Managing and Defining Scope

Get this right and the rest is easy!

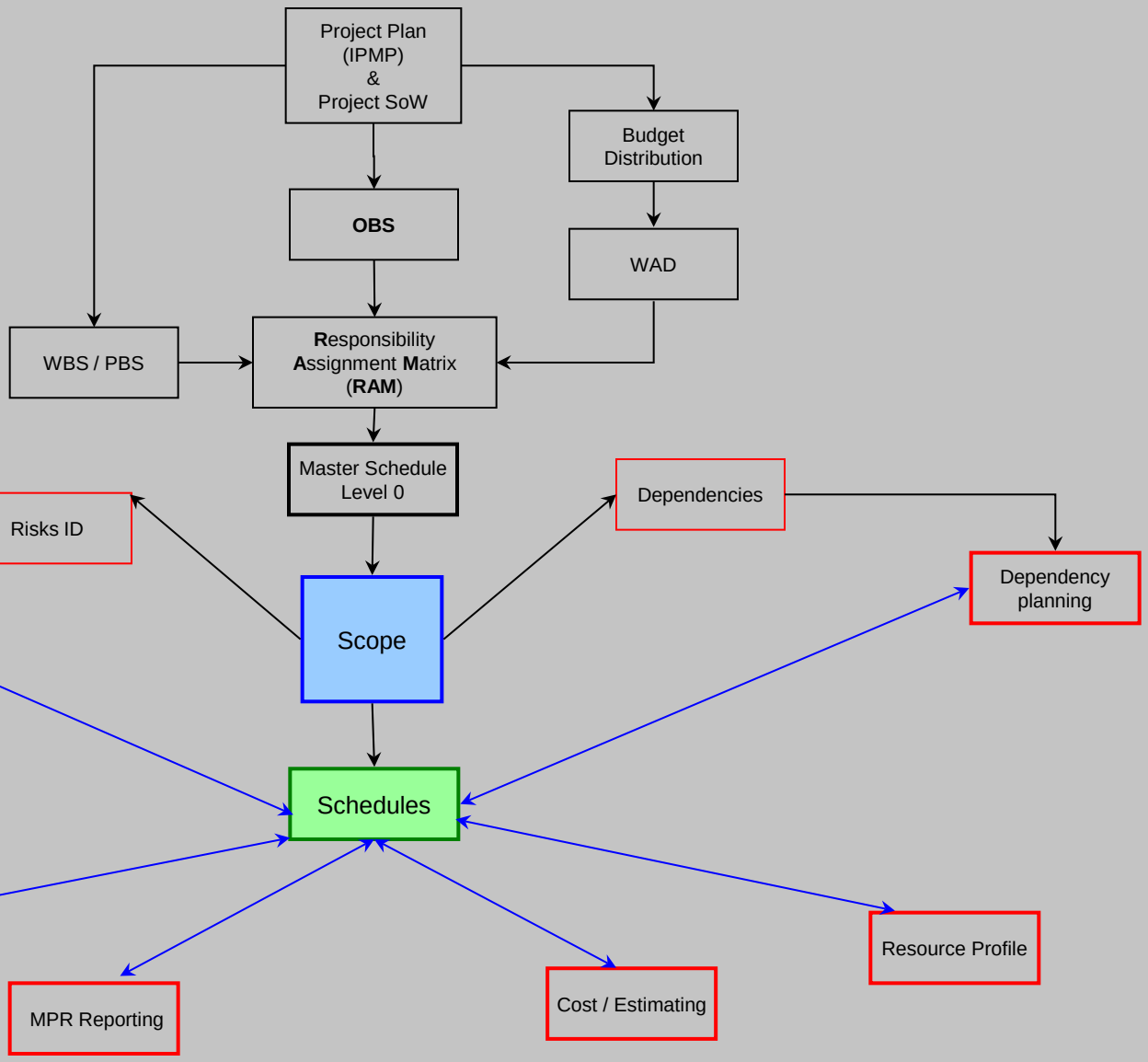
Patrick Kennerson 28th Mar 2017

Quality scope definition will mitigate most if not all of these issues…

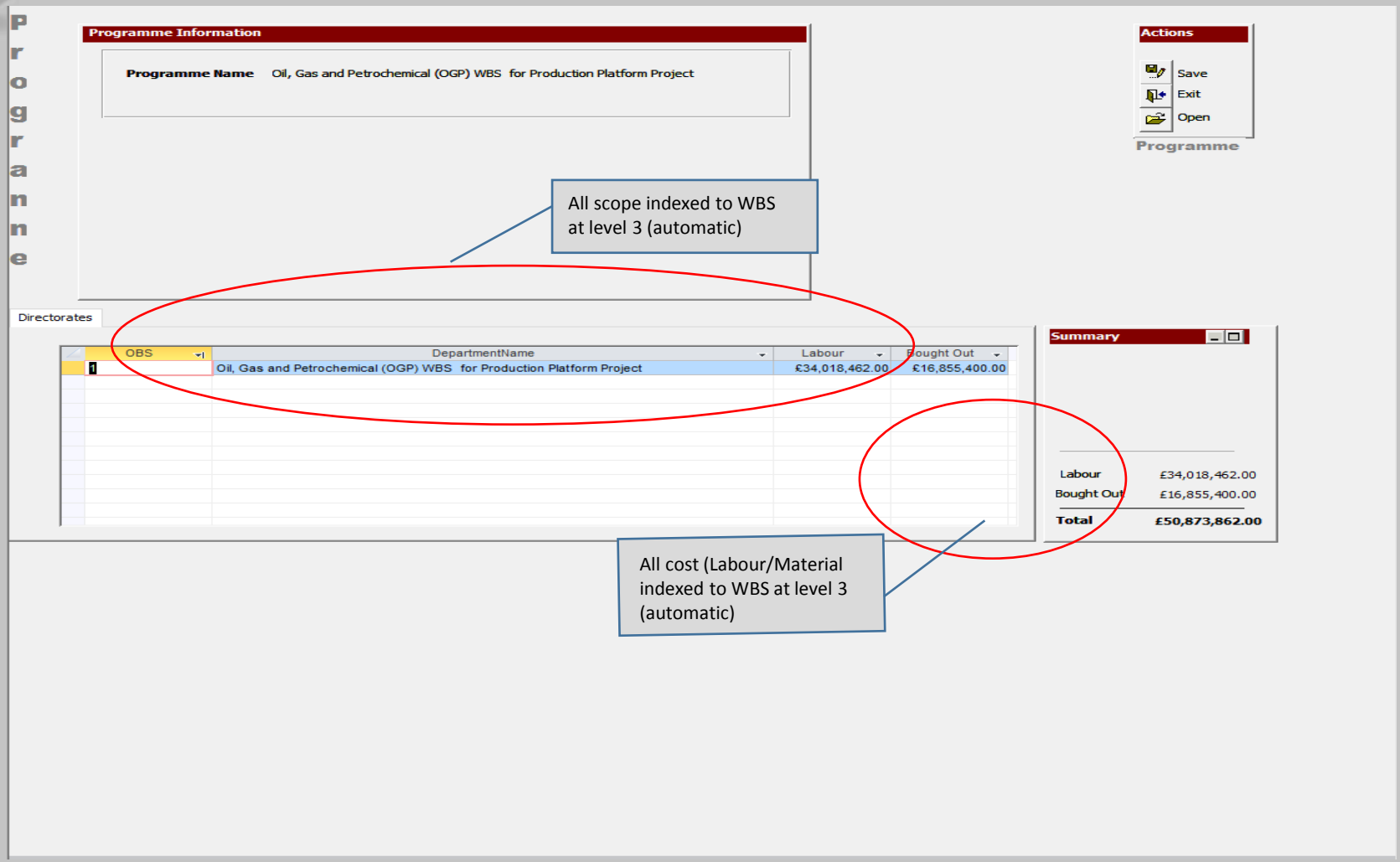
- **Undefined Deliverables** – When deliverables are not clearly identified both in quality and timelines then typically the project has little chance of succeeding. Note that I did not say effort!
- **Scope Changes** – Also known as **scope creep**, controlling scope takes a strong control system integrated in the master schedule, most project manager try and evaluate each request and decide how and if to implement it. Doomed to failure on complex projects.
- **Inadequate resourcing for the Project** – A project's resourcing should be defined and linked to scope as well as integrated into the master schedule. All too often scope, resourcing, and cost never meet in any one common WBS. Also this should be done at lest to level three of the WBS.
- **Lack of Accountability** – Complex projects require teams to work towards a common goal, they must understand how their work fits into the whole and a single ownership within the organization linked to the scope must be identified. Normally someone with a helicopter view of that scope and budget (control account manager).
- **Improper Risk Management** – Risks management is an important piece of project management, but all too often risk management is reduce to the cataloguing of self incriminating whining. Risks should be linked to scope, and have drop off periods when the risk is retired.
- **Ambiguous Contingency Planning** – It's important to know what direction to take in pre-defined "what-if" scenarios. If contingencies are not identified, the entire project can become mired in an unexpected set of knock on effect problems. Dependency management is key to contingency planning.
- **Impossible Deadlines** – The odds of successfully completing a project under unreasonable deadlines are generally not feasible expectations.
- **Loss of Stakeholder confident** – Missing millstones deliverables and subjective project reporting will only lead to distrust and aggravation on the part of your client.

The Methodology

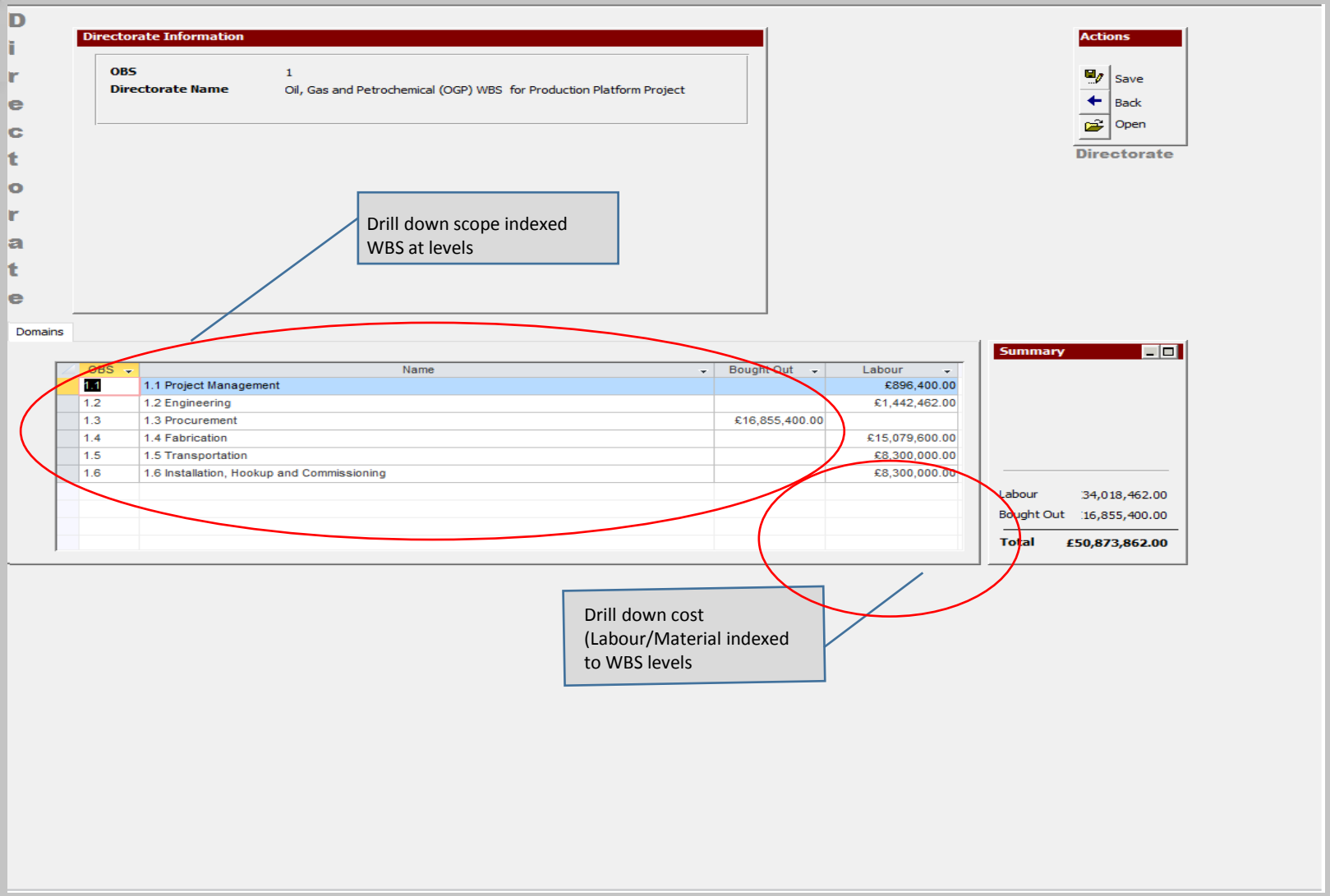
OBS - Organisation Breakdown structure
WBS - Work Breakdown Structure
PBS - Product Breakdown Structure
SoW - Statement of Work
RAM - Responsibility Assignment Matrix
MPR – Monthly Project Reporting
WAD - Work Authorisation Document



Standardize scope development Level 1

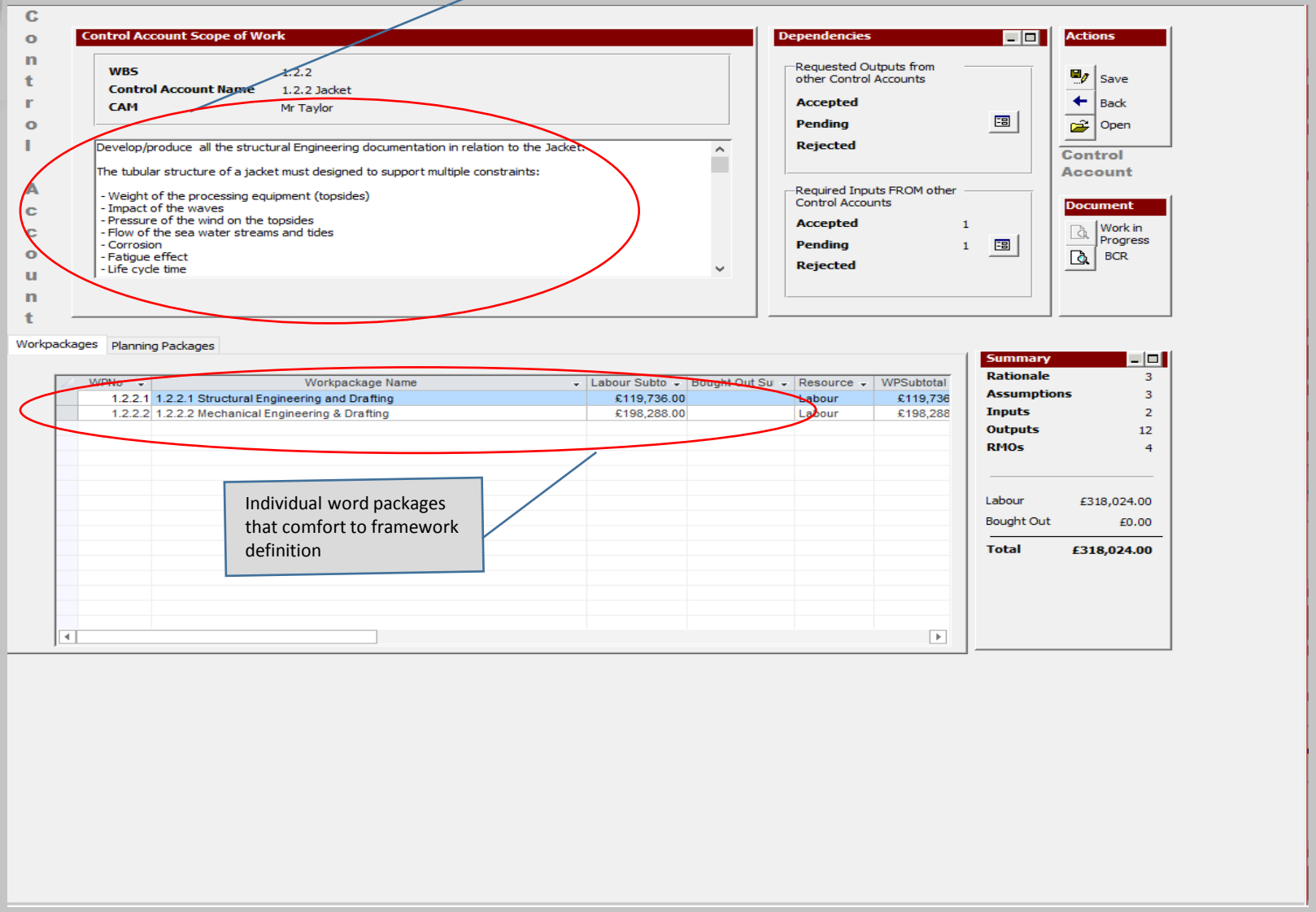


Standardize scope development Level 2

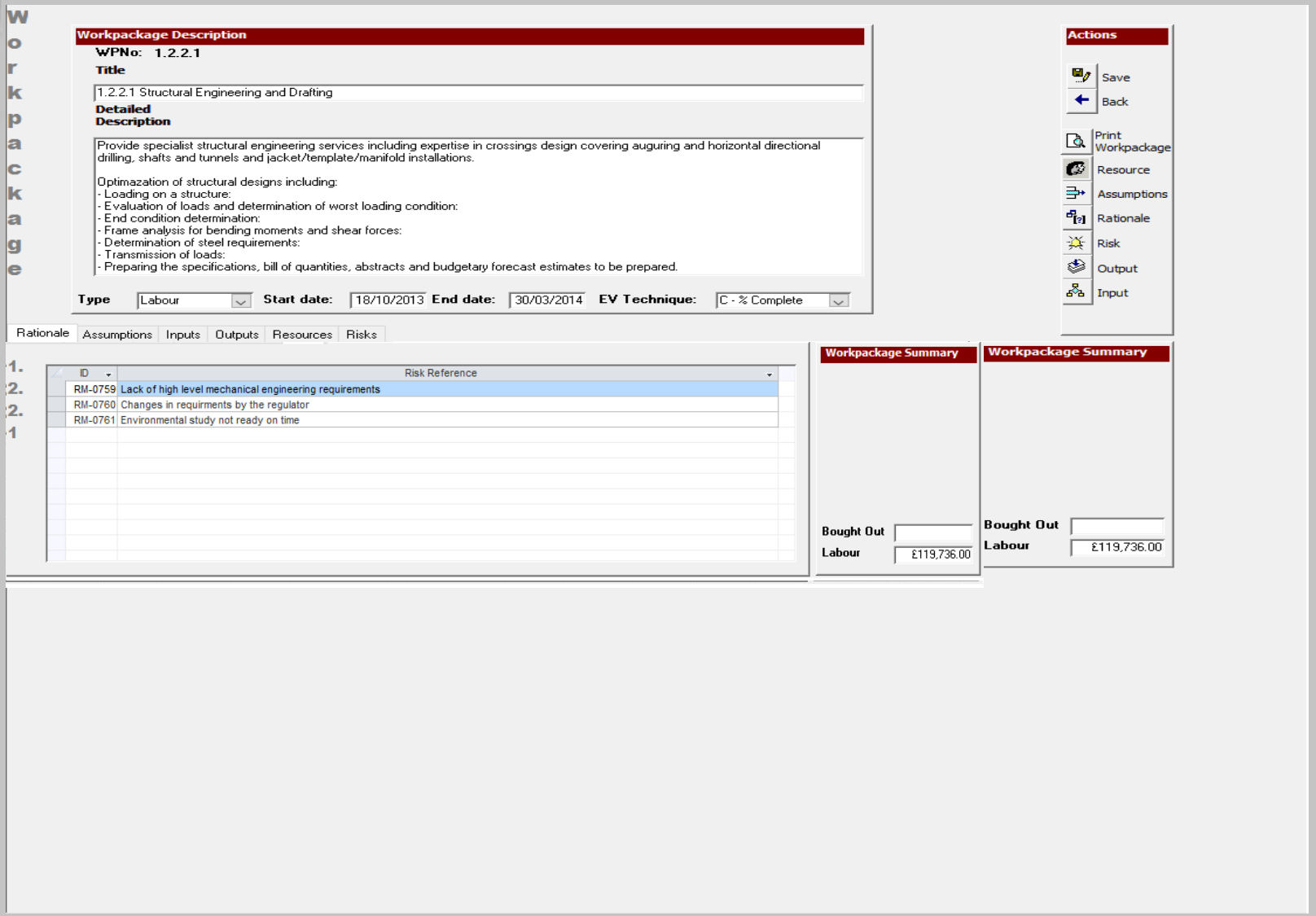


Standardize scope development Level 3

Level 3 where discreet activities



Scope components required



Integrated scope document

1.2.2 Jacket

1.2.2.1 Structural Engineering and D

Start date: 18/10/2013 End

EV Technique:

Workpackage

1.2.2.1 Structural Engineering and Drafting

Statement of Work

Provide specialist structural engineering services inc
design covering auguring and horizontal directional d
jacket/template/manifold installations.

Optimazation of structural designs including:
- Loading on a structure:
- Evaluation of loads and determination of worst loa
- End condition determination:
- Frame analysis for bending moments and shear fo
- Determination of steel requirements:
- Transmission of loads:
- Preparing the specifications, bill of quantities, abst
estimates to be prepared.

Develop/produce all the structural Engineering docu

The tubular structure of a jacket must designed to s

- Weight of the processing equipment (topsides)
- Impact of the waves
- Pressure of the wind on the topsides
- Flow of the sea water streams and tides
- Corrosion
- Fatigue effect
- Life cycle time

Acting as a cage, the jacket must protect all the pipi
This space tubular frame must also protect these pi

The deck structure must be connected to the jacket
efforts both ways.

The waves have a period of 14 to 20 seconds. The j
natural period of 2.5 seconds in order to prevent vib
waves effect.

Rationale

Optimazation of structural designs

To develop the structural designs for the platform

Assumptions/Issues

Assumption of material properties

All designers will use STAAD.PRO design suites

No special environmental requirements apply to this project

This team will not perform any topographical surveys

Risks

1.2.2 Jacket

1.2.2.1 Structural Engineering and Drafting

Start date: 18/10/2013 End date: 30/03/2014

EV Technique:

Reference	WP
Environmental study not ready on time	1.2.2.1
Changes in requirments by the regulator	1.2.2.1
Lack of high level mechanical engineering requirements	1.2.2.1

Inputs

ID	Title	Supplier
TI-2608	Topographical surveys	1.2.1 General

Outputs

ID	Title
TO-64590	Jacket Detailed Engineering and Design Report
TO-64589	Jacket Approved for Construction (AFC) Drawings
TO-64588	Jacket Weights and Material Take offs
TO-64587	Jacket Cathodic Protection
TO-64586	Jacket Design Details
TO-64585	Jacket Pre-Service Analyses
TO-64584	Jacket In-Service Analyses

Resources

Resource Type				Hrs	Labour Total	BO Total
ENG	ADMIN	Information Systems	CL2S06A	800	£17,336.00	
ENG	MECH	Civil Engineering	CI6908A	800	£41,600.00	
ENG	MECH	Civil Engineering	CI6908A	800	£41,600.00	
ENG	QUALI	Quality Engineer	CI6956A	400	£19,200.00	
Total:				**2800**	**£119,736.00**	

Authorisation

CAM _____ Date _____

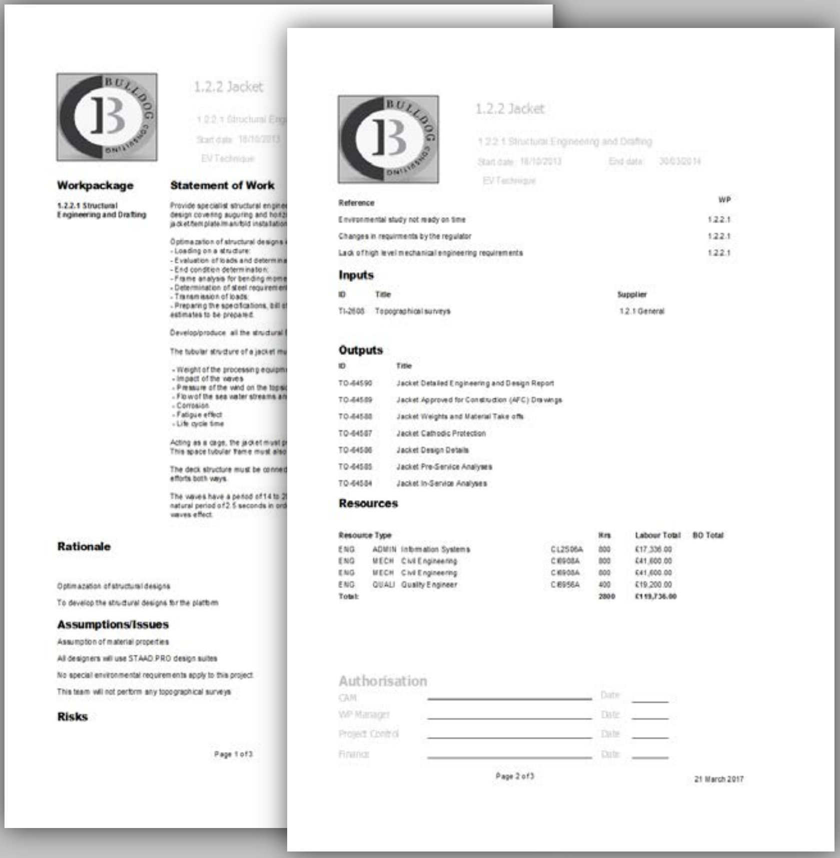
WP Manager _____ Date _____

Project Control _____ Date _____

Finance _____ Date _____

21 March 2017

Scope related issues mitigated



1.2.2 Jacket

1.2.2.1 Structural Eng

Start date: 18/10/2013

EV Technique

Workpackage

1.2.2.1 Structural Engineering and Drafting

Statement of Work

Rationale

Optimazation of structural designs

To develop the structural designs for the platform

Assumptions/Issues

Assumption of material properties

All designers will use STAAD PRO design suites

No special environmental requirements apply to this project

This team will not perform any topographical surveys

Risks

Page 1 of 3

1.2.2 Jacket

1.2.2.1 Structural Engineering and Drafting

Start date: 18/10/2013 End date: 30/03/2014

EV Technique

Reference	WP
Environmental study not ready on time	1.2.2.1
Changes in requirments by the regulator	1.2.2.1
Lack of high level mechanical engineering requirements	1.2.2.1

Inputs

ID	Title	Supplier
TI-2608	Topographical surveys	1.2.1 General

Outputs

ID	Title
TO-64590	Jacket Detailed Engineering and Design Report
TO-64589	Jacket Approved for Construction (AFC) Drawings
TO-64588	Jacket Weights and Material Take offs
TO-64587	Jacket Cathodic Protection
TO-64586	Jacket Design Details
TO-64585	Jacket Pre-Service Analyses
TO-64584	Jacket In-Service Analyses

Resources

Resource Type				Hrs	Labour Total	BO Total
ENG	ADMIN	Information Systems	CL2506A	800	£17,336.00	
ENG	MECH	Civil Engineering	CI6908A	800	£41,600.00	
ENG	MECH	Civil Engineering	CI6908A	800	£41,600.00	
ENG	QUALI	Quality Engineer	CI6956A	400	£19,200.00	
Total:				2800	£119,736.00	

Authorisation

CAM ______ Date ______

WP Manager ______ Date ______

Project Control ______ Date ______

Finance ______ Date ______

Page 2 of 3

21 March 2017

- **Undefined Deliverables** – Deliverables are now defined in standard format integrated to level 3 and milestone defamations statements.
- **Scope Changes** –Scope is clearly written and integrated to cost, resource dependency, deliverables and risks. Change can be assisted against all of these impacts quickly and consistently once baselined.
- **Inadequate resourcing for the Project** – Resourcing now defined and linked to scope and deliverables. Recourse profiles can be produced at a button push down to level 3.
- **Lack of Accountability** – Deliverables can be accessed and identified quickly by work package owner, control account owner, and inputs and outputs are linked and managed as a thru life project baseline. As change is agreed owners are notified.
- **Improper Risk Management** – Risks can to transferred to Risk manager, and is linked at the proper level and can be tracked to the work packages that spawn the risk. Risk cascades can be produced quickly.
- **Ambiguous Contingency Planning** – pre-defined "what-if" scenarios and contingencies are managed and “hand shake”. Knock on effect are mapped and a matrix can be reviewed thru life of the project as a living document.
- **Impossible Deadlines** – Deadlines are understood as they pertain to scope and resource indexed to cost. This creates a complete story board.
- **Loss of Stakeholder confident** – Detailed reports, change controls, risk mediation, and reporting flow quickly from project to client in a consistent narrative.

Questions?


I NEED A BUDGET ESTIMATE FOR MY PROJECT, BUT I DON'T HAVE A SCOPE OR A DESIGN FOR IT YET.
OKAY, MY ESTIMATE IS $3,583,729.
YOU DON'T KNOW ANYTHING ABOUT MY PROJECT.
THAT MAKES TWO OF US.
Dilbert.com DilbertCartoonist@gmail.com
©2001Scott Adams, Inc./Dist. by UFS, Inc.