SHALL specify a Preview (Sheet) resource if <i>JDF/@Types</i> contains "PreviewGeneration" and Composite previews are required.

4.11.2 PlateMaking sent by a Worker

Table 4.47: PlateMaking Gray Box

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Type</i>	r	r	w	w	See ▶ [JDF 1.8].
ProcessGroup	r	r	w	w	
<i>Types</i>	r	r	w	w	@Types SHOULD be specified by the <i>Worker</i> to list the Processes executed by the <i>Worker</i> .

4.11.2.1 PlateMaking sent by a Worker - Input Resources

Table 4.48: PlateMaking sent by a Worker - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Media (Plate)	r?	r?	w?	w?	The <i>Worker</i> SHOULD specify the Media with the actual values of the Media that were used.

4.11.2.2 PlateMaking sent by a Worker - Output Resources

Table 4.49: PlateMaking sent by a Worker - Output Resources (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ExposedMedia (Plate)	r?	r?	w?	w?	The <i>Worker</i> SHOULD specify the ExposedMedia / Media with the actual values of the Media that was used.

Table 4.49: PlateMaking sent by a Worker - Output Resources (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Preview</i> (Plate)	r?	r?	w	w	The Worker SHALL specify the <i>Preview</i> (Plate) resource. Note: This resource is consumed by a subsequent <i>InkZoneCalculation</i> Process.
<i>Preview</i> (Sheet)	r?	r?	w←	w←	If the Worker supports creating <i>Composite</i> previews, it SHALL specify this <i>Preview</i> (Sheet) resource.

4.12 PlateSetting

The Worker produces plates using the *ExposedMedia* resource for conventional printing and optionally bends them. See ▶ [MIS to Conventional Printing ICS].

4.12.1 PlateSetting sent by a Manager

Table 4.50: PlateSetting Gray Box sent by a Manager

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Category</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>MISPRE.PlateSetting</i>	w	w	r	r	
<i>ICSVersions</i>	w!	w!			See ▶ [JDF 1.8].
<i>Type</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>ProcessGroup</i>	w	w	r	r	
<i>Types</i>	w	w	r	r	@ <i>Types</i> SHALL be specified to maintain the relative order of the values listed below. The position of any other values is implementation dependent.
<i>ImageSetting</i>	w	w	r	r	
<all other values>	w?	w?	r?	r?	

4.12.1.1 PlateSetting sent by a Manager - Input Resources

Table 4.51: PlateSetting sent by a Manager - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ColorantControl</i> (Imposition)	w	w	r	r	See ▶ [JDF 1.8].
<i>Device</i> (Plate)	w?	w?	r	r	See ▶ [JDF 1.8].
<i>Media</i> (Plate)	w	w	r	r	See ▶ [JDF 1.8].
<i>RunList</i> (Sheet Exchange)	w	w	r	r	The Manager SHALL specify a <i>RunList</i> (Sheet Exchange) that is the output resource of a <i>Device</i> that has performed <i>RIPing</i> Processes, possibly specified in a <i>Gray Box</i> .

4.12.1.2 PlateSetting sent by a Manager - Output Resources

Table 4.52: PlateSetting sent by a Manager - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ExposedMedia (Plate)	w	w	r	r	See ▶ [JDF 1.8].

4.12.2 PlateSetting sent by a Worker

Table 4.53: PlateSetting Gray Box sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Type	r	r	w	w	See ▶ [JDF 1.8].
ProcessGroup	r	r	w	w	
Types	r	r	w	w	@Types SHOULD be specified by the Worker to list the Processes executed by the Worker.

4.12.2.1 PlateSetting sent by a Worker - Input Resources

Table 4.54: PlateSetting sent by a Worker - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Media (Plate)	r?	r?	w?	w?	The Worker SHOULD specify the Media with the actual values of the Media that was used.

4.12.2.2 PlateSetting sent by a Worker - Output Resources

Table 4.55: PlateSetting sent by a Worker - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ExposedMedia (Plate)	r?	r?	w?	w?	The Worker SHOULD specify the ExposedMedia / Media with the actual values of the Media that were used.

4.13 PrePressPreparation

For **PrePressPreparation**, the *Manager* SHALL either specify an input [RunList](#) (Document) that refers to the actual *Pages*, or SHALL specify an input [RunList](#) (Document Exchange).

Note: The input [RunList](#) (Document Exchange) SHALL be the same resource linked as the output [RunList](#) (Document Exchange) resource of a **ContentCreation** Gray Box.

The *Worker* SHALL specify the output [RunList](#) (Document Exchange) resource, populating it with *Pages*. These *Pages* are pre-flighted, normalized, and approved if needed. The [RunList](#) (Document Exchange) SHOULD be used as an input resource to Gray Boxes that require *Pages*.

PrePressPreparation usually requires some operator intervention.

4.13.1 PrePressPreparation sent by a Manager

Table 4.56: PrePressPreparation Gray Box sent by a Manager

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Category	w	w	r	r	See ▶ [JDF 1.8].
MISPRE.PrePressPreparation	w	w	r	r	
ICSVersions	w!	w!			See ▶ [JDF 1.8].
Type	w	w	r	r	See ▶ [JDF 1.8].
ProcessGroup	w	w	r	r	
Types	w	w	r	r	@Types SHALL be specified to maintain the relative order of the values listed below. The position of any other values is implementation dependent.
PrePressPreparation	w	w	r	r	PrePressPreparation SHALL be specified as the first value. Note: PrePressPreparation is an abstract Process that is not defined in the JDF specification.
DigitalDelivery	w?	w?	r?	r?	DigitalDelivery MAY be specified to upload Page content data.
PreviewGeneration	w?	w?	r?	r?	
PageAssigning	w?	w?	r?	r?	PageAssigning MAY be specified to assign proper Page order in the output RunList (Document Exchange).
<all other values>	w?	w?	r?	r?	

4.13.1.1 PrePressPreparation sent by a Manager - Input Resources

Table 4.57: PrePressPreparation sent by a Manager - Input Resources (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
DigitalDeliveryParams	w←	w←	r	r	DigitalDeliveryParams SHALL be specified if a DigitalDelivery Process has been specified in JDF/@Types.
PreviewGenerationParams (Page)	w←	w←	r	r	PreviewGenerationParams SHALL be specified by the Manager if JDF/@Types contains "PreviewGeneration".
RunList (Document)	w←	w←	r	r	The Manager SHALL specify a RunList (Document) if the Pages are not to be supplied by a ContentCreation Gray Box. The Manager SHALL supply the number of (reader) Pages in RunList/@NPage, and MAY supply a reference to content files. The value of RunList/@NPage is the total number of (reader) Pages that the Manager expects to be delivered, even if the RunList (Document) will eventually contain content files for Multiple Product Versions or Multiple Product Parts. Note: The Manager can usually only provide information about the number of finished Pages. The Manager SHALL specify exactly one of RunList (Document) or RunList (Document Exchange).

Table 4.57: PrePressPreparation sent by a Manager - Input Resources (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
RunList (Document Exchange)	w←	w←	r	r	The Manager SHALL specify a RunList (Document Exchange) if the Pages are to be supplied by a ContentCreation Gray Box. The Manager SHALL specify exactly one of RunList (Document Exchange) or RunList (Document).

4.13.1.2 PrePressPreparation sent by a Manager - Output Resources

Table 4.58: PrePressPreparation sent by a Manager - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Preview (Page)	w←	w←	r?	r?	Preview (Page) SHALL be specified by the Manager if JDF/@Types contains "PreviewGeneration".
RunList (Document Exchange)	w←	w←	r	r	This RunList (Document Exchange) is used as an input resource to Gray Boxes that require Pages.

4.13.2 PrePressPreparation sent by a Worker

Table 4.59: PrePressPreparation Gray Box sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Type	r	r	w	w	See ▶ [JDF 1.8].
ProcessGroup	r	r	w	w	
Types	r	r	w	w	@Types SHOULD be specified by the Worker to list the Processes executed by the Worker.

4.13.2.1 PrePressPreparation sent by a Worker - Input Resources

Table 4.60: PrePressPreparation sent by a Worker - Input Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	

4.13.2.2 PrePressPreparation sent by a Worker - Output Resources

Table 4.61: PrePressPreparation sent by a Worker - Output Resources

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Preview (Page)	r?	r?	w←	w←	If the Worker supports creating a Page preview, it SHALL specify this Preview (Page) resource.
RunList (Document Exchange)	r	r	w←	w←	This RunList (Document Exchange) is used as an input resource to Gray Boxes that require Pages.

5 Messages

This chapter discusses the *Conformance Requirements* for **JMF** messages.

5.1 Message Types

The following table specifies the *Conformance Requirements* for message types that *Managers* and *Workers* SHALL support. The specific details of *Conformance Requirements* for each message type is described later in this chapter. *Managers* and *Workers* SHALL support all message types required by the ▶ [Messaging ICS] and ▶ [Management Information System ICS], and MAY support other message types.

Table 5.1: JMF Message Types

MESSAGE TYPE	MESSAGE FAMILY	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
		1	2	1	2	
Resource (Media Plate) Tracking Resource Consumption	Query		w		r	These Resource messages are used by the <i>Manager</i> to request updates from the <i>Worker</i> regarding plate media consumption.
	Response		r		w	
	Signal		r		w	
Resource (Media Plate) Requesting a Worker's Resource Catalog	Query		w		r	The <i>Worker</i> SHALL provide its plate catalog to the <i>Manager</i> .
	Response		r		w	

5.2 JMF

The following table specifies the details of **JMF** specific to this ICS. For additional *Conformance Requirements*, see ▶ [Management Information System ICS].

Table 5.2: JMF Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ICSVersions</i>		w r?		r? w	See ▶ [Messaging ICS].
MISPRE_L2-1.8		w r?		r? w	Specifies conformance to the MIS to Prepress ICS <i>Conformance Level 2</i> .
<all other values>		w← r?		r? w←	@ <i>ICSVersions</i> SHALL contain all the values specified in the ICS documents that are required for conformance to this ICS as specified in ▶ Table 2.1 Conformance Levels.

5.3 Resource

Resource messages are provided for reporting plate media consumption and requesting plate media catalogs.

5.3.1 Resource Messages for Tracking Resource Consumption

These **Resource** messages are used by the *Manager* to request updates from the *Worker* regarding plate media consumption.

5.3.1.1 Query

Table 5.3: Resource Query Message for Subscribing to Resource Consumption Signals - Media

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ResourceQuParams		w		r	See ▶ [Management Information System ICS].

5.3.1.1.1 ResourceQuParams

[ResourceQuParams](#) used to subscribe for plate media consumption signals. The following table only defines the table rows specific to this ICS. See ▶ [Management Information System ICS] for additional requirements.

Table 5.4: ResourceQuParams Element for Subscribing to Resource Consumption Signals - Media

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ResourceName		w		r	See ▶ [JDF 1.8].
Media		w		r	The consumption of plate media SHALL be supported.

5.3.1.2 Response

See ▶ [Management Information System ICS], this ICS requires no additional conformance.

5.3.1.3 Signal

[Resource Signal](#) message containing plate media consumption information. The following table only defines the table rows specific to this ICS. See ▶ [Management Information System ICS] for additional requirements.

Table 5.5: Resource Signal for Tracking Resource Consumption - Media

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ResourceInfo		r		w	See ▶ [Management Information System ICS].
ResourceQuParams		r		w	See ▶ [Management Information System ICS].

5.3.1.3.1 ResourceInfo

The following table only defines the *Conformance Requirement Traits* specific to this ICS. See ▶ [Management Information System ICS] for additional requirements.

Table 5.6: ResourceInfo Element for Tracking Resource Consumption - Media

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ProductID		r		w←	The Worker SHALL specify either @ProductID or Media , but SHALL NOT specify both.
Media		r		w←	The Worker SHALL specify either Media or @ProductID , but SHALL NOT specify both.

5.3.1.3.2 ResourceQuParams

The following table only defines the *Conformance Requirement Traits* specific to this ICS. See ▶ [Management Information System ICS] for additional requirements.

Table 5.7: ResourceQuParams Element for Tracking Resource Consumption - Media

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Part</i>		r		w	See ▶ [JDF 1.8].

5.3.1.3.3 Part

Table 5.8: Part Element for Tracking Resource Consumption - Media

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartVersion</i>		r?		w?	
<i>Separation</i>		r		w	
<i>SheetName</i>		r		w	
<i>Side</i>		r		w	
<i>SignatureName</i>		r		w	
<all other values>				w!	

5.3.2 Resource Messages for Requesting a Worker's Resource Catalog

A Prepress Workflow System can provide information regarding plate media to the *Manager*.

5.3.2.1 Query

Table 5.9: Resource Query Message for Requesting a Worker's Resource Catalog

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ID</i>		w		r	See ▶ [JDF 1.8].
<i>Type</i>		w		r	See ▶ [JDF 1.8].
<i>Resource</i>		w		r	
<i>ResourceQuParams</i>		w		r	See ▶ [JDF 1.8].

5.3.2.1.1 ResourceQuParams

The following table only defines the *Conformance Requirement Traits* specific to this ICS. See ▶ [Management Information System ICS] for additional requirements.

Table 5.10: ResourceQuParams Element for Requesting a Worker's Resource Catalog

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ResourceName		w		r	See ▶ [Management Information System ICS].
Media		w		r?	For plate media.

5.3.2.2 Response

The following table only defines the *Conformance Requirement Traits* specific to this ICS. See ▶ [Management Information System ICS] for additional requirements.

Table 5.11: Resource Response Message for Requesting a Worker's Resource Catalog

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ResourceInfo		r		w	See ▶ [JDF 1.8].

5.3.2.2.1 ResourceInfo

The following table only defines the *Conformance Requirement Traits* specific to this ICS. See ▶ [Management Information System ICS] for additional requirements.

Table 5.12: ResourceInfo Element for Requesting a Worker's Resource Catalog

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Media		r		w	See ▶ [JDF 1.8].

6 Resources

6.1 ApprovalParams

6.1.1 ApprovalParams - Page Proofing

Table 6.1: ApprovalParams Resource - Page Proofing

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>MinApprovals</i>	w?	w?	r?	r?	If ApprovalPerson / @ApprovalRole contains "Group", then either @MinApprovals SHALL NOT be specified, or if specified SHALL have a value of "1".
<i>PartIDKeys</i>	w?	w?	r	r	If @PartIDKeys is specified, it SHALL be specified with values that follow the order below.
PageNumber	w	w←	r	r	For <i>Conformance Level 2</i> , at least one of the " PageNumber " or " PartVersion " Partition Keys SHALL be specified.
PartVersion	w!	w←		r	For <i>Conformance Level 2</i> , at least one of the " PartVersion " or " PageNumber " Partition Keys SHALL be specified.
<all other values>	w!	w!			
ApprovalPerson	w	w	r	r	The Worker SHALL support at least one ApprovalPerson .

6.1.2 ApprovalParams - Imposition Proofing

Table 6.2: ApprovalParams Resource - Imposition Proofing

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>MinApprovals</i>	w?	w?	r?	r?	If ApprovalPerson / @ApprovalRole contains "Group", then either @MinApprovals SHALL NOT be specified, or if specified SHALL have a value of "1".
<i>PartIDKeys</i>	w?	w?	r	r	If @PartIDKeys is specified, it SHALL be specified with values that follow the order below.
SignatureName	w	w	r	r	
SheetName	w	w	r	r	
Side	w?	w?	r	r	
PartVersion	w!	w?		r	
<all other values>	w!	w!			
ApprovalPerson	w	w	r	r	The Worker SHALL support at least one ApprovalPerson .

6.1.3 ApprovalPerson

Table 6.3: ApprovalPerson Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ApprovalRole</i>	w	w	r	r	Conformance Test: The <i>ApprovalPerson</i> with @ <i>ApprovalRole</i> = "Obligated" SHALL be notified. The test SHOULD be conducted with at least two different contacts.
Group	w←	w←	r	r	
Informative	w←	w←	r	r	
Obligated	w←	w←	r	r	
Approvinator	w←	w←	r?	r?	
<i>Contact</i>	w	w	r	r	See ▶ [JDF 1.8].

6.2 ApprovalSuccess

ApprovalSuccess is an *Exchange* resource that is optionally used when a *Gray Box* is to wait until work completed by another *Gray Box* has been approved. Typically the *Manager* specifies an empty *ApprovalSuccess* resource and MAY specify the *Partitions*. The *Worker* adds the details by specifying @*Status* and *ApprovalDetails*.

Gray Boxes that are required to wait until the approval(s) have been completed use the *ApprovalSuccess* resource as an input resource.

6.2.1 ApprovalSuccess sent by a Manager

Table 6.4: ApprovalSuccess Resource sent by a Manager

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Status</i>	w	w	r	r	See ▶ [JDF 1.8].
Unavailable	w	w	r	r	

6.2.2 ApprovalSuccess sent by a Worker

Table 6.5: ApprovalSuccess Resource sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Status</i>	r	r	w	w	See ▶ [JDF 1.8].
Available	r?	r?	w←	w←	The <i>Worker</i> SHALL specify @ <i>Status</i> = "Available" if the <i>Exchange ApprovalSuccess</i> is successfully created.
Unavailable	r	r	w←	w←	The <i>Worker</i> SHALL specify @ <i>Status</i> = "Unavailable" if the <i>Exchange ApprovalSuccess</i> is not successfully created.
<all other values>			w!	w!	
<i>ApprovalDetails</i>	r?	r?	w	w	See ▶ [JDF 1.8].

6.2.3 ApprovalDetails

Table 6.6: ApprovalDetails Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ApprovalState</i>	r	r	w	w	See ▶ [JDF 1.8].
<i>Contact</i>	r?	r?	w	w	See ▶ [JDF 1.8].

6.3 Assembly

Table 6.7: Assembly Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>BindingSide</i>	w←	w←	r	r	@ <i>BindingSide</i> SHALL be specified for bound work.
<i>JobID</i>	w?	w?	r?	r?	See ▶ [JDF 1.8].
<i>Order</i>	w	w	r	r	For <i>Conformance Level 1</i> the Manager SHALL specify @ <i>Order</i> with a value of "Collecting", "Gathering" or "None". For <i>Conformance Level 2</i> the Manager SHALL specify @ <i>Order</i> with a value of "List" or "None".
Collecting	w←	w!	r		
Gathering	w←	w!	r		
List	w!	w←		r	
None	w←	w←	r	r	
<i>PartIDKeys</i>		w←		r	@ <i>PartIDKeys</i> SHALL be specified when <i>Multiple Product Versions</i> are Imposed together on one Sheet.
<i>PartVersion</i>		w		r	
<all other values>		w!			
<i>AssemblySection</i>		w←		r	<i>AssemblySection</i> SHALL be specified when @ <i>Order</i> = "List".
<i>PageAssignedList</i>		w←		r?	<i>PageAssignedList</i> SHALL be specified when <i>Multiple Product Versions</i> or <i>Multiple Product Parts</i> are Imposed together on one Sheet.
<i>PageList</i>		w←		r?	<i>PageList</i> SHALL be specified when <i>Multiple Product Versions</i> or <i>Multiple Product Parts</i> are Imposed together on one Sheet.

6.3.1 AssemblySection

Table 6.8: AssemblySection Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>AssemblyIDs</i>		w		r	See ▶ [JDF 1.8].

6.3.2 PageAssignedList

Table 6.9: PageAssignedList Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PageListIndex</i>		w		r	See ▶ [JDF 1.8].

6.4 BinderySignature

Note: Only folds that are part of the *Product* intent SHALL be specified (using *@FoldCatalog* or *SignatureCell* elements). *Packaging Folds* SHALL NOT be defined, e.g., a poster that is folded to allow it to be fitted in a magazine is still flatwork using *@FoldCatalog="F2-1"*.

Table 6.10: BinderySignature Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>BinderySignatureType</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>BindingEdge</i>	w←	w←	r?	r?	<i>@BindingEdge</i> shall be specified for bound <i>Bindery Signatures</i> .
<i>FoldCatalog</i>	w←	w←	r	r	<i>@FoldCatalog</i> SHALL be specified if <i>@BinderySignatureType</i> = "Fold". <i>@FoldCatalog</i> SHALL NOT be specified if <i>SignatureCell</i> is specified. If <i>@FoldCatalog</i> is specified, it SHALL only use values from those listed in the JDF appendix 'Fold Catalog', see ▶ [JDF 1.8].
<i>NumberUp</i>		w←		r	<i>@NumberUp</i> SHALL be specified if <i>SignatureCell</i> is specified.
<i>DieLayout</i>		w←		r?	<i>DieLayout</i> SHALL only be specified if <i>@BinderySignatureType</i> = "Die".
<i>SignatureCell</i>		w←		r?	<i>SignatureCell</i> SHALL be specified if <i>@BinderySignatureType</i> = "Grid" or "Fold". <i>SignatureCell</i> SHALL NOT be specified if <i>@FoldCatalog</i> is specified.

6.4.1 SignatureCell

Table 6.11: SignatureCell Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>BackPages</i>		w←		r	<i>@BackPages</i> SHALL be specified if <i>SignatureCell</i> describes duplex <i>Pages</i> .
<i>FrontPages</i>		w		r	See ▶ [JDF 1.8].
<i>Orientation</i>		w		r	See ▶ [JDF 1.8].

6.5 Color

Table 6.12: Color Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>CMYK</i>	w←	w←	r	r	<p><i>@CMYK</i> SHALL be specified if the color is a standard CMYK process colorant regardless of the value of <i>@Name</i>. For example, a black text plate can be defined by <i>Partitioning Color</i> using <i>@Separation</i> = "Text" and specifying <i>@CMYK</i> = "0 0 0 1".</p> <p>Conformance Test: A proof shows the specified CMYK value for a color that is not part of a color book.</p>
<i>ColorBook</i>	w?	w?	r?	r?	<i>@ColorBook</i> SHOULD be specified if the color is part of a color book.
<i>ColorBookEntry</i>	w?	w?	r?	r?	<i>@ColorBookEntry</i> SHOULD be specified if the color is part of a color book.
<i>Name</i>	w	w	r	r	<p>The <i>Manager</i> SHALL specify <i>@Name</i>, its value SHOULD be a real color name. However, <i>@Name</i> MAY be specified using a generic placeholder like "Spot", "Spot1", "Spot02", "Metallic01", etc.</p> <p>Conformance Test: A proof shows the specified color if the value of <i>@Name</i> is part of a color book that the <i>Worker</i> supports.</p>
<i>PartIDKeys</i>	w!	w!			See ▶ [JDF 1.8].
<i>PrintingTechnology</i>	w?	w?	r?	r?	<i>@PrintingTechnology</i> SHOULD be specified if the color is part of a color book.

6.6 ColorantControl

6.6.1 ColorantControl - Imposition

Table 6.13: ColorantControl Resource - Imposition (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartIDKeys</i>	w?	w?	r	r	If specified, <i>@PartIDKeys</i> SHALL be specified with values that follow the order specified below.
<i>SignatureName</i>	w	w	r	r	
<i>SheetName</i>	w	w	r	r	
<i>Side</i>	w?	w?	r	r	
<i>PartVersion</i>	w!	w?		r?	
<all other values>	w!	w!			
<i>ProcessColorModel</i>	w?	w?	r	r	<p>See ▶ [JDF 1.8].</p> <p>Conformance Test: Check the output for different combinations of <i>@ProcessColorModel</i> and <i>ColorantParams</i>.</p>

Table 6.13: ColorantControl Resource - Imposition (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
DeviceCMYK	w←	w←	r	r	
DeviceGray	w←	w←	r	r	Note: This value is also used to specify black and a spot color.
DeviceN	w←	w←	r?	r?	
None	w←	w←	r?	r?	
<all other values>	w!	w!			
ColorantOrder	w←	w←	r	r	See ▶ [JDF 1.8] for the conditions when ColorantOrder SHALL be specified. Conformance Test: Only the separations specified by the combination of the @ProcessColorModel attribute and the list of ColorantParams/SeparationSpec/@Name values SHALL be output and no other colors. The test SHALL be conducted with a ColorantOrder that contains fewer SeparationSpec elements than specified by that combination.
ColorantParams	w←	w←	r	r	See ▶ [JDF 1.8] for the conditions when ColorantParams SHALL be specified. Conformance Test: The RIP SHALL only create bitmaps for separations specified by the combination of the @ProcessColorModel attribute and the list of ColorantParams/SeparationSpec/@Name values. Other colors SHALL be converted to the default process color model.
ColorPool	w?	w?	r	r	See ▶ [JDF 1.8].
DeviceNSpace	w←	w←	r?	r?	DeviceNSpace SHALL be specified if @ProcessColorModel = "DeviceN".

6.6.2 ColorantControl - Page Proofing

Table 6.14: ColorantControl Resource - Page Proofing (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
PartIDKeys	w?	w?	r	r	If specified, @PartIDKeys SHALL be specified with values that follow the order specified below.
PageNumber	w	w	r	r	
PartVersion	w!	w?		r?	
<all other values>	w!	w!			
ProcessColorModel	w?	w?	r	r	See ▶ [JDF 1.8]. Conformance Test: Check the output for different combinations of @ProcessColorModel and ColorantParams .
DeviceCMYK	w←	w←	r	r	

Table 6.14: ColorantControl Resource - Page Proofing (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
DeviceGray	w←	w←	r	r	Note: This value is also used to specify black and a spot color.
DeviceN	w←	w←	r?	r?	
None	w←	w←	r?	r?	
<all other values>	w!	w!			
ColorantOrder	w←	w←	r	r	See ▶ [JDF 1.8] for the conditions when ColorantOrder SHALL be specified. Conformance Test: Only the separations specified by the combination of the @ProcessColorModel attribute and the list of ColorantParams/SeparationSpec/@Name values SHALL be output and no other colors. The test SHALL be conducted with a ColorantOrder that contains fewer SeparationSpec elements than specified by that combination.
ColorantParams	w←	w←	r	r	See ▶ [JDF 1.8] for the conditions when ColorantParams SHALL be specified. Conformance Test: The RIP SHALL only create bitmaps for separations specified by the combination of the @ProcessColorModel attribute and the list of ColorantParams/SeparationSpec/@Name values. Other colors SHALL be converted to the default process color model.
ColorPool	w?	w?	r	r	See ▶ [JDF 1.8].
DeviceNSpace	w←	w←	r?	r?	DeviceNSpace SHALL be specified if @ProcessColorModel = "DeviceN".

6.6.3 ColorantOrder

Table 6.15: ColorantOrder Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
SeparationSpec	w	w	r	r	See ▶ [JDF 1.8].

6.6.4 ColorantParams

Table 6.16: ColorantParams Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
SeparationSpec	w←	w←	r	r	See ▶ [JDF 1.8] for the conditions when SeparationSpec SHALL be specified.

6.7 ColorPool

Table 6.17: ColorPool Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartIDKeys</i>	w!	w!			See ▶ [JDF 1.8].
<i>Color</i>	w	w	r	r	See ▶ [JDF 1.8].

6.8 Component

Table 6.18: Component Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ComponentType</i>	w	w	r?	r?	See ▶ [JDF 1.8].

6.9 Contact

A single **Contact** resource may represent a multi-role entity by amalgamating the appropriate @ContactTypes values.

6.9.1 Contact - ApprovalPerson

This **Contact** is used in *ApprovalParams/ApprovalPerson*.

Table 6.19: Contact Resource - ApprovalPerson

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ContactTypes</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>Approver</i>	w	w	r?	r?	
<all other values>	w?	w?	r?	r?	
<i>Company</i>	w←	w←	r?	r?	At least one of <i>Company</i> or <i>Person</i> SHALL be specified.
<i>Person</i>	w←	w←	r?	r?	At least one of <i>Person</i> or <i>Company</i> SHALL be specified.

6.9.2 Contact - ApprovalDetails

This **Contact** is used in *ApprovalSuccess/ApprovalDetails*.

Table 6.20: Contact Resource - ApprovalDetails (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ContactTypes</i>	r	r	w	w	See ▶ [JDF 1.8].
<i>Approver</i>	r?	r?	w	w	
<all other values>	r?	r?	w?	w?	

Table 6.20: Contact Resource - ApprovalDetails (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Company</i>	r?	r?	w←	w←	At least one of <i>Company</i> or <i>Person</i> SHALL be specified.
<i>Person</i>	r?	r?	w←	w←	At least one of <i>Person</i> or <i>Company</i> SHALL be specified.

6.9.3 Contact - CustomerInfo

This ICS has no additional requirements for *Contact* beyond those expressed in the MIS ICS. See ▶ [Management Information System ICS].

6.9.4 Contact - DigitalDeliveryParams

Contact specifies the contact and communication channel for use with *DigitalDeliveryParams*.

Table 6.21: Contact Resource - DigitalDeliveryParams

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ContactTypes</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>Sender</i>	w	w	r	r	
<all other values>	w?	w?	r?	r?	
<i>ComChannel</i>	w?	w?	r	r	See ▶ [JDF 1.8].

6.9.4.1 ComChannel

Table 6.22: ComChannel Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ChannelType</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>Email</i>	w←	w←	r?	r?	If <i>@ChannelType</i> = "Email", then <i>@Locator</i> specifies an email address with a mailto scheme.
<i>WWW</i>	w←	w←	r	r	If <i>@ChannelType</i> = "WWW", then <i>@Locator</i> specifies the URL of an http home page or form.
<i>ChannelTypeDetails</i>	w?	w?	r	r	See ▶ [JDF 1.8].
<i>Locator</i>	w	w	r	r	See ▶ [JDF 1.8].

6.10 CustomerInfo

This ICS has no additional requirements for *CustomerInfo* beyond those expressed in the MIS ICS. See ▶ [Management Information System ICS].

6.11 Device

This ICS requires that a *Device* resource is specified with an appropriate value or values in the *@DeviceClass* attribute. However, *Gray Boxes* usually wish to loosely specify a number of *@DeviceClass* values that are suitable for the *Conformance Requirement*. To achieve this the ICS allows *Gray Boxes* to specify *Device* resources with a key value from which the actual *@DeviceClass* values can be found using ▶ Table 6.24 DeviceClass values for Device Keys. For example, *DigitalPrintingPreparation* specifies a *Device* (*DigitalPress*) resource, which allows for *@DeviceClass* values of

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IntegratedDigitalPrinter, SheetFedDigitalPrinter and WebDigitalPrinter, one or more of which SHALL be used for **Device**/
@DeviceClass.

Table 6.23: Device Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
DeviceClass	w←	w←	r?	r?	@DeviceClass SHALL be specified if the Gray Box input Device resource requires a specific type of Device and SHOULD be specified otherwise.
DeviceID	w	w	r	r	See ▶ [JDF 1.8].

6.11.1 DeviceClass values for Device resource key values

In the following table one or more of the list values from the '@DEVICECLASS VALUES' column SHALL be used for the @DeviceClass attribute of **Device** resources where a Gray Box specified a **Device** resource with a matching 'DEVICE KEY' value.

Table 6.24: DeviceClass values for Device Keys

DEVICE KEY	@DEVICECLASS VALUES	GRAY BOX USAGE
DigitalPress	IntegratedDigitalPrinter	Referenced from the DigitalPrintingPreparation Gray Box.
	SheetFedDigitalPrinter	
	WebDigitalPrinter	
Plate	PlateSetter	Referenced from the ImpositionRIPing , PlateMaking or PlateSetting Gray Boxes.
PrintingPress	IntegratedDigitalPrinter	Referenced from the StrippingParams resource.
	MultipleWebConventionalPress	
	PrintingPress	
	SheetFedConventionalPress	
	SheetFedDigitalPrinter	
	SingleWebConventionalPress	
	WebDigitalPrinter	
Proof	HardCopyProofer	Referenced from the ImpositionProofing or PageProofing Gray Boxes.
	SoftCopyProofer	

6.12 DieLayout

Table 6.25: DieLayout Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
FileSpec		w		r	See ▶ [JDF 1.8].

6.13 DigitalDeliveryParams

Table 6.26: DigitalDeliveryParams Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Contact	w	w	r	r	Contact specifies the person that SHALL upload the artwork. Conformance Test: The artwork is delivered to the address specified.

6.14 DigitalPrintingParams

See ▶ [JDF 1.8].

6.15 ExposedMedia

The *Manager* creates and supplies the **ExposedMedia** resource and the *Worker* updates it.

6.15.1 ExposedMedia - Imposition Proof

6.15.1.1 ExposedMedia sent by a Manager - Imposition Proof

ExposedMedia is used for 'Imposition Proof' media.

Table 6.27: ExposedMedia Resource sent by a Manager - Imposition Proof

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
PartIDKeys	w	w	r	r	@ PartIDKeys SHALL be specified with values that follow the order specified below.
SignatureName	w	w	r	r	
SheetName	w	w	r	r	
Side	w	w	r	r	
PartVersion	w!	w?		r	
<all other values>	w!	w!			
Status	w	w	r	r	See ▶ [JDF 1.8].
Unavailable	w	w	r	r	The <i>Worker</i> SHALL specify @ Status = "Unavailable" if the imposition proof ExposedMedia is not successfully created.
Media (Proof)	w	w	r	r	This Media SHALL be the same physical XML object as used as an input resource to an ImpositionProofing Gray Box.

6.15.1.2 ExposedMedia sent by a Worker - Imposition Proof

ExposedMedia is used for 'Imposition Proof' media.

Table 6.28: ExposedMedia Resource sent by a Worker - Imposition Proof (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Status	r	r	w	w	See ▶ [JDF 1.8].

Table 6.28: ExposedMedia Resource sent by a Worker - Imposition Proof (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Available	r?	r?	w←	w←	The Worker SHALL specify @Status = "Available" if the imposition proof ExposedMedia is successfully created.
Unavailable	r	r	w←	w←	The Worker SHALL specify @Status = "Unavailable" if the imposition proof ExposedMedia is not successfully created.
<all other values>			w!	w!	
Media (Proof)	r?	r?	w	w	This Media SHALL be the same physical XML object as used as an input resource to an ImpositionProofing Gray Box.

6.15.2 ExposedMedia - Page Proof

6.15.2.1 ExposedMedia sent by a Manager - Page Proof

ExposedMedia is used for 'Page Proof' media.

Table 6.29: ExposedMedia Resource sent by a Manager - Page Proof

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
PartIDKeys	w?	w?	r	r	If specified, @PartIDKeys SHALL be specified with values that follow the order specified below.
PageNumber	w	w?	r?	r	Note: The value of the "PageNumber" Partition references Pages in a PageList and is not an index in a RunList.
PartVersion	w!	w?		r	
<all other values>	w!	w!			
Status	w	w	r	r	See ▶ [JDF 1.8].
Unavailable	w	w	r	r	
Media (Proof)	w	w	r	r	This Media SHALL be the same physical XML object as used as an input resource to a PageProofing Gray Box.

6.15.2.2 ExposedMedia sent by a Worker - Page Proof

ExposedMedia is used for 'Page Proof' media.

Table 6.30: ExposedMedia Resource sent by a Worker - Page Proof (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Status	r	r	w	w	See ▶ [JDF 1.8].
Available	r?	r?	w←	w←	The Worker SHALL specify @Status = "Available" if the page proof ExposedMedia is successfully created.
Unavailable	r	r	w←	w←	The Worker SHALL specify @Status = "Unavailable" if the page proof ExposedMedia is not successfully created.
<all other values>			w!	w!	

Table 6.30: ExposedMedia Resource sent by a Worker - Page Proof (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Media</i> (Proof)	r?	r?	w	w	This <i>Media</i> SHALL be the same physical XML object as used as an input resource to a <i>PageProofing</i> Gray Box.

6.15.3 ExposedMedia - Plate

6.15.3.1 ExposedMedia sent by a Manager - Plate

ExposedMedia is used for 'Plate' media.

Table 6.31: ExposedMedia Resource sent by a Manager - Plate

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartIDKeys</i>	w	w	r	r	@ <i>PartIDKeys</i> SHALL be specified with values that follow the order specified below.
<i>SignatureName</i>	w	w	r	r	
<i>SheetName</i>	w	w	r	r	
<i>Side</i>	w	w	r	r	
<i>Separation</i>	w	w	r	r	
<i>PartVersion</i>	w!	w?		r	
<all other values>	w!	w!			
<i>PartUsage</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>Explicit</i>	w	w<	r	r	
<i>Sparse</i>		w<		r?	@ <i>PartUsage</i> = " <i>Sparse</i> " SHALL be specified if the plates are reused for versioning.
<all other values>	w!	w!			
<i>ProductID</i>	w?	w?	r	r	@ <i>ProductID</i> SHALL uniquely identify the plate.
<i>Status</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>Unavailable</i>	w	w	r	r	
<i>Media</i> (Plate)	w	w	r	r	This <i>Media</i> SHALL be the same physical XML object as used as an input resource to a Gray Box containing the <i>ImageSetting</i> Process.

6.15.3.2 ExposedMedia sent by a Worker - Plate

ExposedMedia is used for 'Plate' media.

Table 6.32: *ExposedMedia Resource sent by a Worker - Plate*

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>ProductID</i>	r?	r?	w←	w←	The value of @ <i>ProductID</i> SHALL be preserved by the <i>Worker</i> when returning <i>ExposedMedia</i> to the <i>Manager</i> .
<i>Status</i>	r	r	w	w	See ▶ [JDF 1.8].
Available	r?	r?	w←	w←	The <i>Worker</i> SHALL specify @ <i>Status</i> = "Available" if the plate <i>ExposedMedia</i> is successfully created.
Unavailable	r	r	w←	w←	The <i>Worker</i> SHALL specify @ <i>Status</i> = "Unavailable" if the plate <i>ExposedMedia</i> is not successfully created.
<all other values>			w!	w!	
<i>Media</i> (Plate)	r?	r?	w	w	This <i>Media</i> SHALL be the same physical XML object as used as an input resource to a <i>Gray Box</i> containing the <i>ImageSetting Process</i> .

6.16 FileSpec

Table 6.33: *FileSpec Resource*

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>URL</i>	w	w	r	r	See ▶ [JDF 1.8].

6.17 IdentificationField

Table 6.34: *IdentificationField Resource*

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Encoding</i>	w	w	r	r	See ▶ [JDF 1.8].
Barcode	w	w	r	r	
<i>EncodingDetails</i>	w	w	r	r	@ <i>EncodingDetails</i> SHALL specify the type of barcode. Conformance Test: The <i>Worker</i> SHALL support at least two values of @ <i>EncodingDetails</i> or the <i>Worker</i> SHALL support at least one value of @ <i>EncodingDetails</i> and generate an error for unsupported values. The output SHALL contain the barcode specified in @ <i>EncodingDetails</i> .
<i>Value</i>	w	w	r	r	@ <i>Value</i> SHALL specify the value of the barcode. Conformance Test: The output SHALL contain the proper value. The test should be conducted with two different values of @ <i>Value</i> .

6.18 InterpretingParams

Table 6.35: InterpretingParams Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartIDKeys</i>	w←	w←	r	r	<i>InterpretingParams</i> SHALL be <i>Partitioned</i> if web growth compensation is required. Conformance Test: <i>InterpretingParams</i> is <i>Partitioned</i> by " <i>Separation</i> " if the <i>Manager</i> requests web growth compensation.
<i>Separation</i>	w	w	r?	r?	<i>InterpretingParams</i> SHALL be <i>Partitioned</i> by " <i>Separation</i> " if the <i>Manager</i> requests web growth compensation.
<i>Scaling</i>	w?	w?	r?	r?	@ <i>Scaling</i> is used for compensation in flexo and web growth.
<i>ScalingOrigin</i>	w?	w?	r?	r?	@ <i>ScalingOrigin</i> is used for compensation in flexo and web growth.
<i>Media (Paper)</i>	w?	w?	r	r	See ▶ [JDF 1.8].

6.19 Layout

MIS provides the structure including all required *Partitions*, no further details need be specified. The *ImpositionPreparation Gray Box* adds the details.

Layout SHALL NOT describe surfaces that will not have *ContentObject* elements (e.g., only front surface SHALL be specified for "*WorkAndTurn*" and "*WorkAndTumble*" work styles).

The order of the *Sheets* in the *Layout* structure NEED NOT describe the expected binding order. That order is only described by the *Detailed Assembly Resource*.

Conformance Test:

Certify an "r" by verifying the output. Returned *JDF* nodes and *JMF* messages that include *Layout* SHALL preserve the structure during testing. See ▶ Section 1.3 Certification.

6.19.1 Layout sent by a Manager

Table 6.36: Layout Resource sent by a Manager

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>DescriptiveName</i>	w?	w?	r?	r?	See ▶ [JDF 1.8].
<i>PartIDKeys</i>	w	w	r	r	@ <i>PartIDKeys</i> SHALL be specified with values that follow the order specified below.
<i>SignatureName</i>	w	w	r	r	
<i>SheetName</i>	w	w	r	r	
<i>Side</i>	w	w	r	r	
<all other values>	w!	w!			
<i>Status</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>Unavailable</i>	w	w	r	r	

6.19.2 Layout sent by a Worker

Table 6.37: Layout Resource sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Status</i>	r	r	w	w	See ▶ [JDF 1.8].
<i>Available</i>	r?	r?	w←	w←	The Worker SHALL specify @Status = "Available" if the Layout is successfully created.
<i>Unavailable</i>	r	r	w←	w←	The Worker SHALL specify @Status = "Unavailable" if the Layout is not successfully created.
<all other values>			w!	w!	
<i>ContentObject</i>	r?	r?	w	w	See ▶ [JDF 1.8].
<i>MarkObject</i>	r?	r?	w?	w?	A MarkObject SHALL be specified if the output requires marks.

6.19.3 ContentObject

See ▶ [JDF 1.8].

6.19.4 MarkObject

See ▶ [JDF 1.8].

6.20 LayoutElementProductionParams

Table 6.38: LayoutElementProductionParams Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>FileSpec</i>	w?	w?	r?	r?	See ▶ [JDF 1.8].
<i>LayoutElementPart</i>	w	w	r	r	See ▶ [JDF 1.8].
<i>ShapeDef</i>	w?	w?	r?	r?	See ▶ [JDF 1.8].

6.20.1 LayoutElementPart

Table 6.39: LayoutElementPart Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>BarcodeProductionParams</i>	w	w	r	r	See ▶ [JDF 1.8].

6.20.2 BarcodeProductionParams

Table 6.40: BarcodeProductionParams Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>IdentificationField</i>	w	w	r	r	See ▶ [JDF 1.8].

6.21 LayoutPreparationParams

See ▶ [JDF 1.8].

6.22 Media

6.22.1 Media used for Synchronizing Resources

The Media resources shown in this section are used when synchronizing resource catalogs in a **JMF Resource** message.

6.22.1.1 Media - Plate

The **Media** for synchronizing plate resource catalogs. The *Manager* can use this to obtain a list of available plates and their dimensions, which are often tied to specific plate setter and press combinations.

Note: This plate **Media** is specific to this ICS and is completely defined here; no reference to media resources defined in the ▶ [Management Information System ICS] should be made.

Table 6.41: Media Resource for Requesting a Worker's Resource Catalog

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Brand</i>		r		w	See ▶ [JDF 1.8].
<i>DescriptiveName</i>		r		w	See ▶ [JDF 1.8].
<i>Dimension</i>		r		w	See ▶ [JDF 1.8].
<i>MediaType</i>		r		w	See ▶ [JDF 1.8].
Plate		r		w	
<i>Thickness</i>		r		w	See ▶ [JDF 1.8].
GeneralID		r		w←	GeneralID SHALL be supplied by a <i>Worker</i> that has a plate catalog with its own specific IDs.

6.22.1.1.1 GeneralID

See ▶ [Management Information System ICS], this ICS requires no additional conformance.

6.22.2 Media used by Gray Boxes

The Media resources shown in this section are used in job tickets.

6.22.2.1 Media - Paper

When the *Worker* (via **StrippingParams**) calculates the creep and/or bottling, it needs information about the paper, such as the thickness, grade, grain, etc. The *Worker* can obtain the thickness from **@Thickness** or it may be able to calculate the thickness from a database if the *Manager* supplies the paper brand (**@Brand**).

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The Worker (via [InterpretingParams](#)) can use [Media](#) to determine proper color corrections based on grade, etc.

Table 6.42: Media Resource - Paper

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Brand	w?	w?	r?	r?	See ▶ [JDF 1.8].
Dimension	w	w	r	r	@Dimension SHALL be specified by the <i>Manager</i> and the <i>Worker</i> SHALL use this value when converting the StrippingParams/Position/@RelativeBox to real coordinates. If <i>Sheets</i> are pre-cut before printing, this @Dimension SHALL hold the size of the cut Media . Conformance Test: The output size should change if using with StrippingParams .
Grade	w?	w?	r?	r?	Note: @Grade has been deprecated in JDF 1.6; @ISOPaperSubstrate SHOULD be used instead.
Grain	w?	w?	r?	r?	See ▶ [JDF 1.8].
ISOPaperSubstrate	w?	w?	r	r	See ▶ [JDF 1.8].
MediaType	w	w	r	r	See ▶ [JDF 1.8].
Paper	w	w	r	r	
PartIDKeys	w?	w?	r	r	@PartIDKeys SHALL be specified with values that follow the order specified below.
SignatureName	w	w	r	r	
SheetName	w	w	r	r	
<all other values>	w!	w!			
Thickness	w?	w?	r?	r?	@Thickness MAY be used by either <ul style="list-style-type: none"> • StrippingParams to calculate creep and/or bottling. • InterpretingParams for color corrections.

6.22.2.2 Media - Plate

6.22.2.2.1 Media sent by a Manager - Plate

Often, the *Manager* can supply only the [@MediaType](#) and [@PartIDKeys](#) in ▶ Table 6.43 Media Resource sent by a Manager - Plate. If the *Manager* supplies a *Process* with an [ExposedMedia \(Plate\)](#) output resource and a '[Media \(Plate\) M](#)' input resource that represents the unexposed plate of the [ExposedMedia](#), the *Manager* SHOULD set [ExposedMedia/Media](#) to reference '[Media M](#)'.

Table 6.43: Media Resource sent by a Manager - Plate (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Brand	w?	w?	r?	r?	@Brand SHOULD be specified by the <i>Manager</i> .
Dimension	w?	w?	r	r	Conformance Test: The UI displays the plate size (or error message) or output size changes if @Dimension changes.
MediaType	w	w	r	r	See ▶ [JDF 1.8].
Plate	w	w	r	r	

Table 6.43: Media Resource sent by a Manager - Plate (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartIDKeys</i>	w?	w?	r	r	@ <i>PartIDKeys</i> SHALL be specified with values that follow the order specified below.
SignatureName	w	w	r	r	
SheetName	w	w	r	r	
Side	w?	w?	r	r	@ <i>PartIDKeys</i> SHALL contain "Side" if the plate <i>Media</i> differ between "Side" parts, or if @ <i>PartIDKeys</i> contains "Separation".
Separation	w?	w?	r	r	@ <i>PartIDKeys</i> SHALL contain "Separation" if the plate <i>Media</i> differ between "Separation" parts, or if @ <i>PartIDKeys</i> contains "PartVersion".
<all other values>	w!	w!			

6.22.2.2.2 Media sent by a Worker - Plate

Table 6.44: Media Resource sent by a Worker - Plate

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Brand</i>	r?	r?	w?	w?	The Worker SHOULD specify @ <i>Brand</i> with the actual value of the brand that was used.
<i>Dimension</i>	r?	r?	w?	w?	The Worker SHOULD specify @ <i>Dimension</i> with the actual value of the dimension that was used. Conformance Test: The UI displays the plate size (or error message) or output size changes if @ <i>Dimension</i> changes.
<i>MediaType</i>	r?	r?	w	w	See ▶ [JDF 1.8].
Plate	r?	r?	w	w	

6.22.2.3 Media - Proof

6.22.2.3.1 Media sent by a Manager - Proof

Table 6.45: Media Resource sent by a Manager - Proof

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Brand</i>	w?	w?	r?	r?	See ▶ [JDF 1.8].
<i>Dimension</i>	w?	w?	r?	r?	See ▶ [JDF 1.8].
<i>MediaType</i>	w	w	r?	r?	See ▶ [JDF 1.8].
Paper	w	w	r?	r?	

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6.22.2.3.2 Media sent by a Worker - Proof

The Worker SHOULD specify **Media** with actual values of the media that was used.

Table 6.46: Media Resource sent by a Worker - Proof

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Brand	r?	r?	w?	w?	The Worker SHOULD specify @Brand with the actual value of the brand that was used.
Dimension	r?	r?	w?	w?	The Worker SHOULD specify @Dimension with the actual value of the dimension that was used.
MediaType	r?	r?	w	w	See ▶ [JDF 1.8].
Paper	r?	r?	w	w	

6.23 PageList

6.23.1 PageList - without Versioning

PageList without versioning SHALL be specified when there are no Multiple Product Versions imposed on one Sheet.

Table 6.47: PageList Resource - without Versioning

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
DescriptiveName		w		r?	See ▶ [JDF 1.8].

6.23.2 PageList - with Versioning

PageList with versioning SHALL be specified when there are Multiple Product Versions imposed on one Sheet.

Table 6.48: PageList Resource - with Versioning

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
DescriptiveName		w		r?	See ▶ [JDF 1.8].
PartIDKeys		w		r	See ▶ [JDF 1.8].
PartVersion		w		r	

6.24 Preview

The Manager specifies the Preview resource and the Worker updates it.

The Preview resource has two uses, each distinguished by @PreviewUsage.

- With @PreviewUsage = "Separation", it is used for the InkZoneCalculation Process.
- With @PreviewUsage = "ThumbNail" or @PreviewUsage = "Viewable", it is used for visual presentation.

6.24.1 Preview - Page

6.24.1.1 Preview sent by a Manager - Page

Table 6.49: Preview Resource sent by a Manager - Page

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartIDKeys</i>	w	w	r	r	The <i>Partition Keys</i> per <i>Page</i> SHALL be equal to the <i>Partition Keys</i> of the PrePressPreparation Gray Box output <i>RunList</i> ; there is an implicit linking between these. <i>@PartIDKeys</i> SHALL be specified with values that follow the order specified below.
Run	w←	w←	r	r	
RunPage	w←	w←	r	r	
PartVersion	w!	w?		r	
<all other values>	w!	w!			
<i>PreviewFileType</i>	w	w	r?	r?	See ▶ [JDF 1.8].
PNG	w	w	r	r	
<i>PreviewUsage</i>	w	w	r	r	See ▶ [JDF 1.8]. Conformance Test: The created <i>Preview</i> (<i>Page</i>) SHOULD have different resolutions based upon this value. The output SHALL be a <i>Composite</i> preview.
ThumbNail	w←	w←	r	r	
Viewable	w←	w←	r	r	
<all other values>	w!	w!			
<i>Status</i>	w	w	r	r	See ▶ [JDF 1.8].
Incomplete	w	w	r	r	

6.24.1.2 Preview sent by a Worker - Page

Table 6.50: Preview Resource sent by a Worker - Page (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartUsage</i>	w	w	r	r	See ▶ [Base ICS].
Explicit	w	w←	r	r	
Sparse		w←		r	
<all other values>	w!	w!			
<i>Status</i>	r	r	w	w	See ▶ [JDF 1.8].
Available	r?	r?	w←	w←	The Worker SHALL specify <i>@Status</i> = "Available" if the <i>Composite Page Preview</i> (<i>Page</i>) is successfully created.
Unavailable	r	r	w←	w←	The Worker SHALL specify <i>@Status</i> = "Unavailable" if the <i>Composite Page Preview</i> (<i>Page</i>) is not successfully created.

Table 6.50: Preview Resource sent by a Worker - Page (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<all other values>			w!	w!	
URL	r	r	w	w	See ▶ [JDF 1.8].
cid:...	r?	r?	w?	w?	
file:...	r	r	w?	w?	
http:...	r	r	w?	w?	
<all other values>			w!	w!	

6.24.2 Preview - Plate

6.24.2.1 Preview sent by a Manager - Plate

Table 6.51: Preview Resource sent by a Manager - Plate

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
PartIDKeys	w	w	r	r	Preview (Plate) SHALL follow the same <i>Partition</i> scheme as that of ExposedMedia (Plate) ; however, it is not required for the <i>Manager</i> to supply all <i>Partitions</i> . @PartIDKeys SHALL be specified with values that follow the order specified below.
SignatureName	w	w	r	r	
SheetName	w	w	r	r	
Side	w	w	r	r	
Separation	w	w	r	r	
PartVersion	w!	w?		r	
<all other values>	w!	w!			
PreviewFileType	w	w	r?	r?	See ▶ [JDF 1.8].
CIP3Multiple	w←	w←	r	r	
CIP3Single	w←	w←	r	r	
PNG	w←	w←	r	r	
PreviewUsage	w	w	r	r	See ▶ [JDF 1.8]. Conformance Test: The created Preview SHALL contain a single separation for each " Separation " <i>Partition</i> .
Separation	w	w	r	r	
Status	w	w	r	r	See ▶ [JDF 1.8].
Incomplete	w	w	r	r	

6.24.2.2 Preview sent by a Worker - Plate

Table 6.52: Preview Resource sent by a Worker - Plate

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartUsage</i>	w	w	r	r	See ▶ [Base ICS].
Explicit	w	w←	r	r	
Sparse		w←		r	
<all other values>	w!	w!			
<i>Status</i>	r	r	w	w	See ▶ [JDF 1.8].
Available	r?	r?	w←	w←	The Worker SHALL specify @Status = "Available" if the separations Preview (Plate) is successfully created.
Unavailable	r	r	w←	w←	The Worker SHALL specify @Status = "Unavailable" if the separations Preview (Plate) is not successfully created.
<all other values>			w!	w!	
<i>URL</i>	r	r	w	w	See ▶ [JDF 1.8].
cid:...	r?	r?	w?	w?	
file:...	r	r	w?	w?	
http:...	r	r	w?	w?	
<all other values>			w!	w!	

6.24.3 Preview - Sheet

6.24.3.1 Preview sent by a Manager - Sheet

Table 6.53: Preview Resource sent by a Manager - Sheet (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartIDKeys</i>	w	w	r	r	@PartIDKeys SHALL be specified with values that follow the order specified below.
SignatureName	w	w	r	r	
SheetName	w	w	r	r	
Side	w	w	r	r	
PartVersion	w!	w?		r	
<all other values>	w!	w!			
<i>PreviewFileType</i>	w	w	r?	r?	See ▶ [JDF 1.8].
PNG	w	w	r	r	

Table 6.53: Preview Resource sent by a Manager - Sheet (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PreviewUsage</i>	w	w	r	r	See ▶ [JDF 1.8]. Conformance Test: The created <i>Preview</i> SHOULD have different resolutions based upon this value. The output SHALL be a <i>Composite</i> preview.
ThumbNail	w←	w←	r	r	
Viewable	w←	w←	r	r	
<all other values>	w!	w!			
<i>Status</i>	w	w	r	r	See ▶ [JDF 1.8].
Incomplete	w	w	r	r	

6.24.3.2 Preview sent by a Worker - Sheet

Table 6.54: Preview Resource sent by a Worker - Sheet

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PartUsage</i>	w	w	r	r	See ▶ [Base ICS].
Explicit	w	w←	r	r	
Sparse		w←		r	
<all other values>	w!	w!			
<i>Status</i>	r	r	w	w	See ▶ [JDF 1.8].
Available	r?	r?	r	r	The Worker SHALL specify @Status = "Available" if the Composite Sheet <i>Preview (Sheet)</i> is successfully created.
Unavailable	r	r	r	r	The Worker SHALL specify @Status = "Unavailable" if the Composite Sheet <i>Preview (Sheet)</i> is not successfully created.
<all other values>			w!	w!	
<i>URL</i>	r	r	w	w	See ▶ [JDF 1.8].
cid:...	r?	r?	w?	w?	
file:...	r	r	w?	w?	
http:...	r	r	w?	w?	
<all other values>			w!	w!	

6.25 PreviewGenerationParams

6.25.1 PreviewGenerationParams - Page

Table 6.55: PreviewGenerationParams Resource - Page

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PreviewFileType</i>	w	w	r	r	See ▶ [JDF 1.8].
PNG	w	w	r	r	
<i>PreviewUsage</i>	w	w	r	r	See ▶ [JDF 1.8].
ThumbNail	w←	w←	r	r	
Viewable	w←	w←	r	r	
<all other values>	w!	w!			

6.25.2 PreviewGenerationParams - Plate

Table 6.56: PreviewGenerationParams Resource - Plate

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PreviewFileType</i>	w	w	r	r	See ▶ [JDF 1.8].
CIP3Multiple	w←	w←	r	r	
CIP3Single	w←	w←	r	r	
PNG	w←	w←	r	r	
<i>PreviewUsage</i>	w	w	r	r	See ▶ [JDF 1.8].
Separation	w	w	r	r	

6.25.3 PreviewGenerationParams - Sheet

Table 6.57: PreviewGenerationParams Resource - Sheet

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>PreviewFileType</i>	w	w	r	r	See ▶ [JDF 1.8].
PNG	w	w	r	r	
<i>PreviewUsage</i>	w	w	r	r	See ▶ [JDF 1.8].
ThumbNail	w←	w←	r	r	
Viewable	w←	w←	r	r	

6.26 RunList

6.26.1 RunList - Document

The **RunList (Document)** resource is used to specify *Page* content to *Gray Boxes*. This resource is used when the *Manager* supplies information about pages.

Table 6.58: RunList Resource - Document

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>DescriptiveName</i>	w	w	r?	r?	@DescriptiveName SHALL specify the human readable description of the set of content files. When the RunList (Document) contains <i>Pages</i> of <i>Multiple Product Versions</i> or <i>Multiple Product Parts</i> , PageList/@DescriptiveName SHALL contain the human readable description of each <i>Product</i> or <i>Product</i> version.
<i>NPage</i>	w	w	r	r	@NPage SHALL be specified by the <i>Manager</i> with a value that is an estimate of the number of finished <i>Pages</i> . The <i>Prepress</i> operator MAY adjust this number, based on the actual content files delivered. For the <i>Pages</i> in the body part, this value may be quite accurate. @NPage MAY include blank <i>Pages</i> . For the cover and complex folded folders, @NPage will often not match the number of <i>Pages</i> in the delivered content. A <i>Packaging Fold</i> SHALL NOT influence the number of <i>Pages</i> (e.g., a folded letter). Conformance Test: The result of Imposition SHALL have the same number of <i>Pages</i> as specified by @NPage or display the value of @NPage to an operator.
<i>PageListIndex</i>		w←		r	@PageListIndex SHALL be specified when the RunList (Document) does not contain all <i>Pages</i> from the PageList . Conformance Test: Check on output.
<i>PartIDKeys</i>	w?	w?	r	r	If @PartIDKeys is specified, it SHALL be specified with values that follow the order below.
Run	w?	w?	r	r	
PartVersion	w!	w?		r	
LayoutElement	w?	w?	r	r	LayoutElement SHOULD be specified by the <i>Manager</i> if the location of the content files is known.
PageList		w←		r	PageList SHALL be specified when the RunList (Document) contains <i>Pages</i> of different <i>Parts</i> versions of <i>Multiple Product Versions</i> or <i>Multiple Product Parts</i> .

6.26.1.1 LayoutElement

Table 6.59: LayoutElement for RunList (Document)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
FileSpec	w	w	r	r	See ▶ [JDF 1.8].

6.26.2 RunList - Document Exchange

This Exchange [RunList](#) resource is used between two Gray Boxes and describes Pages.

6.26.2.1 RunList sent by a Manager - Document Exchange

Table 6.60: RunList Resource sent by a Manager - Document Exchange

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Status	w	w	r	r	See ▶ [JDF 1.8].
Unavailable	w	w	r	r	

6.26.2.2 RunList sent by a Worker - Document Exchange

Table 6.61: RunList Resource sent by a Worker - Document Exchange

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Status	r	r	w	w	See ▶ [JDF 1.8].
Available	r?	r?	w←	w←	The Worker SHALL specify @Status = "Available" if the Exchange RunList is successfully created.
Unavailable	r	r	w←	w←	The Worker SHALL specify @Status = "Unavailable" if the Exchange RunList is not successfully created.
<all other values>			w!	w!	

6.26.3 RunList - Marks Exchange

This Exchange [RunList](#) resource is used between two Gray Boxes and describes Imposition marks.

6.26.3.1 RunList sent by a Manager - Marks Exchange

Table 6.62: RunList Resource sent by a Manager - Marks Exchange

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Status	w	w	r	r	See ▶ [JDF 1.8].
Unavailable	w	w	r	r	

6.26.3.2 RunList sent by a Worker - Marks Exchange

Table 6.63: RunList Resource sent by a Worker - Marks Exchange (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Status	r	r	w	w	See ▶ [JDF 1.8].
Available	r?	r?	w←	w←	The Worker SHALL specify @Status = "Available" if the Exchange RunList is successfully created.

Table 6.63: RunList Resource sent by a Worker - Marks Exchange (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Unavailable	r	r	w←	w←	The Worker SHALL specify @Status = "Unavailable" if the Exchange RunList is not successfully created.
<all other values>			w!	w!	

6.26.4 RunList - Sheet

The RunList (Sheet) resource is used by the Manager to specify Imposed Sheets.

Table 6.64: RunList Resource - Sheet

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
LayoutElement	w	w	r	r	The Manager SHALL specify LayoutElement to indicate the location of Imposed Sheets.

6.26.4.1 LayoutElement

Table 6.65: LayoutElement - RunList (Sheet)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
ElementType	w	w	r?	r?	See ▶ [JDF 1.8].
Surface	w	w	r?	r?	
FileSpec	w	w	r	r	See ▶ [JDF 1.8].

6.26.5 RunList - Sheet Exchange

This Exchange RunList resource is used between two Gray Boxes and describes imposed Sheets.

6.26.5.1 RunList sent by a Manager - Sheet Exchange

Table 6.66: RunList Resource sent by a Manager- Sheet Exchange

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Status	w	w	r	r	See ▶ [JDF 1.8].
Unavailable	w	w	r	r	

6.26.5.2 RunList sent by a Worker - Sheet Exchange

Table 6.67: RunList Resource sent by a Worker - Sheet Exchange

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Status</i>	r	r	w	w	See ▶ [JDF 1.8].
<i>Available</i>	r?	r?	w←	w←	The Worker SHALL specify @ <i>Status</i> = "Available" if the Exchange <i>RunList</i> is successfully created.
<i>Unavailable</i>	r	r	w←	w←	The Worker SHALL specify @ <i>Status</i> = "Unavailable" if the Exchange <i>RunList</i> is not successfully created.
<all other values>			w!	w!	

6.27 ShapeDef

Table 6.68: ShapeDef Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>FileSpec</i>	w	w	r	r	See ▶ [JDF 1.8].

6.28 StrippingParams

6.28.1 StrippingParams sent by a Manager

Table 6.69: StrippingParams Resource (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>AssemblyIDs</i>	w?	w←	r?	r	@ <i>AssemblyIDs</i> SHALL be specified for <i>Conformance Level 2</i> if <i>Multiple Product Versions</i> or <i>Multiple Product Parts</i> are Imposed together on one <i>Sheet</i> . @ <i>AssemblyIDs</i> SHOULD be provided for <i>Conformance Levels 1</i> and <i>2</i> if possible.
<i>DescriptiveName</i>	w	w	r?	r?	@ <i>DescriptiveName</i> SHALL be specified in the <i>SheetName Partition</i> levels. It is a human-readable name.
<i>PartIDKeys</i>	w	w	r	r	@ <i>PartIDKeys</i> SHALL be specified with values that follow the order specified below.
<i>SignatureName</i>	w	w	r	r	
<i>SheetName</i>	w	w	r	r	
<i>BinderySignatureName</i>	w?	w?	r	r	
<i>StationName</i>	w?	w?	r	r	The <i>StationName Partition</i> MAY be specified for packaging and label workflows.
<i>PartVersion</i>	w!	w?		r	
<i>SectionIndex</i>	w!	w?		r	

Table 6.69: StrippingParams Resource (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
CellIndex	w!	w?		r	
<all other values>	w!				
SectionList	w?	w←	r	r	@SectionList SHALL be specified for Conformance Level 2 when the order of the sections does not match the implied order.
WorkStyle	w	w	r	r	See ▶ [JDF 1.8].
WorkAndTwist	w!	w!			
<all other values>	w←	w←	r	r	
BinderySignature	w	w	r	r	See ▶ [JDF 1.8].
Device (PrintingPress)	w	w	r?	r?	The Manager SHALL specify one and only one Device (PrintingPress) to describe the printing press. The Device resource SHALL NOT be specified 'in-line'; rather the Manager SHALL reference it using DeviceRef.
Media (Paper)	w	w	r	r	The Manager SHALL specify Media (Paper). The Media resource SHALL NOT be specified 'in-line'; rather the Manager SHALL reference it using MediaRef.
Media (Plate)	w←	w←	r	r	The Manager SHALL specify Media (Plate) when the Worker is required to add plate related marks. The Media resource SHALL NOT be specified 'in-line'; rather the Manager SHALL reference it using MediaRef.
Position	w	w	r	r	See ▶ [JDF 1.8].
StripCellParams	w	w	r	r	See ▶ [JDF 1.8].
StripMark		w?		r?	The Manager SHOULD specify StripMark when the Worker is required to add marks.

6.28.2 StrippingParams sent by a Worker

Table 6.70: StrippingParams Resource

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
Position	r?	r?	w←	w←	The Worker SHOULD specify the Position element if the Position/@AbsoluteBox was not specified.

6.28.3 Position

6.28.3.1 Position sent by a Manager

Table 6.71: Position Element sent by a Manager

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>AbsoluteBox</i>		w←		r	@ <i>AbsoluteBox</i> SHALL be specified if the <i>Manager</i> knows the exact location of the <i>BinderySignature</i> .
<i>MarginBottom</i>	w?	w?	r	r	See ▶ [JDF 1.8].
<i>MarginLeft</i>	w?	w?	r	r	See ▶ [JDF 1.8].
<i>MarginRight</i>	w?	w?	r	r	See ▶ [JDF 1.8].
<i>MarginTop</i>	w?	w?	r	r	See ▶ [JDF 1.8].
<i>Orientation</i>	w?	w?	r	r	See ▶ [JDF 1.8].
<all values>	w←	w←	r	r	
<i>RelativeBox</i>	w?	w?	r	r	The <i>Manager</i> SHOULD specify @ <i>RelativeBox</i> if it knows the approximate location of the <i>BinderySignature</i> .

6.28.3.2 Position sent by a Worker

Table 6.72: Position Element sent by a Worker

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>AbsoluteBox</i>		r?		w←	The <i>Worker</i> SHOULD specify @ <i>AbsoluteBox</i> if it was not specified by the <i>Manager</i> and if the <i>Manager</i> specified @ <i>RelativeBox</i> .

6.28.4 StripCellParams

Table 6.73: StripCellParams Element (Sheet 1 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>BackOverfold</i>		w?		r	@ <i>BackOverfold</i> SHALL NOT be specified if the <i>Manager</i> does not know the proper value.
<i>FrontOverfold</i>		w?		r	@ <i>FrontOverfold</i> SHALL NOT be specified if the <i>Manager</i> does not know the proper value.
<i>MillingDepth</i>		w?		r	@ <i>MillingDepth</i> SHALL NOT be specified if the <i>Manager</i> does not know the proper value.
<i>Spine</i>		w?		r	@ <i>Spine</i> SHALL NOT be specified if the <i>Manager</i> does not know the proper value.
<i>TrimFace</i>		w?		r	@ <i>TrimFace</i> SHALL NOT be specified if the <i>Manager</i> does not know the proper value.

Table 6.73: StripCellParams Element (Sheet 2 of 2)

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>TrimFoot</i>		w?		r	@ <i>TrimFoot</i> SHALL NOT be specified if the <i>Manager</i> does not know the proper value.
<i>TrimHead</i>		w?		r	@ <i>TrimHead</i> SHALL NOT be specified if the <i>Manager</i> does not know the proper value.
<i>TrimSize</i>	w	w	r	r	See ▶ [JDF 1.8].

6.28.5 StripMark

Table 6.74: StripMark Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>MarkName</i>		w		r	Conformance Test: At least one @ <i>MarkName</i> SHALL be supported for testing.
<i>MarkSide</i>		w		r	See ▶ [JDF 1.8].
<all values>		w<		r	
<i>Position</i>		w		r	See ▶ [JDF 1.8].

7 Subelements

7.1 Company

Table 7.1: Company Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>OrganizationName</i>	w	w	r	r	See ▶ [JDF 1.8].

7.2 DeviceNSpace

See ▶ [JDF 1.8].

7.3 Person

See ▶ [JDF 1.8].

7.4 SeparationSpec

Table 7.2: SeparationSpec Element

NAME OR VALUE	MANAGER LEVEL		WORKER LEVEL		DESCRIPTION
	1	2	1	2	
<i>Name</i>	w	w	r	r	See ▶ [JDF 1.8].

Appendix A

A References

Table A.1: References

SYMBOLIC NAME	REFERENCED DOCUMENT
[Base ICS]	<i>Base ICS</i> Version 1.8 Date: October 2024 Produced by: CIP4 Organization Available at: http://www.CIP4.org
[Integrated Digital Printing ICS]	<i>Integrated Digital Printing ICS</i> Version 1.8 Date: To be released Produced by: CIP4 Organization Available at: http://www.CIP4.org
[JDF 1.8]	<i>Job Definition Format Specification</i> Version: 1.8 Date: May 2024 Produced by: CIP4 Organization Available at: http://www.CIP4.org
[Management Information System ICS]	<i>Management Information System ICS</i> Version 1.8 Date: October 2024 Produced by: CIP4 Organization Available at: http://www.CIP4.org
[Messaging ICS]	<i>Messaging ICS</i> Version 1.8 Date: October 2024 Produced by: CIP4 Organization Available at: http://www.CIP4.org
[MIS to Conventional Printing ICS]	<i>MIS to Conventional Printing ICS</i> Version 1.8 Date: To be released Produced by: CIP4 Organization Available at: http://www.CIP4.org
[XPath]	<i>XML Path Language (XPath) 2.0 (Second Edition)</i> <i>Version W3C Recommendation 14 December 2010</i> Date: 14 December 2010 Produced by: World Wide Web Consortium (W3C) Available at: https://www.w3.org/TR/xpath20/

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