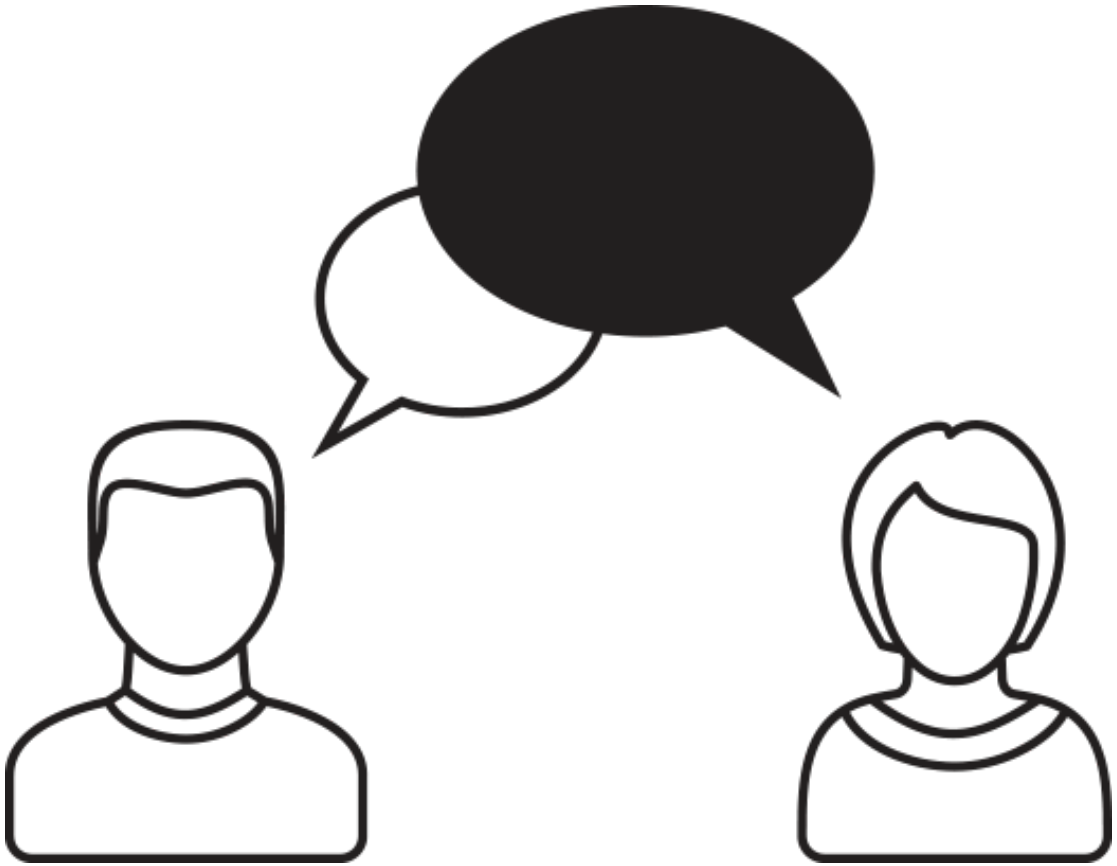
regoUniversity 2017
Agile Integrations
Deep Dive
Your Guide: Joshua Leone

Introductions

- Take 5 Minutes
- Turn to a Person Near You
- Introduce Yourself



Agenda

- A bi-modal world
- The Agile players
- Tools for integrating
- Framing an integration
- Technical Strategies
- Technical Setup
- The Agile lifecycle

The bi-modal world

The Agile players

Industry leaders

CA technologies | CA Agile Central

JIRA Agile

Visual Studio Team Foundation Server

VERSIONONE® Agile Made Easier

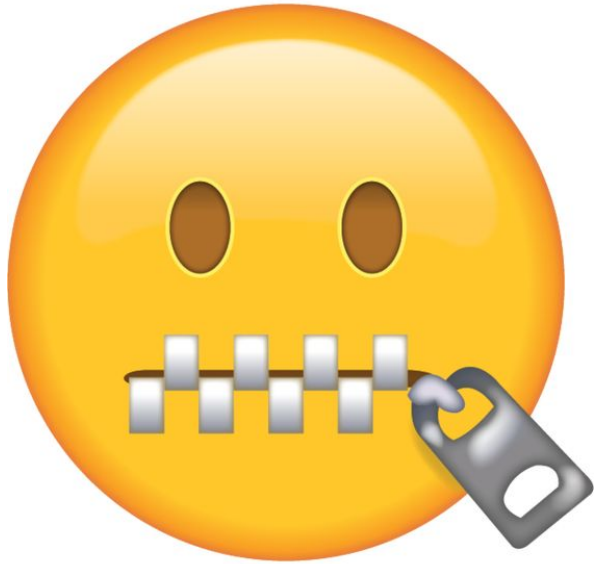
Rego has you covered!

The Agile players

Noise Makers

The Agile players

The dinosaurs



Tools for integrating

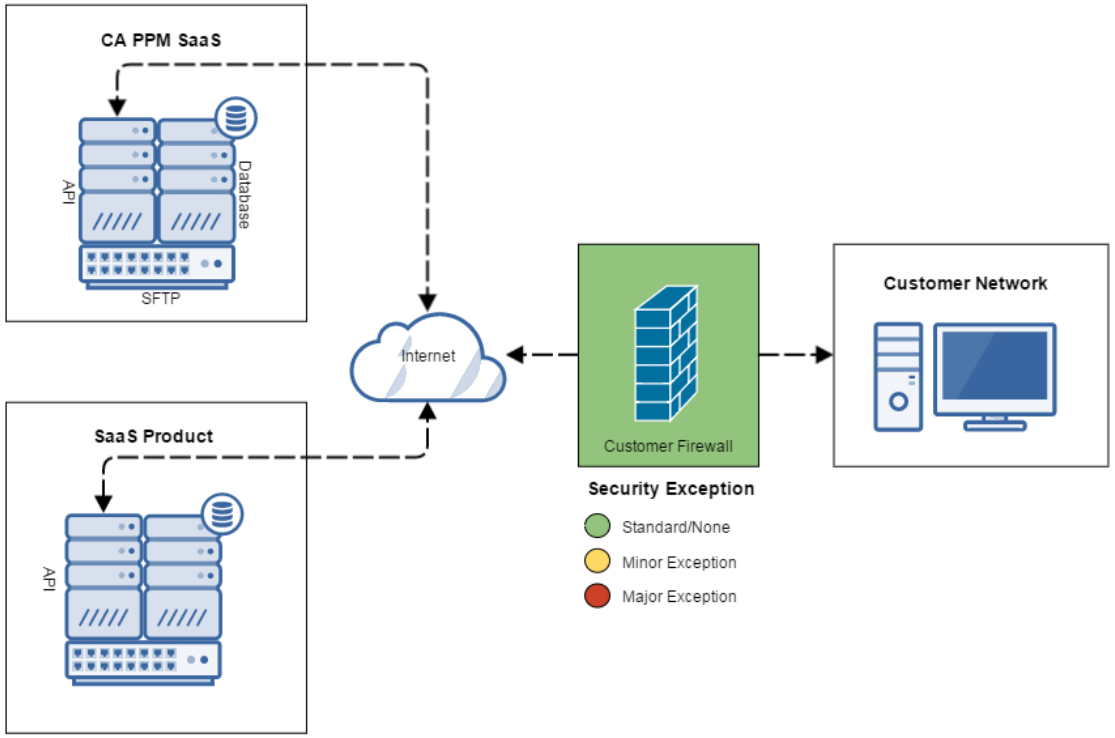
Solution Type	Restrictions	Flexibility	Cost
Out of the box	Rally/CAAC	Low	Free
Middleware	Medium	Medium	Expensive
Point to point	Few	High	*Minor

- Cost is generically associated to knowing your business case.
- Any integration can spiral out of control

Framing an integration

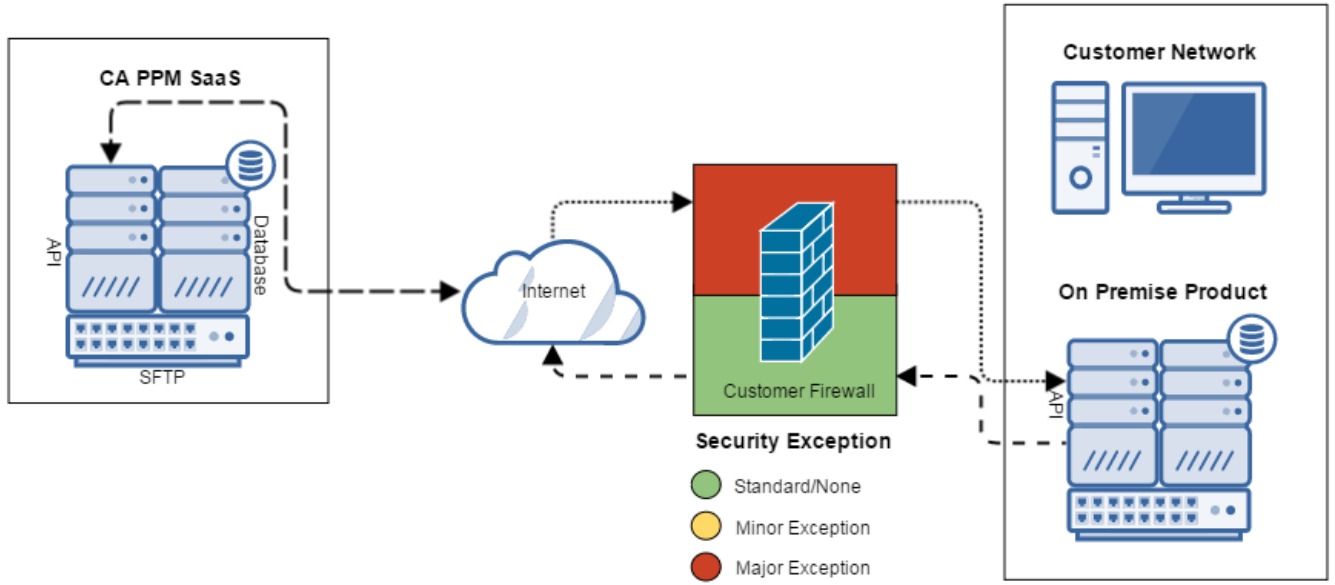
- Make sure the business case known
  - Data for reporting?
  - Data for capitalizing work?
- CA PPM provides you all the tools you need
  - Studio
  - Process Engine
  - Job Scheduler
  - GEL
- No need for custom java code
- No need for custom database objects
- What tool are you integrating tool?
  - What is the network topography? OP to OP, SaaS to OP, SaaS to SAA

Technical Strategies - Network Topography



Do you have to bridge firewalls
Do you have an outside provider

Where is your CA PPM system located
Where is your Agile system located



Technical strategies - API

- API support
  - Does your Agile tool support REST and does your topography allow for it?
  - CA PPM can connect! (Even v13)

```
<core:set var="AGILE_URL" value="http://server/rest/v1/example"/>
<core:set var="AGILE_USERNAME" value=""/>
<core:set var="AGILE_PASSWORD" value=""/>
<gel:out>Start this Script</gel:out>

<!-- Set the endpoint to and set our Authorization for Basic -->
<core:set var="restEndPoint" value="${AGILE_URL}"/>

<!-- REST password must be base64 encoded -->
<core:invokeStatic var="base64" className="com.niku.union.utility.Base64" method="encode">
    <core:arg type="java.lang.String" value="admin:" />
</core:invokeStatic>
<core:set var="basicAuth" value="Basic ${base64}" />

<core:new var="restUrl" className="java.net.URL">
    <core:arg type="java.lang.String" value="${restEndPoint}" />
</core:new>
```

Technical strategies – API contd.

```
<core:set var="connection" value="${restUrl.openConnection()}"/>

<core:expr value='${connection.setRequestMethod("GET")}'/>
<core:expr value="${connection.setDoOutput(true)}" />
<core:expr value='${connection.setRequestProperty("Content-type", "application/json")}'/>
<core:expr value='${connection.setRequestProperty("Accept", "application/json")}'/>
<core:expr value='${connection.setRequestProperty("Connection", "keep-alive")}'/>
<core:expr value='${connection.setRequestProperty("Authorization", basicAuth)}'/>

<!-- Read in the response from into a string -->
<core:invoke var="inputStream" on="${connection}" method="getInputStream" />

<core:invokeStatic className="org.apache.cxf.helpers.IOUtils" method="toString" var="projectsOut">
    <core:arg type="java.io.InputStream" value="${inputStream}"/>
    <core:arg value="UTF-8"/>
</core:invokeStatic>
<!-- Close input steam to close connection -->
<core:expr value="${inputStream.close()}"/>

<!-- Convert String to Json object -->
<core:new className="org.json.JSONObject" var="jsonObject">
    <core:arg type="java.lang.String" value='${projectsOut}'/>
</core:new>
```

Technical setup

- Don’t keep clear text passwords
- Protect connection strings from calling production from test
  - … tell horror story from when I ran CA SWAT

Technical setup contd.

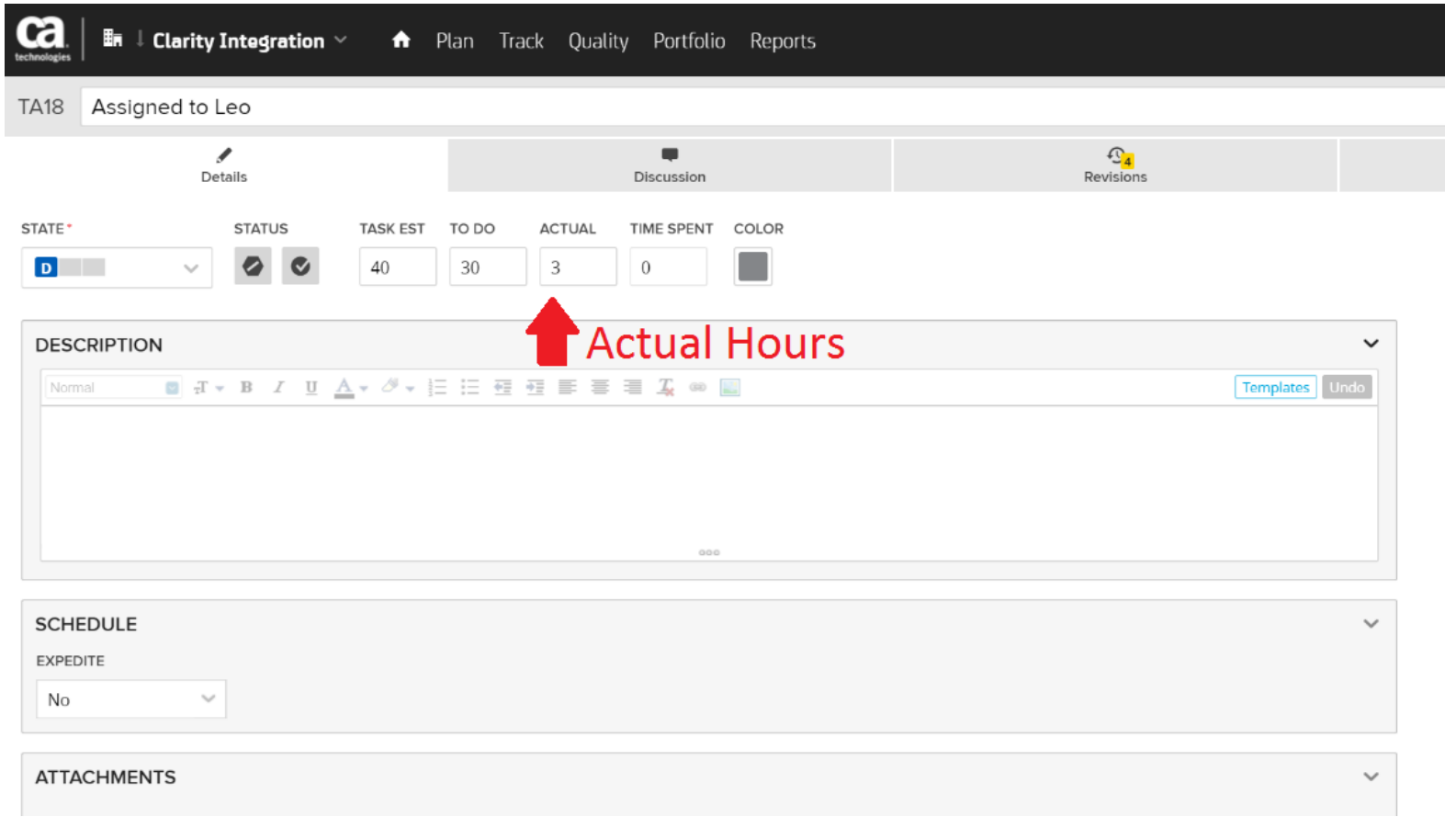
- Stage data
  - Use Studio objects and attributes
  - Don't use custom database objects
  - Pre-aggregate data where possible
  - Decide on frequency
    - Do you think you need real time interface for time import? You don't.
  - Decide on exceptions
    - Some can't be coded for… that's ok

Speaking of time import

- All Agile tools store time data differently
  - Hint… Jira is the easiest to import
    - Jira stores time as a calendar based object
      - 5 hours – Monday
      - 8 hours – Tuesday
      - etc
- Rally/TFS/VersionOne
  - Time is not stored daily
  - Import and calculate deltas to determine where to store in a timesheet

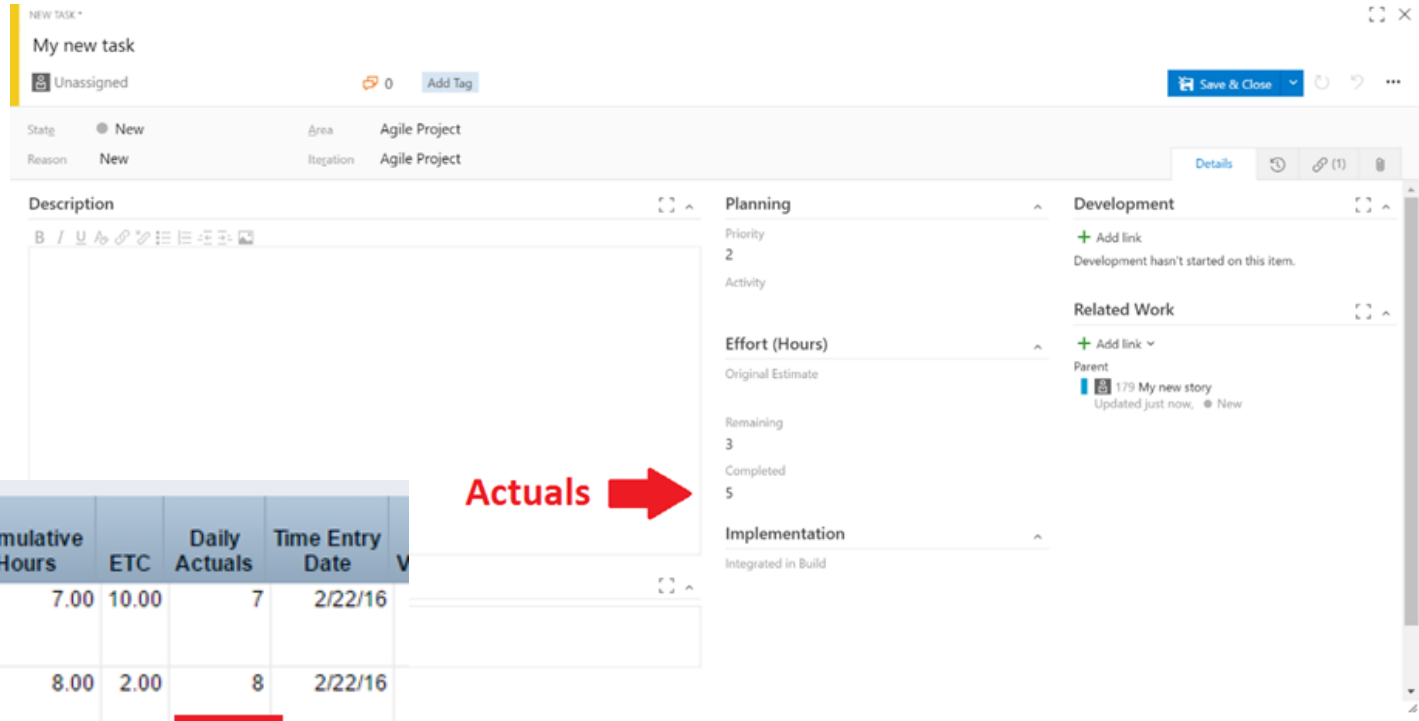
Speaking of time import – Rally/CAAC

- The Rego way is different from the CA way
- The Rego way captures time using the Actual Hours field
- CA will be embedding a CA PPM timesheet directly into Rally/CAAC



Speaking of time import – TFS

- Capture the completed work
- Calculate the delta on import to determine the daily actual

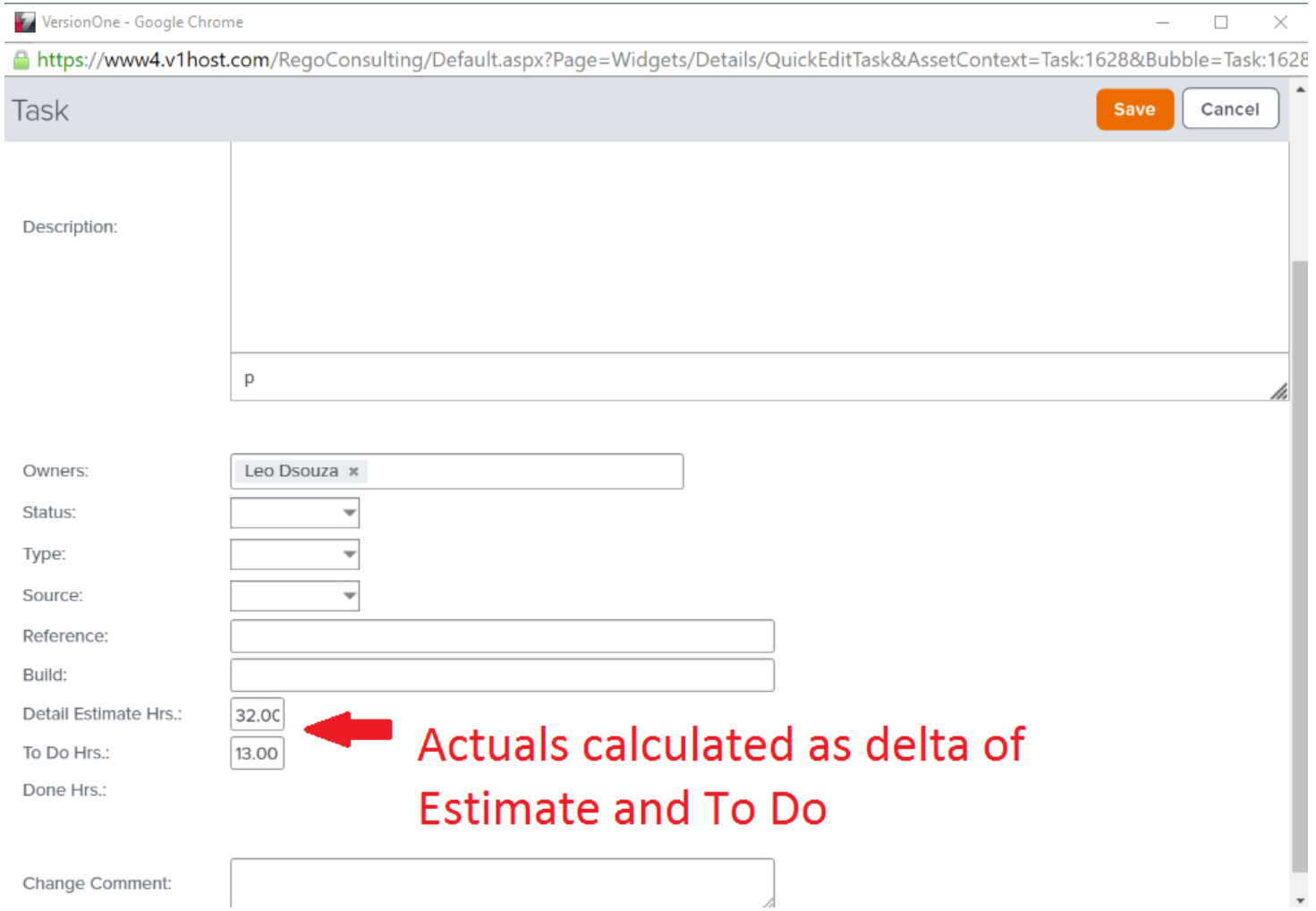


Actuals

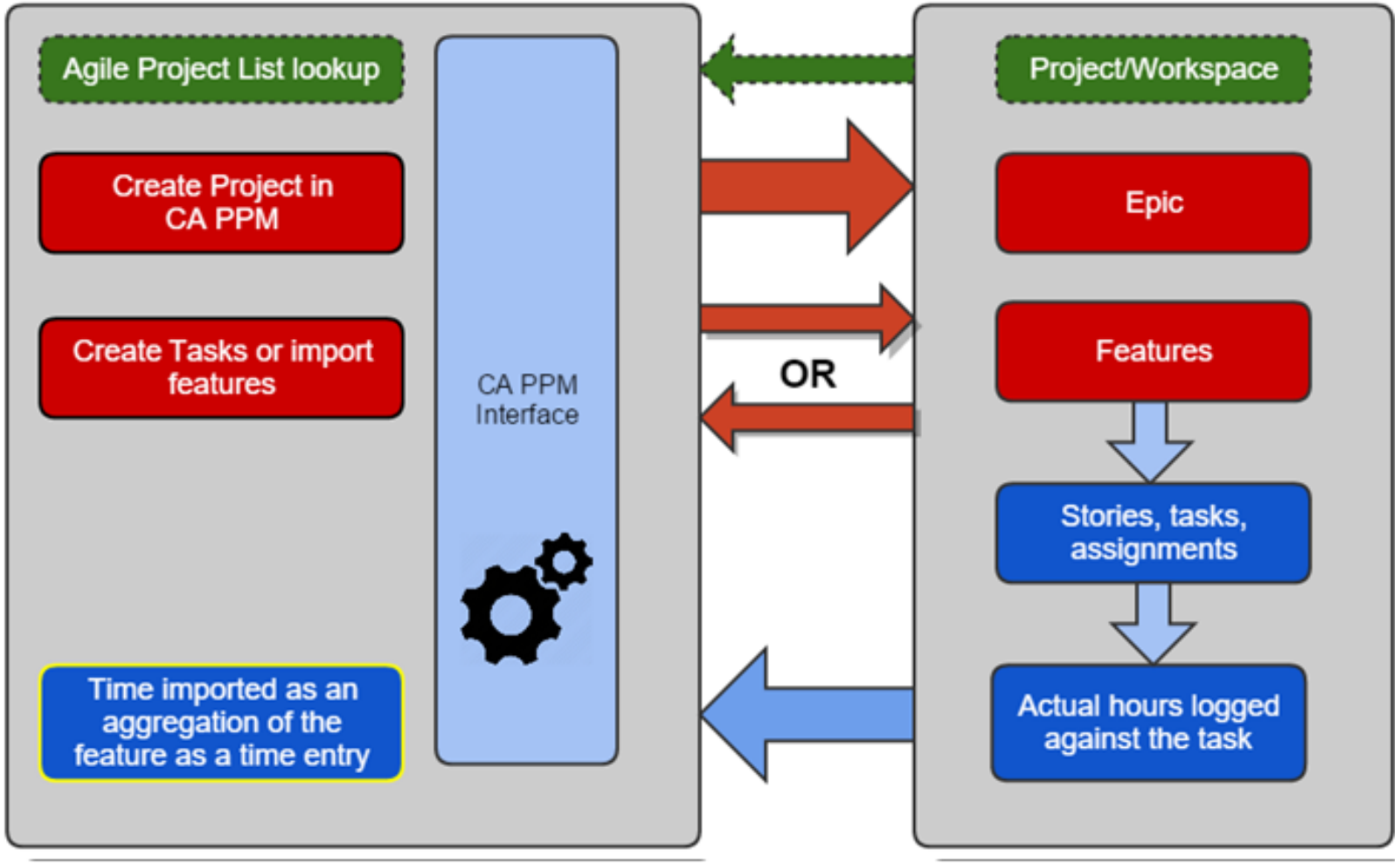
Task ID	Task Name	Feature ID	Feature Name	Resource ID	Cumulative Hours	ETC	Daily Actuals	Time Entry Date
126	Task 2	123	tsk00024:Feature1	dsouzaleo@hotmail.com	7.00	10.00	7	2/22/16
130	my leo task	128	tsk00025:Med feature	dsouzaleo@hotmail.com	8.00	2.00	8	2/22/16
130	my leo task	128	tsk00025:Med feature	dsouzaleo@hotmail.com	20.00	5.00	12	2/23/16
130	my leo task	128	tsk00025:Med feature	dsouzaleo@hotmail.com	25.00	10.00	5	2/24/16
130	my leo task	128	tsk00025:Med feature	dsouzaleo@hotmail.com	33.00	2.00	8	2/25/16

Speaking of time import – VersionOne

- Completed/actual hours aren't stored
- You have to calculate actual hours manually (in code.)



The bi-modal Agile life cycle



Questions?

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Let Rego be your guide.

Thank You For Attending regoUniversity

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- Scroll down to **Report PDU's**
- Click on Course Training (or other appropriate category)
- Enter **Rego Consulting**
- Enter Activity- **Enter Name of Course**
- Enter **Description**
- Enter **Date Started**
- Enter **Date Completed**
- Provide Contact Person **Name of Person to Contact**
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- Enter Number of **PDU's Claimed** (1 PDU per course hour)
- Click on the **I agree this claim is accurate box**
- Click **Submit** button

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