

## SuperB Fast-Simulation phone meeting - IFR

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- Set up the up-to-date official [environment](#) with infos digged up from past emails in fast-simu mailing-list and from the not up-to-date [wiki pages](#).
- Our road-map is for the moment [Rolf e-mail](#).
- So there are now two possible environments, that one described in the first item and the last one not yet tagged by Rolf that has the Dirc incorporated, I've taken this last one (/afs/slac.stanford.edu/u/br/rolfa/PravdaNEWESTER) as starting point for modifying the code but it would be better to tag it in SVN.
- Copied Rolf PacDirc dir into PacIfr dir, changed in PacIfr the string "DIRC" with "IFR" and the string "Dirc" to "Ifr" everywhere, and checked-in this new code in [SVN at LBL](#). So basically in previous link there is a Dirc named Ifr. This was mainly done to take confidence with SVN at LBL.
- Started to modify the code as suggested in the Rolf's road-map-e-mail:
  - [PacTrk/pacrat\\_BaBar.cfg](#)
    - \* Should not the EMC infos go before the IFR ones?
    - \* We have taken the radii from the present *BABAR* [Ifr barrel](#).
    - \* We have added the first 8 levels of iron intervalled with 7 levels of plastic material.
    - \* At present only the barrel is described, how to handle the endcaps, that is the discs of iron/scintillator ortogonal to the beam axis?
  - [PacIfr/PacIfrMeasurement.hh](#)
  - [PacIfr/PacIfrMeasurement.cc](#)
  - [PacTrk/PacCylDetector.cc](#)
  - [PacTrk/PacMeasurement.hh](#)
  - [PacTrk/PacMeasurement.cc](#)
- To completely rewrite:
  - [PacIfr/PacIfrModel.hh](#)
  - [PacIfr/PacIfrModel.cc](#)
- Things to think at:

- PacTrk outside the coil (EMC ?): just a straight line
- IfrHits intersecting PacTrack with the Ifr layers;
- Proposal for the IfrHit objects:
  - \* (x,y,z) coordinates
  - \* # layer.
  - \* Particle type.
  - \* Time?
- I was wondering if it couldn't be a good idea to implement a single abstract sub-detector class and then to get each specific sub-detector as a derived class from this base one. As for the Ifr we want to adapt the Dirc code and after that it seems there could be part in common between Emc and Ifr. That should be done at a high level design having clear the common abstract parts among sub-detectors.