SPD software news

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Release plan

- Assume «CDR-ready» release by 01/09/2020

- Main deliverables:
  - Fast simulation of **<u>all</u>** subsystems
  - Reliable primary and secondary vertex reconstruction — essential for the open charm program
  - RS reconstruction — essential for the charmonium program
  - Event data model

SpdRoot 4.0.0

- Current «CDR-like» SPD geometry
  - Full set of detectors except for TOF, ZDC, BBC
  - New magnetic field
  - Very flexible and easy to change
- ECAL barrel and endcaps — geometry and simulation
- RS barrel and endcaps — geometry and simulation
- Secondary vertex reconstruction
- Event data model refined, but not final yet
- New building and installation procedure
- «CDR-ready» (unless geometry concept changes)

Great job of Artur, Vladimir, Sergey, Andrei, Sasha!

How to install

- *git clone https://git.jinr.ru/nica/spdroot.git*

- *cd spdroot*

- *source SetEnv.sh*   (default path to FairRoot and FairSoft points to */opt/fairroot/install* and */opt/fairsoft/install*. Modify if needed)

- *cd build*

- *cmake ..*   (default installation path */opt/spdroot.* Use *cmake -DCMAKE_INSTALL_PREFIX=/where/to/install ..* to install to another place)

- *make install*   (or *make -jN install* for N threads*)*

How to run

- *source /opt/spdroot/bin/SetEnv.sh*

- *spdroot.py MyScript.C*

More examples:

    ls /opt/spdroot/share/examples

    fullchain

    primgen

    SimuQsl.C

    tracking

    vertexrec

- Installations at JINR clusters will be updated before the end of this week

- See also: **https://git.jinr.ru/nica/spdroot/-/wikis/home**

Next steps

- Move your analyses to 4.0.0, test it and produce plots for the CDR!

- Do we need a standard mass production (e.g. minimum bias sample)?

- We need more howtos from the simulation and reconstruction experts. Please, do not hesitate to contribute to the software wiki!

- Next release

  - we will need to update the official CDR release quickly if detector layout changes a lot

  - intermediate bugfix releases if necessary

  - next major release: ECAL and RS reco, track finding, refined EDM (particle - vertex — track) — before the end of the year?