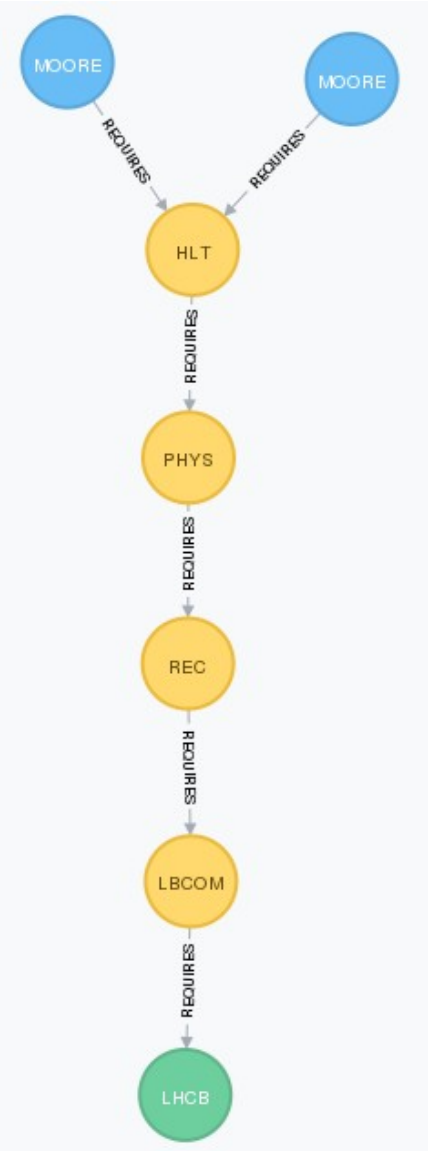
**Ana's Notes**
about the LHCb graph database

The LHCb software stack:

<table>
<tr><td colspan="8">Physics Software (See also: PAC meetings)</td></tr>
<tr><td rowspan="2">Applications<br>AppConfig</td><td rowspan="3">Gauss<br>Simulation<br>DecFiles</td><td rowspan="3">Boole<br>Digitization</td><td>Alignment</td><td>Bender<br>Python<br>analysis</td><td>Erasmus<br>Analyses<br>repository</td><td>Panoramix<br>Event<br>display</td><td rowspan="2">Moore<br>L0App<br>Trigger</td><td rowspan="3">Online Monitoring<br>and<br>Commissioning<br>Lovell (Velo)<br>Orwell (Calo)<br>Panoptes (Rich)<br>Vetra (Velo, ST)</td></tr>
<tr><td rowspan="2">Brunel<br>Reconstruction</td><td colspan="3">DaVinci Analysis framework</td></tr>
<tr><td rowspan="2">Component<br>Libraries</td><td>Analysis</td><td>Stripping</td><td>Hlt</td></tr>
<tr><td colspan="4">Phys</td></tr>
<tr><td colspan="5">Rec</td></tr>
<tr><td colspan="5">Lbcom</td><td rowspan="2">Online</td></tr>
<tr><td>Frameworks</td><td colspan="4">LHCbSys [Data_Dictionary, Event_Model, Detector_Description, Conditions_Database]</td></tr>
<tr><td colspan="7">Gaudi (GaudiPython)</td></tr>
</table>

Applications require components, therefore in order to run an application, for example Bender, we need to set up Components and Frameworks, in this case: Davinci, Analysis, Phys, Rec, Lbcom, LHCB and Graudi framework.

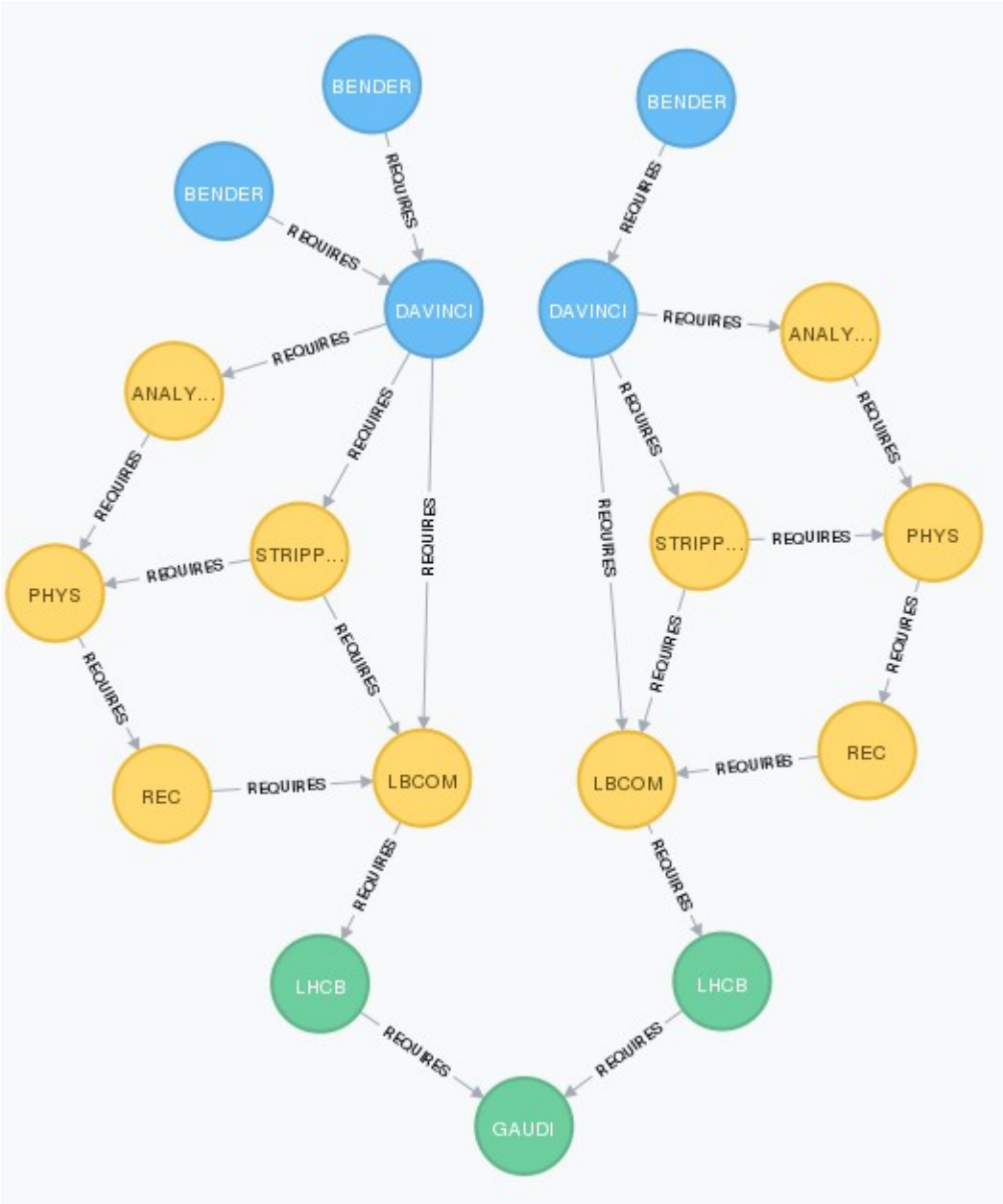
On the right hand side, there is a path with displays requirements for Moore application.



The picture below shows this path for three different versions of Bender application.
Each of the nodes represent an instance of the application – application name and version.

Two different Bender versions require the same Da Vinci version (at the top on the left hand side).
The left and right sub-graphs require the same version of Gaudi (at the bottom of the picture).

Frameworks are colored in green, components in yellow and applications in blue.



The Processing Pass Description (PPD) is a common name for all the files created in the same production. It includes the set of application version and condition DB tags and steps which were used to produce a file.
More about PPDs at:
https://twiki.cern.ch/twiki/bin/view/LHCb/OfflinePPass
https://twiki.cern.ch/twiki/bin/view/Main/ProcessingPasses