CPRE 492 WEEKLY REPORT 18

Project Molecule

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Daniel Griffen – Key Concept Holder

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2 WEEKLY SUMMARY

This week we worked out further details of streams and permissions. This also started a discussion on combining the pieces we have together. Integration of everyone's code has begun as well combining all of our branches into a common repository.

Finally we further discussed the details of our goals and milestones and how we want to progress in the coming weeks.

3 PAST WEEK ACCOMPLISHMENTS

All Members:
- Further defined streams
- Further defined manifest file use and app folder structure

Ryan Wade:
- Worked on Stabilizing the molecule-common API
- Worked on Communication Manager and routing

Nathan Volkert:
- Console app in a finished state
- Started work on permissions and integrating with Ryan's code

Daniel Griffen:
- File streaming mostly working
- Begin integrating Ryan's changes to molecule-common

Alex Berns:
- Flat view now populates in the form builder
- Started ground work for next steps

4 INDIVIDUAL CONTRIBUTIONS

NAME	Hours	Semester Total	Cumulative
Ryan Wade	15	63	183
Nathan Volkert	12	52	154
Daniel Griffen	16	57	191
Alex Berns	15	64	163

5 COMMENTS AND EXTENDED DISCUSSION

5.1 STREAMS

Package

    Message length

    Message header

    Stream Data

Fixed length data vs unfixed length data

Everything is a stream

5.2 MANIFEST AND APPS

App Manifest file is in app_root. All app manifests are registered on all nodes

App folder is in app_root. If it exists, then the app is installed.

6 PLAN FOR COMING WEEK

Ryan:

Nathan: Get permissions integrated into the common repository following the determined structure. This involves both the permissions verification of the atomic layer and registering apps on the system.

Daniel: Finalize API for ConnectionManager backend. Move transport-independent code to shared location.

Alex: Finish Form Builder. The adding of components and scenes will happen with buttons and text (no drag and drop). Also the ability to save the resulting UI as a json that can be read for later.

7 SUMMARY OF WEEKLY ADVISOR MEETING

7.1 DISCUSS LAST WEEK'S GOALS.

Nat: Permissions

Better idea of how to get it to work with current system. Next steps, message A that goes to B, first arrives at atomic layer and it checks the manifest for A permissions and B permissions. If they all pass then message goes through. Manifest files are registered on install.

Ryan: Particle Manger + Communication Manger

Connection manager is completed. Did more discussion on how the message is formatted. Streams will be supported in the connection manager in the next weeks. Multi-threaded so many communications can be handled.

Alex: UI Creator

Flat view now populates, next steps include saving and adding new components and scenes via the user.

Dan: Streams

Working on getting streams to use UNIX sockets. Also started to combine with Ryan's code.

7.2   NEXT STEPS

Nate is middle ware to Ryan and Dan's code. Nate has been given the prototype of how to create the middleware

Nate estimates 1-2 weeks to finish. The basic system will be done next week. But advanced features, like registering new devices will be another .5 weeks.

Alex estimates 1 week to finish UI builder.

28th is big demo day for us.

7.3   NEXT WEEK PROMISES

Streams

Network Layer

Particle Communication

UI Builder