



Feature at a Glance

REST APIs to upload bill of materials data to product sourcing and to extract supplier bid data from cost group documents

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Feature at a Glance

Introducing: REST APIs to upload bill of materials data to product sourcing and to extract supplier bid data from cost group documents

Ease of implementation



Some complexity

Geographic relevance



Global

Customer challenge

Challenging to extract detailed cost groups prices and cost group line items to external systems for analysis from Ariba sourcing

Meet that challenge with

SAP Ariba

SAP Ariba Strategic Sourcing Suite introduces two new open APIs to meet this requirement

1. GET /rfxCostgroups
Returns the list of cost group document IDs for line items for which awards or PIRs are created during a specified date range
2. GET /costgroupDocuments/{costgroupDocumentId}
Returns the cost components and the associated cost group terms from the specified document

Experience key benefits

Customers will now have the ability to export detailed data by

1. Cost groups
2. Lines items and associated terms within each cost group
3. Prices of line items within cost groups and price roll up

to external systems for detailed cost analysis

Solution area

SAP Ariba APIs
SAP Ariba developer portal
SAP Ariba Strategic Sourcing Suite

Implementation information

This feature is automatically on for all customers with the applicable solutions but requires **customer configuration**

Prerequisites and Restrictions

Customers should have enabled the ability to –

1. Create PIR
2. Create RFx with cost groups
3. All queries made to this API must be authenticated using OAuth authentication from the developer portal

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Use Cases

Extract cost group data to be consumed in external system for analysis.

Steps –

1. Create an RfX templates by modeling the cost groups and roll-up structure
2. Create a new event by adding line items and publish a event
3. Receive responses from the suppliers – this response is ready for analysis
4. Create a price acceptance scenario, select the required suppliers and line items and create a PIR or accept prices without creating PIR
5. Cost group details can now be exported through the API –
 1. rfxCostgroups – fetch the list of all cost group IDs for the line items/material numbers
 2. costgroupDocuments – based on the cost group IDs fetch the cost components and price terms for the line items

All Content Filter

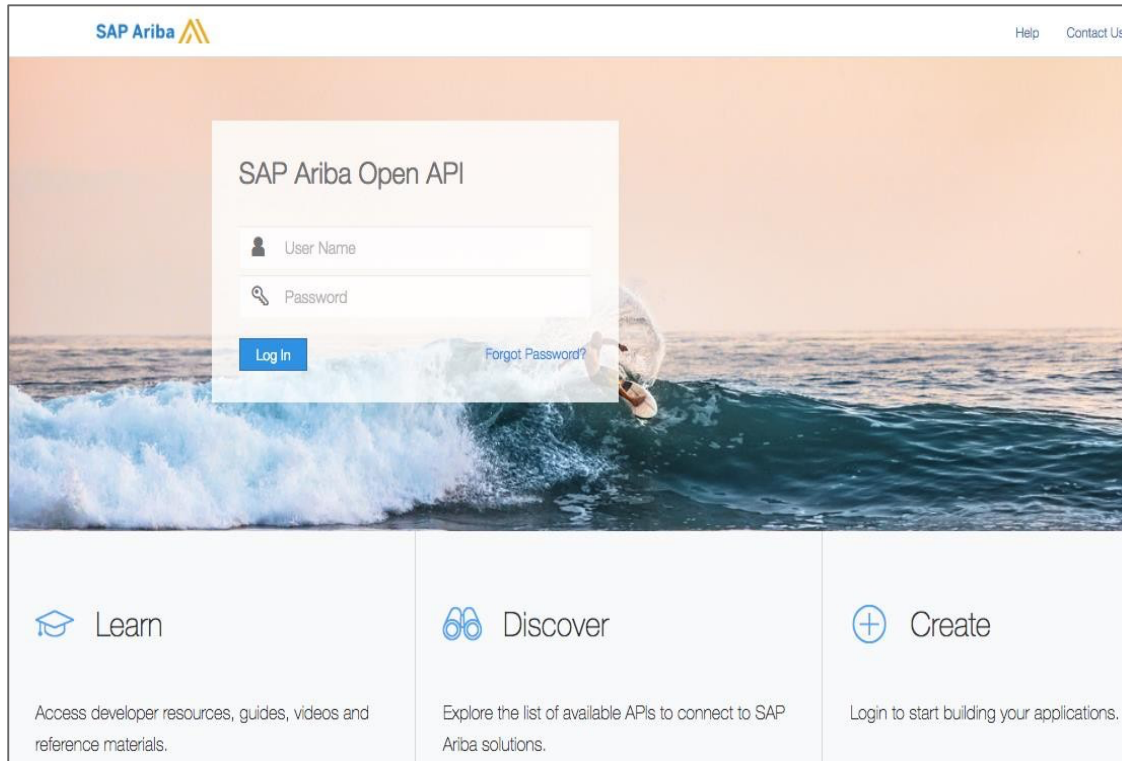
Display: Responses

Name ↑		Leading	Initial	PK Polymers	Sterling Group
		Price - Manually copy effective price	Price - Manually copy effective price	Price - Manually copy effective price	Price - Manually copy effective price
▼ Totals	Extended Price:				
▼ 1 Pricing	Extended Price:				
1.1 400627-0622	Less...	\$405.60 USD		\$405.60 USD (1)	\$490.64 USD (2)
Bolt					
Quantity:		22 each	22 each	22 each	22 each
Extended Price:		\$8,923.20 USD Fx		\$8,923.20 USD Fx	\$10,794.08 USD Fx
Raw Material Cost:		\$100.60 USD	\$	\$100.60 USD	\$134.64 USD
Processing Cost:		\$238.00 USD	\$	\$238.00 USD	\$312.00 USD
Purchased Part Cost:		\$22.00 USD	\$	\$22.00 USD	\$30.00 USD
Freight Cost:		\$35.00 USD		\$35.00 USD	\$12.00 USD
Miscellaneous Cost:		\$10.00 USD		\$10.00 USD	\$2.00 USD
Effective Price per Item:		\$405.60 USD Fx		\$405.60 USD Fx	\$490.64 USD Fx
Plant:		1008	1008	1008	1008
Material Code:		400627-0622	400627-0622	400627-0622	400627-0622
Material Group:		MaterialGroup	MaterialGroup	MaterialGroup	MaterialGroup

Feature at a Glance - API Specific

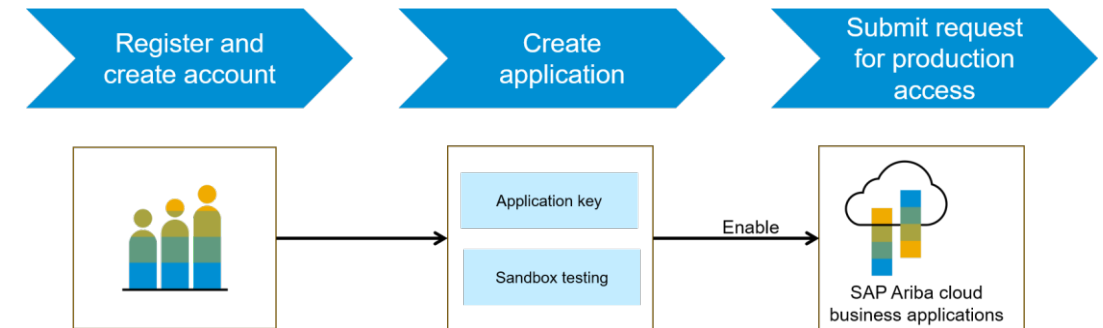
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How to develop an application that consumes the APIs.



Go to <https://developer.ariba.com/api/>

Check the **Learn** section to get detailed information on how to develop your application. The process to develop an application generally includes following steps:



1. Once registered on the Developer portal, explore available APIs under Ariba Strategic Sourcing for a detailed description of the API
2. Create a new application and activate the application to get an application key
3. You'll need to request 'Production access' for your application by submitting a service request on <http://connect.ariba.com>. Upon approval an OAuth Client ID is generated for the application.
4. As a buyer administrator, add your OAuth Client ID to your profile

Feature at a Glance - API Specific

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Sample Code

GET /rfxCostgroups Returns a list of cost group document ids for materials which were accepted from sourcing event

[https://openapi.ariba.com/api/cost-breakdown/v1/prod//rfxCostgroups?realm=<realmname> &\\$filter=date ge <YYYY-MM-DD> TO <YYYY-MM-DD> 1&\\$top=10&\\$skip=60&\\$count=true](https://openapi.ariba.com/api/cost-breakdown/v1/prod//rfxCostgroups?realm=<realmname> &$filter=date ge <YYYY-MM-DD> TO <YYYY-MM-DD> 1&$top=10&$skip=60&$count=true)

Response

```
"rfxCostgroups": [
  {
    "lineItems": [
      {
        "lineItemName": "MAT_XBOX_SHORT_5_020",
        "itemId": "XZ50000-020",
        "plantId": null,
        "supplierId": "sid516",
        "costGroupDetails": [
          {
            "costGroupDocumentId": "Doc11353700",
            "value": "1.0"
          },
          {
            "costGroupDocumentId": "Doc11273584",
            "value": "198.0"
          }
        ]
      },
      {
        "lineItemName": "MAT_XBOX_SHORT_5_020",
        "itemId": "XZ50000-020",
        "plantId": null,
        "supplierId": "sid516",
        "costGroupDetails": [
          {
            "costGroupDocumentId": "Doc11353701",
            "value": "0.0"
          },
          {
            "costGroupDocumentId": "Doc11353642",
            "value": "23.0"
          }
        ]
      }
    ],
    "sourceId": "Doc11060479"
  }
]
```

Material number/line items

Cost group document IDs

- With this query the API as response can only send rolled up costs for cost groups, cost group document ID
- However, if the desired response is details of cost group line items – like line item cost, then the subsequent API needs to work

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- To further query the cost group lines, buyers have to use this API specifying cost group document ID
- Cost group document ID is the response from the previous API

<https://openapi.ariba.com/api/cost-breakdown/v1/prod/costgroupDocuments/<Cost group Document ID>?realm=<realm name>>

GET /costgroupDocuments/{costgroupDocumentId} Returns line items with cost terms for given cost group document

Sample Code

Response

```
{
  "costGroupName": "Production and Assembly cost",
  "totalCost": "6.08",
  "currency": "USD",
  "costGroupLineList": [
    {
      "lineName": "KLWR34",
      "terms": [
        {
          "fieldId": "Process description",
          "valueType": "Short Text",
          "value": {
            "simpleValue": "23"
          }
        },
        {
          "fieldId": "Machine Type",
          "valueType": "Short Text",
          "value": {
            "simpleValue": "WER"
          }
        },
        {
          "fieldId": "Utilization %",
          "valueType": "Percentage",
          "value": {
            "bigDecimalValue": 2.0
          }
        },
        {
          "fieldId": "Number of direct workers",
          "valueType": "Whole Number",
          "value": {
            "simpleValue": "2"
          }
        }
      ]
    }
  ]
}
```

Cost group name

Cost group Line 1

Roll-up = sum of all lines
in the cost group

Cost group terms & structure
+ values for line 1