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1  <?xml version="1.0"?>
2  <!-- ++++++++ -->
3  <!-- edited by Dianne Kennedy (ISO TC130 WG2) -->
4  <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:prx="
http://idealliance.org/prx" xmlns:cc="http://colorexchangeformat.com/CxF3-core"
targetNamespace="http://idealliance.org/prx" elementFormDefault="unqualified"
attributeFormDefault="unqualified" version="52">
5      <!--
+++++++ -->
6      <xs:import namespace="http://colorexchangeformat.com/CxF3-core" schemaLocation="
http://www.npes.org/portals/0/standards/docs/CxF3_Core.xsd"/>
7      <!-- <xs:import namespace="http://colorexchangeformat.com/CxF3-core"
schemaLocation="CxF3_Core.xsd"/> -->
8      <!--
+++++++ -->
9      <!--===                ===-->
10     <!--===                PRX                ===-->
11     <!--===                ===-->
12     <xs:element name="PRX">
13         <xs:annotation>
14             <xs:documentation xml:lang="en">
15                 root element of a print quality requirements data exchange from print
16                 buyers to print service providers and relevant stake holders
17             </xs:documentation>
18         </xs:annotation>
19         <xs:complexType>
20             <xs:sequence>
21                 <xs:element ref="prx:PRXInfo"/>
22                 <xs:element ref="prx:BuyerInfo"/>
23                 <xs:element ref="prx:EvaluationInfo"/>
24                 <xs:element ref="prx:QualitySpecification"/>
25                 <xs:element ref="prx:CxFReferenceData" minOccurs="0"/>
26                 <xs:element ref="prx:SamplingPositionImageData" minOccurs="0"/>
27                 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
28                 <xs:element ref="prx:CustomResources" minOccurs="0" maxOccurs="
29                 "unbounded"/>
30             </xs:sequence>
31         </xs:complexType>
32     </xs:element>
33     <!--===                ===-->
34     <!--===                PRX Info                ===-->
35     <!--===                ===-->
36     <!--===                PRX Info                ===-->
37     <xs:element name="PRXInfo">
38         <xs:annotation>
39             <xs:documentation xml:lang="en">set of fields that provide metadata about
40             this PRX data exchange</xs:documentation>
41         </xs:annotation>
42         <xs:complexType>
43             <xs:sequence>
44                 <xs:element ref="prx:PRXDate" minOccurs="1"/>
45                 <xs:element ref="prx:PRXId" minOccurs="1"/>
46                 <xs:element ref="prx:PRXSoftware-Version" minOccurs="0"/>
47                 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
48             </xs:sequence>
49         </xs:complexType>
50     </xs:element>
51     <!--===                ===-->
52     <!--===                PRX Date                ===-->
53     <!--===                ===-->
54     <!--===                PRX Date                ===-->
55     <xs:element name="PRXDate" type="prx:dateOrDateTime">
56         <xs:annotation>
57             <xs:documentation xml:lang="en">field that captures the transmission date
58             or date/time in ISO format for this PRX message</xs:documentation>
59         </xs:annotation>
60     </xs:element>

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56 <!--====>
57 <!--==== PRX Identifier >====>
58 <!--====>
59 <xs:element name="PRXId" type="xs:string">
60 <xs:annotation>
61 <xs:documentation xml:lang="en">field that provides an identifier for the
PRX quality requirements data, unique within scope of the system of origin
on the specified PRXDate</xs:documentation>
62 </xs:annotation>
63 </xs:element>
64 <!--====>
65 <!--==== PRX Software >====>
66 <!--====>
67 <xs:element name="PRXSoftware-Version" type="xs:string">
68 <xs:annotation>
69 <xs:documentation xml:lang="en">field that is used to indicate the software
product and version used to generate this PRX message</xs:documentation>
70 </xs:annotation>
71 </xs:element>
72 <!--==== ++++++>====>
73 <!--====>
74 <!--==== Buyer Info >====>
75 <!--==== ++++++>====>
76 <xs:element name="BuyerInfo">
77 <xs:annotation>
78 <xs:documentation xml:lang="en">set of fields designed to transmit print
buyer metadata for this set of print quality requirements</xs:documentation>
79 </xs:annotation>
80 <xs:complexType>
81 <xs:sequence>
82 <xs:element ref="prx:ParentCompany" minOccurs="0"/>
83 <xs:element ref="prx:CompanyName"/>
84 <xs:element ref="prx:LocationDesignator"/>
85 <xs:element ref="prx:ContactDesignator" minOccurs="0"/>
86 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
87 </xs:sequence>
88 </xs:complexType>
89 </xs:element>
90 <!--====>====>
91 <!--==== Parent Company Name >====>
92 <!--====>====>
93 <xs:element name="ParentCompany" type="xs:string">
94 <xs:annotation>
95 <xs:documentation xml:lang="en">field that identifies a company that
controls a smaller, entity such as a printer, print buyer or agent
</xs:documentation>
96 </xs:annotation>
97 </xs:element>
98 <!--====>====>
99 <!--==== Company Name >====>
100 <!--====>====>
101 <xs:element name="CompanyName" type="xs:string">
102 <xs:annotation>
103 <xs:documentation xml:lang="en">field that identifies the name of a print
buyer, printer, print quality service provider or other entity
</xs:documentation>
104 </xs:annotation>
105 </xs:element>
106 <!--====>====>
107 <!--==== Location Designator >====>
108 <!--====>====>
109 <xs:element name="LocationDesignator" type="xs:string">
110 <xs:annotation>
111 <xs:documentation xml:lang="en">field that provides an identifier for the
location of a company or party as a second level of identification for that
company or party</xs:documentation>

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112         </xs:annotation>
113     </xs:element>
114     <!--====          =====>
115     <!--====          Contact Designator          =====>
116     <!--====          =====>
117     <xs:element name="ContactDesignator" type="xs:string">
118         <xs:annotation>
119             <xs:documentation xml:lang="en">field that provides an identifier for the
                business contact such as a contact name, email, phone, contact Id or a
                combination of these</xs:documentation>
120         </xs:annotation>
121     </xs:element>
122     <!--====          =====>
123     <!--====          Print Method          =====>
124     <!--====          =====>
125     <xs:element name="PrintMethod" type="prx:printMethodType">
126         <xs:annotation>
127             <xs:documentation xml:lang="en">field that provides an account of the
                mechanism by which the sample was printed</xs:documentation>
128         </xs:annotation>
129     </xs:element>
130     <!--====          =====>
131     <!--====          Print Side          =====>
132     <!--====          =====>
133     <xs:element name="PrintSide" type="prx:printSideType" default="surface">
134         <xs:annotation>
135             <xs:documentation xml:lang="en">field that provides the side of the
                substrate where the image is printed
136             </xs:documentation>
137         </xs:annotation>
138     </xs:element>
139     <!--====          =====>
140     <!--====          Specifier          =====>
141     <!--====          =====>
142     <xs:element name="Specifier">
143         <xs:annotation>
144             <xs:documentation xml:lang="en">set of fields that identify the party
                responsible for specifying print quality requirements</xs:documentation>
145         </xs:annotation>
146         <xs:complexType>
147             <xs:sequence>
148                 <xs:element ref="prx:ParentCompany" minOccurs="0"/>
149                 <xs:element ref="prx:CompanyName" minOccurs="1"/>
150                 <xs:element ref="prx:LocationDesignator" minOccurs="1"/>
151                 <xs:element ref="prx:ContactDesignator" minOccurs="0"/>
152             </xs:sequence>
153         </xs:complexType>
154     </xs:element>
155     <!--==== ++++++ =====>
156     <!--====          =====>
157     <!--====          Quality Specification          =====>
158     <!--==== ++++++ =====>
159     <xs:element name="QualitySpecification">
160         <xs:annotation>
161             <xs:documentation xml:lang="en">set of fields containing the quality goals
                and evaluation criteria set by a print buyer or their specifier for a
                specific printed item(s) or for a general job type
162             </xs:documentation>
163         </xs:annotation>
164         <xs:complexType>
165             <xs:sequence>
166                 <xs:element ref="prx:QualitySpecName"/>
167                 <xs:element ref="prx:QualitySpecVersion"/>
168                 <xs:element ref="prx:PrintMethod" minOccurs="0"/>
169                 <xs:element ref="prx:Specifier" minOccurs="0"/>
170             </xs:choice>

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171         <xs:element ref="prx:CustomerJob"/>
172         <xs:element ref="prx:CustomerItem" maxOccurs="unbounded"/>
173     </xs:choice>
174     <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
175 </xs:sequence>
176 </xs:complexType>
177 </xs:element>
178 <!--====>
179 <!--==== Quality Spec Name >
180 <!--====>
181 <xs:element name="QualitySpecName" type="xs:string">
182     <xs:annotation>
183         <xs:documentation xml:lang="en">field that provides a word or set of words
184             used by a print buyer to identify a quality specification
185         </xs:documentation>
186     </xs:annotation>
187 </xs:element>
188 <!--====>
189 <!--==== Quality Spec Version >
190 <!--====>
191 <xs:element name="QualitySpecVersion" type="xs:string">
192     <xs:annotation>
193         <xs:documentation xml:lang="en">field that provides a version identifier
194             for a quality specification that has been updated or changed over time
195     </xs:documentation>
196 </xs:annotation>
197 </xs:element>
198 <!--====>
199 <!--==== Customer Job Type >
200 <!--====>
201 <xs:element name="CustomerJob">
202     <xs:annotation>
203         <xs:documentation xml:lang="en">field that provides a name or label used by
204             a print buyer to identify type of print job for which the quality
205             specification was developed</xs:documentation>
206     </xs:annotation>
207     <xs:complexType>
208         <xs:sequence>
209             <xs:element ref="prx:JobTypeName"/>
210             <xs:element ref="prx:JobDescription" minOccurs="0"/>
211             <xs:choice minOccurs="0">
212                 <xs:sequence>
213                     <xs:element ref="prx:Brand"/>
214                     <xs:element ref="prx:Product"/>
215                 </xs:sequence>
216                 <xs:element ref="prx:Brand-Product"/>
217             </xs:choice>
218             <xs:sequence minOccurs="1" maxOccurs="2">
219                 <xs:element ref="prx:PrintSide" minOccurs="0"/>
220                 <xs:element ref="prx:InkGuidelines" minOccurs="0"/>
221                 <xs:element ref="prx:QualityGoals"/>
222                 <xs:element ref="prx:DesignersGoal" minOccurs="0" maxOccurs="unbounded"/>
223                 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
224             </xs:sequence>
225         </xs:sequence>
226     </xs:complexType>
227 </xs:element>
228 <!--====>
229 <!--==== Evaluation Info >
230 <!--====>
231 <xs:element name="EvaluationInfo">
232     <xs:annotation>
233         <xs:documentation xml:lang="en">set of fields that carry information that
234             is used by a print buyer to evaluate overall print quality

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230         </xs:documentation>
231     </xs:annotation>
232     <xs:complexType>
233         <xs:choice>
234             <xs:element ref="prx:GradingInfo"/>
235             <xs:element ref="prx:PercentAcceptableScores"/>
236         </xs:choice>
237     </xs:complexType>
238 </xs:element>
239 <!--====>
240 <!--==== Grading Info >
241 <!--====>
242 <xs:element name="GradingInfo">
243     <xs:annotation>
244         <xs:documentation xml:lang="en">set of fields that carry information that
245             is used by a print buyer to grade print quality
246         </xs:documentation>
247     </xs:annotation>
248     <xs:complexType>
249         <xs:sequence>
250             <xs:element ref="prx:GradingScale"/>
251             <xs:element ref="prx:BasisOfCalculation"/>
252             <xs:element ref="prx:MinimumAcceptableRank"/>
253             <xs:element ref="prx:DesiredRank" minOccurs="0"/>
254         </xs:sequence>
255     </xs:complexType>
256 </xs:element>
257 <!--====>
258 <!--==== Quality Goals >
259 <!--====>
260 <xs:element name="QualityGoals">
261     <xs:annotation>
262         <xs:documentation xml:lang="en">set of fields that specify goals for print
263             quality parameters that will be used by a print buyer to evaluate overall
264             print quality
265         </xs:documentation>
266     </xs:annotation>
267     <xs:complexType>
268         <xs:choice minOccurs="1" maxOccurs="4">
269             <xs:element ref="prx:Color"/>
270             <xs:element ref="prx:Registration"/>
271             <xs:element ref="prx:Defects"/>
272             <xs:element ref="prx:Barcode"/>
273             <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
274         </xs:choice>
275     </xs:complexType>
276 </xs:element>
277 <!--====>
278 <!--==== Designer Goals >
279 <!--====>
280 <xs:element name="DesignersGoal" type="xs:string">
281     <xs:annotation>
282         <xs:documentation xml:lang="en">field that carries designer quality intents
283             that will be used by a print buyer to evaluate overall print quality
284         </xs:documentation>
285     </xs:annotation>
286 </xs:element>
287 <!--====>
288 <!--==== Customer Item >
289 <!--====>
290 <xs:element name="CustomerItem">
291     <xs:annotation>
292         <xs:documentation xml:lang="en">set of fields describing a printed item
293         </xs:documentation>
294     </xs:annotation>
295     <xs:complexType>

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291         <xs:sequence>
292             <xs:element ref="prx:ItemDescription" minOccurs="0"/>
293             <xs:choice minOccurs="0">
294                 <xs:sequence>
295                     <xs:element ref="prx:Brand"/>
296                     <xs:element ref="prx:Product"/>
297                 </xs:sequence>
298                 <xs:element ref="prx:Brand-Product"/>
299             </xs:choice>
300             <xs:sequence maxOccurs="2">
301                 <xs:element ref="prx:PrintSide" minOccurs="0"/>
302                 <xs:element ref="prx:InkGuidelines" minOccurs="0"/>
303                 <xs:element ref="prx:QualityGoals"/>
304                 <xs:element ref="prx:DesignersGoal" minOccurs="0" maxOccurs=
305                     "unbounded"/>
306                 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs=
307                     "unbounded"/>
308             </xs:sequence>
309             <xs:attribute name="Id" type="xs:ID" use="required">
310                 <xs:annotation>
311                     <xs:documentation xml:lang="en">field that provides unique
312                         identification (within the scope of the PRX file) of this printed
313                         item</xs:documentation>
314                 </xs:annotation>
315             </xs:attribute>
316             <xs:attribute name="IdDisplayName" type="prx:customerItemIdType">
317                 <xs:annotation>
318                     <xs:documentation xml:lang="en">type or name of the identifier code
319                         such as "SKU" "artCode" or "GCAS"</xs:documentation>
320                 </xs:annotation>
321             </xs:attribute>
322         </xs:complexType>
323     </xs:element>
324     <!--====>
325     <!--====>
326     <!--====>
327     <!--====>
328     <!--====>
329     <!--====>
330     <!--====>
331     <!--====>
332     <!--====>
333     <!--====>
334     <!--====>
335     <!--====>
336     <!--====>
337     <!--====>
338     <!--====>
339     <!--====>
340     <!--====>
341     <!--====>
342     <!--====>
343     <!--====>
344     <!--====>
345     <!--====>
346     <!--====>

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347 <xs:element name="ItemDescription" type="xs:string">
348   <xs:annotation>
349     <xs:documentation xml:lang="en">field that provides a description for this
        printed customer item</xs:documentation>
350   </xs:annotation>
351 </xs:element>
352 <!--====>
353 <!--==== Job Type Name >
354 <!--====>
355 <xs:element name="JobTypeName" type="xs:string">
356   <xs:annotation>
357     <xs:documentation xml:lang="en">field that provides a label or name for
        this customer job type</xs:documentation>
358   </xs:annotation>
359 </xs:element>
360 <!--====>
361 <!--==== Job Description >
362 <!--====>
363 <xs:element name="JobDescription" type="xs:string">
364   <xs:annotation>
365     <xs:documentation xml:lang="en">field that provides a description for this
        printed customer job type</xs:documentation>
366   </xs:annotation>
367 </xs:element>
368 <!--====>
369 <!--==== Basis of Calculation >
370 <!--====>
371 <xs:element name="BasisOfCalculation">
372   <xs:annotation>
373     <xs:documentation xml:lang="en">set of fields that provide information
        about how print quality grades/scores will be calculated by the print buyer
374   </xs:annotation>
375   <xs:complexType>
376     <xs:choice>
377       <xs:element ref="prx:WeightedPercentage"/>
378       <xs:element ref="prx:Formula"/>
379     </xs:choice>
380   </xs:complexType>
381 </xs:element>
382 <!--====>
383 <!--==== Weighted Percentage >
384 <!--====>
385 <xs:element name="WeightedPercentage" type="xs:NMTOKEN" fixed="yes"/>
386 <!--====>
387 <!--==== Percent Acceptable Scores >
388 <!--====>
389 <xs:element name="PercentAcceptableScores" type="prx:percentType">
390   <xs:annotation>
391     <xs:documentation xml:lang="en">field that provides calculated percent of
        all scored parameters that must be within the print buyers acceptable
        scoring range</xs:documentation>
392   </xs:annotation>
393 </xs:element>
394 <!-- ++++++>
395 <!--====>
396 <!--==== Formula >
397 <!--====>
398 <xs:element name="Formula">
399   <xs:annotation>
400     <xs:documentation xml:lang="en">set of fields that provide the mathematical
        formula used by the print buyer to calculate print quality grades/scores
401   </xs:annotation>
402   <xs:complexType>
403     <xs:sequence>

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404         <xs:element ref="prx:FormulaDescription" minOccurs="0"/>
405         <xs:choice>
406             <xs:element ref="prx:FormulaName"/>
407             <xs:element ref="prx:MathOrMethod"/>
408         </xs:choice>
409     </xs:sequence>
410 </xs:complexType>
411 </xs:element>
412 <!--====>
413 <!--==== Formula Description >
414 <!--====>
415 <xs:element name="FormulaDescription" type="xs:string">
416     <xs:annotation>
417         <xs:documentation xml:lang="en">field that provides a description of the
            formula</xs:documentation>
418     </xs:annotation>
419 </xs:element>
420 <!--====>
421 <!--==== Formula Name >
422 <!--====>
423 <xs:element name="FormulaName" type="xs:string">
424     <xs:annotation>
425         <xs:documentation xml:lang="en">field that provides the print buyer's
            designated name for the formula to be employed to calculate print quality
            scores or grades</xs:documentation>
426     </xs:annotation>
427 </xs:element>
428 <!--====>
429 <!--==== Math >
430 <!--====>
431 <xs:element name="MathOrMethod">
432     <xs:annotation>
433         <xs:documentation xml:lang="en">field that provides the mathematical
            expression or written method label that the print buyer will employ to
            calculate or determine print quality grades/scores
434         Note to Entry: Compliant PRX XML parsers are not required to process this
            data as it may be an XML-encoded formula (such as MathML or OpenMath) or it
            may be a formula expressed in a non-XML format such as LaTeX or ASCIImath
            or even a method described in written language.
435         </xs:documentation>
436     </xs:annotation>
437     <xs:complexType mixed="true">
438         <xs:sequence>
439             <xs:any namespace="##any" processContents="skip" maxOccurs="unbounded"/>
440         </xs:sequence>
441     </xs:complexType>
442 </xs:element>
443 <!--====>
444 <!--==== Grading Scale >
445 <!--====>
446 <xs:element name="GradingScale">
447     <xs:annotation>
448         <xs:documentation xml:lang="en">set of fields that provide the print
            buyer's designation for overall print quality levels, or grades, and the
            meaning of each
449         </xs:documentation>
450     </xs:annotation>
451     <xs:complexType>
452         <xs:sequence>
453             <xs:element ref="prx:Grade" maxOccurs="unbounded"/>
454             <xs:element ref="prx:ZeroBaseline" minOccurs="0"/>
455         </xs:sequence>
456     </xs:complexType>
457 </xs:element>
458 <!--====>
459 <!--==== Grade >

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460 <!--==== <====>
461 <xs:element name="Grade">
462   <xs:annotation>
463     <xs:documentation xml:lang="en">set of fields used to communicate the print
464       buyer's evaluation for the overall quality for a printed item
465     </xs:documentation>
466   </xs:annotation>
467   <xs:complexType>
468     <xs:sequence>
469       <xs:element ref="prx:ValueRange"/>
470     </xs:sequence>
471     <xs:attribute name="DisplayLabel" type="prx:gradeLabelType" use="required"/>
472     <xs:attribute name="Rank" type="xs:positiveInteger" use="required"/>
473   </xs:complexType>
474 </xs:element>
475 <!--==== Value Range <====>
476 <!--==== <====>
477 <xs:element name="ValueRange">
478   <xs:annotation>
479     <xs:documentation xml:lang="en">set of fields that provide a logical
480       expression used to assign a numeric rank to an overall print quality grade
481       or score
482     </xs:documentation>
483   </xs:annotation>
484   <xs:complexType>
485     <xs:sequence>
486       <xs:element ref="prx:LogicalOperator"/>
487       <xs:element ref="prx:CalculatedValue"/>
488       <xs:sequence minOccurs="0" maxOccurs="unbounded">
489         <xs:element ref="prx:LogicalConnector"/>
490         <xs:element ref="prx:LogicalOperator"/>
491         <xs:element ref="prx:CalculatedValue"/>
492       </xs:sequence>
493     </xs:sequence>
494   </xs:complexType>
495 </xs:element>
496 <!--==== <====>
497 <!--==== Logical Operator <====>
498 <!--==== <====>
499 <xs:element name="LogicalOperator" type="prx:operatorType">
500   <xs:annotation>
501     <xs:documentation xml:lang="en">field that provides the function used for
502       ranking a print quality score or grade
503     </xs:documentation>
504   </xs:annotation>
505 </xs:element>
506 <!--==== <====>
507 <!--==== Calculated Value <====>
508 <!--==== <====>
509 <xs:element name="CalculatedValue" type="xs:decimal">
510   <xs:annotation>
511     <xs:documentation xml:lang="en">field that provides the result of a
512       print-quality calculation based on the mathematical formula or method
513       provided by the print buyer
514     </xs:documentation>
515   </xs:annotation>
516 </xs:element>
517 <!--==== <====>
518 <!--==== Logical Connector <====>
519 <!--==== <====>
520 <xs:element name="LogicalConnector" type="prx:connectorType">
521   <xs:annotation>
522     <xs:documentation xml:lang="en">field that provides a connector for
523       combining complex functions used for ranking a print quality score or grade
524     </xs:documentation>

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519         </xs:annotation>
520     </xs:element>
521     <!--====>
522     <!--==== Measured Value >
523     <!--====>
524     <xs:element name="MeasuredValue" type="xs:decimal">
525         <xs:annotation>
526             <xs:documentation xml:lang="en">field that provides the value of a
                    print-quality parameter measurement or observation
527             </xs:documentation>
528         </xs:annotation>
529     </xs:element>
530     <!--====>
531     <!--==== Rank >
532     <!--====>
533     <xs:attribute name="Rank" type="xs:positiveInteger">
534         <xs:annotation>
535             <xs:documentation xml:lang="en">field that assigns an integer to a print
                    quality grade or score based on a scale of zero or more, where the greater
                    the integer, the higher the print quality evaluation</xs:documentation>
536         </xs:annotation>
537     </xs:attribute>
538     <!--====>
539     <!--==== Desired Overall Rank >
540     <!--====>
541     <xs:element name="DesiredRank" type="xs:positiveInteger">
542         <xs:annotation>
543             <xs:documentation xml:lang="en">field that provides the print buyer's
                    target quality ranking on an integer scale greater than zero
544             </xs:documentation>
545         </xs:annotation>
546     </xs:element>
547     <!--====>
548     <!--==== Minimum Acceptable Rank >
549     <!--====>
550     <xs:element name="MinimumAcceptableRank" type="xs:positiveInteger">
551         <xs:annotation>
552             <xs:documentation xml:lang="en">field that provides the print buyer's
                    minimum quality ranking on an integer scale greater than zero
553             </xs:documentation>
554         </xs:annotation>
555     </xs:element>
556     <!-- ++++++>
557     <!--====>
558     <!--==== Color >
559     <!--====>
560     <xs:element name="Color">
561         <xs:annotation>
562             <xs:documentation xml:lang="en">set of fields that provide quality
                    requirements for print color and indicate how that parameter will be
                    evaluated by the print buyer
563             </xs:documentation>
564         </xs:annotation>
565         <xs:complexType>
566             <xs:sequence>
567                 <xs:element ref="prx:ComplianceGoal" maxOccurs="unbounded"/>
568                 <xs:element ref="prx:ColorScore"/>
569                 <xs:element ref="prx:CalculationVariable"/>
570                 <xs:element ref="prx:ColorParameter" maxOccurs="unbounded"/>
571                 <xs:element ref="prx:AdditionalInfo" minOccurs="0" maxOccurs="unbounded"
                    />
572                 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
573             </xs:sequence>
574         </xs:complexType>
575     </xs:element>
576     <!--====>

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577 <!--====      Color Score      =====>
578 <!--====      =====>
579 <xs:element name="ColorScore">
580   <xs:annotation>
581     <xs:documentation xml:lang="en">set of fields that provide print buyer's
        evaluation of colour
582     </xs:documentation>
583   </xs:annotation>
584   <xs:complexType>
585     <xs:sequence>
586       <xs:element ref="prx:ScoringInfo"/>
587       <xs:element ref="prx:ColorScoringScale"/>
588     </xs:sequence>
589   </xs:complexType>
590 </xs:element>
591 <!--====      =====>
592 <!--====      Scoring Information      =====>
593 <!--====      =====>
594 <xs:element name="ScoringInfo">
595   <xs:annotation>
596     <xs:documentation xml:lang="en">set of fields that provide information
        required to indicate how that parameter will be scored by the print buyer
597     </xs:documentation>
598   </xs:annotation>
599   <xs:complexType>
600     <xs:sequence>
601       <xs:element ref="prx:BasisOfCalculation"/>
602       <xs:element ref="prx:MinimumAcceptableRank"/>
603       <xs:element ref="prx:DesiredRank" minOccurs="0"/>
604       <xs:element ref="prx:GradeWeightingFactor" minOccurs="0"/>
605     </xs:sequence>
606   </xs:complexType>
607 </xs:element>
608 <!--====      =====>
609 <!--====      Calculation Variable      =====>
610 <!--====      =====>
611 <xs:element name="CalculationVariable" type="xs:NMTOKEN">
612   <xs:annotation>
613     <xs:documentation xml:lang="en">field that provides the variable to
        represent this quality goal in a score or grade calculation formula
614     </xs:documentation>
615   </xs:annotation>
616 </xs:element>
617 <!--====      =====>
618 <!--====      Grade Weighting Factor      =====>
619 <!--====      =====>
620 <xs:element name="GradeWeightingFactor" type="xs:positiveInteger">
621   <xs:annotation>
622     <xs:documentation xml:lang="en">field that provides a weighting factor for
        this quality goal in a score or grade calculation formula
623     </xs:documentation>
624   </xs:annotation>
625 </xs:element>
626 <!--====      =====>
627 <!--====      Color Scoring Scale      =====>
628 <!--====      =====>
629 <xs:element name="ColorScoringScale">
630   <xs:annotation>
631     <xs:documentation xml:lang="en">set of fields that specify how print colour
        will be scored by the print buyer
632     </xs:documentation>
633   </xs:annotation>
634   <xs:complexType>
635     <xs:sequence>
636       <xs:element ref="prx:UoM"/>
637       <xs:element ref="prx:ParameterScore" maxOccurs="unbounded"/>

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638         <xs:element ref="prx:ZeroBaseline" minOccurs="0"/>
639     </xs:sequence>
640     <xs:attribute name="ScoringInput" type="xs:NMTOKEN" fixed="ColorDifference">
641         <xs:annotation>
642             <xs:documentation xml:lang="en">set field indicating colour
                variance as the input into color scoring calculation
643             </xs:documentation>
644         </xs:annotation>
645     </xs:attribute>
646 </xs:complexType>
647 </xs:element>
648 <!-- ++++++----->
649 <!--====>
650 <!--==== Color Parameter >
651 <!--====>
652 <xs:element name="ColorParameter">
653     <xs:annotation>
654         <xs:documentation xml:lang="en">set of fields that provide quality
                requirements for a parameter of colour quality
655         </xs:documentation>
656     </xs:annotation>
657     <xs:complexType>
658         <xs:sequence>
659             <xs:element ref="prx:ParameterName"/>
660             <xs:element ref="prx:ColorReportType" minOccurs="0"/>
661             <xs:sequence maxOccurs="unbounded">
662                 <xs:element ref="prx:CustomerItemIdLink" minOccurs="0"/>
663                 <xs:element ref="prx:SamplingPosition"/>
664             </xs:sequence>
665             <xs:choice>
666                 <xs:sequence>
667                     <xs:element ref="prx:ChartType"/>
668                     <xs:element ref="prx:CxFReferenceObjectIdLink"/>
669                 </xs:sequence>
670                 <xs:sequence maxOccurs="unbounded">
671                     <xs:element ref="prx:PatchType"/>
672                     <xs:element ref="prx:CxFReferenceObjectIdLink"/>
673                 </xs:sequence>
674             </xs:choice>
675             <xs:element ref="prx:ScoreWeightingFactor" minOccurs="0"/>
676             <xs:element ref="prx:CalculationVariable"/>
677             <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
678         </xs:sequence>
679     </xs:complexType>
680 </xs:element>
681 <!--====>
682 <!--==== Score Weighting Factor >
683 <!--====>
684 <xs:element name="ScoreWeightingFactor" type="xs:positiveInteger">
685     <xs:annotation>
686         <xs:documentation xml:lang="en">positive integer used to provide an
                increased value to the rank of a scoring parameter when an overall score is
                calculated
687         </xs:documentation>
688     </xs:annotation>
689 </xs:element>
690 <!--====>
691 <!--==== Color Report Type >
692 <!--====>
693 <xs:element name="ColorReportType" type="prx:colorReportTypeType" default="direct">
694     <xs:annotation>
695         <xs:documentation xml:lang="en">type of color report employed; default is
                "direct", "tone calculation" is the alternative
696         </xs:documentation>
697     </xs:annotation>
698 </xs:element>

```

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699      <!-- ++++++ =====>
700      <!--==== =====>
701      <!--====      Customer Item Id Link      =====>
702      <!--====      =====>
703      <xs:element name="CustomerItemIdLink" type="xs:NCName">
704          <xs:annotation>
705              <xs:documentation xml:lang="en">field that provides a connection from a
              customer item to print buyer quality requirements</xs:documentation>
706          </xs:annotation>
707      </xs:element>
708      <!--==== =====>
709      <!--====      Patch Type      =====>
710      <!--====      =====>
711      <xs:element name="PatchType">
712          <xs:annotation>
713              <xs:documentation xml:lang="en">field that provides a classification for
              the patch being measured</xs:documentation>
714          </xs:annotation>
715          <xs:simpleType>
716              <xs:restriction base="xs:NMTOKEN">
717                  <xs:enumeration value="substrate">
718                      <xs:annotation>
719                          <xs:documentation xml:lang="en">Substrate Patch: A patch used
                          to measure substrate color.</xs:documentation>
720                      </xs:annotation>
721                  </xs:enumeration>
722                  <xs:enumeration value="solid">
723                      <xs:annotation>
724                          <xs:documentation xml:lang="en">Solid Patch: A patch used to
                          measure a 100% solid color.
725                      </xs:documentation>
726                  </xs:annotation>
727                  </xs:enumeration>
728                  <xs:enumeration value="tint">
729                      <xs:annotation>
730                          <xs:documentation xml:lang="en">Tint Patch: A patch used to
                          measure partial ink coverage. TintValue element gives the
                          percent coverage.
731                      </xs:documentation>
732                  </xs:annotation>
733                  </xs:enumeration>
734                  <xs:enumeration value="grayBalance">
735                      <xs:annotation>
736                          <xs:documentation xml:lang="en">Gray Balance Patch: A patch to
                          be gray.
737                      </xs:documentation>
738                  </xs:annotation>
739                  </xs:enumeration>
740                  <xs:enumeration value="overprint">
741                      <xs:annotation>
742                          <xs:documentation xml:lang="en">Overprint Patch: A patch color
                          made with 2 or more solids at a 100% tint value.
743                      </xs:documentation>
744                  </xs:annotation>
745                  </xs:enumeration>
746                  <xs:enumeration value="build">
747                      <xs:annotation>
748                          <xs:documentation xml:lang="en">Build Patch: A patch that is a
                          generic build, not intended to produce a specific color, like a
                          patch in an image.
749                      </xs:documentation>
750                  </xs:annotation>
751                  </xs:enumeration>
752                  <xs:enumeration value="special">
753                      <xs:annotation>
754                          <xs:documentation xml:lang="en">Special Patch: A patch that is

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designed to produce a specific color (like an ECG recipe).

```
755         </xs:documentation>
756     </xs:annotation>
757 </xs:enumeration>
758 </xs:restriction>
759 </xs:simpleType>
760 </xs:element>
761 <!-- ++++++ =====>
762 <!--==== =====>
763 <!--==== Color Chart Type =====>
764 <!--==== =====>
765 <xs:element name="ChartType" type="xs:string">
766     <xs:annotation>
767         <xs:documentation xml:lang="en">field that provides a classification of a
            color chart to be employed</xs:documentation>
768     </xs:annotation>
769 </xs:element>
770 <!-- ++++++ ---->
771 <!--==== =====>
772 <!--==== Registration =====>
773 <!--==== =====>
774 <xs:element name="Registration">
775     <xs:annotation>
776         <xs:documentation xml:lang="en">set of fields that provide quality
            requirements for registration and indicate how that parameter will be
            evaluated by the print buyer
777         </xs:documentation>
778     </xs:annotation>
779     <xs:complexType>
780         <xs:sequence>
781             <xs:element ref="prx:RegistrationScore"/>
782             <xs:element ref="prx:CalculationVariable"/>
783             <xs:element ref="prx:RegistrationParameter" maxOccurs="unbounded"/>
784             <xs:element ref="prx:AdditionalInfo" minOccurs="0" maxOccurs="unbounded"
                />
785             <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
786         </xs:sequence>
787     </xs:complexType>
788 </xs:element>
789 <!--==== =====>
790 <!--==== Registration Score =====>
791 <!--==== =====>
792 <xs:element name="RegistrationScore">
793     <xs:annotation>
794         <xs:documentation xml:lang="en">set of fields that indicate how
            registration will be evaluated by the print buyer
795         </xs:documentation>
796     </xs:annotation>
797     <xs:complexType>
798         <xs:sequence>
799             <xs:element ref="prx:ScoringInfo"/>
800             <xs:element ref="prx:RegistrationScoringScale"/>
801         </xs:sequence>
802     </xs:complexType>
803 </xs:element>
804 <!-- ++++++ =====>
805 <!--==== =====>
806 <!--==== Registration Mark Type =====>
807 <!--==== =====>
808 <xs:element name="MarkType" type="xs:string">
809     <xs:annotation>
810         <xs:documentation xml:lang="en">field that provides a classification or
            name of a registration mark to be employed</xs:documentation>
811     </xs:annotation>
812 </xs:element>
813 <!--==== =====>
```

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814 <!--==== Registration Parameter =====>
815 <!--==== =====>
816 <xs:element name="RegistrationParameter">
817   <xs:annotation>
818     <xs:documentation xml:lang="en">field that provides a registration
      reporting to be employed</xs:documentation>
819   </xs:annotation>
820   <xs:complexType>
821     <xs:sequence maxOccurs="unbounded">
822       <xs:element ref="prx:ParameterName"/>
823       <xs:element ref="prx:RegistrationReportType" minOccurs="0"/>
824       <xs:element ref="prx:MarkType" minOccurs="0"/>
825       <xs:sequence maxOccurs="unbounded">
826         <xs:element ref="prx:CustomerItemIdLink" minOccurs="0"/>
827         <xs:element ref="prx:SamplingPosition"/>
828       </xs:sequence>
829       <xs:element ref="prx:ScoreWeightingFactor" minOccurs="0"/>
830       <xs:element ref="prx:CalculationVariable"/>
831       <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
832     </xs:sequence>
833   </xs:complexType>
834 </xs:element>
835 <!--==== =====>
836 <!--==== Registration Report Type =====>
837 <!--==== =====>
838 <xs:element name="RegistrationReportType" type="prx:registrationReportTypeType">
839   <xs:annotation>
840     <xs:documentation xml:lang="en">field that provides the type registration
      reporting to be employed</xs:documentation>
841   </xs:annotation>
842 </xs:element>
843 <!-- ++++++ =====>
844 <!--==== =====>
845 <!--==== Parameter Name =====>
846 <!--==== =====>
847 <xs:element name="ParameterName" type="xs:string">
848   <xs:annotation>
849     <xs:documentation xml:lang="en">field that provides a label for the
      parameter being specified</xs:documentation>
850   </xs:annotation>
851 </xs:element>
852 <!--==== =====>
853 <!--==== Registration Scoring Scale =====>
854 <!--==== =====>
855 <xs:element name="RegistrationScoringScale">
856   <xs:annotation>
857     <xs:documentation xml:lang="en">set of fields that provide the print
      buyer's enumerations for registration evaluation levels, or scores, and the
      meaning of each
858   </xs:documentation>
859   </xs:annotation>
860   <xs:complexType>
861     <xs:sequence>
862       <xs:element ref="prx:UoM"/>
863       <xs:element ref="prx:ParameterScore" maxOccurs="unbounded"/>
864       <xs:element ref="prx:ZeroBaseline" minOccurs="0"/>
865     </xs:sequence>
866     <xs:attribute name="ScoringInput" type="xs:NMTOKEN" fixed="LinearVariance">
867       <xs:annotation>
868         <xs:documentation xml:lang="en">set field indicating linear
          variance on printed registration mark as the input into color
          scoring calculation
869       </xs:documentation>
870     </xs:annotation>
871   </xs:attribute>
872 </xs:complexType>

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873     </xs:element>
874     <!-- ++++++----->
875     <!--====>
876     <!--====      Defects      >
877     <!--====>
878     <xs:element name="Defects">
879         <xs:annotation>
880             <xs:documentation xml:lang="en">set of fields that provide quality
            requirements for defects and indicate how that parameter will be evaluated
            by the print buyer
            </xs:documentation>
881         </xs:annotation>
882         <xs:complexType>
883             <xs:sequence>
884                 <xs:element ref="prx:ScoringInfo"/>
885                 <xs:element ref="prx:CalculationVariable"/>
886                 <xs:element ref="prx:DefectTypeDefinition" minOccurs="0" maxOccurs=
887                     "unbounded"/>
888                 <xs:element ref="prx:DefectParameter" maxOccurs="unbounded"/>
889                 <xs:element ref="prx:AdditionalInfo" minOccurs="0" maxOccurs="unbounded"
890                     />
891                 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
892             </xs:sequence>
893         </xs:complexType>
894     </xs:element>
895     <!--====>
896     <!--====      Defect Parameter      >
897     <!--====>
898     <xs:element name="DefectParameter">
899         <xs:annotation>
900             <xs:documentation xml:lang="en">set of fields that provide quality
            requirements for a defect parameter and indicate how that parameter will be
            evaluated by the print buyer
            </xs:documentation>
901         </xs:annotation>
902         <xs:complexType>
903             <xs:sequence>
904                 <xs:element ref="prx:ParameterName"/>
905                 <xs:element ref="prx:DefectParameterScale"/>
906                 <xs:sequence maxOccurs="unbounded">
907                     <xs:element ref="prx:CustomerItemIdLink" minOccurs="0"/>
908                     <xs:element ref="prx:SamplingPosition"/>
909                 </xs:sequence>
910                 <xs:element ref="prx:ScoreWeightingFactor" minOccurs="0"/>
911                 <xs:element ref="prx:CalculationVariable"/>
912                 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
913             </xs:sequence>
914         </xs:complexType>
915     </xs:element>
916     <!--====>
917     <!--====      Defect Parameter Scale      >
918     <!--====>
919     <xs:element name="DefectParameterScale">
920         <xs:annotation>
921             <xs:documentation xml:lang="en">set of fields that provide the print
            buyer's enumerations for print quality parameter set evaluation levels, or
            scores, and the meaning of each
            </xs:documentation>
922         </xs:annotation>
923         <xs:complexType>
924             <xs:sequence>
925                 <xs:element ref="prx:UoM"/>
926                 <xs:element ref="prx:ParameterScore" maxOccurs="unbounded"/>
927                 <xs:element ref="prx:ZeroBaseline" minOccurs="0"/>
928             </xs:sequence>
929         </xs:complexType>
930     </xs:element>

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931         <xs:annotation>
932             <xs:documentation xml:lang="en">set field indicating the input
                into defect scoring calculation. streak length, defect size, defect
                count, defect type or multiple parameters concatenated with a comma"
933         </xs:documentation>
934     </xs:annotation>
935 </xs:attribute>
936 </xs:complexType>
937 </xs:element>
938 <!-- ++++++ -->
939 <!--====>
940 <!--==== Defect Type >
941 <!--====>
942 <xs:element name="DefectTypeDefinition">
943     <xs:annotation>
944         <xs:documentation xml:lang="en">field that provides nomenclature for
                defects that will be evaluated by the print buyer
945     </xs:documentation>
946 </xs:annotation>
947 <xs:complexType>
948     <xs:sequence>
949         <xs:element ref="prx:DefectName"/>
950         <xs:element ref="prx:DefectDefinition"/>
951     </xs:sequence>
952 </xs:complexType>
953 </xs:element>
954 <!--====>
955 <!--==== Defect Name >
956 <!--====>
957 <xs:element name="DefectName" type="xs:NMTOKEN"/>
958 <!--====>
959 <!--==== Definition >
960 <!--====>
961 <xs:element name="DefectDefinition" type="xs:string"/>
962 <!--====>
963 <!--==== Unit of Measure >
964 <!--====>
965 <xs:element name="UoM" type="prx:UoMType">
966     <xs:annotation>
967         <xs:documentation xml:lang="en">field that provides the unit of measure to
                be used for a value statement</xs:documentation>
968     </xs:annotation>
969 </xs:element>
970 <!-- ++++++ -->
971 <!--====>
972 <!--==== Barcode >
973 <!--====>
974 <xs:element name="Barcode">
975     <xs:annotation>
976         <xs:documentation xml:lang="en">set of fields that provide quality
                requirements for barcodes and indicate how that parameter will be evaluated
                by the print buyer
977     </xs:documentation>
978 </xs:annotation>
979 <xs:complexType>
980     <xs:sequence>
981         <xs:element ref="prx:ComplianceGoal" maxOccurs="unbounded"/>
982         <xs:element ref="prx:BarcodeScore"/>
983         <xs:element ref="prx:CalculationVariable"/>
984         <xs:element ref="prx:BarcodeParameter" maxOccurs="unbounded"/>
985         <xs:element ref="prx:AdditionalInfo" minOccurs="0" maxOccurs="unbounded"
                />
986         <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
987     </xs:sequence>
988 </xs:complexType>
989 </xs:element>

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990      <!--====          =====>
991      <!--====      Barcode Score          =====>
992      <!--====          =====>
993      <xs:element name="BarcodeScore">
994          <xs:annotation>
995              <xs:documentation xml:lang="en">set of fields that provide print buyer's
          barcode scoring
996          </xs:documentation>
997          </xs:annotation>
998          <xs:complexType>
999              <xs:sequence>
1000                  <xs:element ref="prx:ScoringInfo"/>
1001                  <xs:element ref="prx:BarcodeScoringScale"/>
1002              </xs:sequence>
1003          </xs:complexType>
1004      </xs:element>
1005      <!--====          =====>
1006      <!--====      Barcode Parameter          =====>
1007      <!--====          =====>
1008      <xs:element name="BarcodeParameter">
1009          <xs:annotation>
1010              <xs:documentation xml:lang="en">set of fields that provide quality
          requirements for a barcode parameter and indicate how that parameter will
          be evaluated by the print buyer
1011          </xs:documentation>
1012          </xs:annotation>
1013          <xs:complexType>
1014              <xs:sequence>
1015                  <xs:element ref="prx:BarcodeSymbology"/>
1016                  <xs:sequence maxOccurs="unbounded">
1017                      <xs:element ref="prx:CustomerItemIdLink" minOccurs="0"/>
1018                      <xs:element ref="prx:SamplingPosition"/>
1019                  </xs:sequence>
1020                  <xs:element ref="prx:ScoreWeightingFactor" minOccurs="0"/>
1021                  <xs:element ref="prx:CalculationVariable"/>
1022                  <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
1023              </xs:sequence>
1024          </xs:complexType>
1025      </xs:element>
1026      <!--====          =====>
1027      <!--====      Barcode Symbology          =====>
1028      <!--====          =====>
1029      <xs:element name="BarcodeSymbology">
1030          <xs:annotation>
1031              <xs:documentation xml:lang="en">set of fields that provide the specific
          type of barcode being evaluated </xs:documentation>
1032          </xs:annotation>
1033          <xs:simpleType>
1034              <xs:annotation>
1035                  <xs:documentation xml:lang="en">PQX datatype made up of the union of
          standard barcode symbol types and a user-defined custom value
          </xs:documentation>
1036              </xs:annotation>
1037              <xs:restriction base="xs:string">
1038                  <xs:enumeration value="AztecCode">
1039                      <xs:annotation>
1040                          <xs:documentation xml:lang="en">Aztec Code: a type of 2D
          barcode published as ISO/IEC 24778:2008 standard. Named after
          the resemblance of the central finder pattern to an Aztec
          pyramid, Aztec code has the potential to use less space than
          other matrix barcodes because it does not require a surrounding
          blank "quiet zone".</xs:documentation>
1041                      </xs:annotation>
1042                  </xs:enumeration>
1043                  <xs:enumeration value="Codabar">
1044                      <xs:annotation>

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1045         <xs:documentation xml:lang="en">Codabar: (also called Ames
Code, Code 2 of 7, NW-7, USD-4, and other names) was developed
in 1972 by Pitney Bowes. The barcode was designed to be
accurately read even when printed by dot matrix and impact
printers (the most common print technology in use in the early
1970's).</xs:documentation>
1046     </xs:annotation>
1047 </xs:enumeration>
1048 <xs:enumeration value="Code11">
1049     <xs:annotation>
1050         <xs:documentation xml:lang="en">Code 11: barcode symbology
developed by Intermec in 1977. It is used primarily in
telecommunications. The symbol can encode any length string
consisting of the digits 0-9 and the dash character (-).
1051     </xs:documentation>
1052     </xs:annotation>
1053 </xs:enumeration>
1054 <xs:enumeration value="Code128">
1055     <xs:annotation>
1056         <xs:documentation xml:lang="en">Code 128: high-density linear
barcode symbology. It is used for alphanumeric or numeric-only
barcodes. It can encode all 128 characters of ASCII and, by use
of an extension symbol (FNC4), the Latin-1 characters defined
in ISO/IEC 8859-1.</xs:documentation>
1057     </xs:annotation>
1058 </xs:enumeration>
1059 <xs:enumeration value="Code39">
1060     <xs:annotation>
1061         <xs:documentation xml:lang="en">Code 39: (also known as
Alpha39, Code 3 of 9, Code 3/9, Type 39, USS Code 39, or USD-3)
is a variable length, discrete barcode symbology defining 43
characters.</xs:documentation>
1062     </xs:annotation>
1063 </xs:enumeration>
1064 <xs:enumeration value="Code32">
1065     <xs:annotation>
1066         <xs:documentation xml:lang="en">Code 32: was used all over
Italy for the encoding of pharmaceutical products.
</xs:documentation>
1067     </xs:annotation>
1068 </xs:enumeration>
1069 <xs:enumeration value="CrontoSign">
1070     <xs:annotation>
1071         <xs:documentation xml:lang="en">CrontoSign: graphical
cryptogram consisting of a matrix of colored dots used to
secure banking transactions.</xs:documentation>
1072     </xs:annotation>
1073 </xs:enumeration>
1074 <xs:enumeration value="Pharmacode">
1075     <xs:annotation>
1076         <xs:documentation xml:lang="en">Pharmacode: 1D barcode used
mainly in the pharmaceutical manufacturing.
1077     </xs:documentation>
1078     </xs:annotation>
1079 </xs:enumeration>
1080 <xs:enumeration value="ExtendedCode39">
1081     <xs:annotation>
1082         <xs:documentation xml:lang="en">Extended Code 39: (also known
as Alpha39, Code 3 of 9, Code 3/9, Type 39, USS Code 39, or
USD-3) is a variable length, discrete barcode symbology.
</xs:documentation>
1083     </xs:annotation>
1084 </xs:enumeration>
1085 <xs:enumeration value="Code49">
1086     <xs:annotation>
1087         <xs:documentation xml:lang="en">Code 49: stacked symbol

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1088         containing between 2 and 8 rows, each separated by a separator
1089         bar. Each row contains 16 "words" (which are generated from
1090         character pairs) and a start and stop character. The last row
1091         also contains the number of rows in the symbol and the check
1092         digit characters.</xs:documentation>
1093     </xs:annotation>
1094 </xs:enumeration>
1095 <xs:enumeration value="Code93">
1096     <xs:annotation>
1097         <xs:documentation xml:lang="en">Code 93: barcode symbology
            designed in 1982 by Intermec to provide a higher density and
            data security enhancement to Code 39. It is an alphanumeric,
            variable length symbology. Code 93 is used primarily by Canada
            Post to encode supplementary delivery information.
            </xs:documentation>
1098     </xs:annotation>
1099 </xs:enumeration>
1100 <xs:enumeration value="CPCBinary">
1101     <xs:annotation>
1102         <xs:documentation xml:lang="en">CPC Binary Barcode: Canada
            Post's proprietary symbology used in its automated mail
            sortation operations. </xs:documentation>
1103     </xs:annotation>
1104 </xs:enumeration>
1105 <xs:enumeration value="DataMatrix">
1106     <xs:annotation>
1107         <xs:documentation xml:lang="en">Data Matrix: two-dimensional
            matrix barcode consisting of black and white "cells" or modules
            arranged in either a square or rectangular pattern encoding
            either text or numeric data.</xs:documentation>
1108     </xs:annotation>
1109 </xs:enumeration>
1110 <xs:enumeration value="EAN-2">
1111     <xs:annotation>
1112         <xs:documentation xml:lang="en">EAN-2: isupplement to the
            EAN-13 and UPC-A barcodes. It is often used on magazines and
            periodicals to indicate an issue number. </xs:documentation>
1113     </xs:annotation>
1114 </xs:enumeration>
1115 <xs:enumeration value="EAN-5">
1116     <xs:annotation>
1117         <xs:documentation xml:lang="en">EAN-5: 5 digit supplement to
            the EAN-13 barcode used on books.</xs:documentation>
1118     </xs:annotation>
1119 </xs:enumeration>
1120 <xs:enumeration value="EAN-8">
1121     <xs:annotation>
1122         <xs:documentation xml:lang="en">EAN-8: barcode and is derived
            from the longer International Article Number (EAN-13) code used
            on small packages.</xs:documentation>
1123     </xs:annotation>
1124 </xs:enumeration>
1125 <xs:enumeration value="EAN-13">
1126     <xs:annotation>
1127         <xs:documentation xml:lang="en">EAN-13: superset of the
            original 12-digit Universal Product Code (UPC-A) standard with
            3 added digits to indicate country and product.
            </xs:documentation>
1128     </xs:annotation>

```

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1129         </xs:enumeration>
1130         <xs:enumeration value="EANBookland">
1131             <xs:annotation>
1132                 <xs:documentation xml:lang="en">Bookland EAN barcode: two
                    barcodes placed next to each other, usually used to code the
                    retail price of the book. On the left is a large barcode
                    generated by the book's ISBN, while on the right, a smaller
                    barcode accommodating only 5 digits.</xs:documentation>
1133             </xs:annotation>
1134         </xs:enumeration>
1135         <xs:enumeration value="HAN-XINBarcode">
1136             <xs:annotation>
1137                 <xs:documentation xml:lang="en">Han Xin barcode is a 2D barcode
                    developed by China for the encoding the Chinese characters and
                    other text information efficiently.</xs:documentation>
1138             </xs:annotation>
1139         </xs:enumeration>
1140         <xs:enumeration value="HighCapacityColorBarcode">
1141             <xs:annotation>
1142                 <xs:documentation xml:lang="en">High Capacity Color Barcode:
                    (HCCB) is a technology developed by Microsoft for encoding data
                    in a 2D "barcode" using clusters of colored triangles instead
                    of the square pixels conventionally associated with 2D barcodes
                    or QR codes.</xs:documentation>
1143             </xs:annotation>
1144         </xs:enumeration>
1145         <xs:enumeration value="IntelligentMailBarcode">
1146             <xs:annotation>
1147                 <xs:documentation xml:lang="en">The Intelligent Mail Barcode:
                    (IM barcode) is a 65-bar code for use to efficiently deliver
                    mail in the United States.
1148             </xs:documentation>
1149             </xs:annotation>
1150         </xs:enumeration>
1151         <xs:enumeration value="Industrial2of5">
1152             <xs:annotation>
1153                 <xs:documentation xml:lang="en">Industrial 2 of 5: 1D barcode
                    where each character consists of 2 wide Elements out of 5
                    barcode elements.Also known as Interleaved 2 of 5.
1154                 </xs:documentation>
1155             </xs:annotation>
1156         </xs:enumeration>
1157         <xs:enumeration value="Interleaved2of5">
1158             <xs:annotation>
1159                 <xs:documentation xml:lang="en">Interleaved 2of5: 1D barcode
                    with nine functional characters (123456789) and one symbol
                    check character (5).</xs:documentation>
1160             </xs:annotation>
1161         </xs:enumeration>
1162         <xs:enumeration value="ITF-14">
1163             <xs:annotation>
1164                 <xs:documentation xml:lang="en">ITF 14: 1D barcode symbology
                    which is derived from interleaved 2 of 5 and easily encodes 14
                    digits.</xs:documentation>
1165             </xs:annotation>
1166         </xs:enumeration>
1167         <xs:enumeration value="JAN">
1168             <xs:annotation>
1169                 <xs:documentation xml:lang="en">JAN: thirteen-digit EAN-13
                    where a prefix with the first two digits of "45" or "49"
                    indicates a Japanese Article Number.</xs:documentation>
1170             </xs:annotation>
1171         </xs:enumeration>
1172         <xs:enumeration value="KarTrak">
1173             <xs:annotation>
1174                 <xs:documentation xml:lang="en">KarTrak: sometimes KarTrak ACI

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        (for Automatic Car Identification) is a colored bar code system
        designed to automatically identify rail cars and other rolling
        stock.</xs:documentation>
1174     </xs:annotation>
1175 </xs:enumeration>
1176 <xs:enumeration value="LOGMARS">
1177     <xs:annotation>
1178         <xs:documentation xml:lang="en">LOGMARS: stands for Logistics
        Applications of Automated Marking and Reading Symbols. It is a
        variation of code 39 as defined in Military Standard
        MIL-STD-1189B.</xs:documentation>
1179     </xs:annotation>
1180 </xs:enumeration>
1181 <xs:enumeration value="MaxiCode">
1182     <xs:annotation>
1183         <xs:documentation xml:lang="en">MaxiCode: barcode used mainly
        by UPS (United Parcel Service) for sorting and tracking
        packages. Also known as maxi code, the MaxiCode specification
        is a 1-inch square that can store up to 83 characters of
        information.</xs:documentation>
1184     </xs:annotation>
1185 </xs:enumeration>
1186 <xs:enumeration value="MMCC">
1187     <xs:annotation>
1188         <xs:documentation xml:lang="en">MMCC; mobile multi-coloured
        composite (MMCC) is a two dimensional coloured barcode designed
        to distribute media via traditional print media, without the
        need for network connectivity. </xs:documentation>
1189     </xs:annotation>
1190 </xs:enumeration>
1191 <xs:enumeration value="MSIPlessey">
1192     <xs:annotation>
1193         <xs:documentation xml:lang="en">MSI: (also known as Modified
        Plessey) is a barcode symbology developed by the MSI Data
        Corporation, based on the original Plessey Code symbology. It
        is a continuous symbology that is not self-checking. MSI is
        used primarily for inventory control, marking storage
        containers and shelves in warehouse environments.
        </xs:documentation>
1194     </xs:annotation>
1195 </xs:enumeration>
1196 <xs:enumeration value="OPCOpticalIndustryAssociation">
1197     <xs:annotation>
1198         <xs:documentation xml:lang="en">OPC: barcode for marking retail
        optical products.</xs:documentation>
1199     </xs:annotation>
1200 </xs:enumeration>
1201 <xs:enumeration value="PDF-417">
1202     <xs:annotation>
1203         <xs:documentation xml:lang="en">PDF417: is a stacked linear
        barcode symbol format used in a variety of applications,
        primarily transport, identification cards, and inventory
        management. PDF stands for Portable Data File. The 417
        signifies that each pattern in the code consists of 4 bars and
        spaces, and that each pattern is 17 units long.
        </xs:documentation>
1204     </xs:annotation>
1205 </xs:enumeration>
1206 <xs:enumeration value="Plessey">
1207     <xs:annotation>
1208         <xs:documentation xml:lang="en">Plessey Code is a 1D barcode
        used in some libraries and for shelf tags in retail stores to
        support internal stock control. </xs:documentation>
1209     </xs:annotation>
1210 </xs:enumeration>
1211 <xs:enumeration value="PostBar">

```



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1212         <xs:annotation>
1213             <xs:documentation xml:lang="en">PostBar, also known as CPC
                4-State, is the black-ink barcode system used by Canada Post in
                its automated mail sorting and delivery operations.
            </xs:documentation>
        </xs:annotation>
1214     </xs:enumeration>
1215     <xs:enumeration value="POSTNET">
1216         <xs:annotation>
1217             <xs:documentation xml:lang="en">POSTNET (Postal Numeric
                Encoding Technique) is a barcode symbology used by the United
                States Postal Service to assist in directing mail. The ZIP Code
                or ZIP+4 code is encoded in half- and full-height bars.
            </xs:documentation>
        </xs:annotation>
1219     </xs:enumeration>
1220     <xs:enumeration value="QRCode">
1221         <xs:annotation>
1222             <xs:documentation xml:lang="en">QR Code (Quick Response Code)
                is a machine-readable code consisting of an array of black and
                white squares, typically used for storing URLs or other
                information for reading by the camera on a smartphone.
            </xs:documentation>
        </xs:annotation>
1224     </xs:enumeration>
1225     <xs:enumeration value="SCC-14">
1226         <xs:annotation>
1227             <xs:documentation xml:lang="en">SCC 14 barcode or Shipping
                Container Code is a 14-digit number assigned to fixed content
                shipping containers. </xs:documentation>
        </xs:annotation>
1229     </xs:enumeration>
1230     <xs:enumeration value="Standard2of5">
1231         <xs:annotation>
1232             <xs:documentation xml:lang="en">Standard 2 of 5 is a very
                simple symbology in that all encoding information is encoded in
                the width of the bars. The spaces in the barcode exist only to
                separate the bars themselves. Additionally, a bar may either be
                wide or narrow, a wide bar generally being 3 times as wide as a
                narrow bar.</xs:documentation>
        </xs:annotation>
1234     </xs:enumeration>
1235     <xs:enumeration value="Telepen">
1236         <xs:annotation>
1237             <xs:documentation xml:lang="en">Telepen is a name of a barcode
                symbology designed in 1972 in the UK to express all 128 ASCII
                characters without using shift characters for code switching,
                and using only two different widths for bars and spaces.
            </xs:documentation>
        </xs:annotation>
1239     </xs:enumeration>
1240     <xs:enumeration value="UCC/EAN-128">
1241         <xs:annotation>
1242             <xs:documentation xml:lang="en">GS1-128 is an application
                standard of the GS1 implementation using the Code 128 barcode
                specification. The former correct name was UCC/EAN-128. Other
                no longer used names have included UCC-128 and EAN-128. GS1-128
                uses a series of Application Identifiers to include additional
                data such as best before dates, batch numbers, quantities,
                weights and many other attributes needed </xs:documentation>
        </xs:annotation>
1244     </xs:enumeration>
1245     <xs:enumeration value="UPC-ITF-14">
1246         <xs:annotation>
1247             <xs:documentation xml:lang="en"> is the GS1 implementation of
                an Interleaved 2 of 5 bar code to encode a Global Trade Item

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Number. ITF-14 symbols are generally used on packaging levels of a product, such as a case box of 24 cans of soup. The ITF-14 will always encode 14 digits.

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1249     </xs:documentation>
1250     </xs:annotation>
1251 </xs:enumeration>
1252 <xs:enumeration value="UPC-A">
1253     <xs:annotation>
1254         <xs:documentation xml:lang="en">The Universal Product Code is a
            1D barcode symbology that is widely used in the United States
            for tracking trade items in stores, as well as books,
            magazines, and newspapers.</xs:documentation>
1255     </xs:annotation>
1256 </xs:enumeration>
1257 <xs:enumeration value="UPC-E">
1258     <xs:annotation>
1259         <xs:documentation xml:lang="en">UPC-E is a variation of UPC-A
            which allows for a more compact barcode by eliminating "extra"
            zeros. Since the resulting UPC-E barcode is about half the size
            as an UPC-A barcode, UPC-E is generally used on products with
            very small packaging where a full UPC-A barcode couldn't
            reasonably fit.</xs:documentation>
1260     </xs:annotation>
1261 </xs:enumeration>
1262 <xs:enumeration value="other">
1263     <xs:annotation>
1264         <xs:documentation xml:lang="en">Other is designated for a
            barcode not found on the PQX list of standard barcode types
1265     </xs:documentation>
1266     </xs:annotation>
1267 </xs:enumeration>
1268 </xs:restriction>
1269 </xs:simpleType>
1270 </xs:element>
1271 <!--====>====-->
1272 <!--====>====--> Barcode Scoring Scale <!--====>====-->
1273 <!--====>====-->
1274 <xs:element name="BarcodeScoringScale">
1275     <xs:annotation>
1276         <xs:documentation xml:lang="en">set of fields that provide the print
            buyer's enumerations for barcode verification evaluation levels, or scores,
            and the meaning of each
1277     </xs:documentation>
1278 </xs:annotation>
1279 <xs:complexType>
1280     <xs:sequence>
1281         <xs:element ref="prx:Score" maxOccurs="unbounded"/>
1282         <xs:element ref="prx:ZeroBaseline" minOccurs="0"/>
1283     </xs:sequence>
1284     <xs:attribute name="ScoringInput" type="xs:NMTOKEN" fixed="ISOVerification">
1285         <xs:annotation>
1286             <xs:documentation xml:lang="en">set field indicating ISO
                verification scores as the input into barcode scoring calculation
1287             </xs:documentation>
1288             </xs:annotation>
1289         </xs:attribute>
1290     </xs:complexType>
1291 </xs:element>
1292 <!--====>====-->
1293 <!--====>====-->
1294 <!--====>====--> Position Definition <!--====>====-->
1295 <!--====>====-->
1296 <xs:element name="PositionDefinition">
1297     <xs:annotation>
1298         <xs:documentation xml:lang="en">set of fields that define a single
            "PositionOnSample" location
```



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1299         </xs:documentation>
1300     </xs:annotation>
1301     <xs:complexType>
1302         <xs:sequence>
1303             <xs:element ref="prx:XPosition"/>
1304             <xs:element ref="prx:YPosition"/>
1305         </xs:sequence>
1306         <xs:attribute name="PositionLabel" type="xs:NMTOKEN" use="required">
1307             <xs:annotation>
1308                 <xs:documentation xml:lang="en">field that provides name or
                    identifier for the position
1309             </xs:documentation>
1310             </xs:annotation>
1311         </xs:attribute>
1312     </xs:complexType>
1313 </xs:element>
1314 <!--==== ++++++=====----->
1315 <!--====----->
1316 <!--====          X Position          ----->
1317 <!--====----->
1318 <xs:element name="XPosition" type="xs:decimal">
1319     <xs:annotation>
1320         <xs:documentation xml:lang="en">field that provides the sampling location
                    on a printed item measured along the X (horizontal) axis in the position
                    unit of measure</xs:documentation>
1321     </xs:annotation>
1322 </xs:element>
1323 <!--==== ++++++=====----->
1324 <!--====----->
1325 <!--====          Y Position          ----->
1326 <!--====----->
1327 <xs:element name="YPosition" type="xs:decimal">
1328     <xs:annotation>
1329         <xs:documentation xml:lang="en">field that provides the sampling location
                    on a printed item measured along the Y (vertical) axis in the position unit
                    of measure</xs:documentation>
1330     </xs:annotation>
1331 </xs:element>
1332 <!--====----->
1333 <!--====          UoM Type          ----->
1334 <!--====----->
1335 <xs:simpleType name="UoMType">
1336     <xs:annotation>
1337         <xs:documentation xml:lang="en">PRX datatype made up of a list of standard
                    length measurement types, area types and other relevant types
1338     </xs:documentation>
1339 </xs:annotation>
1340     <xs:restriction base="xs:NMTOKEN">
1341         <xs:enumeration value="ft">
1342             <xs:annotation>
1343                 <xs:documentation xml:lang="en">Foot Type: abbreviation for foot
1344             </xs:documentation>
1345             </xs:annotation>
1346         </xs:enumeration>
1347         <xs:enumeration value="in">
1348             <xs:annotation>
1349                 <xs:documentation xml:lang="en">Inch Type: abbreviation for inch
1350             </xs:documentation>
1351             </xs:annotation>
1352         </xs:enumeration>
1353         <xs:enumeration value="yd">
1354             <xs:annotation>
1355                 <xs:documentation xml:lang="en">Yard Type: abbreviation for yard
1356             </xs:documentation>
1357             </xs:annotation>
1358         </xs:enumeration>

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```
1358     <xs:enumeration value="m">
1359         <xs:annotation>
1360             <xs:documentation xml:lang="en">MeterType: abbreviation for meter
1361             </xs:documentation>
1362         </xs:annotation>
1363     </xs:enumeration>
1364     <xs:enumeration value="cm">
1365         <xs:annotation>
1366             <xs:documentation xml:lang="en">Centimeter Type: abbreviation for
1367                 centimeter
1368             </xs:documentation>
1369         </xs:annotation>
1370     </xs:enumeration>
1371     <xs:enumeration value="mm">
1372         <xs:annotation>
1373             <xs:documentation xml:lang="en">Milimeter Type: abbreviation for
1374                 milimeter
1375             </xs:documentation>
1376         </xs:annotation>
1377     </xs:enumeration>
1378     <xs:enumeration value="nm">
1379         <xs:annotation>
1380             <xs:documentation xml:lang="en">Nanometer Type: abbreviation for
1381                 nanometer
1382             </xs:documentation>
1383         </xs:annotation>
1384     </xs:enumeration>
1385     <xs:enumeration value="um">
1386         <xs:annotation>
1387             <xs:documentation xml:lang="en">Micrometer Type: abbreviation for
1388                 micron
1389             </xs:documentation>
1390         </xs:annotation>
1391     </xs:enumeration>
1392     <xs:enumeration value="pt">
1393         <xs:annotation>
1394             <xs:documentation xml:lang="en">Point Type: abbreviation for
1395                 relative measure of point
1396             </xs:documentation>
1397         </xs:annotation>
1398     </xs:enumeration>
1399     <xs:enumeration value="pc">
1400         <xs:annotation>
1401             <xs:documentation xml:lang="en">Pica Type: abbreviation for
1402                 relative measure of pica
1403             </xs:documentation>
1404         </xs:annotation>
1405     </xs:enumeration>
1406     <xs:enumeration value="ln">
1407         <xs:annotation>
1408             <xs:documentation xml:lang="en">Line Type: abbreviation for
1409                 relative measure of a line
1410             </xs:documentation>
1411         </xs:annotation>
1412     </xs:enumeration>
1413     <xs:enumeration value="ft2">
1414         <xs:annotation>
1415             <xs:documentation xml:lang="en">FootSquared : abbreviation for
1416                 square foot
1417             </xs:documentation>
1418         </xs:annotation>
1419     </xs:enumeration>
1420     <xs:enumeration value="in2">
1421         <xs:annotation>
1422             <xs:documentation xml:lang="en">Inch Squared Type: abbreviation for
1423                 square inch
1424             </xs:documentation>
1425         </xs:annotation>
1426     </xs:enumeration>
1427 </xs:annotation>
1428 </xs:enumeration>
1429 </xs:annotation>
1430 </xs:enumeration>
```

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1415         </xs:documentation>
1416     </xs:annotation>
1417 </xs:enumeration>
1418 <xs:enumeration value="yd2">
1419     <xs:annotation>
1420         <xs:documentation xml:lang="en">Yard Squared Type: abbreviation for
            square yard
1421         </xs:documentation>
1422     </xs:annotation>
1423 </xs:enumeration>
1424 <xs:enumeration value="m2">
1425     <xs:annotation>
1426         <xs:documentation xml:lang="en">Meter Squared Type: abbreviation
            for square meter
1427         </xs:documentation>
1428     </xs:annotation>
1429 </xs:enumeration>
1430 <xs:enumeration value="cm2">
1431     <xs:annotation>
1432         <xs:documentation xml:lang="en">Centimeter Squared Type:
            abbreviation for square centimeter
1433         </xs:documentation>
1434     </xs:annotation>
1435 </xs:enumeration>
1436 <xs:enumeration value="mm2">
1437     <xs:annotation>
1438         <xs:documentation xml:lang="en">Milimeter Squared Type:
            abbreviation for square millimeter
1439         </xs:documentation>
1440     </xs:annotation>
1441 </xs:enumeration>
1442 <xs:enumeration value="nm2">
1443     <xs:annotation>
1444         <xs:documentation xml:lang="en">Nanometer Squared Type:
            abbreviation for square nanometer
1445         </xs:documentation>
1446     </xs:annotation>
1447 </xs:enumeration>
1448 <xs:enumeration value="um2">
1449     <xs:annotation>
1450         <xs:documentation xml:lang="en">Micrometer Squared Type:
            abbreviation for square micron
1451         </xs:documentation>
1452     </xs:annotation>
1453 </xs:enumeration>
1454 <xs:enumeration value="dE">
1455     <xs:annotation>
1456         <xs:documentation xml:lang="en">DeltaE Type: abbreviation for DeltaE
1457         </xs:documentation>
1458     </xs:annotation>
1459 </xs:enumeration>
1460 <xs:enumeration value="dE2000">
1461     <xs:annotation>
1462         <xs:documentation xml:lang="en">DeltaE Type: abbreviation for DeltaE
1463         </xs:documentation>
1464     </xs:annotation>
1465 </xs:enumeration>
1466 <xs:enumeration value="dE76">
1467     <xs:annotation>
1468         <xs:documentation xml:lang="en">DeltaE Type: abbreviation for DeltaE
1469         </xs:documentation>
1470     </xs:annotation>
1471 </xs:enumeration>
1472 <xs:enumeration value="items">
1473     <xs:annotation>
1474         <xs:documentation xml:lang="en">Item Type: measure of the number of

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1475         printed items such as cans, bottles, sheets, etc.
1476     </xs:documentation>
1477 </xs:annotation>
1478 </xs:enumeration>
1479 <xs:enumeration value="percent">
1480     <xs:annotation>
1481         <xs:documentation xml:lang="en">Percent Type: measure of the
1482         percent of printed items such as cans, bottles, sheets, etc.
1483     </xs:documentation>
1484     </xs:annotation>
1485 </xs:enumeration>
1486 <xs:enumeration value="count">
1487     <xs:annotation>
1488         <xs:documentation xml:lang="en">Count Type: measure of the
1489         occurence number (such as defect count)
1490     </xs:documentation>
1491     </xs:annotation>
1492 </xs:enumeration>
1493 <xs:enumeration value="severity">
1494     <xs:annotation>
1495         <xs:documentation xml:lang="en">Severity Type: the defect level of
1496         severity (on a scale of 1-10 with 1 being the least severe)
1497     </xs:documentation>
1498     </xs:annotation>
1499 </xs:enumeration>
1500 </xs:restriction>
1501 </xs:simpleType>
1502 <!--====>
1503 <!--====> Scoring Scale Type <!--====>
1504 <!--====>
1505 <xs:complexType name="scoringScaleType">
1506     <xs:sequence>
1507         <xs:element ref="prx:Score" maxOccurs="unbounded"/>
1508         <xs:element ref="prx:ZeroBaseline"/>
1509     </xs:sequence>
1510 </xs:complexType>
1511 <!--====>
1512 <!--====> Parameter Score <!--====>
1513 <!--====>
1514 <xs:element name="ParameterScore">
1515     <xs:annotation>
1516         <xs:documentation xml:lang="en">set of fields that provide the quality
1517         evaluation for an individual defect parameter </xs:documentation>
1518     </xs:annotation>
1519 <xs:complexType>
1520     <xs:sequence>
1521         <xs:element ref="prx:ValueRange"/>
1522     </xs:sequence>
1523     <xs:attribute name="DisplayLabel" type="prx:gradeLabelType" use="required"/>
1524     <xs:attribute name="Rank" type="xs:positiveInteger" use="required"/>
1525 </xs:complexType>
1526 </xs:element>
1527 <!--====>
1528 <!--====> Score <!--====>
1529 <!--====>
1530 <xs:element name="Score">
1531     <xs:annotation>
1532         <xs:documentation xml:lang="en">set of fields used to communicate the print
1533         buyer's evaluation for the quality of a print parameter such as colour or

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barcode readability, that contribute to an overall print quality grade
</xs:documentation>
1534 </xs:annotation>
1535 <xs:complexType>
1536   <xs:attribute name="DisplayLabel" type="prx:gradeLabelType" use="required"/>
1537   <xs:attribute name="Rank" type="xs:positiveInteger" use="required"/>
1538 </xs:complexType>
1539 </xs:element>
1540 <!--====>
1541 <!--==== Zero Baseline >
1542 <!--====>
1543 <xs:element name="ZeroBaseline">
1544   <xs:annotation>
1545     <xs:documentation xml:lang="en">field that identifies the lowest quality
      ranking based on a numeric value of zero</xs:documentation>
1546   </xs:annotation>
1547   <xs:complexType>
1548     <xs:attribute name="DisplayLabel" type="prx:gradeLabelType" use="required"/>
1549   </xs:complexType>
1550 </xs:element>
1551 <!--====>
1552 <!--==== CxF Reference Link >
1553 <!--====>
1554 <xs:element name="CxFReferenceLinkId" type="xs:NCName">
1555   <xs:annotation>
1556     <xs:documentation xml:lang="en">color measurement field that provides a
      link to the Standard/Aim CxF object Id for this measurement. Note to
      Entry: If standard aim values are known to both parties this field is not
      required to be transmitted back to the brand within the PRX message.
      </xs:documentation>
1557   </xs:annotation>
1558 </xs:element>
1559 <!--====>
1560 <!--==== CxF Reference Data >
1561 <!--====>
1562 <xs:element name="CxFReferenceData">
1563   <xs:annotation>
1564     <xs:documentation xml:lang="en">set of fields made up of CxF reference
      (standard) data for quality color aims. Note: ID's of CxF objects in this
      block are referenced to provide direct addressability of object colour data
      stores for print quality requirements specification.</xs:documentation>
1565   </xs:annotation>
1566   <xs:complexType>
1567     <xs:sequence>
1568       <xs:element ref="cc:CxF" minOccurs="1"/>
1569     </xs:sequence>
1570   </xs:complexType>
1571 </xs:element>
1572 <!--====>
1573 <!--==== Sampling Positions >
1574 <!--====>
1575 <xs:element name="SamplingPosition">
1576   <xs:annotation>
1577     <xs:documentation xml:lang="en">set of fields that provide the positions on
      a sample that the buyer requires quality measurement or observation and
      reporting
      </xs:documentation>
1578   </xs:annotation>
1579   <xs:complexType>
1580     <xs:choice>
1581       <xs:element ref="prx:SamplingPositionImageIdLink">
1582         <xs:annotation>
1583           <xs:appinfo>field that provides a link to a sampling position
              image stored within the SamplingPositionImageData block
              </xs:appinfo>
1584         </xs:annotation>

```

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1586         </xs:element>
1587         <xs:element ref="prx:SamplingPositionMatrix"/>
1588     </xs:choice>
1589 </xs:complexType>
1590 </xs:element>
1591 <!--====>
1592 <!--==== Sampling Position Image IdLink >
1593 <!--====>
1594 <xs:element name="SamplingPositionImageIdLink" type="xs:anyURI">
1595     <xs:annotation>
1596         <xs:documentation xml:lang="en">link to the image of a samplinf position
            contained in the SamplingPositionImageData block
1597         </xs:documentation>
1598     </xs:annotation>
1599 </xs:element>
1600 <!--==== ++++++>
1601 <!--====>
1602 <!--==== Sampling Position Matrix >
1603 <!--====>
1604 <xs:element name="SamplingPositionMatrix">
1605     <xs:annotation>
1606         <xs:documentation xml:lang="en">set of fields that provide the geometric
            coordinates for sampling on a printed customer items
1607         </xs:documentation>
1608     </xs:annotation>
1609     <xs:complexType>
1610         <xs:sequence>
1611             <xs:element ref="prx:UoM"/>
1612             <xs:element ref="prx:Origin"/>
1613             <xs:element ref="prx:PositionDefinition" maxOccurs="unbounded"/>
1614         </xs:sequence>
1615     </xs:complexType>
1616 </xs:element>
1617 <!--====>
1618 <!--==== Origin >
1619 <!--====>
1620 <xs:element name="Origin" type="prx:originType" default="BL">
1621     <xs:annotation>
1622         <xs:documentation xml:lang="en">field that designates the starting point
            for a position definition</xs:documentation>
1623     </xs:annotation>
1624 </xs:element>
1625 <!--====>
1626 <!--==== Compliance Goal >
1627 <!--====>
1628 <xs:element name="ComplianceGoal" type="xs:string">
1629     <xs:annotation>
1630         <xs:documentation xml:lang="en">field that designates a print buyer's
            compliance goal
1631         Note 1 to Entry: The ComplianceGoal field may be a named specification or
            it may be a link to a specification. Note 2 to Entry: Only a single
            specification may be listed per field. If the print buyer has multiple
            compliance goals, multiple RequiredCompliance fields should be transmitted.
1632         </xs:documentation>
1633     </xs:annotation>
1634 </xs:element>
1635 <!--====>
1636 <!--==== Additional Info >
1637 <!--====>
1638 <xs:element name="AdditionalInfo" type="xs:string">
1639     <xs:annotation>
1640         <xs:documentation xml:lang="en">string used to provide more information
1641         </xs:documentation>
1642     </xs:annotation>
1643 </xs:element>
1644 <!--====>

```

```

1645 <!--====>
1646 <!--==== Location Image Data >
1647 <!--====>
1648 <xs:element name="SamplingPositionImageData">
1649   <xs:annotation>
1650     <xs:documentation xml:lang="en">set of fields that identify the sampling
        position location images</xs:documentation>
1651   </xs:annotation>
1652   <xs:complexType>
1653     <xs:sequence>
1654       <xs:element ref="prx:PositionLocationImage" minOccurs="1" maxOccurs=
        "unbounded"/>
1655     </xs:sequence>
1656   </xs:complexType>
1657 </xs:element>
1658 <!--====>
1659 <!--==== Location Image >
1660 <!--====>
1661 <xs:element name="PositionLocationImage">
1662   <xs:annotation>
1663     <xs:documentation xml:lang="en">field in the location image data block that
        that carries the unique identification of one sampling position image
1664     </xs:documentation>
1665   </xs:annotation>
1666   <xs:complexType>
1667     <xs:attribute name="Id" type="xs:ID" use="required">
1668       <xs:annotation>
1669         <xs:documentation xml:lang="en">field that provides unique
            identification for a location image</xs:documentation>
1670       </xs:annotation>
1671     </xs:attribute>
1672     <xs:attribute name="ImageLink" type="xs:anyURI" use="required">
1673       <xs:annotation>
1674         <xs:documentation xml:lang="en">field that provides a link to the
            sampling position location image.
            Note to Entry: If this is a local URI, the assumption is that the
            images are zipped along with the PRX Message that references them.
            A remote URL can be used to reference a remote secure server where
            images are stored.
1675         </xs:documentation>
1676       </xs:annotation>
1677     </xs:attribute>
1678   </xs:complexType>
1679 </xs:element>
1680 <!--====>
1681 <!--==== Customer Item Id List Type >
1682 <!--====>
1683 <xs:simpleType name="customerItemIdListType">
1684   <xs:annotation>
1685     <xs:documentation xml:lang="en">PRX datatype made up of a list of standard
        print item identifier types</xs:documentation>
1686   </xs:annotation>
1687   <xs:restriction base="xs:string">
1688     <xs:enumeration value="SKU"/>
1689     <xs:enumeration value="IPMS"/>
1690     <xs:enumeration value="ArtCode"/>
1691     <xs:enumeration value="GCAS"/>
1692   </xs:restriction>
1693 </xs:simpleType>
1694 <!--====>
1695 <!--==== Customer Item Id Type >
1696 <!--====>
1697 <xs:simpleType name="customerItemIdType">
1698   <xs:annotation>
1699     <xs:documentation xml:lang="en">PRX datatype made up of the union of
        standard print item identifier types and a user-defined custom value

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1700         </xs:documentation>
1701     </xs:annotation>
1702     <xs:union memberTypes="prx:customerItemIdListType prx:customValueType"/>
1703 </xs:simpleType>
1704 <!--====>
1705 <!--==== Custom Value >====>
1706 <!-- -->
1707 <xs:simpleType name="customValueType">
1708     <xs:annotation>
1709         <xs:documentation xml:lang="en">PRX datatype used to define custom values
1710     </xs:documentation>
1711     </xs:annotation>
1712     <xs:restriction base="xs:NMTOKEN"/>
1713 </xs:simpleType>
1714 <!--====>
1715 <!--==== Date or DateTime Type >====>
1716 <!--====>
1717 <xs:simpleType name="dateOrDateTime">
1718     <xs:union memberTypes="xs:date xs:dateTime"/>
1719 </xs:simpleType>
1720 <!--====>
1721 <!--==== Operator Type >====>
1722 <!--====>
1723 <xs:simpleType name="operatorType">
1724     <xs:restriction base="xs:string">
1725         <xs:enumeration value="EQ">
1726             <xs:annotation>
1727                 <xs:documentation xml:lang="en">equal to
1728             </xs:documentation>
1729             </xs:annotation>
1730         </xs:enumeration>
1731         <xs:enumeration value="NEQ">
1732             <xs:annotation>
1733                 <xs:documentation xml:lang="en">not equal to
1734             </xs:documentation>
1735             </xs:annotation>
1736         </xs:enumeration>
1737         <xs:enumeration value="GT">
1738             <xs:annotation>
1739                 <xs:documentation xml:lang="en">greater than
1740             </xs:documentation>
1741             </xs:annotation>
1742         </xs:enumeration>
1743         <xs:enumeration value="GTE">
1744             <xs:annotation>
1745                 <xs:documentation xml:lang="en">greater than or equal to
1746             </xs:documentation>
1747             </xs:annotation>
1748         </xs:enumeration>
1749         <xs:enumeration value="LT">
1750             <xs:annotation>
1751                 <xs:documentation xml:lang="en">less than
1752             </xs:documentation>
1753             </xs:annotation>
1754         </xs:enumeration>
1755         <xs:enumeration value="LTE">
1756             <xs:annotation>
1757                 <xs:documentation xml:lang="en">less than or equal to
1758             </xs:documentation>
1759             </xs:annotation>
1760         </xs:enumeration>
1761         <xs:enumeration value="PM">
1762             <xs:annotation>
1763                 <xs:documentation xml:lang="en">plus or minus
1764             </xs:documentation>

```



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1764         </xs:annotation>
1765     </xs:enumeration>
1766 </xs:restriction>
1767 </xs:simpleType>
1768 <!--====          =====>
1769 <!--====      Print Method Type      =====>
1770 <!--====          =====>
1771 <xs:simpleType name="printMethodType">
1772     <xs:annotation>
1773         <xs:documentation xml:lang="en">PRX datatype made up of a list of standard
            print method types</xs:documentation>
1774     </xs:annotation>
1775     <xs:restriction base="xs:NMTOKEN">
1776         <xs:enumeration value="offsetLithography">
1777             <xs:annotation>
1778                 <xs:documentation xml:lang="en"> printing method using a flat
                    surface treated so as to repel the ink except where it is required
                    for printing.</xs:documentation>
1779             </xs:annotation>
1780         </xs:enumeration>
1781         <xs:enumeration value="dryOffset">
1782             <xs:annotation>
1783                 <xs:documentation xml:lang="en">printing method in which the inked
                    impression from letterpress or relief is etched on a thin metal
                    surface, then printed on an intermediate rubber surface (as a
                    blanket), and then offset onto the paper.</xs:documentation>
1784             </xs:annotation>
1785         </xs:enumeration>
1786         <xs:enumeration value="flexography">
1787             <xs:annotation>
1788                 <xs:documentation xml:lang="en">rotary relief printing method using
                    rubber or plastic plates and fluid inks or dyes for printing on
                    fabrics and impervious materials such as plastics, as well as on
                    paper.</xs:documentation>
1789             </xs:annotation>
1790         </xs:enumeration>
1791         <xs:enumeration value="gravure">
1792             <xs:annotation>
1793                 <xs:documentation xml:lang="en">printing method that produces an
                    image from etching a plate through an intaglio process and
                    producing a print from it.</xs:documentation>
1794             </xs:annotation>
1795         </xs:enumeration>
1796         <xs:enumeration value="inkjet">
1797             <xs:annotation>
1798                 <xs:documentation xml:lang="en">printing method that uses a
                    computer peripheral that produces hard copy by spraying ink onto
                    paper.
1799             </xs:documentation>
1800             </xs:annotation>
1801         </xs:enumeration>
1802         <xs:enumeration value="screen">
1803             <xs:annotation>
1804                 <xs:documentation xml:lang="en">printing method that forces ink or
                    metal onto (a surface) through a prepared screen of fine material
                    so as to create a picture or pattern.</xs:documentation>
1805             </xs:annotation>
1806         </xs:enumeration>
1807         <xs:enumeration value="electrophotography">
1808             <xs:annotation>
1809                 <xs:documentation xml:lang="en">printing method that uses
                    photography employing electricity to transfer an image onto paper,
                    as in laser printing and photocopying</xs:documentation>
1810             </xs:annotation>
1811         </xs:enumeration>
1812         <xs:enumeration value="dyeSublimation">

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1813         <xs:annotation>
1814             <xs:documentation xml:lang="en">printing method which uses heat to
                transfer dye onto materials such as a plastic, card, paper, or
                fabric. The sublimation name was first applied because the dye was
                considered to make the transition between the solid and gas states
                without going through a liquid stage.</xs:documentation>
1815         </xs:annotation>
1816     </xs:enumeration>
1817     <xs:enumeration value="letterPress">
1818         <xs:annotation>
1819             <xs:documentation xml:lang="en">oldest form of printing inking a
                surface with raised letters pressed to the surface of the printing
                substrate to reproduce an image in reverse. </xs:documentation>
1820         </xs:annotation>
1821     </xs:enumeration>
1822     <xs:enumeration value="hybrid">
1823         <xs:annotation>
1824             <xs:documentation xml:lang="en">printing using a combination of
                methods such as inkjet and digital.</xs:documentation>
1825         </xs:annotation>
1826     </xs:enumeration>
1827     <xs:enumeration value="other">
1828         <xs:annotation>
1829             <xs:documentation xml:lang="en">another method not enumerated by
                PRX for printing an item.</xs:documentation>
1830         </xs:annotation>
1831     </xs:enumeration>
1832     <xs:enumeration value="any">
1833         <xs:annotation>
1834             <xs:documentation xml:lang="en">buyer does not specify the print
                method.</xs:documentation>
1835         </xs:annotation>
1836     </xs:enumeration>
1837 </xs:restriction>
1838 </xs:simpleType>
1839 <!--====          =====>
1840 <!--====      Print Side Type          =====>
1841 <!--====          =====>
1842 <xs:simpleType name="printSideType">
1843     <xs:annotation>
1844         <xs:documentation xml:lang="en">PRX datatype made up of a list standard
                print side indicator types</xs:documentation>
1845     </xs:annotation>
1846     <xs:restriction base="xs:NMTOKEN">
1847         <xs:enumeration value="surface">
1848             <xs:annotation>
1849                 <xs:documentation xml:lang="en">image printed on the surface of the
                    substrate.</xs:documentation>
1850             </xs:annotation>
1851         </xs:enumeration>
1852         <xs:enumeration value="reverse">
1853             <xs:annotation>
1854                 <xs:documentation xml:lang="en">image printed on the reverse side
                    of the substrate.</xs:documentation>
1855             </xs:annotation>
1856         </xs:enumeration>
1857     </xs:restriction>
1858 </xs:simpleType>
1859 <!--====          =====>
1860 <!--====      Connector Type          =====>
1861 <!--====          =====>
1862 <xs:simpleType name="connectorType">
1863     <xs:restriction base="xs:string">
1864         <xs:enumeration value="AND">
1865             <xs:annotation>
1866                 <xs:documentation xml:lang="en">and

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1867         </xs:documentation>
1868     </xs:annotation>
1869 </xs:enumeration>
1870 <xs:enumeration value="OR">
1871     <xs:annotation>
1872         <xs:documentation xml:lang="en">or
1873     </xs:documentation>
1874     </xs:annotation>
1875 </xs:enumeration>
1876 </xs:restriction>
1877 </xs:simpleType>
1878 <!--====>
1879 <!--==== Grade Label List Type >
1880 <!--====>
1881 <xs:simpleType name="gradeLabelListType">
1882     <xs:annotation>
1883         <xs:documentation xml:lang="en">PRX datatype made up of a list of standard
            grading label types</xs:documentation>
1884     </xs:annotation>
1885     <xs:restriction base="xs:NMTOKEN">
1886         <xs:enumeration value="A"/>
1887         <xs:enumeration value="B"/>
1888         <xs:enumeration value="C"/>
1889         <xs:enumeration value="D"/>
1890         <xs:enumeration value="F"/>
1891         <xs:enumeration value="Platinum"/>
1892         <xs:enumeration value="Gold"/>
1893         <xs:enumeration value="Silver"/>
1894         <xs:enumeration value="Bronze"/>
1895         <xs:enumeration value="Superior"/>
1896         <xs:enumeration value="Excellent"/>
1897         <xs:enumeration value="Good"/>
1898         <xs:enumeration value="Poor"/>
1899         <xs:enumeration value="Pass"/>
1900         <xs:enumeration value="Fail"/>
1901     </xs:restriction>
1902 </xs:simpleType>
1903 <!--====>
1904 <!--==== Grade Display Label Type >
1905 <!--====>
1906 <xs:simpleType name="gradeLabelType">
1907     <xs:annotation>
1908         <xs:documentation xml:lang="en">PRX datatype made up of the union of
            standard grade label types, non-negative integers and a user-defined custom
            value</xs:documentation>
1909     </xs:annotation>
1910     <xs:union memberTypes="prx:gradeLabelListType xs:nonNegativeInteger
            prx:customValueType"/>
1911 </xs:simpleType>
1912 <!--====>
1913 <!--==== Percent Type >
1914 <!--====>
1915 <xs:simpleType name="percentType">
1916     <xs:annotation>
1917         <xs:documentation xml:lang="en">PQX datatype defining the expression of a
            percentage</xs:documentation>
1918     </xs:annotation>
1919     <xs:restriction base="xs:double">
1920         <xs:minInclusive value="0.0"/>
1921         <xs:maxInclusive value="100.0"/>
1922     </xs:restriction>
1923 </xs:simpleType>
1924 <!--====>
1925 <!--==== Origin Type >
1926 <!--====>
1927 <xs:simpleType name="originType">

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1928     <xs:annotation>
1929         <xs:documentation xml:lang="en">PRX datatype made up of a list of position
            origin types</xs:documentation>
1930     </xs:annotation>
1931     <xs:restriction base="xs:NMTOKEN">
1932         <xs:enumeration value="BL">
1933             <xs:annotation>
1934                 <xs:documentation xml:lang="en">bottom left
1935                 </xs:documentation>
1936             </xs:annotation>
1937         </xs:enumeration>
1938         <xs:enumeration value="BR">
1939             <xs:annotation>
1940                 <xs:documentation xml:lang="en">bottom right</xs:documentation>
1941             </xs:annotation>
1942         </xs:enumeration>
1943         <xs:enumeration value="TL">
1944             <xs:annotation>
1945                 <xs:documentation xml:lang="en">top left</xs:documentation>
1946             </xs:annotation>
1947         </xs:enumeration>
1948         <xs:enumeration value="TR">
1949             <xs:annotation>
1950                 <xs:documentation xml:lang="en">top right
1951                 </xs:documentation>
1952             </xs:annotation>
1953         </xs:enumeration>
1954     </xs:restriction>
1955 </xs:simpleType>
1956 <!--====>
1957 <!--==== Color Report Type >====>
1958 <!--====>
1959 <xs:simpleType name="colorReportTypeType">
1960     <xs:annotation>
1961         <xs:documentation xml:lang="en">PQX datatype made up of a list of standard
            color report types</xs:documentation>
1962     </xs:annotation>
1963     <xs:restriction base="xs:NMTOKEN">
1964         <xs:enumeration value="toneCalculation">
1965             <xs:annotation>
1966                 <xs:documentation xml:lang="en">color report where tone values are
                    calculated by the receiver
1967                 </xs:documentation>
1968             </xs:annotation>
1969         </xs:enumeration>
1970         <xs:enumeration value="direct">
1971             <xs:annotation>
1972                 <xs:documentation xml:lang="en">color report where CxF values are
                    directly utilized by the receiver</xs:documentation>
1973             </xs:annotation>
1974         </xs:enumeration>
1975     </xs:restriction>
1976 </xs:simpleType>
1977 <!--====>
1978 <!--====>
1979 <!--==== Registration Report Type >====>
1980 <!--====>
1981 <xs:simpleType name="registrationReportTypeType">
1982     <xs:annotation>
1983         <xs:documentation xml:lang="en">PRX datatype made up of a list of
            registration reporting types</xs:documentation>
1984     </xs:annotation>
1985     <xs:restriction base="xs:NMTOKEN">
1986         <xs:enumeration value="variance">
1987             <xs:annotation>
1988                 <xs:documentation xml:lang="en">registration reporting of the

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1989         maximum variance of all printed inks for a printed sample
1990     </xs:documentation>
1991 </xs:annotation>
1992 </xs:enumeration>
1993 <xs:enumeration value="channel">
1994     <xs:annotation>
1995         <xs:documentation xml:lang="en">registration reporting of the
1996         maximum variance of all printed inks relative to a reference ink
1997         channel for a printed sample</xs:documentation>
1998     </xs:annotation>
1999 </xs:enumeration>
2000 </xs:restriction>
2001 </xs:simpleType>
2002 <!--==== ++++++====>
2003 <!--==== Custom Tag Collection <!--====>
2004 <!--==== ++++++====>
2005 <xs:element name="TagCollection">
2006     <xs:annotation>
2007         <xs:documentation xml:lang="en">set of customizable generic XML tags that
2008         provide extensibility to the PRX</xs:documentation>
2009     </xs:annotation>
2010 <xs:complexType>
2011     <xs:sequence>
2012         <xs:element name="Tag" minOccurs="1" maxOccurs="unbounded">
2013             <xs:annotation>
2014                 <xs:documentation xml:lang="en">field used to transmit custom
2015                 print quality metadata as a name / value pair</xs:documentation>
2016             </xs:annotation>
2017             <xs:complexType>
2018                 <xs:attribute name="Name" type="xs:string" use="required">
2019                     <xs:annotation>
2020                         <xs:documentation xml:lang="en">required key or name
2021                         for a custom PRX tag</xs:documentation>
2022                     </xs:annotation>
2023                 </xs:attribute>
2024                 <xs:attribute name="Value" type="xs:string" use="required">
2025                     <xs:annotation>
2026                         <xs:documentation xml:lang="en">required value for a
2027                         custom PRX tag</xs:documentation>
2028                     </xs:annotation>
2029                 </xs:attribute>
2030             </xs:complexType>
2031         </xs:element>
2032     </xs:sequence>
2033 <xs:attribute name="Name" type="xs:string" use="required">
2034     <xs:annotation>
2035         <xs:documentation xml:lang="en">required key or name for a custom
2036         PRX tag</xs:documentation>
2037     </xs:annotation>
2038 </xs:attribute>
2039 </xs:complexType>
2040 </xs:element>
2041 <!--====>
2042 <!--==== Custom Resources <!--====>
2043 <!--====>
2044 <xs:element name="CustomResources">
2045     <xs:annotation>
2046         <xs:documentation xml:lang="en">set of fields that provide extensibility to
2047         the PRX by allowing the inclusion of any structured XML-encoded content
2048         from any namespace</xs:documentation>
2049     </xs:annotation>
2050 <xs:complexType>
2051     <xs:sequence minOccurs="0" maxOccurs="unbounded">
2052         <xs:any namespace="##other" processContents="lax"/>
2053     </xs:sequence>
2054 <xs:anyAttribute processContents="lax"/>

```

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2045         </xs:complexType>
2046     </xs:element>
2047     <!-- ++++++----->
2048     <!--====>
2049     <!--==== Ink Guidelines >
2050     <!--====>
2051     <xs:element name="InkGuidelines">
2052         <xs:annotation>
2053             <xs:documentation xml:lang="en">set of fields that provide print buyer
                guidelines for inks to be used to print customer items for quality reporting
            </xs:documentation>
2054         </xs:annotation>
2055         <xs:complexType>
2056             <xs:sequence>
2057                 <xs:element ref="prx:Ink" minOccurs="1" maxOccurs="unbounded"/>
2058                 <xs:element ref="prx:Coating" minOccurs="0" maxOccurs="unbounded"/>
2059                 <xs:element ref="prx:Resistance" minOccurs="0" maxOccurs="unbounded"/>
2060                 <xs:element ref="prx:LightFastness" minOccurs="0" maxOccurs="unbounded"/>
2061                 <xs:element ref="prx:PPMSolventRetention" minOccurs="0"/>
2062                 <xs:element ref="prx:MaterialProhibited" minOccurs="0" maxOccurs=
                "unbounded"/>
2063                 <xs:element ref="prx:ComplianceGoal" minOccurs="0" maxOccurs="unbounded"
                />
2064                 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
2065             </xs:sequence>
2066         </xs:complexType>
2067     </xs:element>
2068     <!--====>
2069     <!--==== Ink >
2070     <!--====>
2071     <xs:element name="Ink">
2072         <xs:annotation>
2073             <xs:documentation xml:lang="en">set of fields that provide a description of
                the fluid or viscous substance used for this print job</xs:documentation>
2074         </xs:annotation>
2075         <xs:complexType>
2076             <xs:sequence>
2077                 <xs:element ref="prx:InkName"/>
2078                 <xs:element ref="prx:InkType"/>
2079                 <xs:element ref="prx:PrintOrder" minOccurs="0"/>
2080                 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
2081             </xs:sequence>
2082         </xs:complexType>
2083     </xs:element>
2084     <!--====>
2085     <!--==== Ink Print Order >
2086     <!--====>
2087     <xs:element name="PrintOrder" type="xs:positiveInteger">
2088         <xs:annotation>
2089             <xs:documentation xml:lang="en">field that provides the numerical order
                that this ink prints among all the inks/coatings on a sample with "1" being
                the first ink printed on a substrate</xs:documentation>
2090         </xs:annotation>
2091     </xs:element>
2092     <!--====>
2093     <!--==== Ink Name >
2094     <!--====>
2095     <xs:element name="InkName" type="xs:string">
2096         <xs:annotation>
2097             <xs:documentation xml:lang="en">field that provides a word or set of words
                by which an ink is known to the print buyer</xs:documentation>
2098         </xs:annotation>
2099     </xs:element>
2100     <!--====>
2101     <!--==== Ink Type >
2102     <!--====>

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2103 <xs:element name="InkType" type="prx:inkTypeType">
2104   <xs:annotation>
2105     <xs:documentation xml:lang="en">field that provides a classification for
      the ink colorant as process, spot or basecoat</xs:documentation>
2106   </xs:annotation>
2107 </xs:element>
2108 <!--====>
2109 <!--==== Ink Type Type >
2110 <!--====>
2111 <xs:simpleType name="inkTypeType">
2112   <xs:annotation>
2113     <xs:documentation xml:lang="en">datatype made up of a list of standard ink
      types</xs:documentation>
2114   </xs:annotation>
2115   <xs:restriction base="xs:NMTOKEN">
2116     <xs:enumeration value="process">
2117       <xs:annotation>
2118         <xs:documentation xml:lang="en">Process Ink Type: an ink that is a
      member of a process ink set (2 or more inks), intended to be
      printed in combination with other process ink(s) in order to
      reproduce a range of colors or "gamut"
2119       </xs:documentation>
2120     </xs:annotation>
2121   </xs:enumeration>
2122   <xs:enumeration value="spot">
2123     <xs:annotation>
2124       <xs:documentation xml:lang="en">Spot Ink Type: an ink that is
      intended to produce a specific color printed color - often
      associated with a brand equity color</xs:documentation>
2125     </xs:annotation>
2126   </xs:enumeration>
2127   <xs:enumeration value="basecoat">
2128     <xs:annotation>
2129       <xs:documentation xml:lang="en">Basecoat Ink Type: an ink that is
      intended to provide a neutral base upon which to overlay process
      and spot inks</xs:documentation>
2130     </xs:annotation>
2131   </xs:enumeration>
2132 </xs:restriction>
2133 </xs:simpleType>
2134 <!--====>
2135 <!--==== Coating >
2136 <!--====>
2137 <xs:element name="Coating">
2138   <xs:annotation>
2139     <xs:documentation xml:lang="en">set of fields that provide a description of
      the substance used to overlay the printed inks</xs:documentation>
2140   </xs:annotation>
2141   <xs:complexType>
2142     <xs:sequence>
2143       <xs:element ref="prx:CoatingMaterial" minOccurs="0"/>
2144       <xs:element ref="prx:Finish" minOccurs="0"/>
2145       <xs:element ref="prx:PrintOrder" minOccurs="0"/>
2146       <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
2147     </xs:sequence>
2148   </xs:complexType>
2149 </xs:element>
2150 <!--====>
2151 <!--==== Coating Material >
2152 <!--====>
2153 <xs:element name="CoatingMaterial" type="prx:coatingTypeType">
2154   <xs:annotation>
2155     <xs:documentation xml:lang="en">set of fields that provide a description of
      the substance used to overlay the printed inks</xs:documentation>
2156   </xs:annotation>
2157 </xs:element>

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2158 <!--==== <!--====>
2159 <!--==== Finish Type <!--====>
2160 <!--==== <!--====>
2161 <xs:element name="Finish" type="prx:finishType">
2162 <xs:annotation>
2163 <xs:documentation xml:lang="en">set of fields that provide a description of
the surface appearance of the dry coating material</xs:documentation>
2164 </xs:annotation>
2165 </xs:element>
2166 <!--==== <!--====>
2167 <!--==== Resistance <!--====>
2168 <!--==== <!--====>
2169 <xs:element name="Resistance">
2170 <xs:annotation>
2171 <xs:documentation xml:lang="en">set of fields that provide an enumeration
of the ink quality is expected to withstand</xs:documentation>
2172 </xs:annotation>
2173 <xs:complexType>
2174 <xs:sequence>
2175 <xs:element ref="prx:ResistanceFactor"/>
2176 <xs:choice minOccurs="0">
2177 <xs:element ref="prx:CelsiusTemperature"/>
2178 <xs:element ref="prx:TimeInDays"/>
2179 <xs:element ref="prx:Percent"/>
2180 </xs:choice>
2181 <xs:element ref="prx:TagCollection" minOccurs="0" maxOccurs="unbounded"/>
2182 </xs:sequence>
2183 </xs:complexType>
2184 </xs:element>
2185 <!--==== <!--====>
2186 <!--==== Resistance Factor <!--====>
2187 <!--==== <!--====>
2188 <xs:element name="ResistanceFactor" type="prx:resistanceFactorType">
2189 <xs:annotation>
2190 <xs:documentation xml:lang="en">field that indicates a particular type of
factor an ink must stand up to</xs:documentation>
2191 </xs:annotation>
2192 </xs:element>
2193 <!--==== <!--====>
2194 <!--==== Celsius Temperature <!--====>
2195 <!--==== <!--====>
2196 <xs:element name="CelsiusTemperature" type="xs:decimal"/>
2197 <!--==== <!--====>
2198 <!--==== Time in Days <!--====>
2199 <!--==== <!--====>
2200 <xs:element name="TimeInDays" type="xs:positiveInteger"/>
2201 <!--==== <!--====>
2202 <!--==== Percent <!--====>
2203 <!--==== <!--====>
2204 <xs:element name="Percent" type="prx:percentType"/>
2205 <!--==== <!--====>
2206 <!--==== LightFastness <!--====>
2207 <!--==== <!--====>
2208 <xs:element name="LightFastness" type="xs:boolean">
2209 <xs:annotation>
2210 <xs:documentation xml:lang="en">field that indicates light fastness of inks
</xs:documentation>
2211 </xs:annotation>
2212 </xs:element>
2213 <!--==== <!--====>
2214 <!--==== PPM Solvent Retention <!--====>
2215 <!--==== <!--====>
2216 <xs:element name="PPMSolventRetention" type="xs:nonNegativeInteger">
2217 <xs:annotation>
2218 <xs:documentation xml:lang="en">field that indicates maximum parts per
million solvent retention of inks</xs:documentation>

```



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2219         </xs:annotation>
2220     </xs:element>
2221     <!--====>
2222     <!--====> Materials Prohibited <!--====>
2223     <!--====>
2224     <xs:element name="MaterialProhibited" type="prx:materialProhibitedType">
2225         <xs:annotation>
2226             <xs:documentation xml:lang="en">field that indicates materials that may not
                be used for ink composition</xs:documentation>
2227         </xs:annotation>
2228     </xs:element>
2229     <!--====>
2230     <!--====> Resistance Factor Type <!--====>
2231     <!--====>
2232     <xs:simpleType name="resistanceFactorType">
2233         <xs:union memberTypes="prx:resistanceListType prx:customValueType"/>
2234     </xs:simpleType>
2235     <!--====>
2236     <!--====> Resistance List Type <!--====>
2237     <!--====>
2238     <xs:simpleType name="resistanceListType">
2239         <xs:annotation>
2240             <xs:documentation xml:lang="en">datatype made up of a list of standard
                resistance types</xs:documentation>
2241         </xs:annotation>
2242         <xs:restriction base="xs:NMTOKEN">
2243             <xs:enumeration value="lacticAcid">
2244                 <xs:annotation>
2245                     <xs:documentation xml:lang="en"/>
2246                 </xs:annotation>
2247             </xs:enumeration>
2248             <xs:enumeration value="rub">
2249                 <xs:annotation>
2250                     <xs:documentation xml:lang="en"/>
2251                 </xs:annotation>
2252             </xs:enumeration>
2253             <xs:enumeration value="scratch">
2254                 <xs:annotation>
2255                     <xs:documentation xml:lang="en"/>
2256                 </xs:annotation>
2257             </xs:enumeration>
2258             <xs:enumeration value="cold">
2259                 <xs:annotation>
2260                     <xs:documentation xml:lang="en"/>
2261                 </xs:annotation>
2262             </xs:enumeration>
2263             <xs:enumeration value="dryHeat">
2264                 <xs:annotation>
2265                     <xs:documentation xml:lang="en"/>
2266                 </xs:annotation>
2267             </xs:enumeration>
2268             <xs:enumeration value="steam">
2269                 <xs:annotation>
2270                     <xs:documentation xml:lang="en"/>
2271                 </xs:annotation>
2272             </xs:enumeration>
2273             <xs:enumeration value="ozone">
2274                 <xs:annotation>
2275                     <xs:documentation xml:lang="en"/>
2276                 </xs:annotation>
2277             </xs:enumeration>
2278             <xs:enumeration value="humidity">
2279                 <xs:annotation>
2280                     <xs:documentation xml:lang="en"/>
2281                 </xs:annotation>
2282             </xs:enumeration>

```

```
2283 <xs:enumeration value="weather">
2284 <xs:annotation>
2285 <xs:documentation xml:lang="en"/>
2286 </xs:annotation>
2287 </xs:enumeration>
2288 <xs:enumeration value="vegetableOil">
2289 <xs:annotation>
2290 <xs:documentation xml:lang="en"/>
2291 </xs:annotation>
2292 </xs:enumeration>
2293 <xs:enumeration value="alkali">
2294 <xs:annotation>
2295 <xs:documentation xml:lang="en"/>
2296 </xs:annotation>
2297 </xs:enumeration>
2298 <xs:enumeration value="ethanolSpirit">
2299 <xs:annotation>
2300 <xs:documentation xml:lang="en"/>
2301 </xs:annotation>
2302 </xs:enumeration>
2303 <xs:enumeration value="lye">
2304 <xs:annotation>
2305 <xs:documentation xml:lang="en"/>
2306 </xs:annotation>
2307 </xs:enumeration>
2308 <xs:enumeration value="solvent">
2309 <xs:annotation>
2310 <xs:documentation xml:lang="en"/>
2311 </xs:annotation>
2312 </xs:enumeration>
2313 <xs:enumeration value="detergent">
2314 <xs:annotation>
2315 <xs:documentation xml:lang="en"/>
2316 </xs:annotation>
2317 </xs:enumeration>
2318 <xs:enumeration value="acid">
2319 <xs:annotation>
2320 <xs:documentation xml:lang="en"/>
2321 </xs:annotation>
2322 </xs:enumeration>
2323 <xs:enumeration value="soap">
2324 <xs:annotation>
2325 <xs:documentation xml:lang="en"/>
2326 </xs:annotation>
2327 </xs:enumeration>
2328 <xs:enumeration value="oilOrFat">
2329 <xs:annotation>
2330 <xs:documentation xml:lang="en"/>
2331 </xs:annotation>
2332 </xs:enumeration>
2333 <xs:enumeration value="butter">
2334 <xs:annotation>
2335 <xs:documentation xml:lang="en"/>
2336 </xs:annotation>
2337 </xs:enumeration>
2338 <xs:enumeration value="breadSterilization">
2339 <xs:annotation>
2340 <xs:documentation xml:lang="en"/>
2341 </xs:annotation>
2342 </xs:enumeration>
2343 <xs:enumeration value="thermalSterilization">
2344 <xs:annotation>
2345 <xs:documentation xml:lang="en"/>
2346 </xs:annotation>
2347 </xs:enumeration>
2348 </xs:restriction>
```

```

2349     </xs:simpleType>
2350     <!--====          =====>
2351     <!--====      Coating Type Type      =====>
2352     <!--====          =====>
2353     <xs:simpleType name="coatingTypeType">
2354         <xs:union memberTypes="prx:coatingListType prx:customValueType"/>
2355     </xs:simpleType>
2356     <!--====          =====>
2357     <!--====      Coating List Type      =====>
2358     <!--====          =====>
2359     <xs:simpleType name="coatingListType">
2360         <xs:annotation>
2361             <xs:documentation xml:lang="en">PRX datatype made up of a list of standard
                coatings</xs:documentation>
2362         </xs:annotation>
2363         <xs:restriction base="xs:NMTOKEN">
2364             <xs:enumeration value="waterBased">
2365                 <xs:annotation>
2366                     <xs:documentation xml:lang="en"/>
2367                 </xs:annotation>
2368             </xs:enumeration>
2369             <xs:enumeration value="UV">
2370                 <xs:annotation>
2371                     <xs:documentation xml:lang="en"/>
2372                 </xs:annotation>
2373             </xs:enumeration>
2374             <xs:enumeration value="filmLamination">
2375                 <xs:annotation>
2376                     <xs:documentation xml:lang="en"/>
2377                 </xs:annotation>
2378             </xs:enumeration>
2379             <xs:enumeration value="varnish">
2380                 <xs:annotation>
2381                     <xs:documentation xml:lang="en"/>
2382                 </xs:annotation>
2383             </xs:enumeration>
2384             <xs:enumeration value="gel">
2385                 <xs:annotation>
2386                     <xs:documentation xml:lang="en"/>
2387                 </xs:annotation>
2388             </xs:enumeration>
2389             <xs:enumeration value="acrylic">
2390                 <xs:annotation>
2391                     <xs:documentation xml:lang="en"/>
2392                 </xs:annotation>
2393             </xs:enumeration>
2394         </xs:restriction>
2395     </xs:simpleType>
2396     <!--====          =====>
2397     <!--====      Finish Type      =====>
2398     <!--====          =====>
2399     <xs:simpleType name="finishType">
2400         <xs:annotation>
2401             <xs:documentation xml:lang="en">PRX datatype made up of a list of standard
                coating finishes</xs:documentation>
2402         </xs:annotation>
2403         <xs:restriction base="xs:NMTOKEN">
2404             <xs:enumeration value="matte">
2405                 <xs:annotation>
2406                     <xs:documentation xml:lang="en"/>
2407                 </xs:annotation>
2408             </xs:enumeration>
2409             <xs:enumeration value="semimatte">
2410                 <xs:annotation>
2411                     <xs:documentation xml:lang="en"/>
2412                 </xs:annotation>

```

```

2413         </xs:enumeration>
2414         <xs:enumeration value="gloss">
2415             <xs:annotation>
2416                 <xs:documentation xml:lang="en"/>
2417             </xs:annotation>
2418         </xs:enumeration>
2419     </xs:restriction>
2420 </xs:simpleType>
2421 <!--====>
2422 <!--==== Material Prohibited Type >
2423 <!--====>
2424 <xs:simpleType name="materialProhibitedType">
2425     <xs:union memberTypes="prx:materialProhibitedListType prx:customValueType"/>
2426 </xs:simpleType>
2427 <!--====>
2428 <!--==== Material Prohibited List Type >
2429 <!--====>
2430 <xs:simpleType name="materialProhibitedListType">
2431     <xs:annotation>
2432         <xs:documentation xml:lang="en">PRX datatype made up of a list of standard
            materials that may not be used in an ink/coating compound</xs:documentation>
2433     </xs:annotation>
2434     <xs:restriction base="xs:NMTOKEN">
2435         <xs:enumeration value="BPA">
2436             <xs:annotation>
2437                 <xs:documentation xml:lang="en"/>
2438             </xs:annotation>
2439         </xs:enumeration>
2440         <xs:enumeration value="methyl-glycol">
2441             <xs:annotation>
2442                 <xs:documentation xml:lang="en"/>
2443             </xs:annotation>
2444         </xs:enumeration>
2445         <xs:enumeration value="ethyl-glycol">
2446             <xs:annotation>
2447                 <xs:documentation xml:lang="en"/>
2448             </xs:annotation>
2449         </xs:enumeration>
2450         <xs:enumeration value="mono-chloro-benzene">
2451             <xs:annotation>
2452                 <xs:documentation xml:lang="en"/>
2453             </xs:annotation>
2454         </xs:enumeration>
2455         <xs:enumeration value="1-metho-2-pyrrodine">
2456             <xs:annotation>
2457                 <xs:documentation xml:lang="en"/>
2458             </xs:annotation>
2459         </xs:enumeration>
2460         <xs:enumeration value="benzene">
2461             <xs:annotation>
2462                 <xs:documentation xml:lang="en"/>
2463             </xs:annotation>
2464         </xs:enumeration>
2465         <xs:enumeration value="toluene">
2466             <xs:annotation>
2467                 <xs:documentation xml:lang="en"/>
2468             </xs:annotation>
2469         </xs:enumeration>
2470         <xs:enumeration value="ethyl-benzene">
2471             <xs:annotation>
2472                 <xs:documentation xml:lang="en"/>
2473             </xs:annotation>
2474         </xs:enumeration>
2475         <xs:enumeration value="xylene">
2476             <xs:annotation>
2477                 <xs:documentation xml:lang="en"/>

```

```
2478         </xs:annotation>
2479     </xs:enumeration>
2480     <xs:enumeration value="aromaticHydrocarbons">
2481         <xs:annotation>
2482             <xs:documentation xml:lang="en"/>
2483         </xs:annotation>
2484     </xs:enumeration>
2485     <xs:enumeration value="pigmentRed81">
2486         <xs:annotation>
2487             <xs:documentation xml:lang="en"/>
2488         </xs:annotation>
2489     </xs:enumeration>
2490     <xs:enumeration value="pigmentRed169">
2491         <xs:annotation>
2492             <xs:documentation xml:lang="en"/>
2493         </xs:annotation>
2494     </xs:enumeration>
2495     <xs:enumeration value="pigmentGreen1">
2496         <xs:annotation>
2497             <xs:documentation xml:lang="en"/>
2498         </xs:annotation>
2499     </xs:enumeration>
2500     <xs:enumeration value="pigmentBlue1">
2501         <xs:annotation>
2502             <xs:documentation xml:lang="en"/>
2503         </xs:annotation>
2504     </xs:enumeration>
2505     <xs:enumeration value="pigmentBlue62">
2506         <xs:annotation>
2507             <xs:documentation xml:lang="en"/>
2508         </xs:annotation>
2509     </xs:enumeration>
2510     <xs:enumeration value="pigmentViolet1">
2511         <xs:annotation>
2512             <xs:documentation xml:lang="en"/>
2513         </xs:annotation>
2514     </xs:enumeration>
2515     <xs:enumeration value="pigmentViolet1x">
2516         <xs:annotation>
2517             <xs:documentation xml:lang="en"/>
2518         </xs:annotation>
2519     </xs:enumeration>
2520     <xs:enumeration value="pigmentViolet2">
2521         <xs:annotation>
2522             <xs:documentation xml:lang="en"/>
2523         </xs:annotation>
2524     </xs:enumeration>
2525     <xs:enumeration value="pigmentViolet3">
2526         <xs:annotation>
2527             <xs:documentation xml:lang="en"/>
2528         </xs:annotation>
2529     </xs:enumeration>
2530     <xs:enumeration value="pigmentViolet27">
2531         <xs:annotation>
2532             <xs:documentation xml:lang="en"/>
2533         </xs:annotation>
2534     </xs:enumeration>
2535     <xs:enumeration value="pigmentViolet39">
2536         <xs:annotation>
2537             <xs:documentation xml:lang="en"/>
2538         </xs:annotation>
2539     </xs:enumeration>
2540     <xs:enumeration value="TAA">
2541         <xs:annotation>
2542             <xs:documentation xml:lang="en"/>
2543         </xs:annotation>
```

```
2544         </xs:enumeration>
2545         <xs:enumeration value="phthalatePlasticizers">
2546             <xs:annotation>
2547                 <xs:documentation xml:lang="en"/>
2548             </xs:annotation>
2549         </xs:enumeration>
2550         <xs:enumeration value="bisphenolA">
2551             <xs:annotation>
2552                 <xs:documentation xml:lang="en"/>
2553             </xs:annotation>
2554         </xs:enumeration>
2555         <xs:enumeration value="colbaltDryers">
2556             <xs:annotation>
2557                 <xs:documentation xml:lang="en"/>
2558             </xs:annotation>
2559         </xs:enumeration>
2560         <xs:enumeration value="rhodamine">
2561             <xs:annotation>
2562                 <xs:documentation xml:lang="en"/>
2563             </xs:annotation>
2564         </xs:enumeration>
2565         <xs:enumeration value="triarylcarbonium">
2566             <xs:annotation>
2567                 <xs:documentation xml:lang="en"/>
2568             </xs:annotation>
2569         </xs:enumeration>
2570     </xs:restriction>
2571 </xs:simpleType>
2572 </xs:schema>
2573
```