



Explore API Documentation

SelfService_Estimate_ResourceEmployment

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	3/30/2022	Initial draft	Natalie Takacs
2.0	12/22/2022	Updated pagination	Litzy Mora

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Overview

The **SelfService_Estimate_ResourceEmployments** API is one of multiple APIs comprising the data contained in the Estimate Resource Employment entity. A Resource Employment is an instance of a Resource as used in the Estimate, is assigned to a Cost Item and contributes to the Estimate when the Cost Items Cost Source is "Detail"

The Estimate Resource Employment entity mainly includes three tables, *SelfService_Estimate_ResourceEmployments*, *SelfService_Estimate_ResourceEmploymentsCalculatedValues* and *SelfService_Estimate_ResourceEmploymentsReferencedData*.

The *SelfService_Estimate_ResourceEmployments* table contains Resource Employment records as created and managed within the Estimate application.

The *SelfService_Estimate_ResourceEmploymentsCalculatedValues* table contains Resource Employment 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_ResourceEmploymentsReferencedData* contains the values of the many foreign key lookup values stored in reference tables 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 conversion factor of the items unit of measure

Relationships and Dependencies

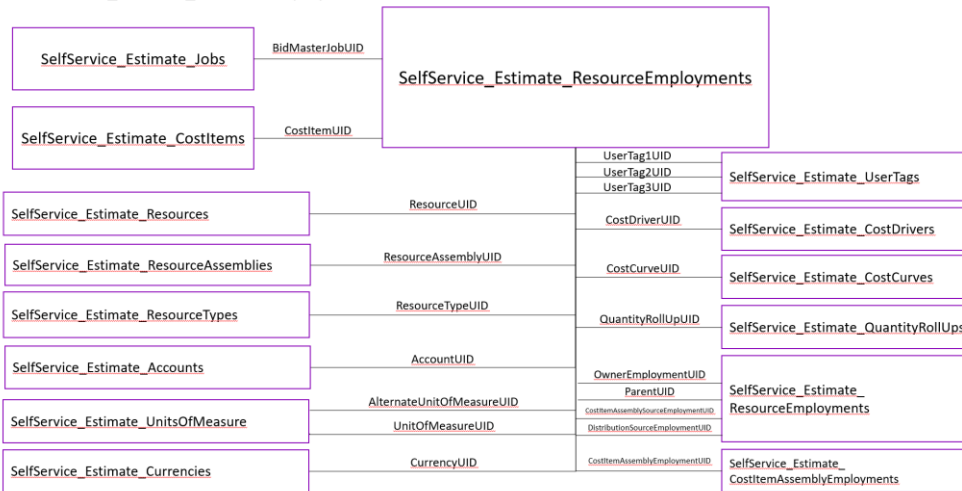
From: Table	To: Table	Relationship	Cardinality ¹
ResourceEmployments (RE)	Jobs (J)	RE.BidMasterJobUID = J.BidMasterJobUID	M:1
ResourceEmployments (RE)	CostItems (CI)	RE.CostItemUID = CI.UID	M:1
ResourceEmployments (RE)	Resources (R)	RE.ResourceUID = R.UID	M:1
ResourceEmployments (RE)	ResourceAssemblies (RA)	RE.ResourceAssemblyUID = RA.UID	M:1
ResourceEmployments (RE)	ResourceTypes (RT)	RE.ResourceTypeUID = RT.Type	M:1
ResourceEmployments (RE)	Accounts (A)	RE.AccountUID = A.UID	M:1
ResourceEmployments (RE)	UnitsOfMeasure (UM)	RE.UnitOfMeasureUID = UM.UID	M:1
ResourceEmployments (RE)	UnitsOfMeasure (AUM)	RE.AlternateUnitOfMeasureUID = AUM.UID	M:1
ResourceEmployments (RE)	Currencies (C)	RE.CurrencyUID = C.UID	M:1

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



ResourceEmployments (RE)	CostDrivers (CD)	RE.CostDriverUID = CD.UID	M:1
ResourceEmployments (RE)	CostCurves (CC)	RE.CostCurveUID = CC.UID	M:1
ResourceEmployments (RE)	QuantityRollUps (QR)	RE.QuantityRollUpUID = QR.UID	M:1
ResourceEmployments (RE)	UserTags (UT1)	RE.UserTag1UID = UT1.UID	M:1
ResourceEmployments (RE)	UserTags (UT2)	RE.UserTag2UID = UT2.UID	M:1
ResourceEmployments (RE)	UserTags (UT3)	RE.UserTag3UID = UT3.UID	M:1
ResourceEmployments (RE)	ResourceEmployments (HRE)	RE.OwnerEmploymentUID = HRE.UID	M:1
ResourceEmployments (RE)	ResourceEmployments (HASM)	RE.ParentUID = HASM.UID	M:1
ResourceEmployments (RE)	CostItemAssemblyEmployments (CIAE)	RE.CostItemAssemblyEmploymentUID = CIAE.UID	M:1
ResourceEmployments (RE)	ResourceEmployments (CIARE)	RE.CostItemAssemblySourceEmploymentUID = CIARE.UID	M:1
ResourceEmployments (RE)	ResourceEmployments (ALRE)	RE.DistributionSourceEmploymentUID = ALRE.UID	M:1

SelfService_Estimate_ResourceEmployments



API Detail

Direction	From Project Suite	
Pagination	5,000 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_ResourceEmployment	
Data Refresh/Delta/Incremental Loads		
Project Suite	Starting Version	21.5
	Ending Version	N/A

Supported Filters

All default OData filters are supported by this API.

Fields

Name	Type	CharMaxLength	NumericPrecision	DatePrecision	Product	PK
EstimateResourceEmploymentId	bigint	8	19	0	Estimate	X
EstimateResourceEmploymentUF	uniqueidentifier	16	0	0	Estimate	
EstimateResourceEmploymentUID	uniqueidentifier	16	0	0	Estimate	
EstimateAccountCodeUID	uniqueidentifier	16	0	0	Estimate	
ActualPayHours	float	8	53	0	Estimate	
ActualWorkHours	float	8	53	0	Estimate	
AddOnQuantity	float	8	53	0	Estimate	
AlternateUnitOfMeasureUID	uniqueidentifier	16	0	0	Estimate	
CostCurveUID	uniqueidentifier	16	0	0	Estimate	
CostDriverUID	uniqueidentifier	16	0	0	Estimate	
CostItemAssemblyEmploymentUID	uniqueidentifier	16	0	0	Estimate	
CostItemAssemblySourceEmploymentUID	uniqueidentifier	16	0	0	Estimate	
EstimateCostItemUID	uniqueidentifier	16	0	0	Estimate	



EstimateCurrencyUID	uniqueidentifier	16	0	0	Estimate
DaysPerWeek	float	8	53	0	Estimate
Description	nvarchar	2000	0	0	Estimate
DistributionSourceEmploymentUID	uniqueidentifier	16	0	0	Estimate
EmploymentType	int	4	10	0	Estimate
IsDelta	bit	1	1	0	Estimate
LastChanged	datetime	8	23	3	Estimate
LastChangedBy	nvarchar	100	0	0	Estimate
MaintenanceLaborTotalCost	float	8	53	0	Estimate
MaintenanceLaborUnitCost	float	8	53	0	Estimate
OwnerEmploymentUID	uniqueidentifier	16	0	0	Estimate
ParentUID	uniqueidentifier	16	0	0	Estimate
PayHours	float	8	53	0	Estimate
PeriodQuantityOptionID	int	4	10	0	Estimate
PeriodQuantityText	nvarchar	-1	0	0	Estimate
ProductivityFactor	float	8	53	0	Estimate
Quantity	float	8	53	0	Estimate
QuantityLessWaste	float	8	53	0	Estimate
EstimateQuantityRollUpUID	uniqueidentifier	16	0	0	Estimate
EstimateResourceAssemblyUID	uniqueidentifier	16	0	0	Estimate
ResourceType	nvarchar	100	0	0	Estimate
ResourceTypeUID	int	4	10	0	Estimate
EstimateResourceUID	uniqueidentifier	16	0	0	Estimate
RowNumber	int	4	10	0	Estimate
SavedQuantityRatio	float	8	53	0	Estimate
SaveID	int	4	10	0	Estimate
Scale1Composite	float	8	53	0	Estimate

Scale2Composite	float	8	53	0	Estimate	
Scale3Composite	float	8	53	0	Estimate	
ShiftsPerDay	float	8	53	0	Estimate	
SubjectUtilization	float	8	53	0	Estimate	
TotalCost	float	8	53	0	Estimate	
TotalCostBilling	float	8	53	0	Estimate	
UnitCost	float	8	53	0	Estimate	
UnitCostBilling	float	8	53	0	Estimate	
EstimateUnitOfMeasureUID	uniqueidentifier	16	0	0	Estimate	
UserDefined1	nvarchar	500	0	0	Estimate	
UserDefined2	nvarchar	500	0	0	Estimate	
UserDefined3	nvarchar	500	0	0	Estimate	
UserDefined4	nvarchar	500	0	0	Estimate	
UserDefined5	nvarchar	500	0	0	Estimate	
EstimateUserTag1UID	uniqueidentifier	16	0	0	Estimate	
EstimateUserTag2UID	uniqueidentifier	16	0	0	Estimate	
EstimateUserTag3UID	uniqueidentifier	16	0	0	Estimate	
WastePercent	float	8	53	0	Estimate	
WorkHours	float	8	53	0	Estimate	
BidMasterJobUID	uniqueidentifier	16	0	0	Estimate	
LastUpdateID	int	4	10	0	Estimate	
IsActive	bit	1	1	0	Report	
CreatedById	bigint	8	19	0	Report	
CreatedDate	datetimeoffset	10	34	7	Report	
ModifiedById	bigint	8	19	0	Report	
ModifiedDate	datetimeoffset	10	34	7	Report	

Field Descriptions



Name	Description	Example
EstimateResourceEmploymentId	Unique identifier assigned to each record in the table	1
EstimateResourceEmploymentUF	System generated field, for internal use only	N/A
EstimateResourceEmploymentUID	Unique identifier for a Resource Employment record. Not visible in the interface.	347C2FB2-F82A-4AB6-B54C-53F3C4C59025
EstimateAccountCodeUID	Identifier of the Resource Employments <i>Account Code</i> assignment from the Accounts table. Found on the Employment Setup data block of the Cost Item Record.	C74956D9-3ED9-4CC9-9801-47EFCB760F24
ActualPayHours	Value of the Resource Employments <i>Pay Hours</i> field for duration based Resource Employments. Used in combination with Pay Hours Rules, Wage Scales, Man-Hour Factors and Productivity Factors to calculate the Total number of Hours Paid, which when multiplied by the Resource Employments Unit Cost, determines a Resource Employments Total Cost. Found in the Pay Hours column of the Resource Employment record	288
ActualWorkHours	Value of the Resource Employments <i>Work Hours</i> field for duration based Resource Employments. Used in combination with Work Hours Rules, Wage Scales, Man-Hour Factors and Productivity Factors to calculate the Total number of Hours worked, which determines a Cost Items duration. Found in the Work Hours column of the Resource Employment record	288
AddOnQuantity	Value indicating the total add on quantity of the corresponding resource utilization defined by a Resource Utilization Add-On Dependent Cost Item.	1
AlternateUnitOfMeasureUID	Identifier of the Resource Employments Base Unit of Measure entry in the UnitsOfMeasure table. Each Unit of Measure is related to the systems base Unit of Measure in order to convert between quantities having the same measurement type (Length, Area, Volume, etc.). For a Resources selected Unit of Measure, the Alternate Unit of Measure is its corresponding Base Unit of Measure. This value is not visible in the application.	312AC3B7-373B-4369-B56C-AFC6D412BDAE
CostCurveUID	Identifier of the Resource Employment records <i>Cost Curve</i> from the CostCurves table. Found on the Resource Employment record and the Employment Setup data block of the Cost Item record.	EE8CE70D-9117-4AAA-BAEF-D5E6FA75B572

Commented [AC1]: @Cyrus, not sure what this field is used for? Couldn't find any use of it in the Training Job?

CostDriverUID	Identifier of the Resource Employment records <i>Cost Driver</i> from the CostDrivers table. Found on the Resource Employment record and the Employment Setup data block of the Cost Item record.	4A71204F-DA06-4E1A-86F5-FA2518E69316
CostItemAssemblyEmploymentUID	Identifier of the Resource Employment records <i>Cost Item Assembly Resource Employment</i> from the ResourceEmployments table. Not visible in the interface.	8EDBBE70-085D-4356-A767-553DE7619ABA
CostItemAssemblySourceEmploymentUID	Identifier of the Resource Employment records <i>Cost Item Assembly Employment</i> from the CostItemAssemblyEmployments table. Not visible in the interface.	6932A526-1815-4CAB-B018-CD414E13F97F
EstimateCostItemUID	Identifier of the Cost Item from the CostItems table to which this Resource Employment belongs to. Not visible in the interface.	5BB93D4D-4233-4D3E-A608-B2934B4AF0D2
EstimateCurrencyUID	Identifier of the Resource Employment records assigned <i>Currency</i> value from the Currencies table. Found on the Resource Employment record and the Employment Setup data block of the Cost Item record.	58687BB8-8107-4B88-AE04-F236C3050E58
DaysPerWeek	Resource Employment records <i>Days per Week</i> field value. This value corresponds to the employments Cost Item Default Shift Arrangement value and is not directly visible on the Resource Employment record but is necessary to calculate the composite unit cost and wage shift arrangements.	5
Description	Resource Employment records <i>Description</i> . Found on the Employment Setup data block of the Cost Item record. This can be different from the Resource Rate record Description without triggering a delta on the Resource Employment record	Operator Class 1
DistributionSourceEmploymentUID	Identifier of the Resource Employment records <i>Cost Item Allocation Source Resource Employment</i> from the ResourceEmployments table. Not visible in the interface.	38400397-1D7B-48AA-817B-CEE965E97374
EmploymentType	Value indicating the type of Resource Employment. '0' indicates a Resource Employment based on a Resource Assembly while '1' indicates a Resource Employment based on a Resource Rate record. '2' and '3' indicates a Resource Employment based on the Jobs Equipment Maintenance Assembly as defined in the Equipment Maintenance tab of Job Properties. These employments are hidden Resource Employments in the	0 – Resource Assembly 1 – Resource Rate 2 – Equipment Maintenance Assembly 3 – Equipment Maintenance Assembly Labor Resources



	application but their values contribute to the jobs total estimated cost.	
IsDelta	Indicates if the Resource Employment is "Delta" or is different from the Resource Rate record. A "Delta" Resource Employment is identified with the Delta icon appearing in the record selector of the Resource Employment. Hovering over the Delta icon will display a tooltip indicating the specific field(s) that trigger the Delta state. Additionally those field(s) triggering the Delta will appear in the systems <i>Attention</i> color on the Cost Item Record. The value of this field will be true (1) when the Resource Employment is "Delta".	1 – True 0 – False
LastChanged	Date and time the Resource Employment record was last updated. Found on the Employment Setup data block of the Cost Item record.	2016-11-02 18:19:52.713
LastChangedBy	Windows user account of the user who last updated the Resource Employment Record. Found on the Employment Setup data block of the Cost Item record.	wmfarr
MaintenanceLaborTotalCost	Value of the Resource Employments <i>Maintenance Total Cost</i> field for equipment Resource Employments having Maintenance Labor automatically calculated from an Equipment Maintenance Assembly. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	575
MaintenanceLaborUnitCost	Value of the Resource Employments <i>Maintenance Unit Cost</i> field for equipment Resource Employments having Maintenance Labor automatically calculated from an Equipment Maintenance Assembly. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	2.3
OwnerEmploymentUID	For a hidden Maintenance Assembly employment, identifies the Resource Employment triggering the Maintenance Assembly employment. Not visible in the application.	D09A9DD6-CFE2-4A24-8572-64E04D4C6E57
ParentUID	For a hidden Maintenance Assembly labor resource employments, identifies the hidden Maintenance Assembly employment. Not visible in the application.	A704243A-E453-499B-825A-ADCD17325C4E
PayHours	Value of the Resource Employments <i>Pay Hours Rules</i> field for duration based Resource Employments. Used in combination with Work Hours Rules,	8

	Wage Scales, Man-Hour Factors and Productivity Factors to calculate the number of Hours Paid driving a Resource Employments Total Cost. Must be a value. Found in the Pay Rules section on the Employment Setup data block of the Cost Item record.	
PeriodQuantityOptionID	For Resource Employments whose Cost Driver is Scheduled Periods, this value indicates the selection of the <i>Entry Type</i> field as found on the Period Resource Quantities dialog.	0 – Count 1 – Work Hours
PeriodQuantityText	For Resource Employments whose Cost Driver is Scheduled Periods, this value is a semi-colon delimited field indicating the values found in the various period value fields found on the Period Resource Quantities dialog. Additionally, the number of scheduled periods can be derived by counting the number of delimited values in this field.	2;2;2;2
ProductivityFactor	Value of the Resource Employments <i>Productivity Factor</i> field and used to modify the total work hours of a duration based resource employment. Must be a value. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	1.2
Quantity	Value of the Resource Employments <i>Quantity</i> field after applying the waste percentage. Since quantities are stored in their base values, divide this value by the items corresponding Unit of Measure Factor to obtain the applications display value. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	105
QuantityLessWaste	Value of the Resource Employments <i>Quantity (Less Waste)</i> field for non-duration based Resource Employment before applying any waste percentage. For duration based Resource Employments, this value is hidden in the application. Since quantities are stored in their base values, divide this value by the items corresponding Unit of Measure Factor to obtain the applications display value. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	100
EstimateQuantityRollUpUID	Identifier of the Resource Employment records assigned <i>Quantity Roll-Up</i> Code value from the QuantityRollUps table.	510EADB5-E6B9-419A-A04C-5C4C9D28335E



	Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	
EstimateResourceAssemblyUID	Identifier of the Resource Assembly record from the ResourceAssemblies table used to identify the Resource Assembly Code this Resource Employment is based on. This value is Null for Resource Employments based on Resource Rate records. Not visible in the interface.	402ACFA8-F81E-4D39-ADF5-047F2D4FC0BD
ResourceType	Description of the type of resource this resource employment is based on	Equipment
ResourceTypeUID	Identifier of the Resource Employments <i>Resource Type</i> assignment from the ResourceTypes table. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	Construction Equipment Rate
EstimateResourceUID	Identifier of the Resource Rate record from the Resources table used to identify the Resource Code and other attributes which this Resource Employment is based on. This value is Null for Ad-hoc resources and Resource Assemblies. Not visible in the interface.	AF3B643B-D1B7-49B8-B614-BC2EA62249B2
RowNumber	Row number of the Resource Employment relative to all the Resource Employment records belonging to the same Cost Item. Value must be numeric and is commonly used to control the sort order of the resource employment records in the application.	1
SavedQuantityRatio	For a Resource Employment record based on a <i>Cost Item Allocation Source Resource Employment</i> , this value is the ratio of the Resource Employment records Quantity relative to its parent Cost Items Forecast (T/O) Quantity. Not visible in the interface.	4
SaveID	Field for internal use only	230
Scale1Composite	Resource Employment records <i>Scale 1</i> field value. This is the percent of the Scale 1 Unit Cost contributing to the employments composite unit cost. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	80
Scale2Composite	Resource Employment records <i>Scale 2</i> field value. This is the percent of the Scale 2 Unit Cost contributing to the employments composite unit cost. Found on the Resource Employment record and	20

Commented [AC2]: used to determine if a record has changed and needs to be updated when a save is invoked, prevents updating all data on a save event

	the Resource Employment Breakdown data block of the Cost Item record.	
Scale3Composite	Resource Employment records <i>Scale 3</i> field value. This is the percent of the Scale 3 Unit Cost contributing to the employments composite unit cost. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	0
ShiftsPerDay	Resource Employment records <i>Shifts per Day</i> field value. This value corresponds to the employments Cost Item Default Shift Arrangement value and is not directly visible on the Resource Employment record but is necessary to calculate the composite unit cost and wage shift arrangements.	1
SubjectUtilization	Value indicating the total Subject Utilization Quantity of the corresponding resource utilization defined by a Resource Utilization Add-On Dependent Cost Item.	1
TotalCost	Resource Employment records <i>Total Cost</i> field value. This value is the employments Quantity multiplied by its Unit Cost. Found on the Resource Employment record and the Employment Setup data block of the Cost Item record.	2885.40
TotalCostBilling	Resource Employment records <i>Total Billing Amount</i> field value. This value is the employments Quantity multiplied by its Billing Unit Rate. Found on the Resource Employment record of the Cost Item record.	3606.75
UnitCost	Resource Employment records composite <i>Unit Cost</i> field value. This value incorporates the employments specific Shift/Wage arrangements. Since quantities are stored in their base values, multiply the Unit Cost by the items corresponding Unit of Measure Factor to obtain the applications display value. Found on the Resource Employment record and the Employment Setup data block of the Cost Item record.	27.48
UnitCostBilling	Resource Employment records composite <i>Billing Unit Rate</i> field value. This value incorporates the employments specific Shift/Wage arrangements. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	34.35
EstimateUnitOfMeasureUID	Identifier of the Resource Employments <i>Unit of Measure</i> entry in the UnitsOfMeasure table. Found in the Resource Employment record as a read	312AC3B7-373B-4369-B56C-AFC6D412BDAE

Commented [AC3]: @Cyrus, not sure what this field is used for? Couldn't find any use of it in the Training Job?



	only value and must be equal to the corresponding Resource Rate records Unit of Measure. For Ad-hoc resource employments, this value is editable.	
UserDefined1	Resource Employment records <i>Custom 1</i> field value. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	Some text here
UserDefined2	Resource Employment records <i>Custom 2</i> field value. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	Some text here
UserDefined3	Resource Employment records <i>Custom 3</i> field value. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	Some text here
UserDefined4	Resource Employment records <i>Custom 4</i> field value. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	Some text here
UserDefined5	Resource Employment records <i>Custom 5</i> field value. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	Some text here
EstimateUserTag1UID	Identifier of the <i>Tag 1</i> field entry in the UserTags table. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	F675338E-4F35-45BD-B3D9-0793ED9C2645
EstimateUserTag2UID	Identifier of the <i>Tag 2</i> field entry in the UserTags table. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	F675338E-4F35-45BD-B3D9-0793ED9C2645
EstimateUserTag3UID	Identifier of the <i>Tag 3</i> field entry in the UserTags table. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	F675338E-4F35-45BD-B3D9-0793ED9C2645
WastePercent	Value of the Resource Employments <i>Waste % Add-on</i> field for non-duration based Resource Employment. Used to modify the Quantity value by applying a factor equal to 1 + WastePercent. For duration based Resource Employments, this value is hidden in the application and set to 0. Must be a value. Found on the Resource Employment record and the Resource Employment Breakdown data block of the Cost Item record.	5

WorkHours	Value of the Resource Employments <i>Work Hours Rules</i> field for duration based Resource Employments. Used in combination with Pay Hours Rules, Wage Scales, Man-Hour Factors and Productivity Factors to calculate the number of Hours Worked driving a Cost Items duration. Must be a value. Found in the Pay Rules section on the Employment Setup data block of the Cost Item record.	8
BidMasterJobUID	Identifier of the Job record from the Jobs table in the BidMaster database. This field is not unique in this table but is unique to an instance of a Job. Not visible in the interface.	5376AA5E-8C85-43E8-9ACB-D7422000E832
LastUpdateID	Field for internal use only	663
IsActive	Indicates if record is active. Please note: records will become inactive if a user un-syncs a job from Estimate application	True = 1 False = 0
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	2022-02-21 17:47:05.4923658 +00:00
ModifiedByld	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	2022-02-21 17:47:05.4923658 +00:00

Commented [AC4]: used in conjunction with SaveID and used to determine if a record has changed and needs to be updated when a save is invoked, prevents updating all data on a save event

Sample

```
{
  "EstimateResourceEmploymentId":5666,"EstimateResourceEmploymentUF":"4d1505d2-fce5-083c-3e65-88bcce227874",
  "EstimateResourceEmploymentUID":"0006305c-92d1-48f0-8bd6-90897eba1289",
  "EstimateAccountCodeUID":"1848cc1d-998c-4c61-8868-87bc43c23d09",
  "ActualPayHours":9.07563025210084,
  "ActualWorkHours":9.07563025210084,
  "AddOnQuantity":0.0,
  "AlternateUnitOfMeasureUID":"0c2b7f19-1dee-4f53-95ce-1c67b1bd9aa8",
  "CostCurveUID":"a74b8943-b1be-4504-a178-9131aaf3ba21",
  "CostDriverUID":"054b3b4f-df96-47f5-aa71-feb1329f7f11",
  "CostItemAssemblyEmploymentUID":null,
  "CostItemAssemblySourceEmploymentUID":null,
  "EstimateCostItemUID":"daa86c93-904b-4cde-a023-9a1e02f6cb6e",
  "EstimateCurrencyUID":"58687bb8-8107-4b88-ae04-f236c3050e58",
  "DaysPerWeek":5.0,
  "Description":"Mechanic",
  "DistributionSourceEmploymentUID":null,
  "EmploymentType":3,
  "IsDelta":false,
  "LastChanged":"2021-03-23T04:24:49.53Z",
  "LastChangedBy":"Marlow quast",
  "MaintenanceLaborTotalCost":0.0,
  "MaintenanceLaborUnitCost":0.0,
  "OwnerEmploymentUID":null,
  "ParentUID":"15323c9f-0cd7-4ebd-8980-35791816c7a7",
  "PayHours":8.0,
  "PeriodQuantityOptionID":0,
  "PeriodQuantityText":null,
  "ProductivityFactor":1.0,
  "Quantity":1.0,
  "QuantityLessWaste":1.0,
  "EstimateQuantityRollUpUID":null,
  "EstimateResourceAssemblyUID":"402acfa8-f81e-4d39-adf5-047f2d4fc0bd",
  "ResourceType":"Labor Rate",
  "ResourceTypeUID":1,
  "EstimateResourceUID":"d0873dbb-3866-4cbf-9f5f-
```





442c6ea74a6a", "RowNumber":1, "SavedQuantityRatio":0.0, "SaveID":378, "Scale1Composite":100.0, "Scale2Composite":0.0, "Scale3Composite":0.0, "ShiftsPerDay":1.0, "SubjectUtilization":0.0, "TotalCost":208.73949579831933, "TotalCostBilling":292.23529225137054, "UnitCost":23.0, "UnitCostBilling":32.199999794363976, "EstimateUnitOfMeasureUID": "0c2b7f19-1dee-4f53-95ce-1c67b1bd9aa8", "UserDefined1":null, "UserDefined2":null, "UserDefined3":null, "UserDefined4":null, "UserDefined5":null, "EstimateUserTag1UID": "f675338e-4f35-45bd-b3d9-0793ed9c2645", "EstimateUserTag2UID": "57935d90-d5d0-4b66-ab01-3242ee080a53", "EstimateUserTag3UID": null, "WastePercent":0.0, "WorkHours":8.0, "BidMasterJobUID": "4d13358e-6e34-40cc-b5b3-1835b0986afd", "LastUpdateID":9, "IsActive":true, "CreatedById":1, "CreatedDate": "2022-02-21T17:47:24.876782Z", "ModifiedById":1, "ModifiedDate": "2022-02-21T17:47:24.876782Z"}

Data Validation

Resource Employments can be found in various locations in the Estimate application.

Figure 1: Detail records expanded under a Cost Item in the CBS Register

CBS Position Code	Description	Optional Code	Forecast (F52) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Subject Cost	Subject Cost Rate	Allocated	Allocation Source	Currency	WBS: CEAS (Civil Engineering Account Code System)	WBS: CEAS (Civil Engineering Account System) Description
4	Aggregate Base	303 5912	45,000.00	Ton	\$15.40	\$692,928.99					U.S. Dollar		
4.1	Furnish & Haul Base Material	4.1	45,000.00	Ton	\$11.54	\$519,513.30					U.S. Dollar		
4.2	Frei-grade Subgrade	4.2	400,000.00	Square Yard	\$0.19	\$75,846.36					U.S. Dollar	11.70.300	FNEGRADE SUB
4.3	Initial Aggregate Base	4.3	45,000.00	Ton	\$2.17	\$97,569.33					U.S. Dollar		
4.3.1	Final Aggregate Base	4.3.1	45,000.00	Ton	\$1.53	\$77,466.32					U.S. Dollar		
4.3.2	Blue Top Aggregate Base	4.3.2	400,000.00	Square Yard	\$0.06	\$24,256.42					U.S. Dollar		
5	Asphalt Concrete Hot Mix Type A	303 4263	35,000.00	Ton	\$42.82	\$1,491,980.99					U.S. Dollar		

Row Number	Code	Resource Assembly	Description	Quantity (Less Waste)	Waste % Add-on	Unit of Measure	Productivity Factor	Work Hours	Play Hours	Unit Cost	Total Cost (Forecast)	Currency	Tag 1	Tag 2	Tag 3	Custom 1	Custom 2	Custom 3	Custom 4	Custom 5
1	L12	Laborer	Laborer	1.00		Each	1.00	240.00	240.00	\$26.37	\$6,327.91	U.S. Dollar	Non Union	Hourly						
2	LO2	Operator Class 2	Operator Class 2	3.00		Each	1.00	720.00	720.00	\$28.07	\$20,208.47	U.S. Dollar	Non Union	Hourly						
3	L11	Operator	Operator	1.00		Each	1.00	240.00	240.00	\$30.82	\$7,348.54	U.S. Dollar	Non Union	Hourly						
4	ES14G	Grader 14G	Grader 14G	1.00		Each	1.00	240.00	240.00	\$60.30	\$14,468.00	U.S. Dollar								
5	ECO	Compactor Smooth Dr...	Compactor Smooth Dr...	2.00		Each	1.00	480.00	480.00	\$36.40	\$17,472.00	U.S. Dollar								
6	ETWT	Water Truck	Water Truck	1.00		Each	1.00	240.00	240.00	\$29.60	\$7,104.00	U.S. Dollar								

Figure 2: Detail tab and Employment Setup data block of the Cost Item Record



SelfService_Estimate_ResourceEmployment Version 1.0

The screenshot displays the 'Resource Employment Register' window. At the top, there are tabs for 'Cost Breakdown Structure (CBS) Register' and 'Cost Item Record'. Below these are fields for 'CBS Code', 'Optional Code', 'Description', 'Forecast (TO) Qty', 'Unit of Measure', 'Unit Cost', 'Total Cost', and 'Currency'. A table lists resource items with columns for Row Number, Code, Resource Type, Description, Quantity, Cost Driver, Unit of Measure, Productivity Factor, Work Hours, Pay Hours, Unit Cost, Total Cost (Forecast), and Organizational Category. To the right, there are several configuration panels: 'Employment Setup' (with fields for Code, L12, Type, Labor Rate, Description, Quantity, Waste, Add-on, Productivity Factor, and Cost Driver), 'Employment Cost' (with Unit Cost and Total Cost), 'Maintenance Labor Cost' (with Unit Cost and Total Cost), 'Pay Rules' (with Composite Wage Scales and For every hours worked, pay hours), and 'Properties' (with Currency, Account Code, Cost Curve, Worker's Comp Overrides, Geographic Area, and Quantity Roll-Up). At the bottom, there are buttons for 'OK', 'Cancel', '< Prev', and 'Next >', and a status bar showing 'Accrued Costs OFF'.

Row Number	Code	Resource Type	Description	Quantity	Cost Driver	Unit of Measure	Productivity Factor	Work Hours	Pay Hours	Unit Cost	Total Cost (Forecast)	Organizational Category
1	LI-2	Labor Rate	Laborer	1.00	CI Duration	Each	1.00	240.00	240.00	\$26.37	\$6,327.91	Laborer
2	LO2	Labor Rate	Operator Class 2	3.00	CI Duration	Each	1.00	720.00	720.00	\$28.07	\$20,208.47	Operator
3	LT1	Labor Rate	Transfer	1.00	CI Duration	Each	1.00	240.00	240.00	\$36.82	\$7,968.14	Truck Dr
4	ES14G	Constructo	Grader 14G	1.00	CI Duration	Each	1.00	240.00	240.00	\$60.20	\$14,448.00	Grader
5	ECOP#1	Constructo	Compactor Smooth Drum	2.00	CI Duration	Each	1.00	480.00	480.00	\$36.40	\$17,472.00	Compact
6	ETWT	Constructo	Water Truck	1.00	CI Duration	Each	1.00	240.00	240.00	\$29.60	\$7,104.00	Truck

Figure 3: Resource Employment Register





Training Job - Reporting - Training Job - Maricopa County No. TH2924 - Estimate

File Setup Estimate Quote Price Execution System Actions

Print Preview Export to Excel Edit Cost Item Edit Resource Workbooks Batch Operations Tools View

Cost Breakdown Structure (CBS) Register Cost Item Record Resource Employment Register

Drag columns here to group

CBS Position Code	Cost Item Description	Row Number	Code	Resource Type	Resource Assembly	Description	Quantity (Less Waste)	Waste % Add-on	Quantity	Unit of Measure	Productivity Factor
	Job Management & Equipment	1	LSLPT	Labor Rate		Project Superintendent			1.00	Each	1.0
	Job Management & Equipment	2	LSSEC	Labor Rate		Secretary			1.00	Each	1.0
	Job Management & Equipment	3	LSPE	Labor Rate		Project Engineer			1.00	Each	1.0
	Job Management & Equipment	4	ETS7	Construction Equipment Rate		Service Truck			1.00	Each	1.0
	Job Management & Equipment	5	ETPU	Construction Equipment Rate		Pickup			2.00	Each	1.0
	General Expense	1				Builders Risk Insurance		1.00	0.00	Each	
	General Expense	2				General Office Supplies		1.00	0.00	Each	
	General Expense	3				Liquidated Damages		1.00	0.00	Each	
1	Mobilization	1	LT1	Labor Rate		Teamster			1.00	Each	1.0
1	Mobilization	2	ELT	Construction Equipment Rate		Lowboy Trailer			1.00	Each	1.0
1	Mobilization	3	ETTT	Construction Equipment Rate		Tractor Truck			1.00	Each	1.0
2	Clearing & Grubbing	1	LL2	Labor Rate		Laborer			2.00	Each	1.0
2	Clearing & Grubbing	2	LD4	Labor Rate		Operator Foreman			1.00	Each	1.0
2	Clearing & Grubbing	3	LT1	Labor Rate		Teamster			1.00	Each	1.0
2	Clearing & Grubbing	4	LD1	Labor Rate		Operator Class 1			2.00	Each	1.0
2	Clearing & Grubbing	5	ED6	Construction Equipment Rate		Dozer D6			1.00	Each	1.0
2	Clearing & Grubbing	6	ETPT	Construction Equipment Rate		Flatbed Truck			1.00	Each	1.0
2	Clearing & Grubbing	7	ETDT	Construction Equipment Rate		Dump Truck			1.00	Each	1.0
2	Clearing & Grubbing	8	EL30	Construction Equipment Rate		Ladder 950			1.00	Each	1.0
2	Clearing & Grubbing	9	ULMP	Unique Rate		Dump Fees		10.00	0.00	Load	
3.1	Excavation	1	ETWT	Construction Equipment Rate		Water Truck			1.00	Each	1.0
3.1	Excavation	2	ED8	Construction Equipment Rate		Dozer D8			1.00	Each	1.0
3.1	Excavation	3	ES623	Construction Equipment Rate		Scraper 623			2.00	Each	1.0
3.1	Excavation	4	ECOMP1	Construction Equipment Rate		Compactor Smooth Drum			1.00	Each	1.0
3.1	Excavation	5	ECOMP2	Construction Equipment Rate		Compactor Sheeps Foot			1.00	Each	1.0
3.1	Excavation	6	LL2	Labor Rate		Laborer			1.00	Each	1.0
3.1	Excavation	7	LD4	Labor Rate		Operator Foreman			1.00	Each	1.0
3.1	Excavation	8	ES621	Construction Equipment Rate		Scraper 621			2.00	Each	1.0
3.1	Excavation	9	EG146	Construction Equipment Rate		Grader 146			1.00	Each	1.0
3.1	Excavation	10	LD1	Labor Rate		Operator Class 1			4.00	Each	1.0
3.1	Excavation	11	LD2	Labor Rate		Operator Class 2			4.00	Each	1.0
3.2	Embarkment	1	LD4	Labor Rate		Operator Foreman			1.00	Each	1.0

As-Entered Currency As-Entered Units Training Job - Reporting - Training Job - Maricopa County No. TH2924 Accrued Costs OFF



Figure 4: Resource Employment Record

Identification

Code: LTI Total Cost: \$2,448.51
 Type: Labor Rate Currency: U.S. Dollar
 Description: Teamster Quantity (Less Waste):
 Employment Quantity: 1.00 Cost Driver: CI Duration
 Unit of Measure: Each Waste % Add-on:
 Unit Cost: \$30.62 Productivity Factor: 1.00

Properties

Account Code: 1020 Tag 1: Non Union
 Resource Assembly Code: Tag 2: Hourly
 Cost Curve: Employed Cost Item Tag 3:
 Worker's Comp Override: Custom 1:
 Geographic Area: Southwest Custom 2:
 Worker's Comp Override %: Custom 3:
 Quantity Roll-Up Code: 11 Custom 4:
 Organizational Category: Truck Driver - Teamster Custom 5:
 Wage Zone: Wage Zone A
 Resource File: Standard Labor Rate File

Maintenance Labor Cost

Unit Cost: Total Cost:

Pay Rules

Scale 1: Scale 2: Scale 3:
 Composite Wage Scale: 0.00 0.00 0.00
 For every 8.00 hours worked, pay 8.00 hours

Security

Last Changed By:
 Last Changed On: 10/22/2004 9:26:34 AM

Resource Employment Breakdown

Cost Category	Scale 1	Scale 2	Scale 3
Total	\$30.62	\$45.93	\$61.24
Labor	\$30.62	\$45.93	\$61.24
Owned Equipment	\$0.00	\$0.00	\$0.00
Rented Equipment	\$0.00	\$0.00	\$0.00
Supplies	\$0.00	\$0.00	\$0.00
Materials	\$0.00	\$0.00	\$0.00
Subcontract	\$0.00	\$0.00	\$0.00
Fees	\$0.00	\$0.00	\$0.00
Allowance	\$0.00	\$0.00	\$0.00
Project Over-Head	\$0.00	\$0.00	\$0.00
Underfeed	\$0.00	\$0.00	\$0.00
Billing Rate	\$42.87	\$64.30	\$85.73
Billing Rate Markup	\$12.25	\$18.37	\$24.50
Billing Rate Markup %	> 4.	> 4.	> 4.

Resource Employment Breakdown Cost Item Details

OK Cancel < Prev Next >

As-Entered Currency As-Entered Units Training Job - Reporting - Training Job - Maricopa County No. TH2124 Accrued Costs OFF

