



Explore API Documentation

SelfService_Estimate_Resource

ReferencedData

Version 1.0

Last Modified: 11/14/2023

Last Modified By: Litzy Mora

Change Log

This changelog only contains significant or notable changes to the revision. Any editorial type changes or minor changes are not included.

Revision	Change Date	Description	Modified By
1.0	5/27/2023	Initial draft	Aaron Cohen

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Overview

The **SelfService_Estimate_ResourcesReferencedData** API is one of multiple APIs comprising the data contained in the Estimate Resource entity.

The Estimate Resource entity includes three main tables

- *SelfService_Estimate_Resources*
- *SelfService_Estimate_ResourcesCalculatedValues*
- *SelfService_Estimate_ResourcesReferencedData*

The *SelfService_Estimate_Resources* table contains Resource Rate records as created and managed within the Estimate application.

The *SelfService_Estimate_ResourcesCalculatedValues* table contains Resource Rate data commonly calculated in some way for display purposes in the application and can provide a convenient way to reference data as it appears in the application without needing to transform it for display purposes.

The *SelfService_Estimate_ResourcesReferencedData* contains the values of the many foreign key lookup values stored in the jobs table and can provide a convenient way to reference data as it appears in the application without needing to lookup the foreign key values from a lookup table.

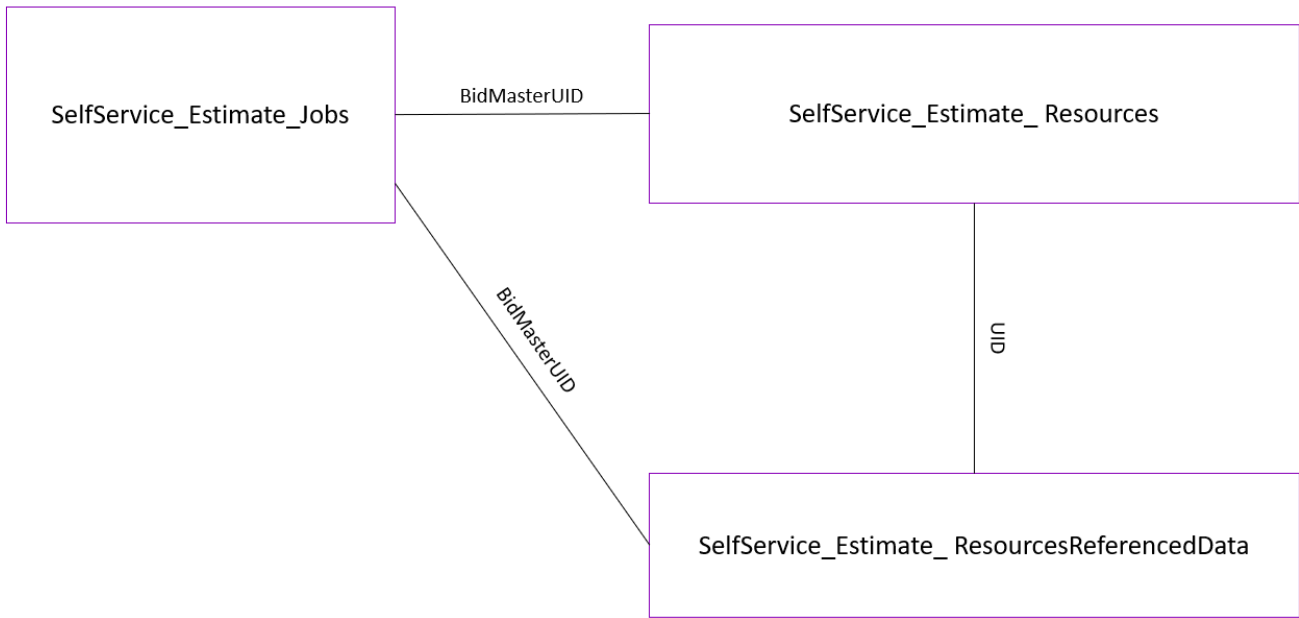
Monetary values stored in the database are stored in their base currency and corresponding values displayed in the application have been modified based on the conversion factor of the items assigned currency.

Quantity values stored in the database are stored in their base measurement units and corresponding values displayed in the application are potentially modified based on the conversation factor of the items unit of measure

Relationships and Dependencies

From: Table	To: Table	Relationship	Cardinality ¹	Comment
ResourcesReferencedData (RRD)	Jobs (J)	RRD.BidMasterJobUID = J.BidMasterJobUID	M:1	
ResourcesReferencedData (RRD)	Resources (R)	RRD.UID = R.UID	1:1	

¹ 1:M = One to Many, 1:1 = One to One, M:1 = Many to one



API Detail

Direction	From Project Suite	
Pagination	50,000 Rows	
Frequency	All Reporting APIs are used by calling a GET method at an interval determined by the customer. InEight suggests using these APIs on an infrequent basis (once per day) to avoid potential performance impact to live systems when the returned data set could be large.	
Trigger Method(s)	All default OData filters are supported	
Average Payload Size	Depends on date range selected	
APIM Name	SelfService_Estimate_ResourceReferencedData	
Data Refresh/Delta/Incremental Loads		
Project Suite	Starting Version	23.6
	Ending Version	N/A

Supported Filters

All default OData filters are supported by this API.

Fields

Name	Type	Char Max Length	Numeric Precision	Date Precision	Product	PK
EstimateResourceReferencedDataId	bigint	8	19	0	Estimate	X

EstimateResourceReferencedDataUF	uniqueidentifier	16	0	0	Estimate	
EstimateResourceReferencedDataUID	uniqueidentifier	16	0	0	Estimate	
AccountCode	nvarchar	50	0	0	Estimate	
ActualMaintenanceLaborAssemblyCode	nvarchar	50	0	0	Estimate	
AlternateUnitOfMeasureName	nvarchar	50	0	0	Estimate	
CostCurveDescription	nvarchar	50	0	0	Estimate	
CostDriverDescription	nvarchar	50	0	0	Estimate	
CostSourceDescription	nvarchar	50	0	0	Estimate	
CurrencyName	nvarchar	400	0	0	Estimate	
DefaultMaintenanceLaborAssemblyCode	nvarchar	50	0	0	Estimate	
FuelAccountCode	nvarchar	50	0	0	Estimate	
FuelCostType	nvarchar	50	0	0	Estimate	
GeographicAreaDescription	nvarchar	50	0	0	Estimate	
MaintenanceLaborAssemblyCode	nvarchar	50	0	0	Estimate	
OrganizationalCategoryDescription	nvarchar	50	0	0	Estimate	
QuantityRollUpCode	nvarchar	50	0	0	Estimate	
QuoteGroupDescription	nvarchar	50	0	0	Estimate	
ResourceFileDescription	nvarchar	50	0	0	Estimate	
Tag1Code	nvarchar	260	0	0	Estimate	
Tag2Code	nvarchar	260	0	0	Estimate	
Tag3Code	nvarchar	260	0	0	Estimate	
UnitOfMeasureName	nvarchar	50	0	0	Estimate	
WageZoneDescription	nvarchar	50	0	0	Estimate	
BidMasterJobUID	uniqueidentifier	16	0	0	Estimate	
BidMasterJobCode	nvarchar	200	0	0	Estimate	
LastUpdateID	int	4	10	0	Estimate	
IsActive	bit	1	1	0	Estimate	
CreatedByID	bigint	8	19	0	Estimate	
CreatedDate	datetimeoffset	10	34	7	Estimate	
ModifiedByID	bigint	8	19	0	Estimate	
ModifiedDate	datetimeoffset	10	34	7	Estimate	

Field Descriptions

Name	Description	Example
EstimateResourceReferencedDataID	Unique identifier assigned to each record in the table	2387188
EstimateResourceReferencedDataUF	System generated field, for internal use only	e9fd1453-5abd-0fb4-2099-b1cf24fea809
EstimateResourceReferencedDataUID	Unique identifier for a Resource Rate record. Not visible in the	373e63d4-fee4-498f-85fe-6c4fd409adba

	interface	
AccountCode	Resource Rate records <i>Account Code</i> assignment from the Accounts table. Found on the Setup tab of the Resource Rate record.	null
ActualMaintenanceLaborAssemblyCode	Description of the specified <i>Maintenance Labor Assembly</i> from the ResourceAssemblies table and as indicated when the option to specify the Maintenance Labor Assembly is chosen. Found on the Charge Rate tab of Equipment Resource Rate records.	null
AlternateUnitOfMeasureName	The Alternate Unit of Measure for a Resource Rates assigned Unit of Measure is that units systems base Unit of Measure needed to convert quantities having the same measurement types (Length, Area, Volume, etc.). For a Resources selected Unit of Measure, the Alternate Unit of Measure Name is the description of its corresponding Base Unit of Measure. This value is not visible in the application.	Hour
CostCurveDescription	Resource Rate records default <i>Cost Curve</i> from the CostCurves table. Found on the Setup tab of the Resource Rate record	Employed Cost Item
CostDriverDescription	Resource Rate records default <i>Cost Driver</i> from the CostDrivers table. Found on the Setup tab of the Resource Rate record	CI Duration
CostSourceDescription	Resource Rate records Cost Source description from the CostSources table. This value will point to the record corresponding to a description of "Plug" unless the Resource has been awarded to a Quote, in which case it will point to the record corresponding to a description of "Quote". The Cost Source can be identified in the application by a green checkmark icon on either the Charge Rate tab or the Quote tab	Plug
CurrencyName	Resource Rate records assigned <i>Currency</i> value description from the Currencies table. Found on the Setup tab of the Resource Rate record	U.S. Dollar

DefaultMaintenanceLaborAssemblyCode	Description of the specified <i>Maintenance Labor Assembly</i> from the ResourceAssemblies table and as indicated when the option to use the Jobs default Maintenance Labor Assembly is chosen. Found on the Charge Rate tab of Equipment Resource Rate records	CMAINT
FuelAccountCode	For a Resource Rate record with an assigned <i>Fuel Type</i> , this is the corresponding Assigned Account Code description for the designated Fuel Type	null
FuelCostType	Resource Rate records assigned <i>Fuel Type</i> description from the Fuels table. A null value indicates no Fuel Type is chosen and the OE Fuel cost is not calculated but can be manually entered. Found on the Charge Rate tab of Equipment type Resource Rate records	null
GeographicAreaDescription	Resource Rate records assigned <i>Geographic Area</i> description from the GeographicAreas table. Found on the Setup tab of the Resource Rate record	Southwest
MaintenanceLaborAssemblyCode	Description of the specified <i>Maintenance Labor Assembly</i> from the ResourceAssemblies table and as indicated when the option to specify the Maintenance Labor Assembly is chosen. Found on the Charge Rate tab of Equipment Resource Rate records	null
OrganizationalCategoryDescription	Resource Rate records assigned <i>Organizational Category</i> description from the OrganizationalCategories table. Found on the Setup tab of the Resource Rate record	Carpenter
QuantityRollUpCode	Resource Rate records assigned <i>Quantity Roll-Up</i> Code value from the QuantityRollUps table. Found on the Setup tab of the Resource Rate record for non-duration based resources	null
QuoteGroupDescription	Resource Rate records assigned <i>Quote Group Tag</i> description from the QuoteGroupTags table. Found on the Setup tab of the Resource Rate record for non-duration based resources	null

ResourceFileDescription	Resource Rate records assigned <i>Resource File</i> description from the ResourceFiles table. Found on the Setup tab of the Resource Rate record	Standard Labor Rate File
Tag1Code	Resource Rate Records selected Tag value description from the UserTags table. Found in the <i>Tag 1</i> dropdown field on the Setup tab of the Resource Rate record	Non Union
Tag2Code	Resource Rate Records selected Tag value description from the UserTags table. Found in the <i>Tag 2</i> dropdown field on the Setup tab of the Resource Rate record	Hourly
Tag3Code	Resource Rate Records selected Tag value description from the UserTags table. Found in the <i>Tag 3</i> dropdown field on the Setup tab of the Resource Rate record	null
UnitOfMeasureName	Resource Rates Unit of Measure description from the UnitsOfMeasure table. Found in the Resource Rate Register and at the top of the Resource Rate record for non-duration based resources.	Hour
WageZoneDescription	Resource Rate records assigned <i>Wage Zone</i> description from the WageZones table. Found on the Setup tab of the Resource Rate record	Wage Zone A
BidMasterJobUID	Identifier of the Job record from the Jobs table in the BidMaster database. Not visible in the interface.	dec37787-a459-463b-a567-dd80f0f705b3
BidMasterJobCode	Value of the Code field on the Overview tab of Job Properties in the Estimate Application. The value of this field is set when a job is created and cannot be modified through the interface	Training Job - Reporting
LastUpdateID	Field for internal use only	628
IsActive	Indicates if record is active. Please note: records will become inactive if a user un-syncs a job from Estimate application	true
CreatedByld	System generated Id, will always represent the system, not actual users. This field is for internal use only	1
CreatedDate	Date/timestamp record is entered	2023-05-

		08T21:57:42.3725092Z
ModifiedById	System generated Id, will always represent the system, not actual users. This field is for internal use only	1
ModifiedDate	Date/timestamp record is modified	2023-05-08T21:57:42.3725092Z

Sample

```
{
  "EstimateResourceReferencedDataId": 2387188,
  "EstimateResourceReferencedDataUF": "e9fd1453-5abd-0fb4-2099-b1cf24fea809",
  "EstimateResourceReferencedDataUID": "373e63d4-fee4-498f-85fe-6c4fd409adba",
  "AccountCode": null,
  "ActualMaintenanceLaborAssemblyCode": null,
  "AlternateUnitOfMeasureName": "Hour",
  "CostCurveDescription": "Employed Cost Item",
  "CostDriverDescription": "CI Duration",
  "CostSourceDescription": "Plug",
  "CurrencyName": "U.S. Dollar",
  "DefaultMaintenanceLaborAssemblyCode": "CMAINT",
  "FuelAccountCode": null,
  "FuelCostType": null,
  "GeographicAreaDescription": "Southwest",
  "MaintenanceLaborAssemblyCode": null,
  "OrganizationalCategoryDescription": "Carpenter",
  "QuantityRollUpCode": null,
  "QuoteGroupDescription": null,
  "ResourceFileDescription": "Standard Labor Rate File",
  "Tag1Code": "Non Union",
  "Tag2Code": "Hourly",
  "Tag3Code": null,
  "UnitOfMeasureName": "Hour",
  "WageZoneDescription": "Wage Zone A",
  "BidMasterJobUID": "dec37787-a459-463b-a567-dd80f0f705b3",
  "BidMasterJobCode": "Training Job - Reporting",
  "LastUpdateID": 628,
  "IsActive": true,
  "CreatedBy": 1,
  "CreatedDate": "2023-05-08T21:57:42.3725092Z",
  "ModifiedById": 1,
  "ModifiedDate": "2023-05-08T21:57:42.3725092Z"
}
```

Data Validation

This data can be validated by opening the Resource Rate Register or Resource Rate Record in an open job in the Estimate Application

Figure 1: Resource Rate Register

The screenshot shows the 'Resource Rate Register' window in the software. The window title is 'Training Job - Reporting - Training Job - Maricopa County No. TM2924 - Estimate'. The interface includes a menu bar (File, Setup, Estimate, Quote, Price, Execution, System, Actions) and a toolbar with various icons for actions like Print, Open, Cut, Copy, Paste, Delete, and Filter. Below the toolbar, there are tabs for 'Resource Rate Register' and 'Labor Rate Record'. The main area displays a table with columns for Resource Type, Resource Code, Description, Resource File Description, Unit of Measure, Quantity Roll-Up Code, Quantity Roll-Up Description, Productivity Factor, Default Quantity, Waste % Add-on, and Unit Cost (Scale 1). The table lists various construction equipment rates, such as Asphalt Paver, Asphalt Roller, Compactor Smooth Drum, etc., with their respective unit costs. A status bar at the bottom shows 'As-Entered Currency', 'As-Entered Units', 'Training Job - Reporting - Training Job - Maricopa County No. TM2924', and 'Accrued Costs OFF'.

Resource Type	Resource Code	Description	Resource File Description	Unit of Measure	Quantity Roll-Up Code	Quantity Roll-Up Description	Productivity Factor	Default Quantity	Waste % Add-on	Unit Cost (Scale 1)
+ Construction Equipment Rate	EAPAV	Asphalt Paver	Standard Equipment Rate File	Hour			1.00	1.00		\$82.6
+ Construction Equipment Rate	EARL	Asphalt Roller	Standard Equipment Rate File	Hour			1.00	1.00		\$54.6
+ Construction Equipment Rate	ECOMP1	Compactor Smooth Drum	Standard Equipment Rate File	Hour			1.00	1.00		\$36.4
+ Construction Equipment Rate	ECOMP2	Compactor Sheeps Foot	Standard Equipment Rate File	Hour			1.00	1.00		\$61.6
+ Construction Equipment Rate	ECR110	Crane 110 Ton	Standard Equipment Rate File	Hour			1.00	1.00		\$225.4
+ Construction Equipment Rate	ECRBT	Boom Truck 15 Ton	Standard Equipment Rate File	Hour			1.00	1.00		\$57.4
+ Construction Equipment Rate	ECRHC	Hydraulic Crane 25 Ton	Standard Equipment Rate File	Hour			1.00	1.00		\$117.6
+ Construction Equipment Rate	ED6	Dozer D6	Standard Equipment Rate File	Hour			1.00	1.00		\$113.4
+ Construction Equipment Rate	ED8	Dozer D8	Standard Equipment Rate File	Hour			1.00	1.00		\$173.6
+ Construction Equipment Rate	EG14G	Grader 14G	Standard Equipment Rate File	Hour			1.00	1.00		\$60.2
+ Construction Equipment Rate	EG160H	Grader 160H	Standard Equipment Rate File	Hour			1.00	1.00		\$120.4
+ Construction Equipment Rate	EL950	Loader 950	Standard Equipment Rate File	Hour			1.00	1.00		\$60.2
+ Construction Equipment Rate	EL988	Loader 988	Standard Equipment Rate File	Hour			1.00	1.00		\$73.7
+ Construction Equipment Rate	EMCOMP	Compressor 375 PSI	Standard Equipment Rate File	Hour			1.00	1.00		\$11.2
+ Construction Equipment Rate	EMGEN	Generator 700 Watt	Standard Equipment Rate File	Hour			1.00	1.00		\$14.8
+ Construction Equipment Rate	EMHR	Hydraulic Ram	Standard Equipment Rate File	Hour			1.00	1.00		\$35.0
+ Construction Equipment Rate	EMML	Manlift 25 Ft.	Standard Equipment Rate File	Hour			1.00	1.00		\$35.0
+ Construction Equipment Rate	EMPS	Paint Sprayers	Standard Equipment Rate File	Hour			1.00	1.00		\$7.0
+ Construction Equipment Rate	EMPW	Pressure Washer	Standard Equipment Rate File	Hour			1.00	1.00		\$28.0
+ Construction Equipment Rate	EMTB	Trench Box	Standard Equipment Rate File	Hour			1.00	1.00		\$7.0
+ Construction Equipment Rate	EPBW	Concrete Paver Bidwell	Standard Equipment Rate File	Hour			1.00	1.00		\$95.2
+ Construction Equipment Rate	ES613	Scraper 613	Standard Equipment Rate File	Hour			1.00	1.00		\$100.8
+ Construction Equipment Rate	ES621	Scraper 621	Standard Equipment Rate File	Hour			1.00	1.00		\$162.0
+ Construction Equipment Rate	ES623	Scraper 623	Standard Equipment Rate File	Hour			1.00	1.00		\$127.0

Figure 2: Resource Rate Record



Training Job - Reporting - Training Job - Maricopa County No. TM2924 - Estimate

File Setup Estimate Quote Price Execution System

Job Properties Foundation Setup Data Pay Item & Proposal Bid Wizard Resources Equipment Materials Resource Assemblies Cost Item Assemblies Standard Tables Reports

Initialize Resources Assemblies Reports

Resource Rate Register **Labor Rate Record**

Code: * LC1 Description: Carpenter Apprentice

Setup Charge Rate Billing Rate

Scale 1 Scale 2 Scale 3 All Scales

Cost Category Breakdown	Amount	↔	Percent	Is Taxed	Is Insured
Total	\$27.48				
Labor	\$27.48				
Gross Wages	\$21.00				
Labor Burden	\$6.48				
Labor Fringes	\$1.89				
Labor Insurance	\$1.89				
Labor Taxes	\$2.70				
Undefined Labor Burden	\$0.00	←	0.00		
Undefined Labor	\$0.00	←	0.00		
Materials	\$0.00				
Undefined	\$0.00				

Special Instructions

Use the Materials cost category to add additional labor cost for materials and supplies.

Worker's Comp values for this resource can be adjusted automatically when this resource is employed in a job, based on the geographic location of the work, and the Worker's Comp Override listed on the Cost Item on which the resource is employed.

Standard Worker's Comp Overrides can be defined in the Library's Foundation Setup Data Register.

Base Wage Factors for Overtime

Use Base Wage Factors for Scales 2 and 3

Scale 2 Factor: x Base Wage

Scale 3 Factor: x Base Wage

This option multiplies the Scale 1 base wage by the factors entered here to automatically calculate the base wage for Scales 2 and 3.

OK Cancel New... < Prev Next >

As-Entered Currency As-Entered Units Training Job - Reporting - Training Job - Maricopa County No. TM2924 Accrued Costs OFF