



# Software Engineering and Project Management

#### ADVANCED COURSE (5hp) Periods 1 & 3

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# How to deal with large projects?

• SEPM is about to create the Death Star Star Killer





# **Course Goals**

EB

• How to build "good" software

#### Death Star I

#### Schematic Views Sheet 2 of 8 Technical Readout TS-ISN/ZOO1HC (CLASSIFIED) Laser Tower (148) -Fuel Storage Tank (9) Diameter: 67.375 km Typical Firing Gross Weight: 19.047 billion tons Access Well -Radius -(12)Antenna Dish Diameter: 21.983 km Equatorial Trench Height: 805 m Polar Trench Width: 402.5 m Armour Plating: (Outer Skin) 6.10 m Void 0 (Inner Skin) 3.05 m Area Maximum Acceleration: 0.0001 grav Fuel Capacity: 61,425 cubic km **Crew Complement:** 31,622,963 Number of Antimatter Engines: 68-0 Number of Hyperdrive Engines: 1 Engineering Bay Reactor Core Hangar Complement: 6 Star Destroyers (C-15) Battleships (C-12) -+ 10 0 0 Heavy Cruisers (C-10) 39 17 Light Cruisers (C-8) 0 0 Fighter Tenders (C-Ei/6) 81 Troop Transports (C+4) 190 Scouts (C-3) -+ 1,384 Corvettes (C-2) 714 Tanker Drones (C-11 509 Shuttlecraft (S-7) 982 T.I.E. Fighters + 1,831 INTERIOR - T.I.E. Assault Craft -2,904 00 WEAPONS CROSS SECTION \_ T.I.E. Boarding Craft 806 INSTALLATION

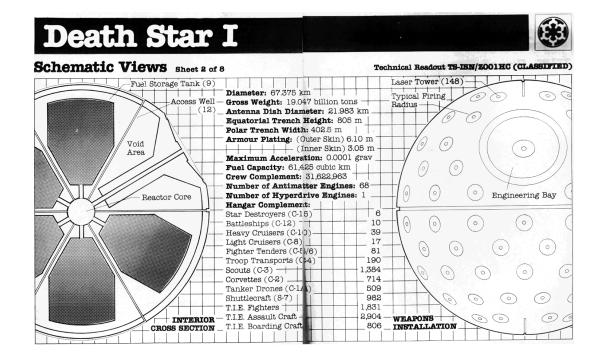




## **Course Goals**

#### • How to build "good" software

- Requirements definition and specification





# **Course Goals**

#### • How to build "good" software

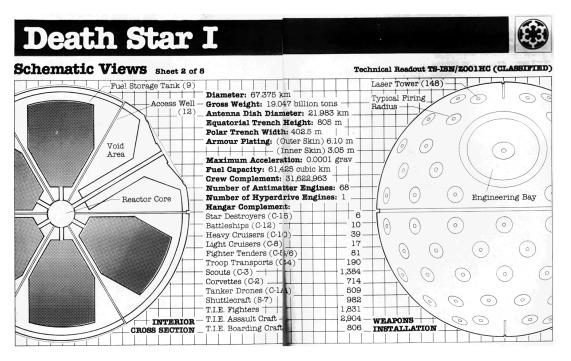
- Requirements definition and specification
- Design methods

<b>Death Star</b>	Ι	
Schematic Views Sheet 2 of	8 T	echnical Readout TS-ISN/ZOO1HC (CLASSIFIED)
-Fuel Storage Tank (9) Access Well (12) Void Area Reactor Core	Diameter: 67.375 km   Gross Weight: 19.047 billion tons   Antenna Dish Diameter: 19.037 km   Equatorial Trench Height: 805 m   Polar Trench Width: 402.5 m   Armour Plating: (Outer Skin) 6.10 m   Maximum Acceleration: 0.0001 grav -   Fuel Capacity: 1.425 cubic km -   Crew Complement: 31.622,963 -   Number of Antimatter Engines: 1 -   Maximum Acceleration: 0.0001 grav -   Fuel Capacity: 1.425 cubic km -   Crew Complement: 31.622,963 -   Number of Antimatter Engines: 1 -   Mumber of Hyperdrive Engines: 1 -   Hangar Complement: - - -   Star Destroyers (C-10) 362 - -   Heavy Cruisers (C-10) 352 - - -   Fighter Tenders (C-10) 352 - - - -   Scouts (C-3) - - 1.04 - - -   Goots (C-3) </th <th>Laser Tower (148)     Typical Firing   Image: Constraint of the second s</th>	Laser Tower (148)     Typical Firing   Image: Constraint of the second s
CROSS SECTION	_ T.I.E. Boarding Craft 806	3_INSTALLATION



# **Course Goals**

- How to build "good" software
  - Requirements definition and specification
  - Design methods
  - Validation and verification (QA)







## **Course Goals**

How to plan without planning







#### How to plan without planning

– Maintenance and reusability





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# **Course Goals**

#### How to plan without planning

- Maintenance and reusability
- Project planning and agile



# **Course Structure**

- Theory (2hp)
  - Interactive lectures and online exercises
- Large project in groups of ~12 students (3hp)
  - You will design/plan/develop a small game component
  - ... then, integrate with the rest of the class.
  - high programming skills not required
  - groupwork and weekly meetings are required



# Grading

#### Theory (2hp, U/G)

- Written exam (U/G)
  - U/G (21/40 points) 3 hours
- Project (3hp, 3/4/5)
  - Evaluated during the course based on
    - Quality documentation/code
    - Project execution
    - Final seminar







# ?

#### You can always write me at:

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