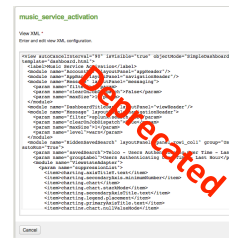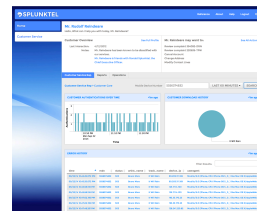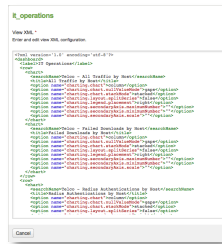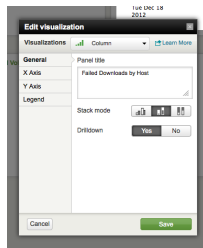# Disclaimer

During the course of this presentation, we may make forward looking statements regarding future events or the expected performance of the company. We caution you that such statements reflect our current expectations and estimates based on factors currently known to us and that actual events or results could differ materially. For important factors that may cause actual results to differ from those contained in our forward-looking statements, please review our filings with the SEC. The forward-looking statements made in the this presentation are being made as of the time and date of its live presentation. If reviewed after its live presentation, this presentation may not contain current or accurate information. We do not assume any obligation to update any forward looking statements we may make.

In addition, any information about our roadmap outlines our general product direction and is subject to change at any time without notice. It is for informational purposes only and shall not, be incorporated into any contract or other commitment. Splunk undertakes no obligation either to develop the features or functionality described or to include any such feature or functionality in a future release.

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Agenda

- Background

- What's new

- Live Example
  - Tokens
  - Event Handlers
  - Show/Hide content
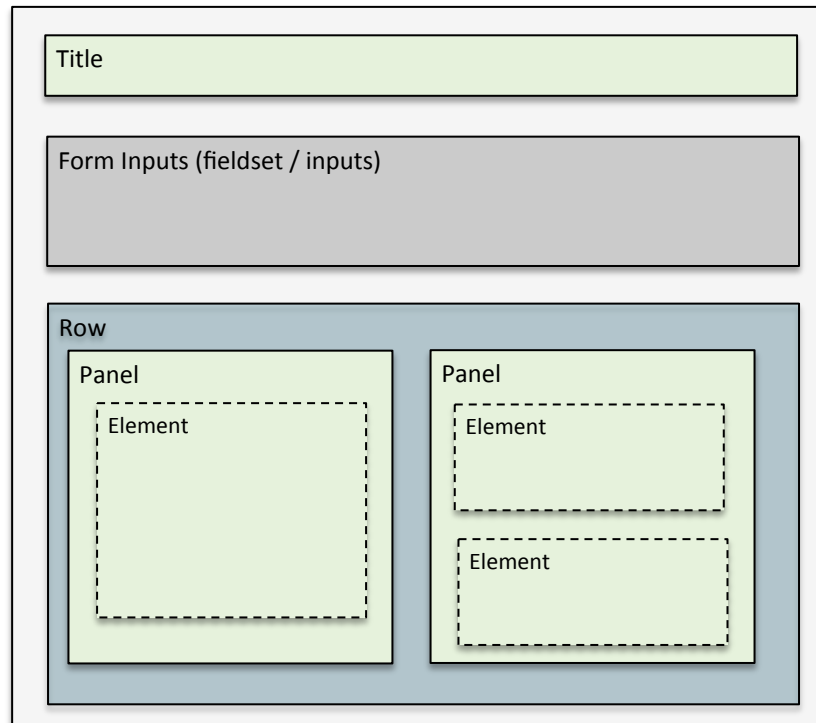 - Search Events

- Wrap-Up

Splunk Web Framework

	Visual Editor	Simple XML	Custom HTML w/ Splunk JS Stack	Advanced XML
Description	100% GUI Driven; drag-and-drop panels. Basic visual editing	XML config driven; constrained, defined object model Internally supported	Full HTML support. Leverage library of JS components	XML config driven; unconstrained; internally/ externally supported
When to Use	• PDF Printing • Drag-and-Drop (full) • Form Inputs	• Dynamic/Contextual Drilldown • Event Handlers • Additional Layout/Display • Add options / parameters • PDF Printing • Drag-and-Drop (full) • JS/CSS Extensions	• Custom Layout • Custom Form Inputs • Additional interactivity • New Visualizations • Custom Javascript	• Custom Layout • Custom Form Inputs • Additional Interactivity • New Visualizations • Legacy support • Reusable modules

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Anatomy of a Dashboard

```
<form>
    <label>My Dashboard</label>

    <fieldset>
        <input>
            <!- form inputs -->
        </input>
    </fieldset>

    <row>
        <panel>
            <chart>
                <!- ... -->
            </chart>
            <table>
                <!- ... -->
            </table>
        </panel>
    </row>
</form>
```
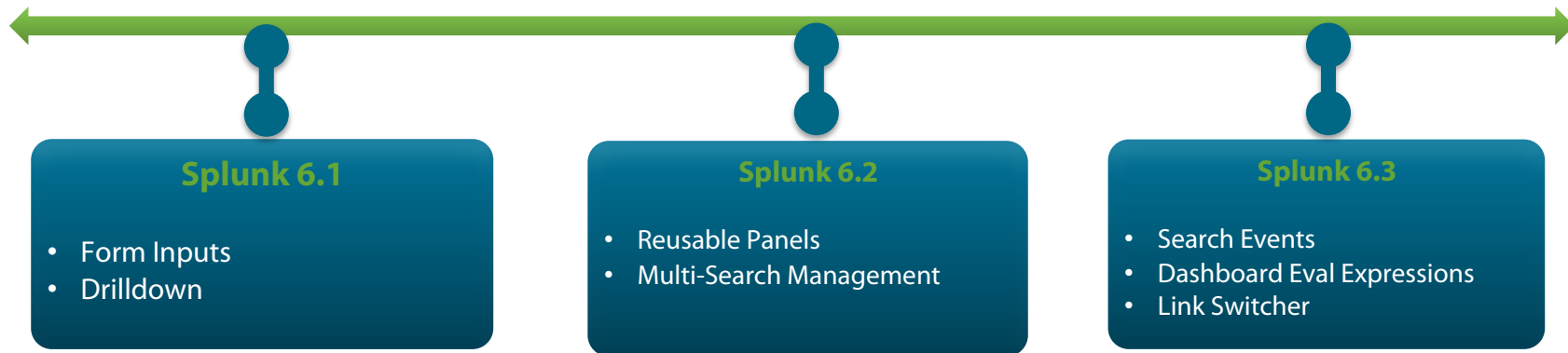
Simple XML Has Come a Long Way

Splunk 6.1
- Form Inputs
- Drilldown

Splunk 6.2
- Reusable Panels
- Multi-Search Management

Splunk 6.3
- Search Events
- Dashboard Eval Expressions
- Link Switcher

Let's build some dashboards!

The Data: Track Day

- Sonoma Raceways
  - 1 Day
  - 28 Splunkers
  - 30 Cars

- Data via carvoyant
  Your Car. Your Data. Your API.
  - ODB II Dongle -> Cloud Service -> Modular Input
  - Location data & metrics (speed, rpm, etc)

Building Dashboards

Part I

Tokens

- Automatic data binding
- Variables – connecting components and interactions
- Use in UI or XML

$buttercup$

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Token Filters

- Insert altered/processed value
- Built-in
  - `$token|s$` - search escape
  - `$token|u$` - URL encode
  - `$token|h$` - HTML escape
- Build your own (in Javascript)
  - `$token|myfilter$`

Form Input Values and Token Namespaces

- Token Namespaces
  - **default** – current values of form input fields
  - **submitted** – submitted values of fields
  - **url** – submitted form.* tokens persisted

Refer to namespaces:

      $**submitted:**driver$

- `$form.mytoken$`
  tokens contain raw form input

- `$mytoken$`
  after applying prefix, suffix, default value

Building Dashboards

Part II

Event Handlers

- Introduce behaviors based on event hooks
  - User initiated events, or search job events

- Types
  - drilldown – user clicks on a cell, or bar on a chart
  - input / change – user selects a value on a form input
  - selection – for line/column/area, user selects a window to zoom into
  - search – events come back from a search job (progress, finalized, error)

- Configure Behaviors
  - Set tokens
  - Unset tokens
  - Link to another page or search
  - Evaluate new tokens
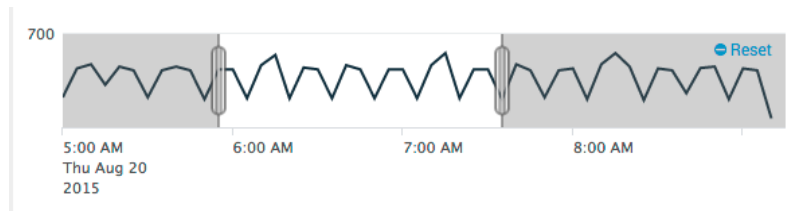
Show and Hide Content
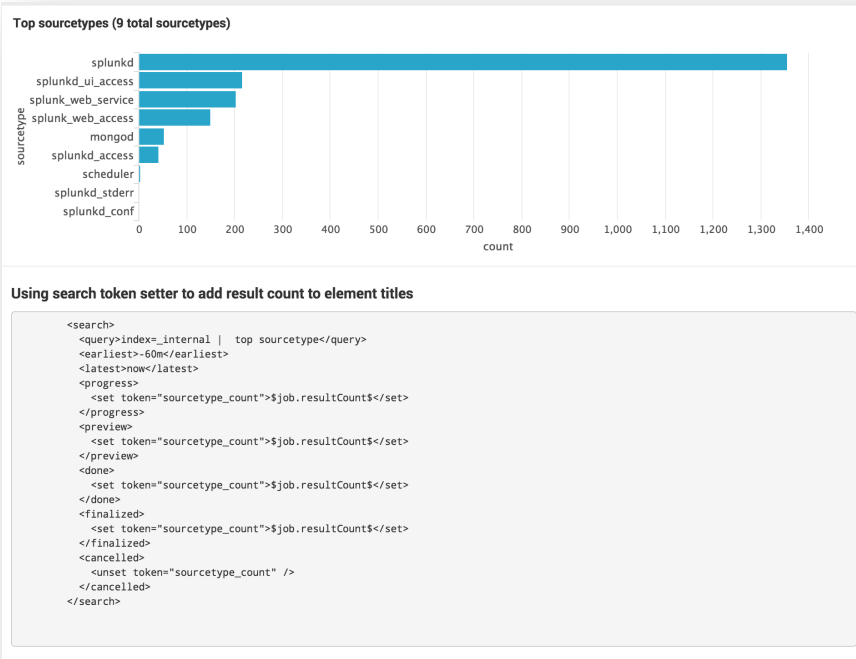
- Control whether you hide or show a given object based on existence of a token
  - ‣ Contextual (in-page) Drilldown
  - ‣ Cascading Form Inputs
- Applies to element, row, panel, input objects
- Type
  - ‣ `<table `**`depends=“$show_table$”`**`>`
    - – Hide by default, show when token(s) exist
  - ‣ `<table `**`rejects=“$hide_table$”`**`>`
    - – Show by default, hide when token(s) exist

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Building Dashboards

Part III

Search & Result Token Setter

- Advanced Dashboard Logic

- Key Benefits
  - Include result count in title
  - Null search swapper (hide if search returns no results)
  - Custom HTML element driven by search object

- Run search object anywhere on the page

- Set tokens within search based on
  - Search metadata (string, earliest/latest)
  - Job metadata (result count, run time)
  - 1st result

- Eval-based condition/value support

Top sourcetypes (9 total sourcetypes)

Using search token setter to add result count to element titles

```
<search>
  <query>index=_internal | top sourcetype</query>
  <earliest>-60m</earliest>
  <latest>now</latest>
  <progress>
    <set token="sourcetype_count">$job.resultCount$</set>
  </progress>
  <preview>
    <set token="sourcetype_count">$job.resultCount$</set>
  </preview>
  <done>
    <set token="sourcetype_count">$job.resultCount$</set>
  </done>
  <finalized>
    <set token="sourcetype_count">$job.resultCount$</set>
  </finalized>
  <cancelled>
    <unset token="sourcetype_count" />
  </cancelled>
</search>
```

Wrap-Up

What's New in 6.3

- Search Events
  - Use data from search job and search results in your dashboard

- Dashboard Eval Expressions
  - Powerful conditional statements
  - Evaluate new token values

- Link Switcher

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More Information

- Splunk 6.x Dashboard Examples

  https://splunkbase.splunk.com/app/1603/

- Documentation

  http://docs.splunk.com/.../6.3.0/Viz/OverviewofSimplifiedXML

More Information

- Demo Code

  https://github.com/splunk/advanced-dashboards-conf15

- Splunk 6.x Dashboard Examples

  https://splunkbase.splunk.com/app/1603/

- Documentation

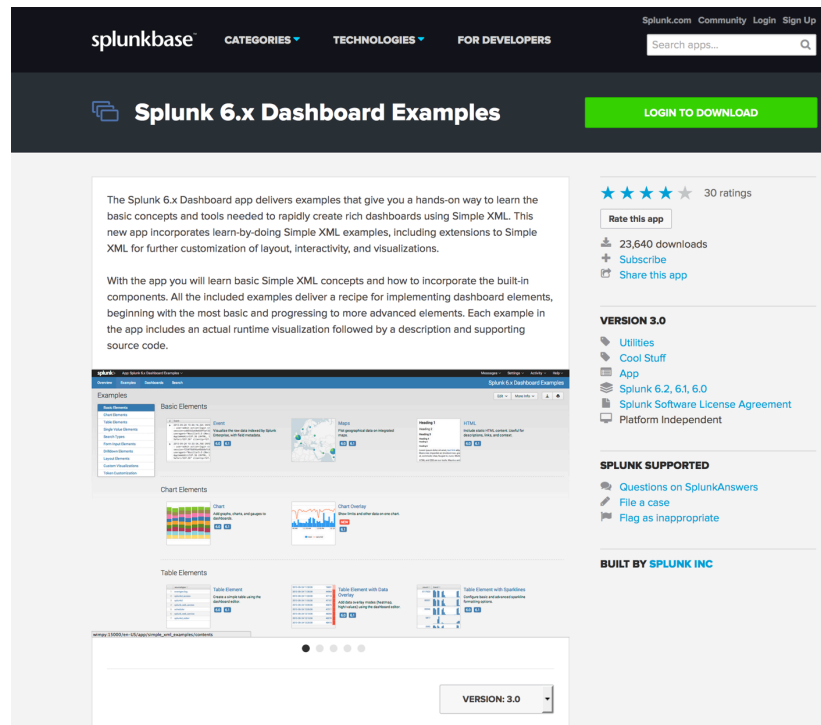 http://docs.splunk.com/.../6.3.0/Viz/OverviewofSimplifiedXML

Splunk 6.x Dashboard Examples App

- Recipe Book for Dashboards

- Updated on Every Release

- Examples
  - ‣ Basic
  - ‣ Chart
  - ‣ Table
  - ‣ Single Value
  - ‣ Map
  - ‣ Search Types
  - ‣ Form Input
  - ‣ Drilldown
  - ‣ Layout
  - ‣ Custom Visualizations
  - ‣ Token Customization

- Tools

Come Visit – "Ask the Dashboard Expert"

@Dashboard Clinic

- For assistance with troublesome dashboards

- For migration tips

- To brag about something cool you built

- To ask questions

- Or, just to say hi!