



Explore API Documentation

SelfService_Schedule_ScheduleCostBreakdownStructure

Version 1.0

Last Modified: 4/25/2023

Last Modified By: Kimo Pickering

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	4/25/2023	Initial Draft	Kimo Pickering

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Overview

The SelfService_Schedule_ScheduleCostBreakdownStructure API is one of multiple APIs comprising the data contained in the Cost Breakdown Structure (CBS) and Register Event entities. The values contained in the ScheduleCostBreakdownStructure table are derived from the application's Cost Risk view. The Cost Risk view is where all the feedback is gathered and consolidated for cost items. When you bring in your cost structure, you can begin to conduct risk analysis on the budget using uncertainty and risk events. Columns for Cost Item information that shows actual remaining and totals of items prior to simulations with the option to display risk-adjusted amounts based on user selection. The details are shown regarding markups provided, giving a glance at the distribution data. With the feedback provided, users can conduct risk analysis with the uncertainty and various events provided.

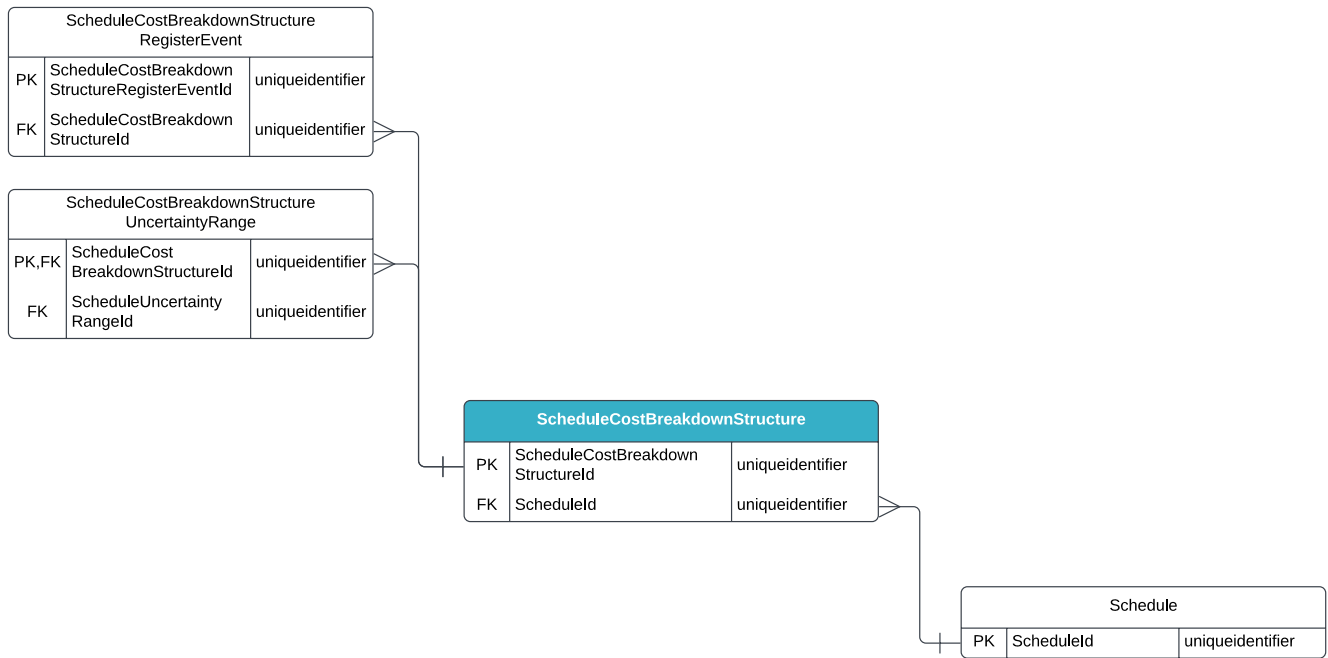
Relationships and Dependencies

From: Table ¹	To: Table ¹	Relationship	Cardinality ²	Comment
ScheduleCostBreakdownStructureRegisterEvent(SCBSRE)	ScheduleCostBreakdownStructure(SCBS)	SCBSRE.ScheduleCostBreakdownStructureId : SCBS.ScheduleCostBreakdownStructureId	M:1	
ScheduleCostBreakdownStructureUncertaintyRange(SCBSUR)	ScheduleCostBreakdownStructure(SCBS)	SCBSUR.ScheduleCostBreakdownStructureId : SCBS.ScheduleCostBreakdownStructureId	M:1	
ScheduleCostBreakdownStructure(SCBS)	Schedule(S)	SCBS.ScheduleId : S.ScheduleId	M:1	

¹ Prefix table name with "SelfService_Schedule_" and exclude table abbreviation for queries (e.g., SelfService_Schedule_ScheduleCostBreakdownStructure)

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

Figure 1. SelfService_Schedule_ScheduleCostBreakdownStructure ER Diagram



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_Schedule_ScheduleCostBreakdownStructure	
Data Refresh/Delta/Incremental Loads	The data in this API will only refresh once per day	
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	Scale	Required?	Product	PK
ScheduleCostBreakdownStructureId	uniqueidentifier	16	0		Y		P
ParentId	uniqueidentifier	16	0		N		F
ScheduleId	uniqueidentifier	16	0		Y		F
Position	bigint	8	19		Y		
Description	nvarchar(512)	512	0		N		
ActualCost	decimal(16,5)	17	16	5	Y		
RemainingCost	decimal(16,5)	17	16	5	Y		
Notes	nvarchar(512)	512	0		N		
IsSuspended	bit	1	1		Y		
Min	float	8	53		Y		
MostLikely	float	8	53		Y		
Max	float	8	53		Y		

Field Descriptions

Name	Description	Example(s)
ScheduleCostBreakdownStructureId	A unique identifier assigned to a Schedule Cost Breakdown Structure (CBS) item. Not visible in the interface.	aeab2f44-5609-4fd9-b1df-7bcb472579fd
ParentId	The ID of the CBS that is the parent of the selected CBS item.	95505998-67f4-4ac9-8213-ac29e60dc842
ScheduleId	A unique identifier assigned to each schedule record in the table. Formerly known as the Project Id.	a2d56164-d91c-4b42-b475-ae251cb504ef
Position	The hierarchical position of the CBS item.	4
Description	The description of the CBS item.	Dozer Rip < 8' - C Segment
ActualCost	The actual cost to-date of the CBS item.	235145
RemainingCost	The remaining cost in the budget for the CBS item.	64855
Notes	Any miscellaneous notes attached to the CBS item.	Bedrock will be more challenging than expected. The rock is much blockier, with fewer seams for the ripper shank to insert.
IsSuspended	Indicates if the CBS item is suspended and not contributing any value to the control budget. 0 = False, 1 = True.	0
Min	The "Min" value is a system or user-defined level of risk assigned to a CBS item. The minimum estimated cost of the CBS item expressed as a percentage of the current budget of the CBS item. The value is one of three (Min, Most Likely, Max) used to generate a weighted distribution in the application's Cost Risk view.	25
MostLikely	The "MostLikely" value is a system or user-defined level of risk assigned to a CBS item. The most likely estimated cost of the CBS item expressed as a percentage of the current budget of the CBS item. The value is one of three (Min, Most Likely, Max) used to generate a weighted distribution in the application's Cost Risk view.	100
Max	The "Max" value is a system or user-defined level of risk assigned to a CBS item. The maximum estimated cost of the CBS item expressed as a percentage of the current budget of the CBS item. The value is one of three (Min, Most Likely, Max) used to generate a weighted distribution in the application's Cost Risk view.	125

Sample

```
{"ScheduleCostBreakdownStructureId":"aeab2f44-5609-4fd9-b1df-7bcb472579fd",  
"ParentId":"95505998-67f4-4ac9-8213-ac29e60dc842",  
"ScheduleId":"a2d56164-d91c-4b42-b475-ae251cb504ef",  
"Position":"4",  
"Description":"Dozer Rip < 8' - C Segment",  
"ActualCost":"235145",  
"RemainingCost":"64855",  
"Notes":"Bedrock will be more challenging than expected. The rock is blockier, with  
fewer seams for the ripper shank to insert.",  
"IsSuspended":"0"}
```

Data Validation

The Cost Breakdown Structure uncertainty values that have been assigned to any cost item for a project schedule can be found by opening a schedule and navigating to the Cost Risk view.

Figure 2. Schedule > Cost Risk view

ID	Description	Actions	Exclude	Actual Cost	Remaining Cost	Total Cost	Notes	Uncertainty	Events	Register
9.1	SCARIFY AND RECOMPACT EMBANKMENT AREAS	...	<input type="checkbox"/>	\$0	\$683,016	\$683,016		<input type="checkbox"/>	<input type="checkbox"/>	
9.2	RIPPING	...	<input type="checkbox"/>	\$0	\$373,856	\$373,856		<input type="checkbox"/>	<input type="checkbox"/>	
9.2.1	RIP < 8' - P SEG	...	<input type="checkbox"/>	\$0	\$183,418	\$183,418		<input type="checkbox"/>	<input type="checkbox"/>	
9.2.2	RIP < 8' - C SEG	...	<input type="checkbox"/>	\$0	\$190,438	\$190,438	Rock will be more challenging than expected. The r estimated, with fewer seams for the ripper shank to	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9.3	BROW DITCH	...	<input type="checkbox"/>	\$0	\$17,550	\$17,550		<input type="checkbox"/>	<input type="checkbox"/>	
9.4	MACHINE SCALE ROCK FACE	...	<input type="checkbox"/>	\$0	\$136,344	\$136,344		<input type="checkbox"/>	<input type="checkbox"/>	
9.5	MASS EXC TO EMB	...	<input type="checkbox"/>	\$0	\$17,052,262	\$17,052,262		<input type="checkbox"/>	<input type="checkbox"/>	
9.5.1	P Segment	...	<input type="checkbox"/>	\$5,827,374	\$5,827,374			<input type="checkbox"/>	<input type="checkbox"/>	
9.5.2	C Segment	...	<input type="checkbox"/>	\$0	\$5,355,248	\$5,355,248		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2
9.5.2.1	LOAD/ DUMP/ COMPACT ROCK EXC	...	<input type="checkbox"/>	\$0	\$3,065,775	\$3,065,775		<input type="checkbox"/>	<input type="checkbox"/>	2
9.5.2.2	HAUL 1000' - 2,500'	...	<input type="checkbox"/>	\$0	\$549,303	\$549,303		<input type="checkbox"/>	<input type="checkbox"/>	2
9.5.2.3	HAUL 0.5 - 1 MILE	...	<input type="checkbox"/>	\$0	\$1,014,137	\$1,014,137		<input type="checkbox"/>	<input type="checkbox"/>	2
9.5.2.4	HAUL 1 - 1.75 MILE	...	<input type="checkbox"/>	\$0	\$726,033	\$726,033		<input type="checkbox"/>	<input type="checkbox"/>	2
9.5.3	S Segment	...	<input type="checkbox"/>	\$0	\$757,102	\$757,102		<input type="checkbox"/>	<input type="checkbox"/>	
9.5.4	US-10	...	<input type="checkbox"/>	\$0	\$4,520,989	\$4,520,989		<input type="checkbox"/>	<input type="checkbox"/>	
9.5.5	CROSS STREET EXC TO EMB (SEG 3 & 4)	...	<input type="checkbox"/>	\$0	\$348,767	\$348,767		<input type="checkbox"/>	<input type="checkbox"/>	
9.5.6	TMID ACCESS ROAD	...	<input type="checkbox"/>	\$0	\$242,782	\$242,782		<input type="checkbox"/>	<input type="checkbox"/>	
9.6	ROCK EXC FOR PROCESSING	...	<input type="checkbox"/>	\$0	\$1,392,485	\$1,392,485		<input type="checkbox"/>	<input type="checkbox"/>	
9.7	BORROW EXC TO EMB	...	<input type="checkbox"/>	\$0	\$17,570,592	\$17,570,592		<input type="checkbox"/>	<input type="checkbox"/>	
9.8	DRAINAGE EXC TO EMB	...	<input type="checkbox"/>	\$0	\$11,371,372	\$11,371,372		<input type="checkbox"/>	<input type="checkbox"/>	
10	EARTHWORK FINISHING	...	<input type="checkbox"/>	\$0	\$4,286,136	\$4,286,136		<input type="checkbox"/>	<input type="checkbox"/>	
10.1	ROADWAY FINISHING	...	<input type="checkbox"/>	\$0	\$3,481,728	\$3,481,728		<input type="checkbox"/>	<input type="checkbox"/>	
10.1.1	MAINLINE FINISHING	...	<input type="checkbox"/>	\$0	\$660,046	\$660,046		<input type="checkbox"/>	<input type="checkbox"/>	
10.1.2	SLOPE FINISHING	...	<input type="checkbox"/>	\$0	\$1,082,129	\$1,082,129		<input type="checkbox"/>	<input type="checkbox"/>	
10.1.2.1	P Segment	...	<input type="checkbox"/>	\$0	\$203,557	\$203,557		<input type="checkbox"/>	<input type="checkbox"/>	
10.1.2.2	C Segment	...	<input type="checkbox"/>	\$0	\$108,275	\$108,275		<input type="checkbox"/>	<input type="checkbox"/>	
10.1.2.3	S Segment	...	<input type="checkbox"/>	\$0	\$402,163	\$402,163	Easy slope finishing - KMP2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10.1.2.4	US-10	...	<input type="checkbox"/>	\$0	\$368,134	\$368,134	Easy slope finishing - KMP2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	