

Metadata Application Profile

1. Content and Functional Requirements

- 1.1. Below are the lists of categories on which the wine corks are to be represented digitally.
Included is administrative metadata about the creation of the corks and contributors to the wine in their associated bottles.
- 1.2. DIMENSIONS: Each of the dimensions are numerical measurements, so there is a need to have a conversion between imperial and metric measurements in this category. Each of the subcategories are sorted in increasing numerical order, beginning with the smallest measurement.
 - a) **Height:** In centimeters and inches
 - b) **Maximum Diameter:** In centimeters and inches
 - c) **Minimum Diameter:** In centimeters and inches; this is information that will not be listed during search and browse, as it is of more interest to the stakeholders than the users except in cases of deformed corks.
 - d) **Weight:** In ounces and grams
- 1.3. CORK QUALITIES: These are descriptive metadata about the state of the corks themselves.
 - a) **Broken:** Boolean value, only attributed to one cork currently in the collection.
 - b) **Dominant Cork Color:** Each cork will have a color value sampled from a series of pictures of the cork's sides, being the most represented color on the images. This would be an HTML color value (like #f5e3b3), and - depending on the collection - grouped with similar RGB values, within +/- 20 each value. This collection is displayed like a color palette organized by Hue, Saturation, and lightness, as in Figure 1 but built from the predominant colors as opposed to the entire color spectrum.
 - c) **Cork Stain Color:** Much the same as the previous value, except this piece of metadata focuses on the circular cap of corks that are often stained by red or darker wines (Figure 2). A cork will be considered to be stained if the predominant HTML color value of an image of its end is drastically (>20 values) different from the dominant color of the side of the cork. This will be a selectable palette as well.
 - d) **Decoration:** Some wine corks have imagery on them, others have informational text (*Di Origine Controllata* on many Italian wines), and some have a combination. There is not a

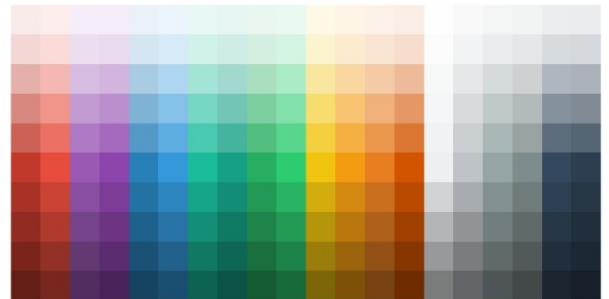


Figure 1



Figure 2

great way to exhaustively encompass the variety on each cork, so there will be two filters that can be checked: ☐ IMAGE ☐ TEXT.

- e) **Item ID:** This is the unique identifier of each cork, and more important for backend than for users. Users won't be able to see this one.

1.4. WINE QUALITIES: This is metadata concerned with the wine itself and will most likely be the most popular part of the collection with users.

- a) **Winery:** A list of the wineries in alphabetical order.
- b) **Location:** This will be the geographical location of the vineyard/wine producing region. This will be displayed in order of occurrence among the corks, with a larger region over the smaller. For example, a user should be able to select [California], and then go deeper and select [Napa Valley] or [Sonoma] and narrow down their results. This will require three metadata elements: Country, Region, and Subregion.
- c) **Vintage:** This is a numerical value, the bottling year of the wine. This category should be browsable via an interactive timeline which includes only the wines within its years (past to present in left to right). An input box above the timeline should limit the timeline to only that year, allowing the user to look at that year's corks.
- d) **Grape:** Often this is also used as the name of the wine, such as most Cabernet Sauvignons. However, there are certain blends which use a variety of grapes in their process; this should therefore be a checkbox selection listed in alphabetical order, and there can be another checkbox to allow the inclusion of blends that use the selected grape into the results. [X] Cabernet Sauvignon [X] Include Blends would result in a display of corks that come from both Cabs and Cab blends.
- e) **Price:** This is the price paid for the wine at Big Red Liquors in Bloomington, Indiana. There are a couple of ways to represent this numerical metadata. A slider would allow users to create their own price range and see the corks of the wines in that range, or there can be a series of categories based on <=\$20, \$20-\$40, etc. This depends on the exact spread of pricing in the metadata; if it turns out that most wines are under \$20 a bottle, then the slider would be much more useful.
- f) **Aggregate Rating:** This will be a series of categories much like a star system based on an aggregate rating from three sources: Robert Parker's Wine Advocate and the Wine Spectator as critical ratings, and the wine's CellarTracker score as the popular score. The user should be able to sort results by rating, as well.

1.5. In summary, this should constitute each of the functional requirements that users will be able to interact with after the CollectionBuilder site is fully set up. These are each described from the standpoint of the user, and particularities specific to the site requirements will be described in section 2.

2. Application Profile

2.1. In the below profile, MIA indicates “Mandatory if available,” and R/NR under cardinality refer to repeatability of the element.

Element Name	Obligation	Cardinality	Value Scheme	Notes	Dublin Core Equivalent	Example
Title	Mandatory	NR		This should be the full name of the wine as sold in stores.	Title	Francis Ford Coppola Diamond Collection Cabernet Sauvignon
Winery	Mandatory	R	Wine Ontology	Full name of the winery.	Creator	FrancisCoppola
Grape	Mandatory	R	Wine Ontology	The grape used; if the wine is a blend, than the grape with the highest concentration.	Subject	CabernetSauvignon
Vintage	Mandatory	R	Wine Ontology	This should be the year that the wine was bottled, as listed on the wine’s information at Big Red’s website.	Date	2019
isBlend	Optional	R	Wine Ontology	Boolean value, should be true or false.	Type	FALSE
height	Mandatory	R		Measured in centimeters from base to base of the cork. If the cork is broken, should be measured to the highest point available. Can specify to 2 decimal places.	Format	4.45cm
minDiam	Mandatory	R		Measured in centimeters across the smallest horizontal span of the object. Can specify to 2 decimal places.	Format	1.91cm
maxDiam	Mandatory	R		Measured in centimeters across the largest horizontal span of the object. Can	Format	2.06cm

				specify to 2 decimal places.		
weight	Mandatory	R		Measured in grams. Can be specified to the tenths place.	Format	29.4 g
ratingSpectator	MIA	R	Wine Wins	Wine Spectator's numerical value rating of a wine on a scale of 50-100 as detailed by Wine Wins.	Description	80
ratingAdvocate	MIA	R	Wine Wins	Wine Advocate's numerical value rating of a wine on a scale of 50-100 as detailed by Wine Wins.	Description	82
ratingCellar	MIA	R		CellarTracker uses a scale from Flawed, <80, and then discrete values in the 80-100 range to generate their score of a wine.	Description	86.8
objectID	Mandatory	NR		With such a small collection of objects, I will be specifying two things with the object id. First, a shorthand for the winery (the first three to four letters of the relevant part of the name), and second a shorthand for the type of wine. This is followed by a two-digit number that represents the order in which the cork was catalogued.	Identifier	CoppCabSauvCork01
Price	MIA	R		Measured in American dollars. Taken from Big Red	Requires	\$18.99

				Liquors.		
Color	Mandatory	R		This should be represented in HTML color format.	Format	#ecd37b
baseColor	MIA	R		This should be in HTML color format.	Format	#e2b2b0
latitude	MIA	R	TGN	This is the latitude of the winery, as their address is listed on Google Maps. This should be a two-to-three-digit number specific up to 7 decimal places.	Coverage - Spatial	38.6795595
longitude	MIA	R	TGN	This is the longitude of the winery, as their address is listed on Google Maps. This should be a two-to-three-digit number specific up to 7 decimal places.	Coverage - Spatial	-122.8923422
filename	Mandatory	NR		This should be identical to the objectID, with the appropriate filename attached. This will be either JPG or STL depending on if the user is viewing an image or a 3D Model.	Image	CoppCabSauvCork01.jpg CoppCabSauvCork01.stl
format	Mandatory	R		This element describes the format of the representation of the cork and should only be image or 3D model.	Format	Image 3D Model
Subregion	MIA	R	TGN	This should be described using TGN place name syntax.	Coverage - Spatial	Paso Robles
Region	MIA	R	TGN	This should be	Coverage -	California

				described using TGN place name syntax.	Spatial	
Country	Mandatory	R	TGN	This should be described using TGN place name syntax.	Coverage - Spatial	United States
Location	Mandatory	R	TGN	This element is a combination of the prior three, described using TGN syntax.	Coverage - Spatial	Paso Robles, California, United States