

## Groupings of Data Items into Classes

Rick Landau, Dell

v0.5 20061109

Note: notation "->" means "is-a"  
or "subclassed from"

| grouping            | data items                  | group class  | table row class     | comments  |
|---------------------|-----------------------------|--|---------------------|---|
| prtGeneral          | ConfigChanges               |  | none, scalar        |   |
|                     |                             | add properties to Printer base class, if they are not already there. |                     |   |
|                     | CurrentLocalization         |  | none, scalar        | writable<br>already in Printer but not writable there                                   |
|                     | CurrentOperator             | B  | none, scalar        | writable  |
|                     | ServicePerson               |  | none, scalar        | writable  |
|                     | InputTrayDefaultId          |  | none, scalar        | writable  |
|                     | OutputBinDefaultId          |  | none, scalar        | writable  |
|                     | MarkerDefaultId             |  | none, scalar        | writable  |
|                     | MediaPathDefaultId          |  | none, scalar        | writable  |
|                     | ConsoleLocalization         |  | none, scalar        | writable  |
|                     | ConsoleDisable              |  | none, scalar        | writable  |
|                     | PrinterName                 |  | none, scalar        | writable<br>already in Printer but not writable there                                   |
|                     | SerialNumber                |  | none, scalar        |   |
| AlertCriticalEvents |                             | none, scalar   | mutable counter     |   |
| AlertAllEvents      | B                           | none, scalar   | mutable counter     |   |
| prtConsole          | ConsoleNumberOfDisplayLines | PrintConsoles -> Collection  | none, scalar        | -> ManagedElement   |
|                     | ConsoleNumberOfDisplayChars |  | none, scalar        |   |
|                     | DisplayBufferId             | PrintConsoleDisplays -> Collection                                   | PrintConsoleDisplay |   |
|                     | DisplayBufferText           |  | PrintConsoleDisplay | mutable   |
|                     | LightId                     | PrintConsoleLights -> Collection                                     | PrintConsoleLight   | -> ManagedElement   |
|                     | OnTime (B)                  | B  | PrintConsoleLight   | mutable<br>Maybe promote times to A. How else can you tell remotely if the light is on? |
|                     | OffTime (B)                 | B  | PrintConsoleLight   | mutable<br>ditto  |
| Color               | B                           | PrintConsoleLight  |                     |   |
| Description         |                             | PrintConsoleLight  |                     |   |

|          |               |                               |                |  |          |
|----------|---------------|-------------------------------|----------------|--|----------|
| prtInput | Id            | PrintInputTrays -> Collection | PrintInputTray | Row -> ManagedElement. However, may need to segregate declarative properties into Capabilities subclass. |          |
|          | Type          |                               | PrintInputTray |  |          |
|          | DimUnit       |                               | PrintInputTray |  |          |
|          | CapacityUnit  |                               | PrintInputTray | must be colocated with CurrentLevel  |          |
|          | MaxCapacity   |                               | PrintInputTray | mutable, believe it or not   |          |
|          | CurrentLevel  |                               | PrintInputTray | mutable status   |          |
|          | Status        |                               | PrintInputTray | mutable status   |          |
|          | Name          |                               | PrintInputTray | writable   |          |
|          | Description   |                               | PrintInputTray |  |          |
|          | prtInputMedia | MediaDimUnit                  |                | PrintInputTray   |          |
|          |               | MediaDimFeedDirDeclared       |                | PrintInputTray   | writable |
|          |               | MediaDimXFeedDirDeclared      |                | PrintInputTray   | writable |
|          |               | MediaName                     |                | PrintInputTray   | writable |
|          |               | MediaWeight                   | B              | PrintInputTray   | writable |
|          | MediaType     |                               | PrintInputTray | writable   |          |
|          | MediaColor    |                               | PrintInputTray | writable   |          |

|           |                         |                               |                 |  |
|-----------|-------------------------|-------------------------------|-----------------|--|
| prtOutput | Id                      | PrintOutputBins -> Collection | PrintOutputTray | -> ManagedElement                        |
|           | Type                    |                               | PrintOutputTray |  |
|           | CapacityUnit            |                               | PrintOutputTray | must be colocated with RemainingCapacity |
|           | MaxCapacity             |                               | PrintOutputTray |  |
|           | RemaningCapacity        |                               | PrintOutputTray | mutable status                           |
|           | Status                  |                               | PrintOutputTray |  |
|           | Name                    |                               | PrintOutputTray | writable                                 |
|           | Description             |                               | PrintOutputTray |  |
|           | StackingOrder           | B                             | PrintOutputTray |  |
|           | PageDeliveryOrientation | B                             | PrintOutputTray |  |
|           | OffsetStacking          | B                             | PrintOutputTray |  |

|                 |              |                               |      |                            |
|-----------------|--------------|-------------------------------|------|----------------------------|
| prtLocalization | Id           | already in Printer adequately | none | existing arrays in Printer |
|                 | Language     |                               |      |                            |
|                 | Country      |                               |      |                            |
|                 | CharacterSet |                               |      |                            |

|          |             |                                 |                  |                   |
|----------|-------------|---------------------------------|------------------|-------------------|
| prtCover | Id          | PrintDeviceCovers -> Collection | PrintDeviceCover | -> ManagedElement |
|          | Description |                                 | PrintDeviceCover |                   |
|          | Status      |                                 | PrintDeviceCover | mutable status    |

|           |          |                            |             |                   |
|-----------|----------|----------------------------|-------------|-------------------|
| prtMarker | Id       | PrintMarkers -> Collection | PrintMarker | -> ManagedElement |
|           | MarkTech |                            | PrintMarker |                   |

|                        |   |             |                                  |
|------------------------|---|-------------|----------------------------------|
| CounterUnit            |   | PrintMarker | must be colocated with LifeCount |
| LifeCount              |   | PrintMarker | mutable counter                  |
| PowerOnCount           | B | PrintMarker | mutable counter                  |
| ProcessColorants       |   | PrintMarker |                                  |
| SpotColorants          |   | PrintMarker |                                  |
| AddressabilityUnit     | B | PrintMarker |                                  |
| AddressabilityFeedDir  | B | PrintMarker |                                  |
| AddressabilityXFeedDir | B | PrintMarker |                                  |
| Status                 |   | PrintMarker | mutable                          |

|                   |             |                             |             |                              |
|-------------------|-------------|-----------------------------|-------------|------------------------------|
| prtMarkerSupplies | Id          | PrintSupplies -> Collection | PrintSupply | -> ManagedElement            |
|                   | MarkerId    |                             | PrintSupply | not mutable                  |
|                   | ColorantId  |                             | PrintSupply | not mutable                  |
|                   | Class       |                             | PrintSupply |                              |
|                   | Type        |                             | PrintSupply |                              |
|                   | Description |                             | PrintSupply |                              |
|                   | SupplyUnit  |                             | PrintSupply | must be colocated with Level |
|                   | MaxCapacity |                             | PrintSupply | must be colocated with Level |
|                   | Level       |                             | PrintSupply | mutable status               |

|                   |          |                              |               |                   |
|-------------------|----------|------------------------------|---------------|-------------------|
| prtMarkerColorant | Id       | PrintColorants -> Collection | PrintColorant | -> ManagedElement |
|                   | Value    |                              | PrintColorant |                   |
|                   | Tonality | B                            | PrintColorant |                   |

|              |                   |                               |                |                   |
|--------------|-------------------|-------------------------------|----------------|-------------------|
| prtMediaPath | Id                | PrintMediaPaths -> Collection | PrintMediaPath | -> ManagedElement |
|              | MaxSpeedPrintUnit |                               | PrintMediaPath |                   |
|              | MediaSizeUnit     |                               | PrintMediaPath |                   |
|              | MaxSpeed          |                               | PrintMediaPath |                   |
|              | MaxMediaFeedDir   |                               | PrintMediaPath |                   |
|              | MaxMediaXFeedDir  |                               | PrintMediaPath |                   |
|              | MinMediaFeedDir   |                               | PrintMediaPath |                   |
|              | MinMediaXFeedDir  |                               | PrintMediaPath |                   |
|              | Type              |                               | PrintMediaPath |                   |
|              | Description       |                               | PrintMediaPath |                   |
|              | Status            |                               | PrintMediaPath | mutable status    |

|            |                       |                             |              |                   |
|------------|-----------------------|-----------------------------|--------------|-------------------|
| prtChannel | Id                    | PrintChannels -> Collection | PrintChannel | -> ManagedElement |
|            | ProtocolVersion       |                             | PrintChannel |                   |
|            | CurrentJobCtrlLangId  |                             | PrintChannel | writable          |
|            | DefaultPageDescLangId |                             | PrintChannel | writable          |
|            | State                 |                             | PrintChannel | mutable status    |
|            | InterfaceId           |                             | PrintChannel | writable          |
|            | Status                |                             | PrintChannel | mutable status    |
|            | Information           |                             | PrintChannel | mutable           |

|                |                     |                                 |                  |   |
|----------------|---------------------|---------------------------------|------------------|---|
| prtInterpreter | Id                  | PrintInterpreters -> Collection | PrintInterpreter | Maybe -> Capabilities because this is purely declarative. |
|                | LangFamily          |                                 | PrintInterpreter |   |
|                | LangLevel           | B                               | PrintInterpreter |   |
|                | Description         |                                 | PrintInterpreter |   |
|                | FeedAddressability  | B                               | PrintInterpreter |   |
|                | XFeedAddressability | B                               | PrintInterpreter |   |
|                | Status              | A                               | PrintInterpreter | mutable status, added to correct previous modeling error  |

|          |               |  |                  |             |
|----------|---------------|--|------------------|-------------|
| prtAlert | Id            | PrintAlertLog -> RecordLog, following the existing RecordLog Profile | PrintAlertRecord | -> LogEntry |
|          | SeverityLevel |  | PrintAlertRecord |             |
|          | TrainingLevel | B  | PrintAlertRecord |             |
|          | Group         |  | PrintAlertRecord |             |
|          | GroupId       |  | PrintAlertRecord |             |
|          | Location      |  | PrintAlertRecord |             |
|          | Code          |  | PrintAlertRecord |             |
|          | Description   |  | PrintAlertRecord |             |
|          | Time          |  | PrintAlertRecord |             |