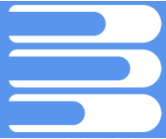




**BASIS**

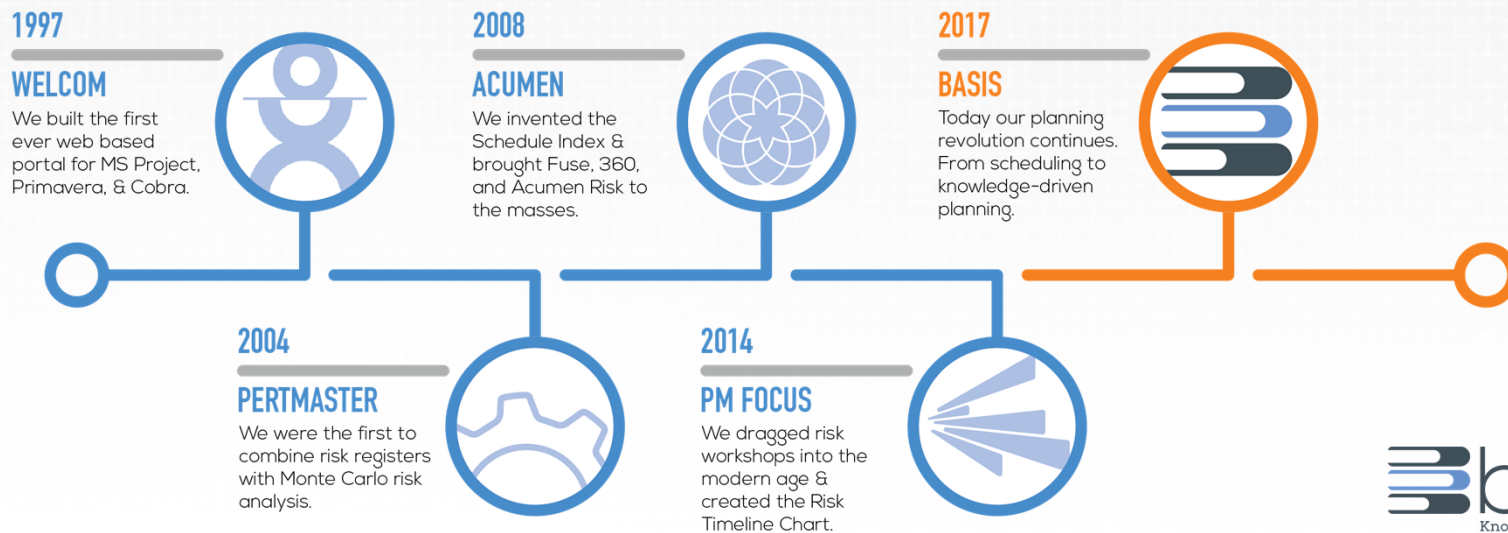
Knowledge-Driven Planning

Dr. Dan Patterson



## We've Come a Long Way

- Two decades of analytics: bettering project plan integrity
- Evolved CPM through risk-adjusted scheduling & critiquing
- Most major planning organizations globally now use our solutions
- The next step is driving plan realism**





# Meet BASIS

## AI Planning Assistant

- ≡ Knowledge-driven plan creation
- ≡ Benchmark-based critique
- ≡ Forum for project buy-in

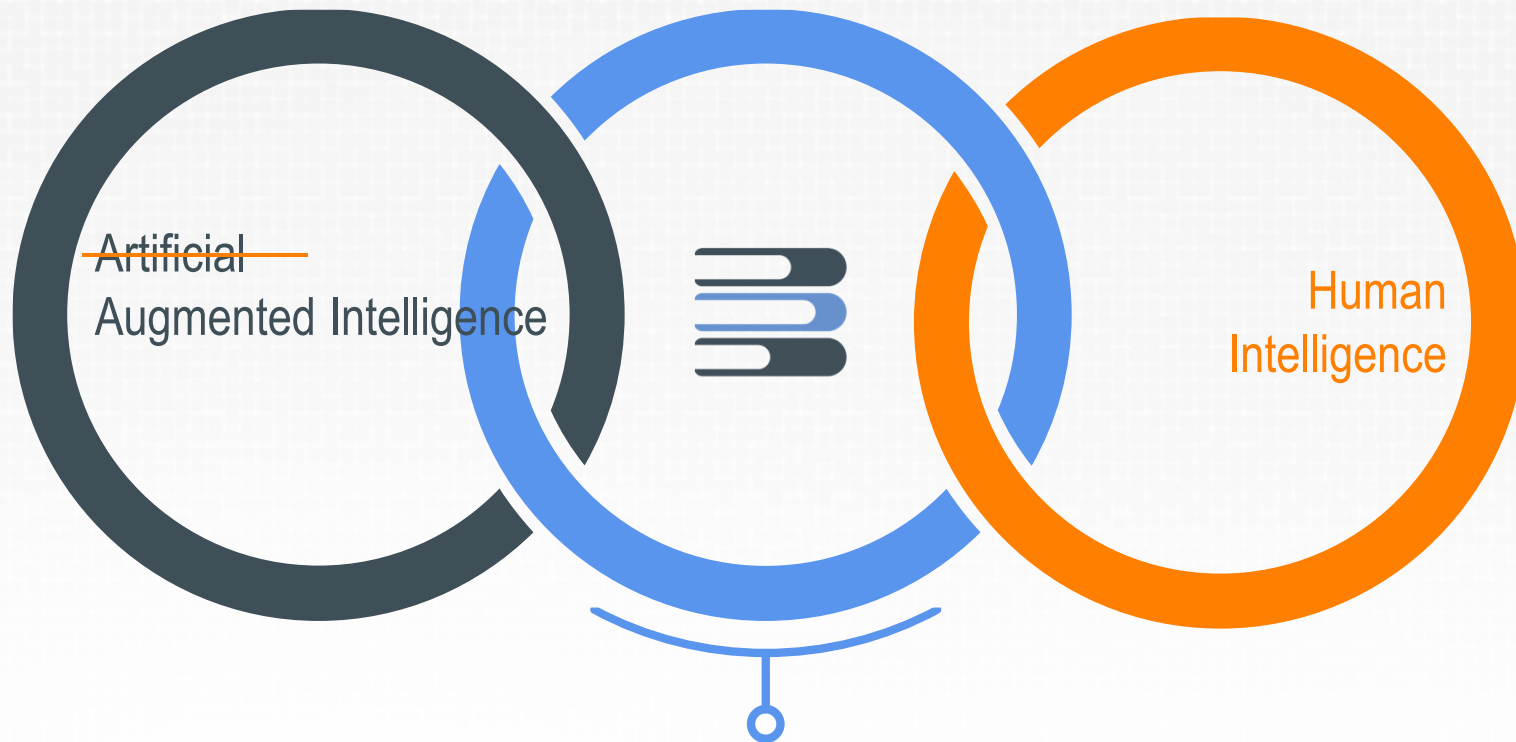
## Planning Knowledge Hub

- ≡ Schedule/cost/risk consolidation
- ≡ Doesn't require commonality
- ≡ Enables re-use of expertise

Pre-planning & Planning

Always-on Analytics

## Knowledge-Driven Planning with BASIS



**BASIS connects historical experience, standards and team member expertise.  
The result: a consensus-based, achievable plan.**



# 1) Smart Planning

The freedom to create while leveraging the science of CPM



## Build from Scratch

Basis will attempt to merge the Knowledge Library hierarchy with your selected WBS. You can change the root element by clicking on its name. You can also toggle which levels to merge by clicking on the icon to the right.

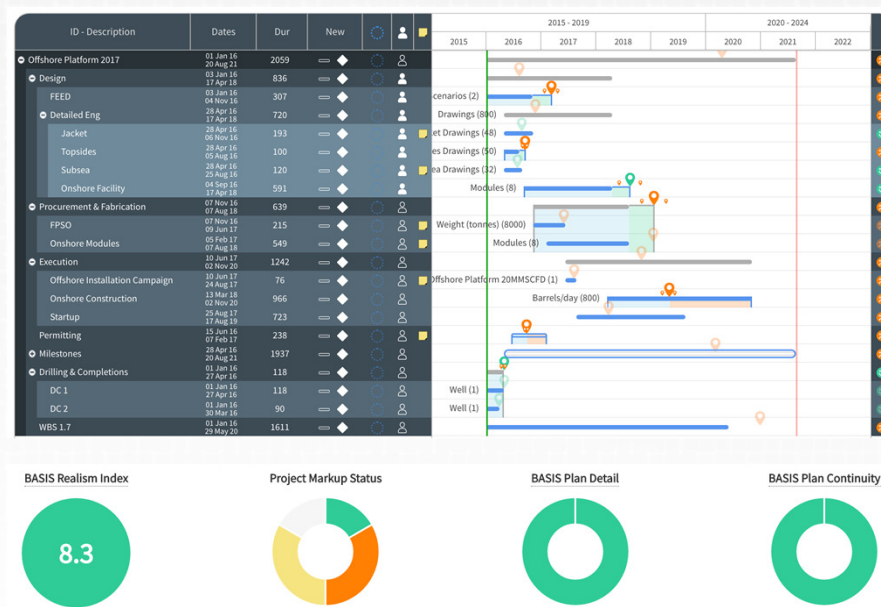
**SKETCH MODE**

- Construction (665d)
  - North Spread (478d)
  - South Spread (280d)
  - Storage Tracks (263d)
  - Turnback Tracks & Station (263d)

Quantity: 1

MERGE CANCEL

## Benchmark Existing Plans



BASIS Realism Index



Project Markup Status



BASIS Plan Detail



BASIS Plan Continuity



## 2) Team Member Markup

"It's OK to Push Back"



| ID                     |                        | My Contribution |      |      |      |      |      |      |    |      |      |      |
|------------------------|------------------------|-----------------|------|------|------|------|------|------|----|------|------|------|
| ID - Description       |                        | Dates           | Dur  | ΔDur | ΔEnd | -50% | -25% | -10% | OK | +10% | +25% | +50% |
| Offshore Platform 2017 | 03 Jan 16<br>19 Apr 20 | 1569            |      |      |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Engineering            | 03 Jan 16<br>30 Jan 18 | 759             |      |      |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| FEED                   | 03 Jan 16<br>11 Jul 16 | 191<br>[159]    |      |      |      | 50   | 25   | 🔒    | OK | 10   | 25   | 50   |
| FEED Study 1           | 03 Jan 16<br>10 Mar 16 | 68<br>[68]      | 0    | 0    |      | 50   | 25   | 10   | 🔒  | 10   | 25   | 50   |
| FEED Study 2           | 11 Mar 16<br>11 Jul 16 | 123<br>[91]     | +32  | +32  |      | 50   | 25   | 10   | 🔧  | 10   | 25   | 50   |
| Detailed Eng           | 08 Jun 16<br>30 Jan 18 | 602             |      |      |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Jacket                 | 08 Jun 16<br>14 Jan 17 | 221             |      |      |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Jacket Design          | 08 Jun 16<br>14 Jan 17 | 221<br>[147]    | +74  | +73  |      | 50   | 25   | 10   | OK | 10   | 25   | 🔒    |
| Topsides               | 10 Jun 16<br>30 Jan 18 | 600             |      |      |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Upper Deck Design      | 10 Jun 16<br>02 Aug 16 | 54<br>[53]      | +1   | +1   |      | 50   | 25   | 10   | OK | 10   | 🔒    | 50   |
| Lower Deck Design      | 03 Aug 16<br>23 Sep 16 | 52<br>[69]      | -17  | -16  |      | 50   | 25   | 🔒    | OK | 10   | 25   | 50   |
| Turret Design          | 24 Sep 16<br>30 Jan 18 | 494<br>[57]     | +437 | +421 |      | 50   | 25   | 10   | 🔧  | 10   | 25   | 50   |
| Subsea                 | 10 Jun 16<br>09 Sep 16 | 92              |      |      |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Umbilical              | 10 Jun 16<br>10 Aug 16 | 62<br>[62]      | 0    | 0    |      | 50   | 25   | 10   | 🔒  | 10   | 25   | 50   |
| Risers                 | 20 Jun 16<br>05 Aug 16 | 47              | 0    | 0    |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| PLETs                  | 30 Jun 16<br>30 Jul 16 | 31<br>[62]      | -31  | -31  |      | 🔒    | 25   | 10   | OK | 10   | 25   | 50   |
| SS Tree                | 10 Jul 16<br>09 Sep 16 | 62              | 0    | 0    |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Valves                 | 20 Jun 16<br>21 Jul 16 | 32              | 0    | 0    |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Onshore Facility       | 10 Jun 16<br>21 Dec 16 | 195             |      |      |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Module 1               | 10 Jun 16<br>10 Aug 16 | 62              | 0    | 0    |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Module 2               | 30 Jun 16<br>24 Aug 16 | 56<br>[62]      | -6   | -6   |      | 50   | 25   | 🔒    | OK | 10   | 25   | 50   |
| Module 3               | 20 Jul 16<br>20 Oct 16 | 93<br>[62]      | +31  | +31  |      | 50   | 25   | 10   | OK | 10   | 25   | 🔒    |
| Module 4               | 20 Jul 16<br>19 Sep 16 | 62              | 0    | 0    |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |
| Module 5               | 11 Aug 16              | 62              | 0    | 0    |      | 50   | 25   | 10   | OK | 10   | 25   | 50   |

### Basic Markup

- Simple Scorecard
- Request plan modifications

### Advanced Markup

- True delegated planning
- Make plan modifications



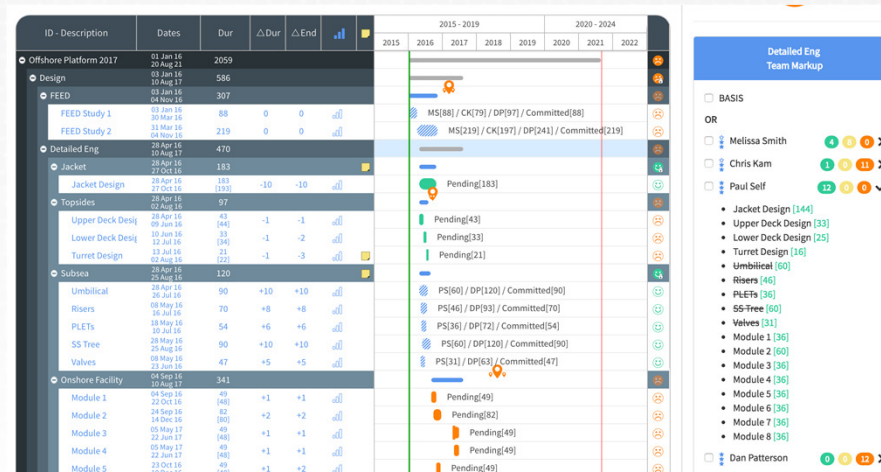
## 3) Review “Let’s Agree to Disagree”



### Interactive Planning Workshop

- One view, multiple contributors
- Consensus gets applied to plan
- Insight into buy-in
- Analysis of difference of opinion
- Team member voice tracked






### Simple Interface

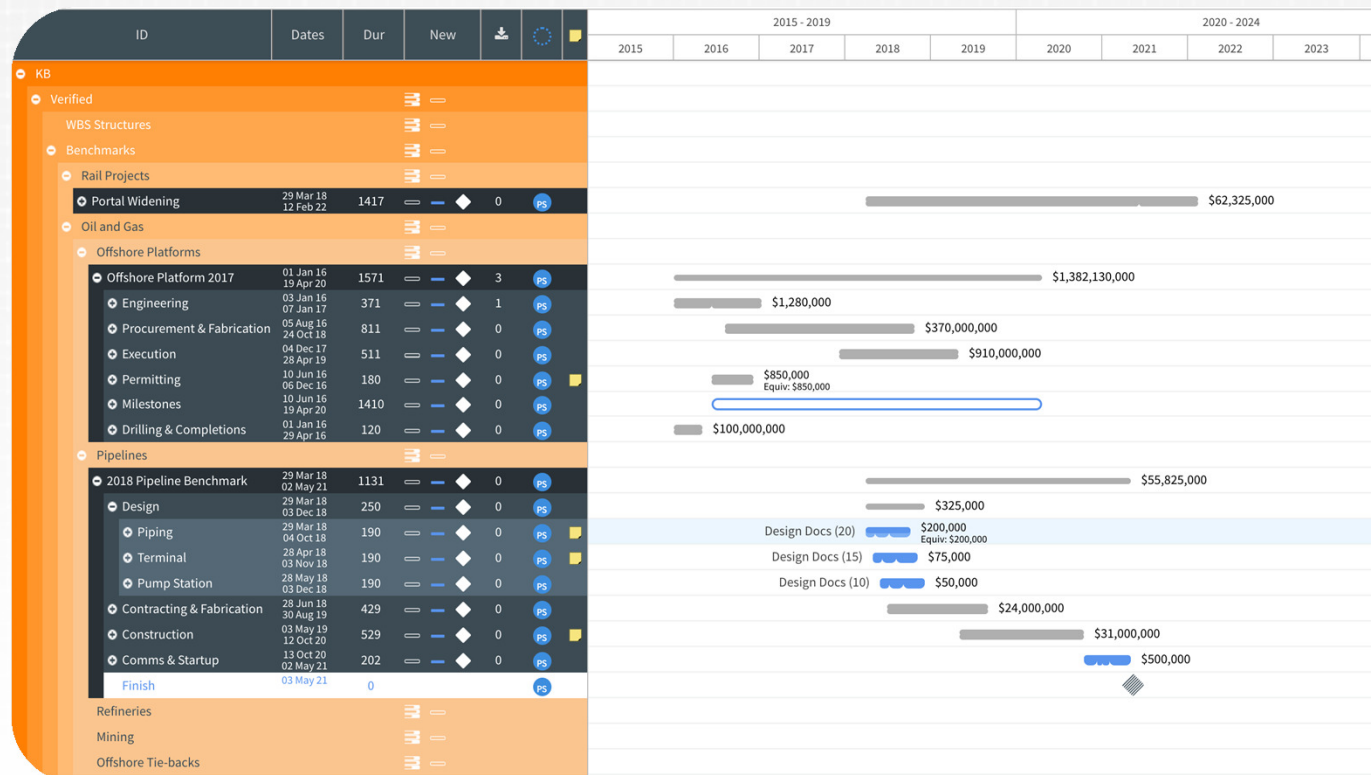






# The BASIS Knowledge Library

-  Knowledge hub
  - Central, secure
-  Multi-dimensional
  - Cost, schedule, risk
-  Knowledge Tags
  - Levelness descriptors
  - Drives context awareness
-  Learn & teach
  - Keeps getting smarter
-  'Big data' not required
  - Start small





# Always-on Suggestions

- AI Inference Engine
- Multi-dimensional awareness
  - WBS, unit, deliverable
  - Parent, risks
  - Knowledge Tags
    - Location
    - Contractor
    - Type of project
- Returns multiple suggestions
- Provides confidence score

## BASIS SUGGESTION ANALYSIS

BASIS determines which attributes to give most emphasis to based on how you've established your plan.

- 53% emphasis to WBS
- 34% emphasis to Deliverables
- 13% emphasis to Register items

|                                 |     |
|---------------------------------|-----|
| ★ WBS Description               | 53% |
| Full Match: Topsides            |     |
| Full Parent Match: Detailed Eng |     |
| ★ Deliverable                   | 34% |
| Full Match: Topsides Drawings   |     |
| Full Parent Match: Drawings     |     |
| ● Register                      | 0%  |
| No match on any register items. |     |
| Total Confidence                | 87% |

Smart Planning

Work Package  
Topsides  
Topsides Drawings (110)

179d

Selected Benchmark  
Topsides  
Topsides Drawings (72)

212d  
33d longer  
147d

BASIS Suggestions

|  |                             |
|--|-----------------------------|
| Topsides<br>Topsides Drawings (72)<br>87% Match        | 212d<br>33d longer<br>147d  |
| Jacket<br>Jacket Drawings (48)<br>17% Match            | 122d<br>57d shorter<br>127d |
| Subsea<br>Subsea Drawings (32)<br>17% Match            | 92d<br>87d shorter<br>144d  |
| Onshore Facility<br>Onshore Drawings (64)<br>17% Match | 164d<br>15d shorter<br>128d |
| Detailed Eng<br>Drawings (800)<br>13% Match            | 212d<br>33d longer<br>13d   |

Show More

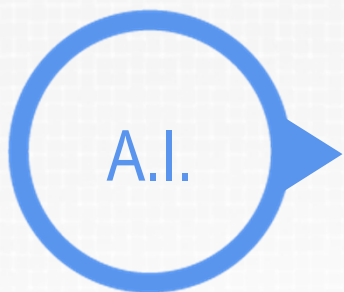
# Demonstration



# The Original Objective: Establish a Realistic Plan

Calibration: Artificial Intelligence (A.I.)

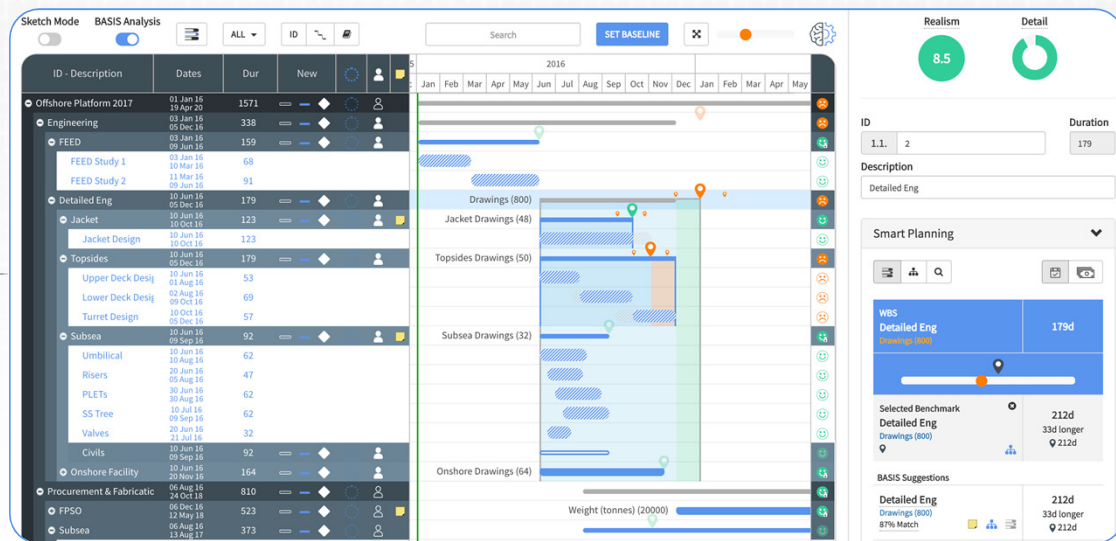
Validation: Human Intelligence (H.I.)



Benchmarking & suggestions



Team markup & review



[www.basisplanning.com](http://www.basisplanning.com)