

VKI - Short Training Program

Progress planning

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Supervisor: Amandine Denis

STP Start date: 7th January 2021
STP End date: 6th June 2021



WBS	Task	Start	End	Total duration (days)	Done	Weeks																											
						Week 1 7-10 January	Week 2 11-17 January	Week 3 18-24 January	Week 4 25-31 January	Week 5 1-7 February	Week 6 8-14 February	Week 7 15-21 February	Week 8 22-28 February	Week 9 1-7 March	Week 10 8-14 March	Week 11 15-21 March	Week 12 22-28 March	Week 13 29 March - 4 April	Week 14 5-11 April	Week 15 12-18 April	Week 16 19-25 April	Week 17 26 April - 2 May	Week 18 3-9 May	Week 19 10-16 May	Week 20 17-23 May	Week 21 24-30 May	Week 22 31 May - 6 June						
1	Beginning the STP	7-Jan	21-Jan	16	100%	[Task completed]																											
1.1	Pipework				100%	[Task completed]																											
1.2	Software preparation (NoMachine installation)				100%	[Task completed]																											
1.3	Traveling to Belgium				100%	[Task completed]																											
2	QARMAN project familiarization	7-Jan	31-Jan	24	100%	[Task completed]																											
2.1	General information, introduction				100%	[Task completed]																											
2.2	Design report study				100%	[Task completed]																											
2.3	Thermal model study				100%	[Task completed]																											
3.0	ESATAN TMS familiarization	20-Jan	2-Feb	13	100%	[Task completed]																											
3.1	Manuals study				100%	[Task completed]																											
3.2	Practices with GUI				100%	[Task completed]																											
3.3	Geometry definition tools				100%	[Task completed]																											
3.4	Conductors, BC's, Radiative and Thermal case practices				100%	[Task completed]																											
4	TVAC test simulation - Cold cycle	1-Feb	11-Apr	69	100%	[Task completed]																											
4.1	Vacuum chamber geometry build				100%	[Task completed]																											
4.2	Experimental data extraction				100%	[Task completed]																											
4.3	First simulations				100%	[Task completed]																											
4.3.1	Pre-processing of the radiative case				100%	[Task completed]																											
4.3.2	Running the radiative case				100%	[Task completed]																											
4.3.3	Pre-processing of the thermal case				100%	[Task completed]																											
4.3.4	Running the thermal case				100%	[Task completed]																											
4.3.5	Simulation results vs. reality comparison				100%	[Task completed]																											
4.3.6	Evaluation				100%	[Task completed]																											
4.4	Subsequent simulations				100%	[Task completed]																											
4.4.1	Model geometry update				100%	[Task completed]																											
4.4.2	Radiative case parameters modification				100%	[Task completed]																											
4.4.3	Running the radiative case				100%	[Task completed]																											
4.4.4	Thermal case parameters modification				100%	[Task completed]																											
4.4.5	Running the thermal case				100%	[Task completed]																											
4.4.6	Simulation results vs. reality comparison				100%	[Task completed]																											
4.4.7	Sensitivity analysis				100%	[Task completed]																											
4.4.8	Meeting satisfactory criteria				100%	[Task completed]																											
4.4.9	Evaluation				100%	[Task completed]																											
5	TVAC test simulation - Hot cycle	12-Apr	20-Apr	8	100%	[Task completed]																											
5.1	Experimental data extraction				100%	[Task completed]																											
5.2	Model take-over				100%	[Task completed]																											
5.3	Pre-processing of the radiative case				100%	[Task completed]																											
5.4	Running the radiative case				100%	[Task completed]																											
5.5	Pre-processing of the thermal case				100%	[Task completed]																											
5.6	Running the thermal case				100%	[Task completed]																											
5.7	Simulation results vs. reality comparison				100%	[Task completed]																											
5.8	Evaluation				100%	[Task completed]																											
6	TVAC test simulation - Operational cycle	21-Apr	30-Apr	9	100%	[Task completed]																											
6.1	Experimental data extraction				100%	[Task completed]																											
6.2	Model take-over				100%	[Task completed]																											
6.3	Heat dissipation calculations				100%	[Task completed]																											
6.4	Pre-processing of the radiative case				100%	[Task completed]																											
6.5	Running the radiative case				100%	[Task completed]																											
6.6	Pre-processing of the thermal case				100%	[Task completed]																											
6.7	Running the thermal case				100%	[Task completed]																											
6.8	Simulation results vs. reality comparison				100%	[Task completed]																											
6.9	Evaluation				100%	[Task completed]																											
7	Orbital simulations	1-May	30-May	29	100%	[Task completed]																											
7.1	One day correlation				100%	[Task completed]																											
7.1.1	Orbital elements extraction				100%	[Task completed]																											
7.1.2	Model take-over				100%	[Task completed]																											
7.1.3	Pre-processing of the radiative case				100%	[Task completed]																											
7.1.4	Running the radiative case				100%	[Task completed]																											
7.1.5	Pre-processing of the thermal case				100%	[Task completed]																											
7.1.6	Running the thermal case				100%	[Task completed]																											
7.1.7	Model update				100%	[Task completed]																											
7.1.8	Simulation results vs. reality comparison				100%	[Task completed]																											
7.1.9	Evaluation				100%	[Task completed]																											
7.2	Whole May correlation				100%	[Task completed]																											
7.2.1	One day correlation model take-over				100%	[Task completed]																											
7.2.2	Pre-processing of the radiative case				100%	[Task completed]																											
7.2.3	Running the radiative case				100%	[Task completed]																											
7.2.4	Pre-processing of the thermal case				100%	[Task completed]																											
7.2.5	Running the thermal case				100%	[Task completed]																											
7.2.6	Running simulations one orbit per day				100%	[Task completed]																											
7.2.7	Comparison of simulation results vs. Orbital data				100%	[Task completed]																											
7.2.8	Evaluation				100%	[Task completed]																											
7.3	Whole May correlation				100%	[Task completed]																											
7.3.1	May correlation model take-over				100%	[Task completed]																											
7.3.2	One day correlation model take-over				100%	[Task completed]																											
7.3.3	Pre-processing of the radiative case				100%	[Task completed]																											
7.3.4	Running the radiative case				100%	[Task completed]																											
7.3.5	Pre-processing of the thermal case				100%	[Task completed]																											
7.3.6	Running the thermal case				100%	[Task completed]																											
7.3.7	Running simulations one orbit per day				100%	[Task completed]																											
7.3.8	Comparison of simulation results vs. Orbital data				100%	[Task completed]																											
7.3.9	Comparison of temperatures vs. functional limits				100%	[Task completed]																											
7.3.10	Failure component estimation				100%	[Task completed]																											
8	Final presentation	3-Jun	6-Jun	3	100%	[Task completed]																											
8.1	Project evaluation				100%	[Task completed]																											