LArSoft/ LArLite Integration

8/30/16

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Outline

- Development model

- Task list: what's been done, what still needs work

    --Algorithms

    --FHICL, Services, Objects

    --Drivers

Development model: **repositories**

LArSoft repositories

larcore
lardata
larevt
larreco
...

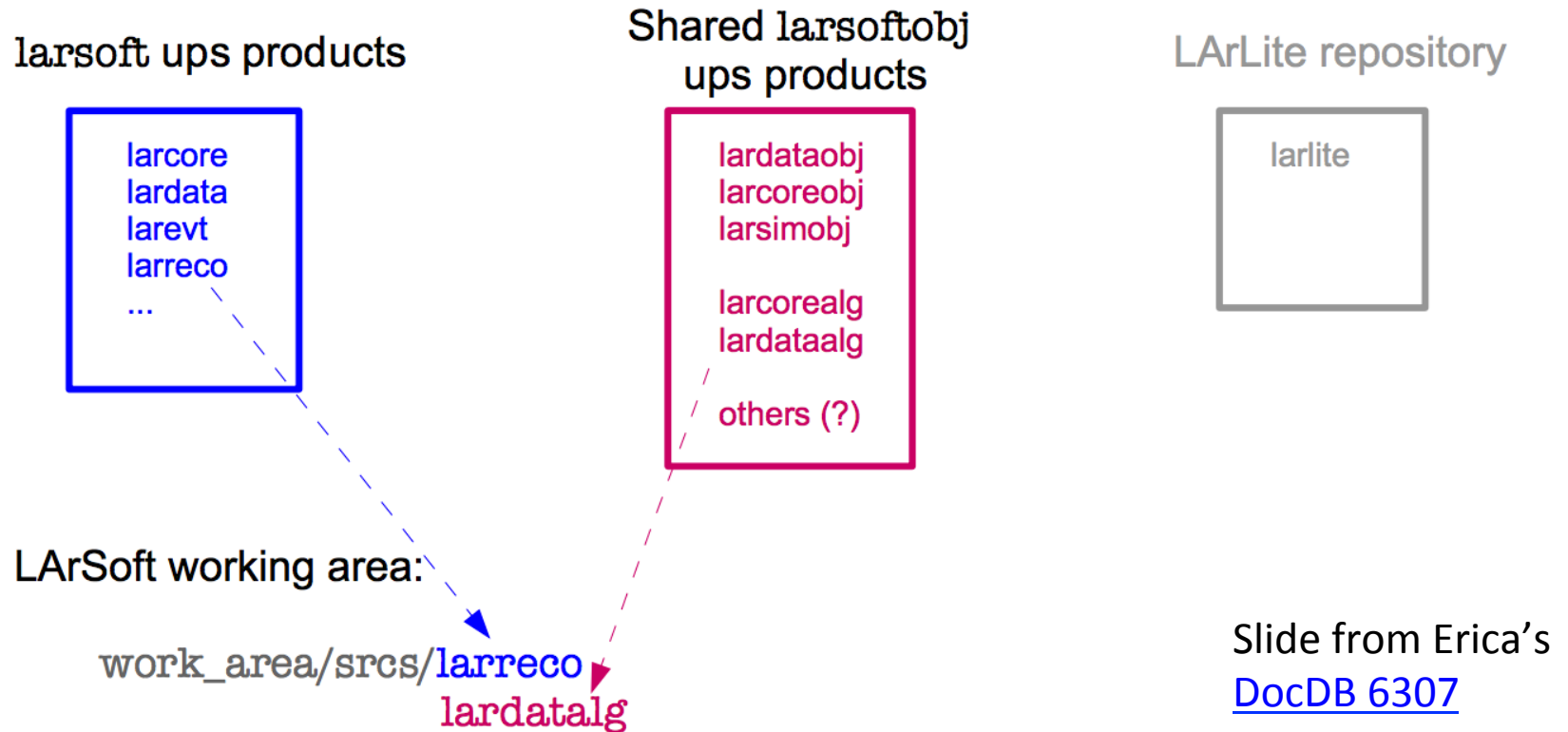**Shared repositories**

lardataobj
larcoreobj
larsimobj

larcorealg
lardataalg

others (?)

LArLite repository

larlite

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DocDB 6307

Development model: **LArSoft**

larsoft ups products

```
larcore
lardata
larevt
larreco
...
```

Shared larsoftobj ups products

```
lardataobj
larcoreobj
larsimobj

larcorealg
lardataalg

others (?)
```

LArLite repository

```
larlite
```

LArSoft working area:

work_area/srcs/**larreco**
lardatalg

mrb *g* larsoft / shared repository(ies)

Build against remaining larsoft / shared ups products

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Development model: **LArLite**

larsoft ups product

```
larcore
lardata
larevt
larreco
...
```

Shared larsoftobj ups products

```
lardataobj
larcoreobj
larsimobj

larcorealg
lardataalg

others (?)
```

LArLite repository

```
larlite
```

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LArLite working area:

work_area/larlite/UserDev/lardatalg

git clone shared repository(ies)
Build against remaining shared ups products

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  --FHICL, Services and Objects

  --Drivers

Flash Matching Integration – (08/15/16)

Tasks

– Move algorithm code to shared repository   [done]

– Develop algorithm validation test(s) (without data objects)   [done]

– Check that tests produce same results in LArSoft and LArLite   [in progress]

– Migrate use of data products to shared versions   [in progress]

– Migrate to use of FHICL parameter sets   [done]

– Migrate to use of shared LArSoft service providers   [in progress]

– Decide how to handle PhotonLibraryService (thoughts?)   [not started]

– Update LArLite Driver to contain shared data products, services   [not started]

– Write LArSoft Driver that uses shared code   [not started]

– Once drivers are done, develop integration test, compare results   [not started]

Flash Matching Integration – (08/30/16)

Tasks

– Move algorithm code to shared repository   [done]

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– Check that tests produce same results in LArSoft and LArLite   [done]

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– Migrate to use of shared LArSoft service providers   [done]

– Decide how to handle PhotonLibraryService (thoughts?)   [not started]

– Update LArLite Driver to contain shared data products, services   [done]*

– Write LArSoft Driver that uses shared code   [not started]

– Once drivers are done, develop integration test, compare results [not started]

*Compiles, but no files to test on

Other Things

Luke added a page to the wiki on usage of shared repositories:
[Flash Matching Wiki](#)

All information about grabbing shared repositories, dependencies and running algorithms test can be found here

Summary

- Flash matching algorithms live in shared lardataalg repository, and produce same validation results individually in larsoft and larlite

- Migration of data products and services necessary to run flash matching nearly complete (exception: PhotonLibraryService)

- Still need to write larsoft driver and develop integration tests to check the drivers

- Thanks to Luke for his work on the flash match integration!