

CUSTOMER MEETING SUMMARY

- **FORMULAS AND CALCULATIONS**

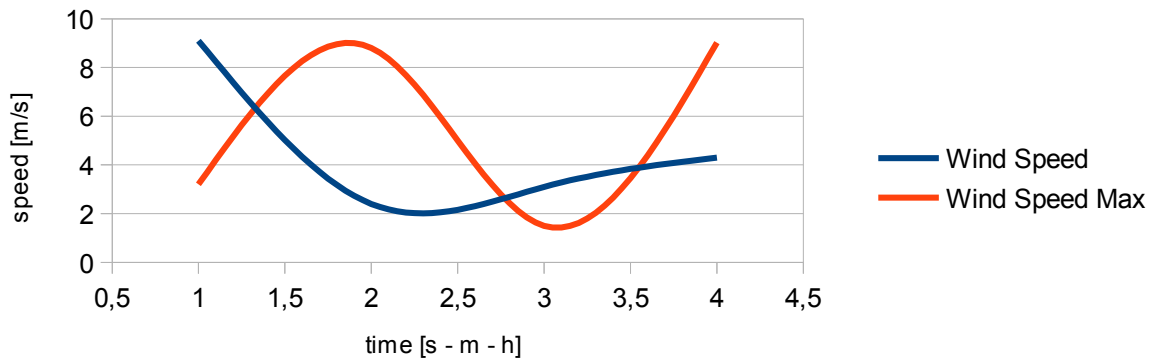
- Some minimal changes about the safety factor (now we know what it is and we have a sort of formula to calculate it)
- The **safety factor** (CS: Coefficiente di Sicurezza) is the factor that tells you if the pylon is too stressed
 - We have a C_{min} ; each pylon has its own CS for each combination of debris+traffic
 - The things are ok if $CS > C_{min}$
 - We'll have to store the minimal CS for each pylon related at one combination
 - Very difficult to understand in italian (for me), too much difficult to explain to you in english :-(
- We have a **maximum domain described by a third order equation** (Lorenzo is trying to write it) related to the C_{min} described by:
 - x axis: $N \rightarrow$ pressure
 - y axis: $M \rightarrow$ bending moment
- Each pylon will be described by:
 - M
 - N
 - combination Debris+Traffic (related to the CS)
 - worst CS
- We have to show the pylons

- LEVELS AND USERS → WEB SITE PAGES/GRAPHS

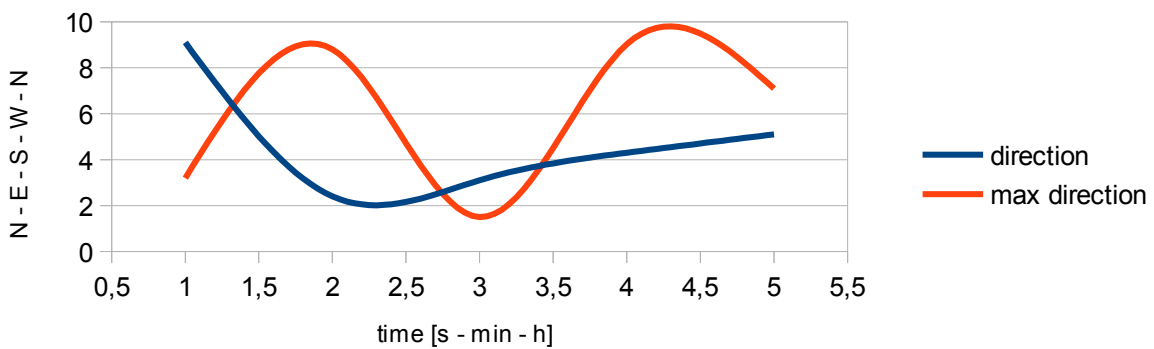
- External User

- current state view

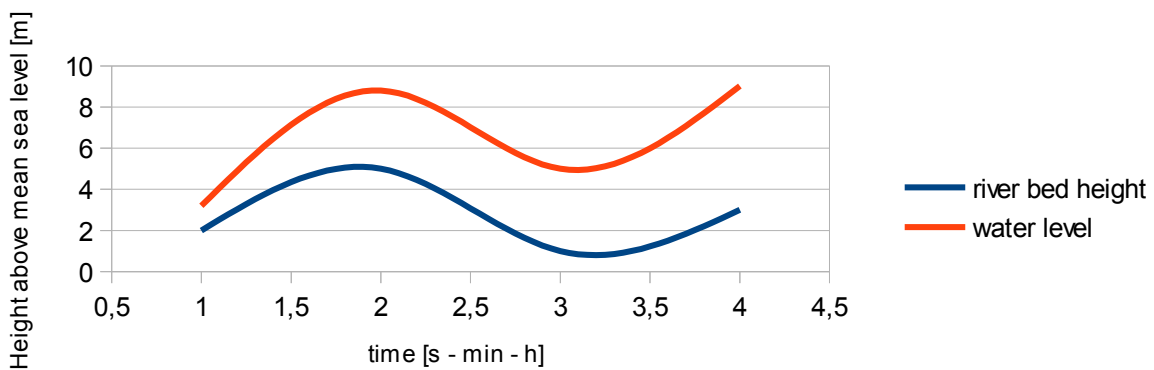
- wind speed graph (speed, max speed) → the max values are points



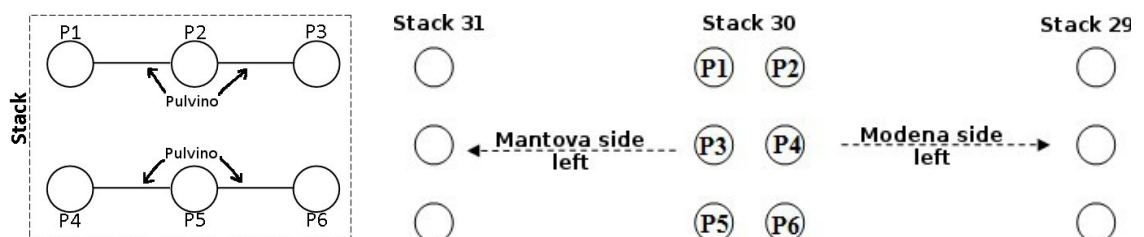
- wind direction graph (direction, max direction) → the max values are points



- water level and river bed height



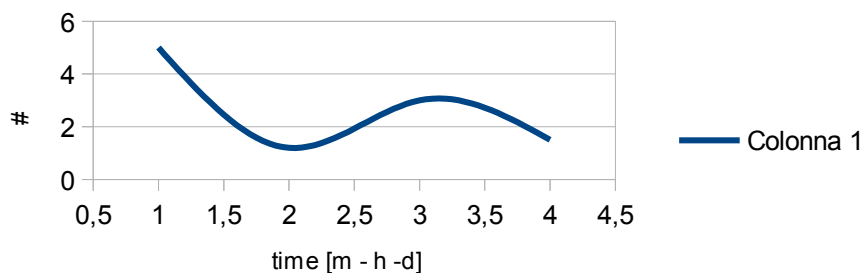
- pictures Mantova and Modena side
 - wind roses above google maps image of the bridge
 - the stack image (with also flow direction) → we'll provide you all the picture needed



- labels (values):
 - current flow rate value $[(m^3)/s]$
 - current wind speed $[m/s]$
 - current wind direction
 - current water level (above sea level) $[m]$
 - current river bed height (above sea level) $[m]$
 - current water speed $[m/s]$
- on the footer, if possible, the last update of the data (timestamp like 22/11/2013 – 08:03:59 or something similar :-) → sorry Miraldi ;-)
- cannot see (for the moment) the historical graphs → if we want to implement the historical graphs also for the external user is up to us, so for the moment I think we have to focus on current view
- can logs in (if he has the right credentials ;-)
- Operator
 - has to logs in ;-) (obviously)
 - current state view:
 - the same things of the external user
 - the M-N domain (the domain of the CS)
 - each pylon in this domain (from the worst case table → Lorenzo is describing that in his document)
 - this table (you'll find the values in a table in the DB):

#pylon	Worst CS	Combination number/label	N	M	Tx	Ty	Mx	My
Pylon #1								
Pylon #2								
Pylon #3								
Pylon #4								
Pylon #5								
Pylon #6								

- Checkbox in which he could check the options D/T
- historical graphs/view:
 - he had to chose the time interval (from - to)
 - wind speed graph graph (speed, max speed) related to the time interval chosen
 - wind direction graph graph (direction, max direction) related to the time interval chosen
 - water level and river bed height graph related to the time interval chosen
 - CS trend (only the worst → thus the worst for the combination D=1, T=1)
 - x axis: time; y axis: a number > 1



- default options for the time interval:
 - specific day (“I want to see the graph of the day: dd/mm/yyyy”)
 - last month (from the fist day of the month untill now)
 - specific month
 - specify a customized time interval (from dd/mm/yyyy to dd/mm/yyyy)

- Engineer
 - can log in :-)
 - the same current state view of the operator
 - the same historical view (with the same options) of the operator
 - the parameters “file”
 - he can change the values of the parameters (all parameters)
 - then he can click “save”/“submit” → “are you sure???? → ok”
 - then the math engine has to re-do the calculation, re-fill the fields in the DB, etc to arrive to another new representations of the graphs (current state view)
- Administrator
 - can log in
 - can add/remove/edit a user
 - cannot see values, graphs and so on
 - can see and modify the attributes of a user:
 - name
 - surname
 - e-mail
 - username
 -
 -
 - (except the password, obviously ;-)