

# aPriori Electronics Costing

## 2019-08 Release Notes

*Last Updated: August 9, 2019, 13:47*

These release notes cover the most recent changes to the aPriori Printed Circuit Board Assembly (PCBA) and Wire Harness (WH) costing solutions:

- What's new in aPriori Electronics Costing 2019-08
- Known Issues and Workarounds
- Upgrading to aPriori Electronics 2019-08
- Contacting aPriori Customer Support

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## Documentation

*The latest version of the documentation for these products can always be found at the aPriori Support HelpCenter (requires registration): <https://support.apriori.com/hc>*

## Compatibility

aPriori Electronics Costing 2019-08 is compatible with:

- aPriori Professional 2019 R1 SP1 F2 (19.1.1.2) and later (on-premise only)
- PCBA and Wire Harness VPES and Regional Data Libraries (RDLs) 2019-03 (version 19.3.1.2, March 2019) and later. Note that 2019-08 is scheduled for September 2019.

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# What's new in aPriori Electronics Costing 2019-08

**Note:** To use these improvements the PCBA and Wire Harness cost models, costing macros and User Defined Attributes must be upgraded. Please contact your account team for further details.

## Overview of changes

- 1 This release introduces a new **web-based Data Collection Service** that provides real-time access to electronic component cost data, physical attributes, availability and other information via an integration with SiliconExpert. Incorporating this into your product development process ensures that you can:
  - Access info about new components in real time as you design or source PCBAs.
  - Not only select components for the best cost, but also avoid selecting components that are obsolete or nearing their end of life.
  - More easily cost and use components that your company has not used before -- no need to research and source from multiple suppliers.
  - Use aPriori Wire Harness and PCBA costing more quickly. You can get started as soon as they are installed and deployed--no more need to perform a lengthy data collection process and populate a component library before you can be productive. (But if you like, you can also still use a component library of existing component data and previously negotiated prices.)

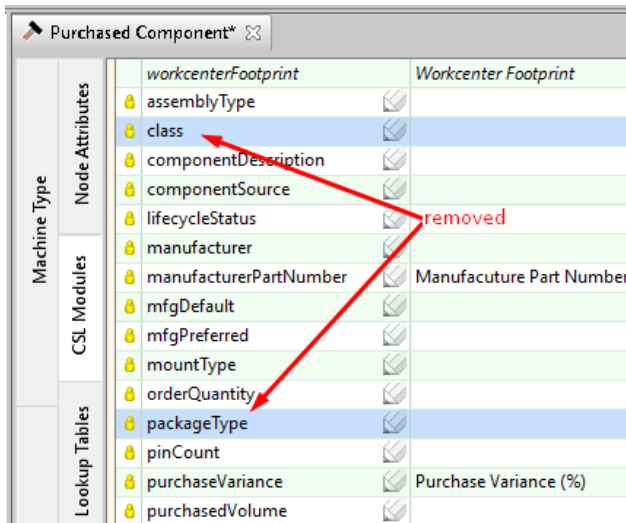
For more information about this major enhancement see below.

- 2 **Three Wire Harness component type fields have been combined into a single "Component Type" field.** The previous fields Type, Subtype, and Sub-subtype (internally named class, type, and subtype) have now been replaced by "Component Type". For example, in the past you might have had three somewhat redundant fields to define a termination:
  - Type (internally: "class"): T (Terminator)
  - Subtype (internally: "type"): T4 (Shield Terminator)
  - Sub-subtype (internally: "subtype"): T4B (Shield Terminator Soldered)

Now you can specify a single Component Type which will accept T, T4, or T4B.

The redundant fields have been removed.

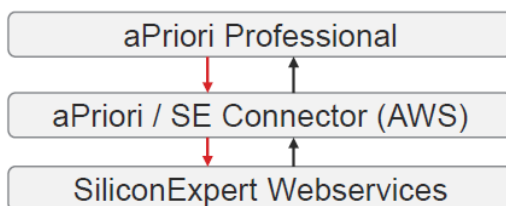
- Two PCBA custom attributes have been removed.** “class” and “package” have no effect on costing, and are only rarely referenced by some custom outputs so they have been removed to simplify the UI display.



## Web-based data collection service

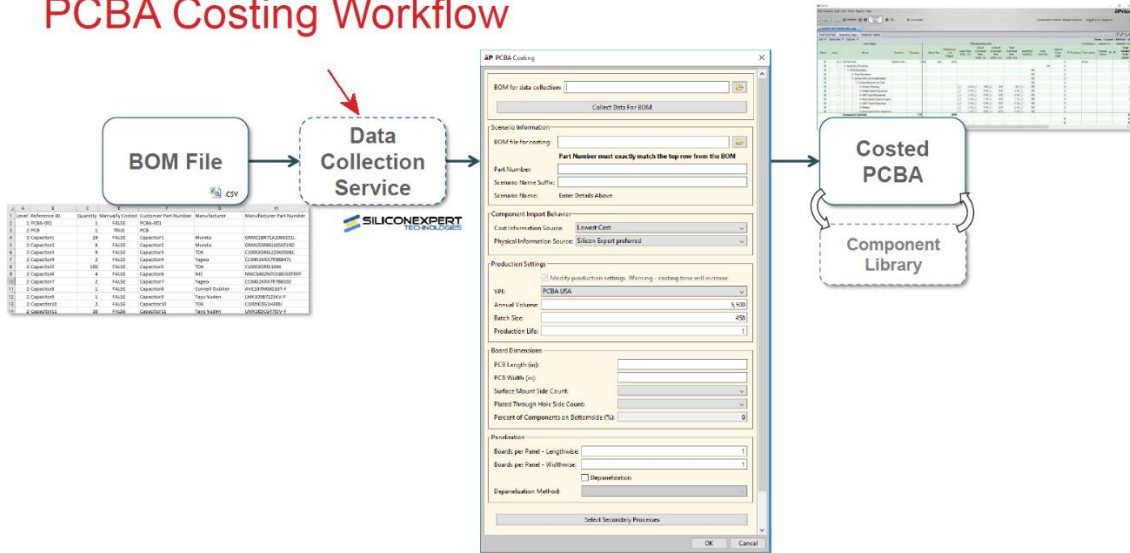
The new data collection service introduced in this release enables data collection for electronic components in your PCBA and Wire Harness by integrating directly with SiliconExpert, a data provider with access to more than a billion manufacturer part numbers across thousands of suppliers. This integration requires a subscription to SiliconExpert Technologies Webservices (<https://www.siliconexpert.com>). If your company has an existing subscription, that can be used. If your company does not have an existing subscription, please contact your aPriori account team.

As in the past, PCBA and Wire Harness costing takes place in your on-premise deployment of aPriori Professional, but we have added an integration hosted on Amazon Web Services (AWS) that connects you to SiliconExpert’s extensive repository of component information.

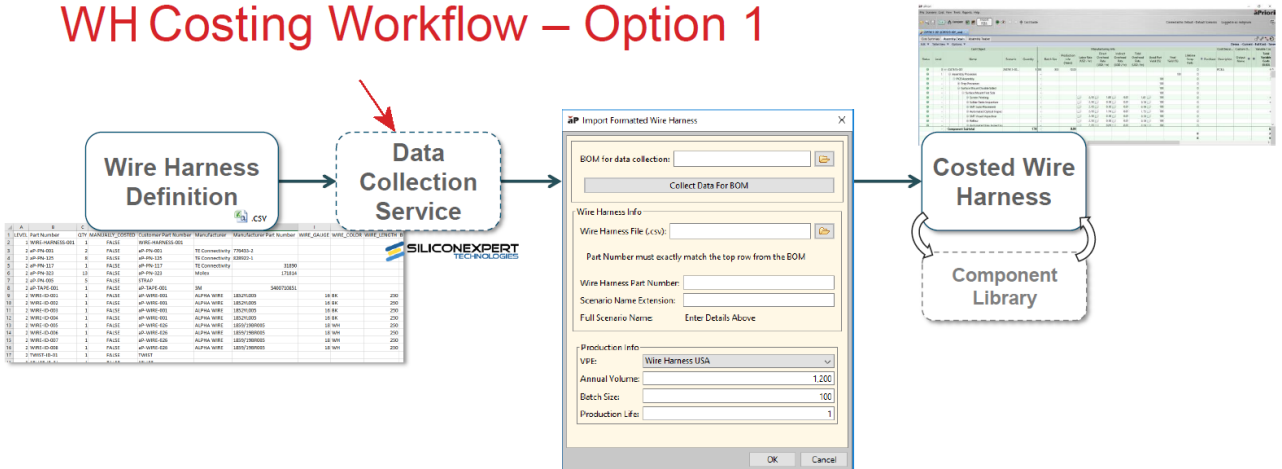


This step fits into the PCBA and Wire Harness workflows as shown below:

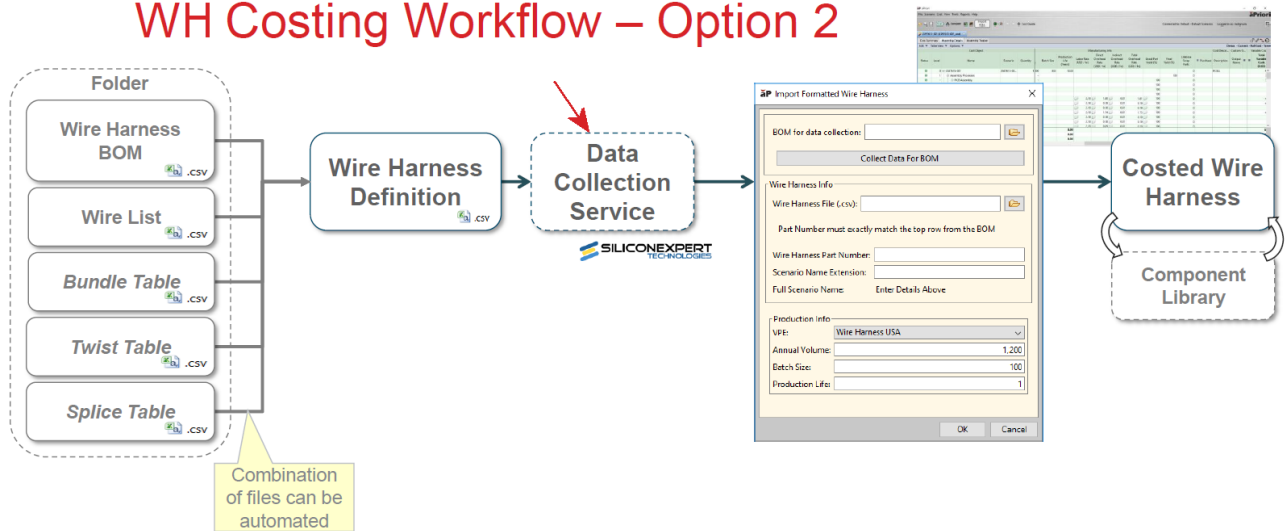
## PCBA Costing Workflow



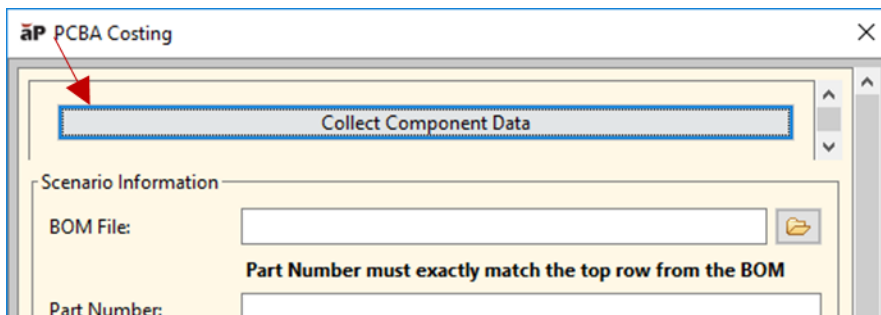
## WH Costing Workflow – Option 1



## WH Costing Workflow – Option 2



After importing the PCBA or Wire Harness BOM or other definition file(s)—but before costing—you can proceed to data collection by kicking off the data collection service. For example, for PCBA you launch the service with a button on the **PCBA Costing** dialog as shown below. In order to utilize the data collection service you must have the columns Customer Part Number, Manufacturer Part Number, Level, and Quantity in your BOM and populated for components for which you would like to collect data.



### Bill of Materials

PCBA-001.csv

- ✓ Capacitor1  
GRM21BR71A106KE51L, Murata
- ✓ Capacitor2  
GRM155R60J105KE19D, Murata
- ✓ Capacitor3  
C1005X5R0J225K050BC, TDK
- ✓ Capacitor4  
CC0402KRX7R9BB471, Yageo
- ⚠ Capacitor5  
C1005X5R0J104K, TDK
- ✓ Capacitor6  
NMC0402NPO180J50TRPF, NIC
- ✓ Capacitor7  
CC0402KRX7R7BB102, Yageo

10 ▾ 1 - 10 of 65 < >

48 of 65 line items completed

### Matches for Capacitor4

1 matching part found

✓ CC0402KRX7R9BB471 aP

Capacitors > Fixed Capacitors > Capacitor Ceramic Multilayer

Cap Ceramic 470pF 50V X7R 10% Pad SMD 0402 125°C T/R

MANUFACTURER	AVAILABILITY	AVERAGE COST	MINIMUM COST	ROHS	ROHS VERSION
Yageo	Active	\$0.0032	\$0.0016	Yes	2011/65/EU, 2015/863

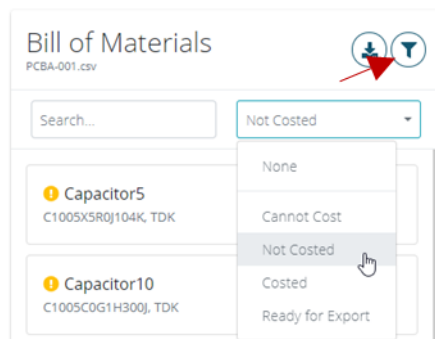
The left side of the screen shows the components found on the BOM and the right side shows matches in the SiliconExpert database. If there is only a single match for a component, the cost is automatically retrieved for that component. Matches include information such as minimum and average costs, availability, etc.

Clicking the **PDF** icon in the lower left corner of the match information brings up the datasheet for the component, which is especially useful for comparing multiple matches.

If there is a problem finding a definitive match for a component, such as if there are multiple matched manufacturer part numbers or the manufacturer part number found does not have cost information, then the entry on the left will be flagged with a yellow icon on the left if a match exists indicating that the component was not costed and an action must be taken. A red icon indicates that no matching manufacturer part number could be found (see “2” in the following illustration).



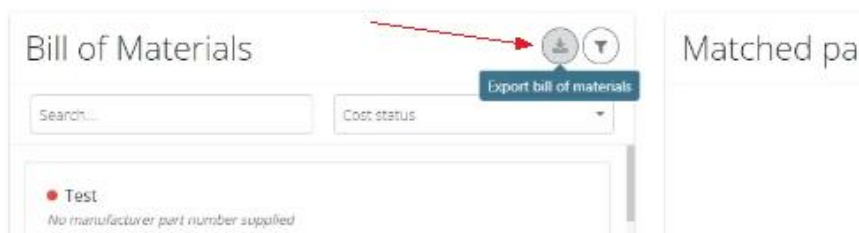
Users can also use filters to focus on components that require specific actions, such as Not Costed, parts that require some action based on matched part(s), or Cannot Cost, parts that had no match in the SiliconExpert database. This can be done by clicking on the filter button as shown below.



You can address these issues in a couple of different ways:

- If you know the cost for a component that does not have cost data available, you can select the component back on (“2.”) and then click the **Edit** icon (“3.”) to supply your own information.
- If you know that you will be replacing the obsolete or non-existent part and have a general estimate for the part cost, you can click the **Add** button (“4.”) to create a custom part and provide all of your own information.
- You can leave the component as-is and cost in aPriori, potentially referencing data from the component library if it exists.

Once you have completed analyzing the BOM and providing any manual data you can export the updated BOM for costing in aPriori, by clicking the **Export** icon.



Once the new BOM has been imported in aPriori, you can specify preferences from the costing dialog as to what information aPriori should use:

- Just the data from SiliconExpert
- Just the data from the component library
- SiliconExpert data preferred
- Component library data preferred
- The least expensive component from either

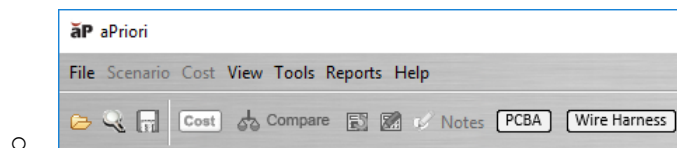
Along with this powerful new data collection capability, the component library can still be used for both PCBA and Wire Harness and is recommended to capture various component data:

- Custom components manufactured for your company – these components will not appear in the SiliconExpert database
- Components with negotiated pricing for your company – these costs will more closely represent the way that your business operates. Using the options described above, these negotiated costs can be compared to costs coming from SiliconExpert

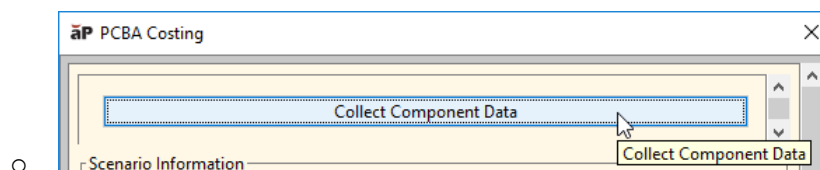
## Setting up the data collection service

The data collection service does not require any additional installation other than the PCBA or Wire Harness costing macro. System Administrators will need to perform the steps below to set up their SiliconExpert license:

- Open **PCBA** or **Wire Harness** costing dialog

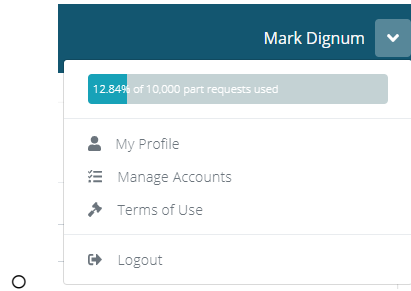


- Click on **Collect Component Data**

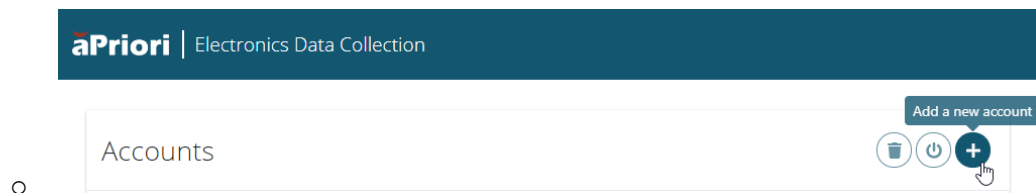




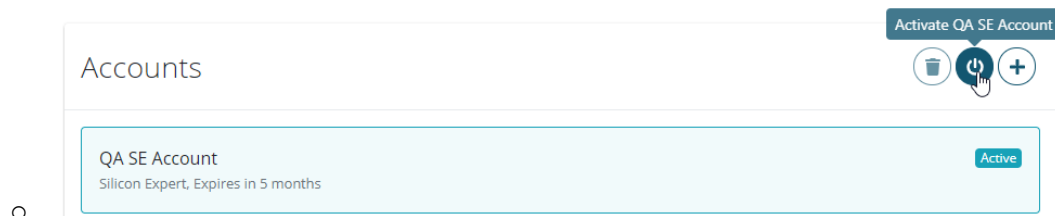
- Navigate to **Manage Accounts**



- Click on **Add a new account**



- Provide the details of your company's SiliconExpert Webservices account and click **Save**
- Ensure the account is active (**Active**). If it is not, select the account card and click the **Activate** button



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## Known Issues and Workarounds

The following “Known Issues” have been identified in *aPriori Electronics Costing 2019-08*:

- The aPriori Professional documentation has not yet been updated to reflect the latest changes for Wire Harness and PCBA costing. While much of the existing electronics costing documentation in the aPriori Professional 2019 R1 SP1 doc set remains valid, certain areas are obsolete with this release. Specifically, the Wire Harness and PCBA chapter of the VPE Administration Guide is being rewritten to cover the new web-based data collection service.
- SiliconExpert currently supports only minimum and average costs, not a granular minimum order quantity breakdown.
- The web-based data collection service only supports BOMs with up to 500 line items at this time. If you have a BOM that is larger than that it is recommend that the BOM is split into smaller BOMs that are run through data collection individually – the outputs from data collection can be combined using Excel or other spreadsheet editors to recreate the complete BOM.
- The web-based data collection service is not fully supported in Internet Explorer or Microsoft Edge; various rendering issues may occur when using those browsers.

## Upgrading to aPriori Electronics 2019-08

Upgrading to aPriori Electronics 2019-08 requires that the appropriate VPE, costing dialog, and User Defined Attribute data be installed, depending on the enhancements that your company wishes to take advantage of. Talk to your aPriori account team in order to understand the specific steps needed to upgrade for your company.

## Contacting aPriori Customer Support

To contact aPriori Customer Support, use one of the following options:

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**Internet Web site:** <http://www.apriori.com/support>

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**Email:** [support@apriori.com](mailto:support@apriori.com)

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