## 6.1 Attribute Syntaxes

The syntax for attribute values is specified using the notation of RFC 822.

The special syntax State is used to form other syntaxes for ***xxx-supported*** attributes of the Printer object that indicate job attributes that the Printer supports. Such support may include operator intervention, delivery of an order that the provider has previously placed, or may require that the provider place a special order. The syntax for **State** is: [**":not-ready"** / **":on-order"** / **":special-order"**]

An attribute value with an *empty* State means that the indicated value is ready to be used without human intervention.

An attribute value with a **":not-ready"** State means that operator intervention is required.

An attribute value with a **":on-order"** State means that the provider has placed an order for the indicated value and that the operator must wait until the resource is delivered before the job can be printed. However, an end-user may submit a job that requires such a resource and the Printer shall accept such a job.

An attribute value with a **":special-order"** State means that the provider shall make a special order for the resource, when a job is submitted that needs such a resource. However, an end-user may submit a job that requires such a resource and the Printer shall accept such a job.

For example, the **media-supported** printer attribute might contain the following values:

**media-supported=na-letter-white, na-letter-transparent, b:not-ready**

Meaning that **na-letter-white** and **na-letter-transparent** are loaded into the two trays of the output device and that **b** is supported but requires the operator to change the trays.

The sections below reference the following syntax items:

| | |
|---|---|
| string | arbitrary ASCII strings, no control characters, except <SPACE>.~~TBD~~ |
| stringPair | string ":" string |
| stringState | string S~~s~~tate |
| name | arbitrary ASCII strings, no control characters, and no <SPACE> characters.~~TBD~~ |
| URL | Universal Resource Locator~~TBD~~ |
| dateTime | date and time in RFC 822 format~~TBD~~ |
| deltaTime | [hours ":"] minutes |
| cardinal | 0 .. n represented as ASCII digits |
| type1Enum | standard names, must revise the IPP standard to add a new name. No private names are allowed.~~TBD~~ |
| type2Enum | standard names, but an implementor can |

| | |
|---|---|
| | add new ~~TBD~~by proposing them to the PWG for registration (or an IANA-appointed registry advisor after the PWG is no longer certified) anytime. IANA keeps the registry. Implementors can add private (un-registered) with a suitable distinguishing prefix, such as -xxx- where xxx is the company name registered with IANA. |
| type3Enum | standard names, but an implementor can add new names by submitting a registration request directly to IANA, no PWG or IANA-appointed registry advisor review is required. Implementors can add private (un-registered) names with a suitable distinguishing prefix, such as -xxx- where xxx is the company name registered with IANA.~~TBD~~ |
| type2EnumState | type2Enum S~~s~~tate |
| type3EnumState | type3Enum S~~s~~tate |
| ~~state~~ | ~~TBD~~ |
| Boolean | tokens: yes, y, true, or t and no, n, false, or f.~~TBD~~ |
| positiveInteger | 1 .. n represented as ASCII digits~~TBD~~ |
| positiveIntegerCross | positiveInteger [ “x” positiveInteger ] |
| positiveIntegerCross State | positiveIntegerCross S~~s~~tate |
| positiveIntegerRange | positiveInteger “:” positiveInteger |
| positiveIntegerUnits | positiveInteger units |
| positiveIntegerState | positiveInteger S~~s~~tate |
| units | “ppm” \| “ipm” \| “spm” \| “cps” \| “lpm” |
| type3Locale | type3Country “:” type3Language “:” type3CodeSet |
| type3Country | type3Enum |
| type3Language | type3Enum |
| type3CodeSet | type3Enum |
| type2Format | name [ “/” version ] |
| version | name |
| type3LocaleState | type3Locale S~~s~~tate |