



INSTRUMENTS WITH XCODE 10

The new, the awesome (and the broken)

GOALS FOR THIS WORKSHOP

- Become a pro-profiler
- Understand Signposts
- Be able to create your own Instruments

AGENDA

Time Profiler and
Memory Debugger

Introduction

Hands-on

Evaluate

Signposts

Introduction

Hands-on

Evaluate

Custom
Instruments

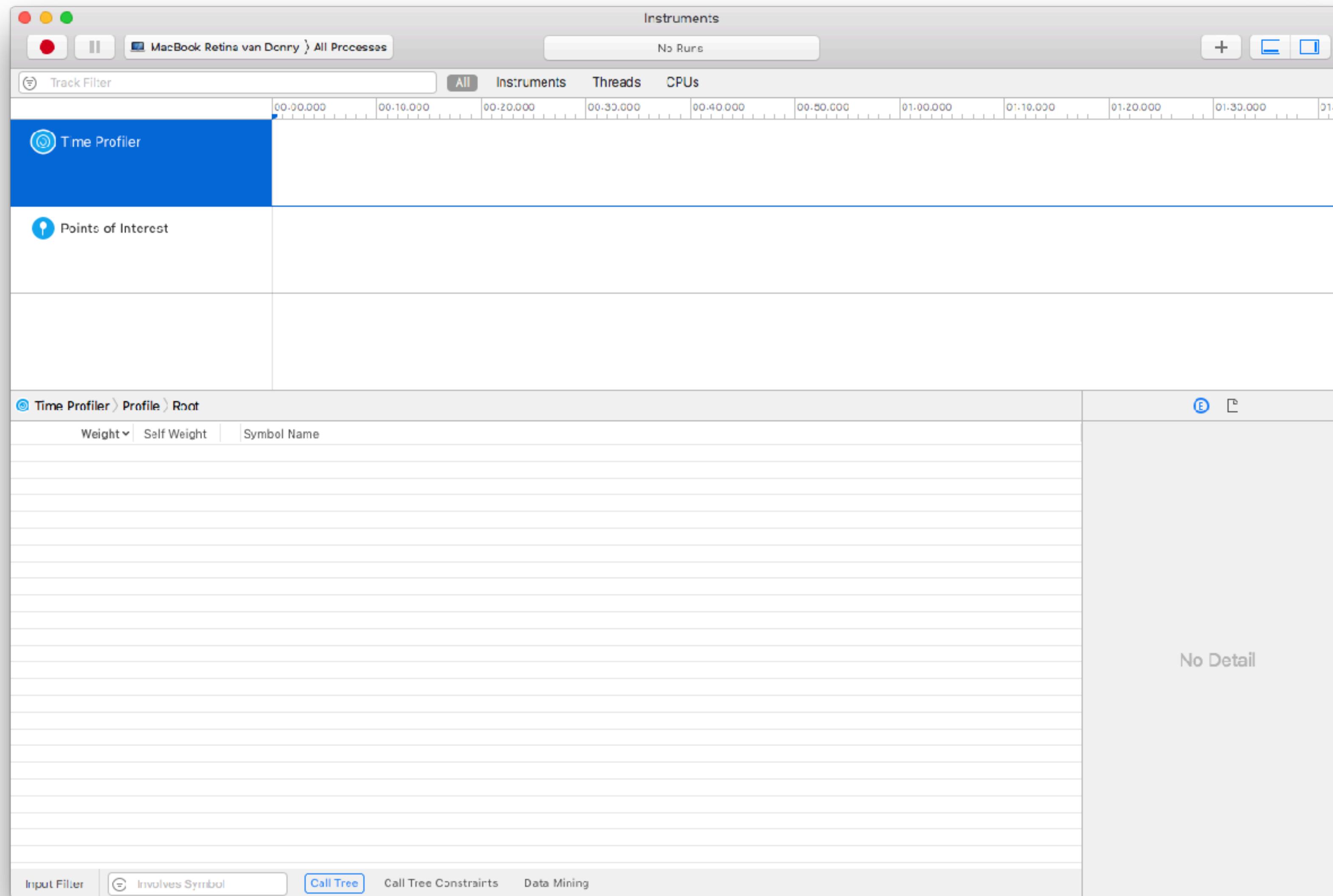
Introduction

Hands-on

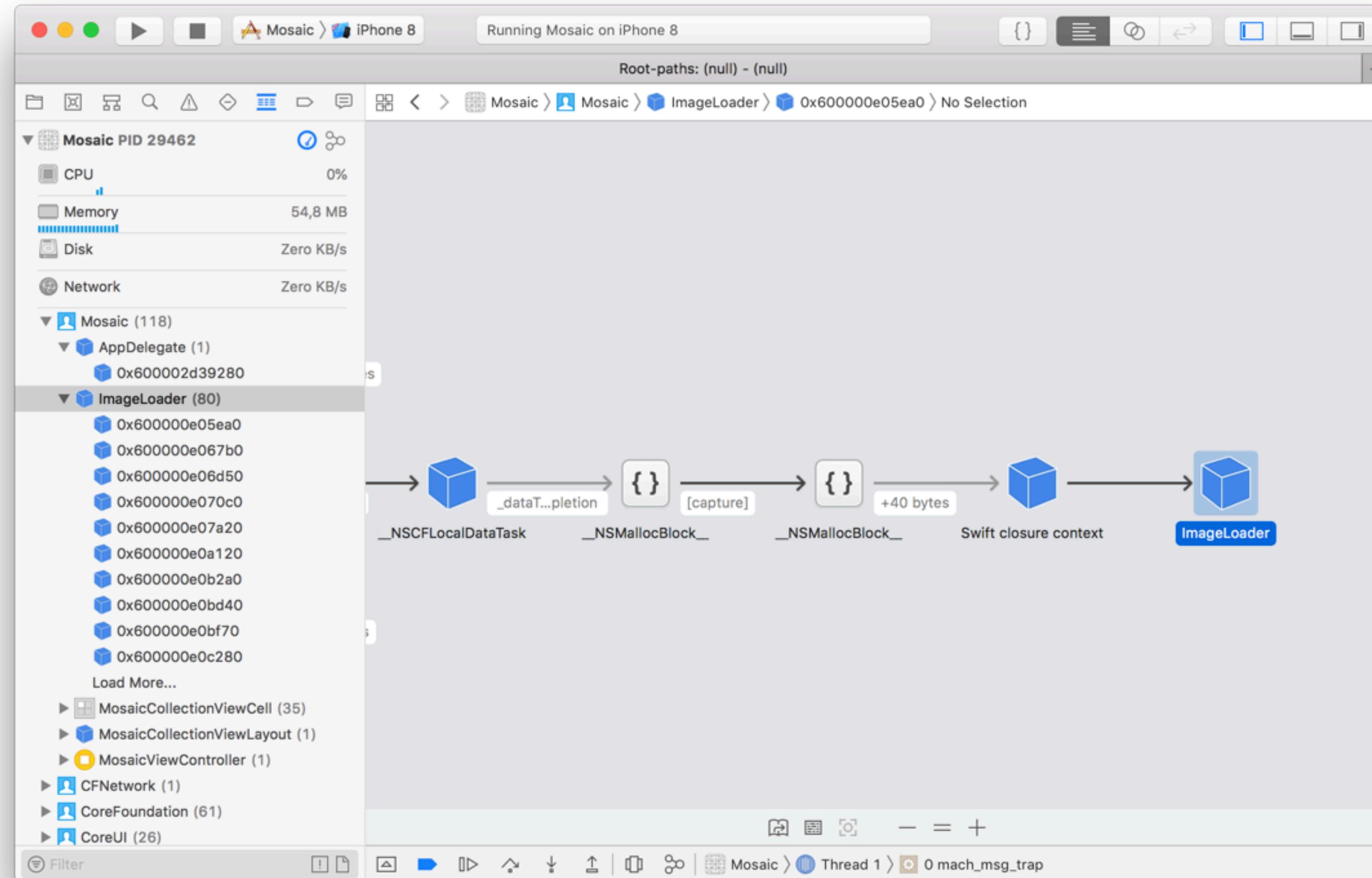
Evaluate

THE TIME PROFILER AND MEMORY DEBUGGER

THE TIME PROFILER



THE MEMORY DEBUGGER



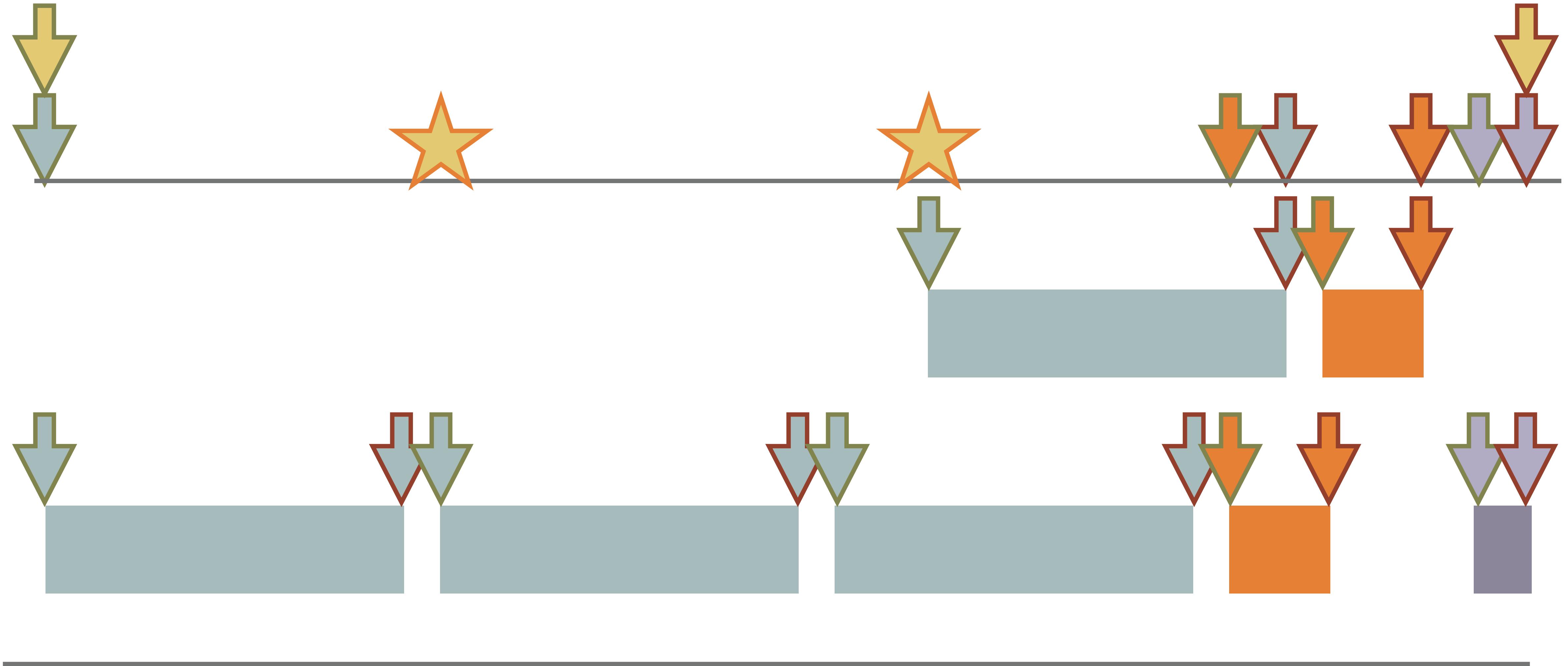


EVALUATION

SIGNPOSTS

WITH SIGNPOSTS YOU CAN

- Track the start and end of a task or operation
- Gain insights into performance
- Track user interactions or other Points Of Interest



Timeline

OBTAI LOG HANDLER

```
let networkLogger = OSLog(subsystem: "com.yourapp", category: "Networking")
```

CREATE SIGNPOST ID

```
let signpostID = OSSignpostID(log: networkLogger, object: someObject)
```

START SIGNPOST

```
os_signpost(type: .begin, log: logger, name: "download", signpostID:  
signpostID, "Download started")
```

END SIGNPOST

```
os_signpost(type: .end, log: logger, name: "download", signpostID:  
signpostID, "Download finished")
```

OBTAI~~N~~ LOG HANDLER

```
let poiLogger = OSLog(subsystem: "com.yourapp", category: .pointsOfInterest)
```

USE SIGNPOST ID

```
let signpostID = OSSignpostID(log: networkLogger, object: someObject)
```

LOG EVENT

```
os_signpost(type: .event, log: poiLogger, name: "click", signpostID:  
signpostID, "Object clicked")
```

DEMO



CUSTOM INSTRUMENTS

*Sadly, this seems to be the broken part.
Challenge: proof me wrong*

ANATOMY OF A CUSTOM INSTRUMENT

```
<package>
  <id>com.yourapp.yourpackage</id>
  <title>Your Package</title>

  <owner>
    <name>Donny Wals</name>
  </owner>

  <interval-schema>
  </interval-schema>

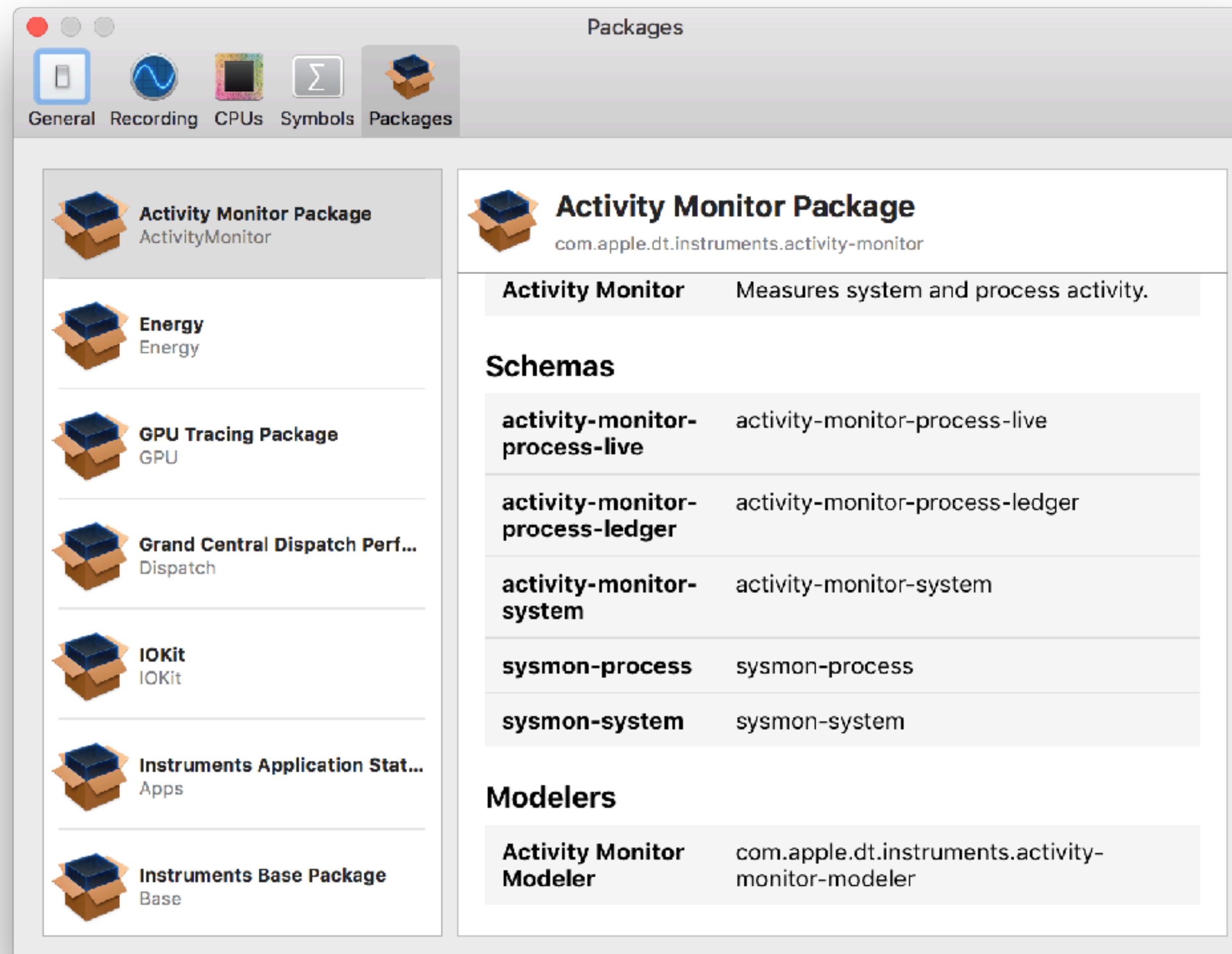
  <instrument>
    <id>com.yourapp.yourinstrument</id>
    <title>Instrument name</title>
    <category>System</category>
    <purpose>The purpose of your instrument</purpose>
    <icon>Generic</icon>

    <create-table>
      <id>com.yourapp.yourtable</id>
      <schema-ref>com.yourapp.yourscheme</schema-ref>
    </create-table>

    <list>
      <title>Your List</title>
      <table-ref>com.yourapp.yourtable</table-ref>
      <column>column-from-table</column>
    </list>
  </instrument>
</package>
```

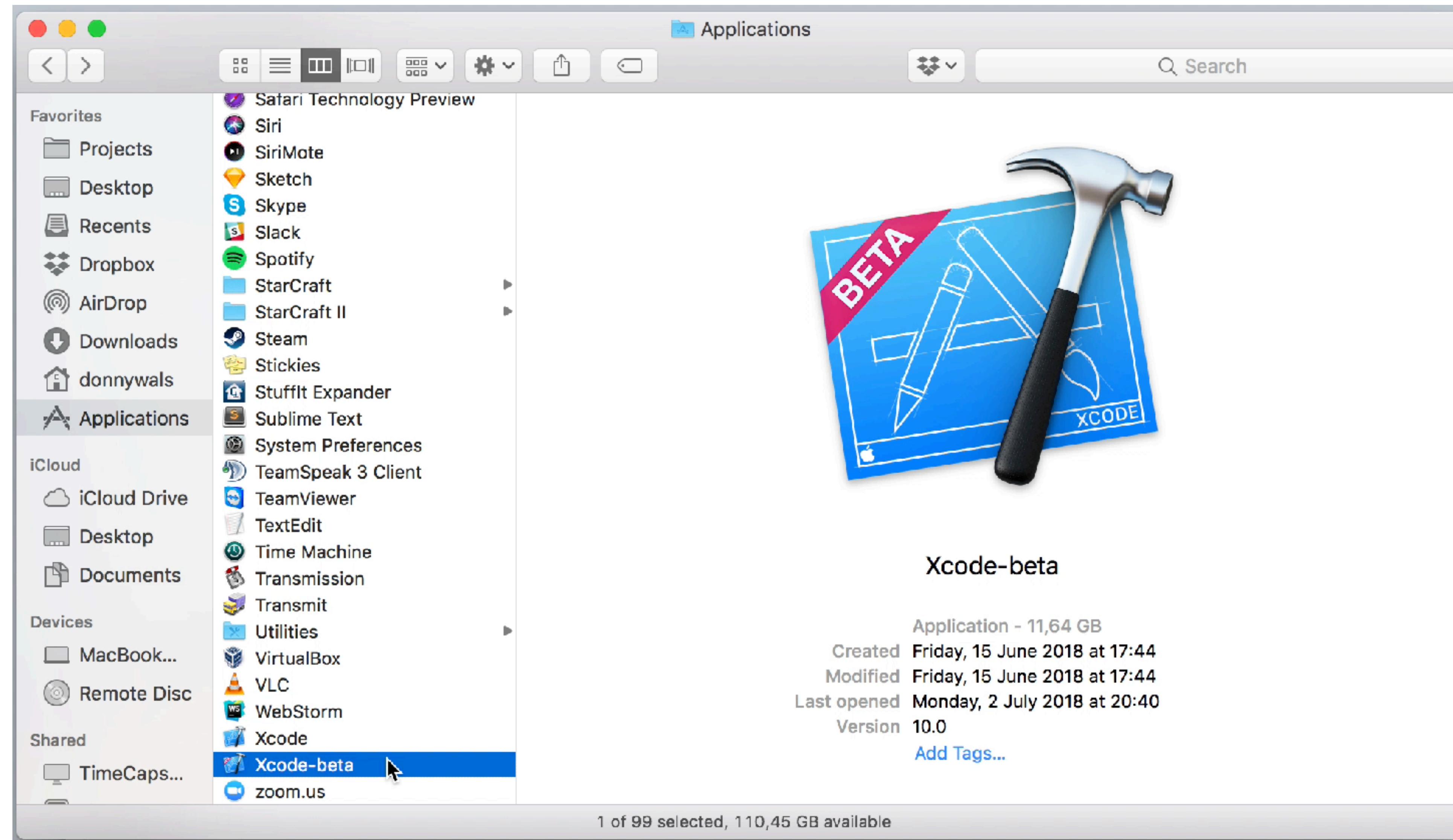
```
<package>
<owner>
<interval-schema>
<instrument>
<create-table>
<list>
```

FINDING AND USING AN EXISTING SCHEMA



```
<import-schema>sysmon-process</import-schema>
```

FINDING OUT THE DETAILS OF A SCHEMA



AND THE BROKEN PART?

<os-signpost-interval-schema>

http://bit.ly/develop_instruments

DEMO





EVALUATION