State Tracker Overview

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Agenda

State trackers

- What are they

- How they work

- How to implement one

Reasons

APIs evolve

    Complexity and size

Writing drivers is not an easy task

Implementing the API in the driver is a recipe for disaster

Desire to support multiple APIs without rewriting the driver

Basics

State trackers

Put API on top of the Gallium interface

Encapsulate complexity

Make API sharing possible

What and Why

Implementation of the API

   As the name suggests responsible for tracking the state of the given API

They hide complexity from the driver and put it into a library which can be shared

Free to evolve outside the driver

Clear distinction between driver and API layer bugs

How

Define the API

    Standard

    Custom

Stub out the API

    Link the stub to the Gallium HW driver and winsys to create a library

Write a trivial example for the API and link it with the library created in step 2

Start implementing the stubs

Summary

State trackers

    Used to implement APIs

    Allow us to quickly adopt to the changing standards, APIs and hardware

    Make sharing trivial

    Lower the deployment overhead