



## Fluid Tips, Tricks, and Ah-ha Moments



*Sandia National Laboratories' roots lie in World War II's Manhattan Project, which built the world's first atomic bombs.*

---

**Began in 1945 as Z Division**

---

**Single mission of engineering non-nuclear components of nuclear weapons**

---

**In 1979, Congress made Sandia a national laboratory**

---

**Current work reflects postwar America security needs.**

---



*National security is our business. We apply science to help detect, repel, defeat, or mitigate threats.*

---

**\$2.9 billion in revenue in FY15**

---

Funded by U.S. Department of Energy

---

**10,504 regular employees**

---

Nearly 50% of employees with Masters degree or higher

---

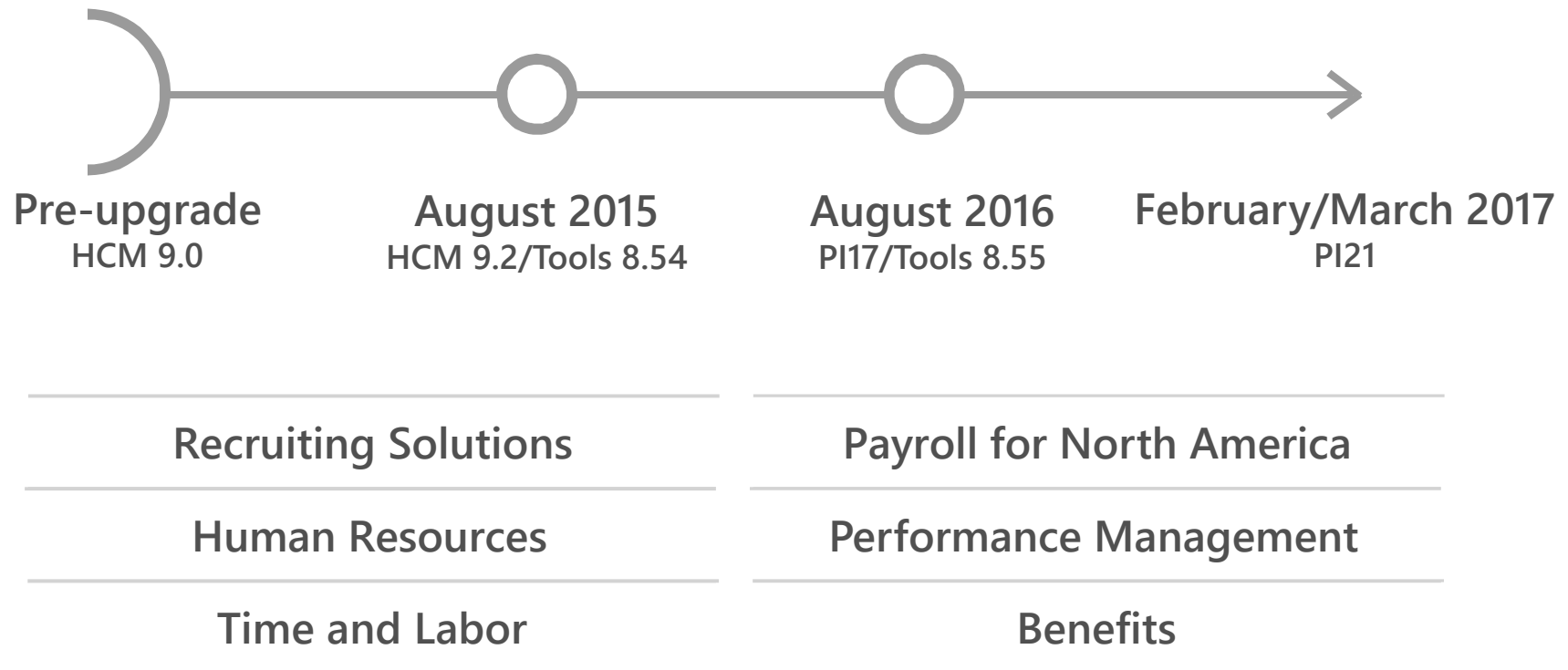
Sites in New Mexico, California, Nevada, and Hawaii

---



## Upgrade Timeline

*Currently we have implemented...*



# 9.2 Upgrade



## Challenges Faced

*Prior to upgrading to HCM 9.2, we were presented with a number of questions and challenges that we needed to solve.*

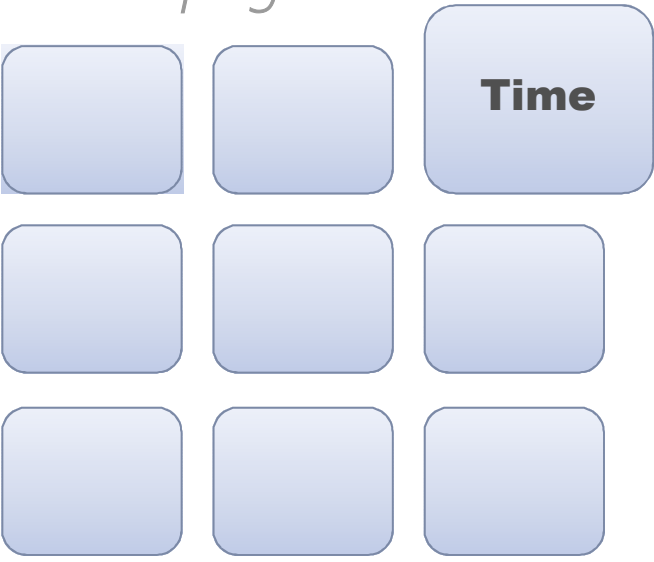
<b>Modernization</b>	
<b>Enhanced Usability</b>	
Navigation	User Interface
<b>Decreased Level of Maintenance</b>	
Remove Customizations	Implement more delivered



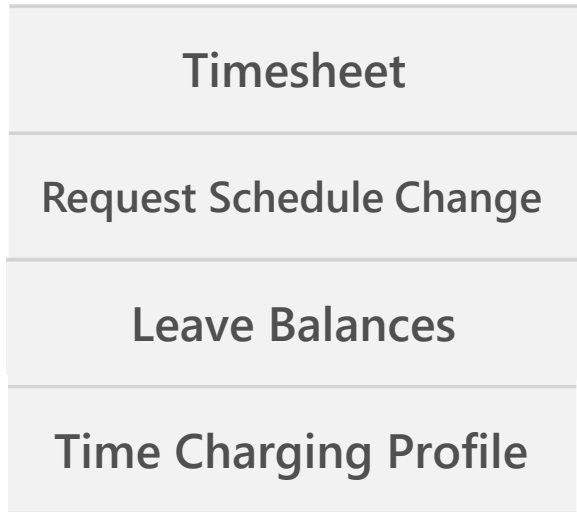
# 9.2 Upgrade

## Self-Service Model

*Homepage*



*Navigation Collection by Function*



**Time**

**Timesheet Approvals**

**Pay and Taxes**

**Benefits and Retirement**










**Careers & Hiring**

**People and Delegation**

**Performance Feedback**

**HR Queries**

**Personal Details**

-  **Benefits Summary**
-  Total Rewards Summary
-  Dependent Coverage
-  Health Reimbursement Account
-  Benefits Enrollment
-  Pension Estimates
-  ACA 1095-C Consent
-  View Form 1095-C
-  Other Resources ▼
- Sandia 401k
- SSA Benefits Estimator
- Benefits Resources
- Life Events

## Benefits Summary

Michael Marthe

To view your benefits as of another date, enter the date and select Go.

09/13/2016  Go

Benefits Summary		
Type of Benefit	Plan Description	Coverage or Participation
Medical	Best Health Ever	Employee Only
Dental	Pearly White Plan	Employee Only
Vision	X-Ray vision Plan	Employee Only
Life	GTL Primary Life - Taxable	
Long-Term Disability	Long-term Basic	500% of Salary
401(k)	Savings and Income Plan	600% Before Tax
Employer Only	No Savings	Not Contributing
401 RothPlan		Not Contributing
FSA Health Care		Waived
FSA Day Care		Waived
Vacation Buy	Vacation Purchase	44 Hours Bought

Go to

- Benefits Summary**
- Total Rewards Summary
- Dependent Coverage
- Health Reimbursement Account
- Benefits Enrollment
- Pension Estimates
- ACA 1095-C Consent
- View Form 1095-C
- Other Resources ▼
  - Sandia 401k
  - SSA Benefits Estimator
  - Benefits Resources
  - Life Events

## Benefits Summary

Michael Marthe

To view your benefits as of another date, enter the date and select Go.

09/13/2016

### Benefits Summary

Type of Benefit	Plan Description	Coverage or P
Medical	Best Health Ever	Employee On
Dental	Pearly White Plan	Employee On
Vision	X-Ray vision Plan	Employee On
Life	GTL Primary Life - Taxable	
Long-Term Disability	Long-term Basic	500% of Sala
401(k)	Savings and Income Plan	600% Before
Employer Only	No Savings	Not Contribut
401 RothPlan		Not Contribut
FSA Health Care		Waived
FSA Day Care		Waived
Vacation Buy	Vacation Purchase	44 Hours Bou

Go to

Help



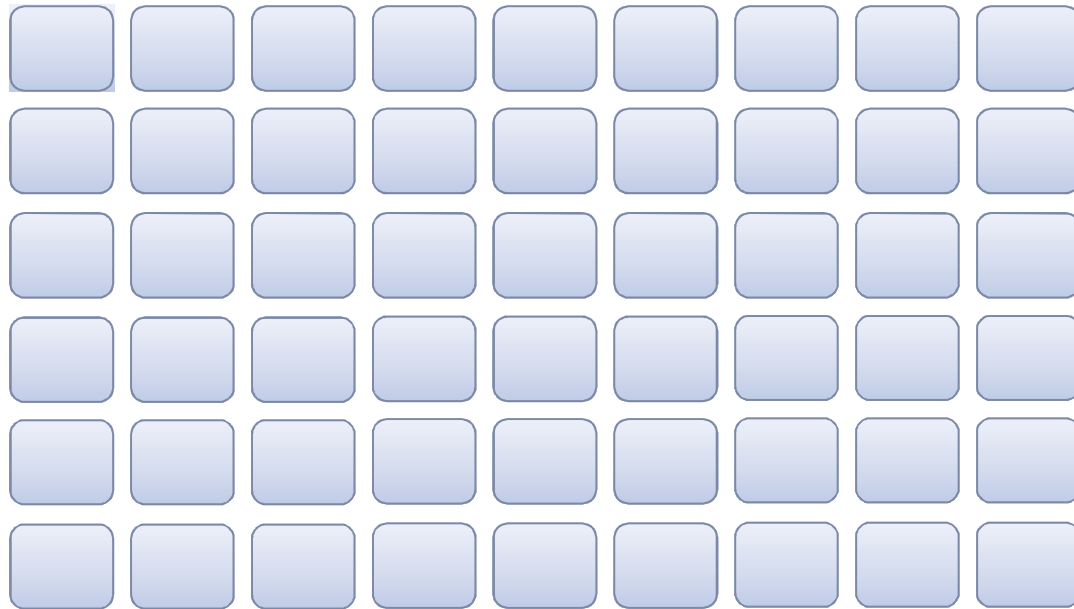
*A brief overview of Tile Wizard*

# 9.2 Upgrade



## Breaking down a Homepage

*A homepage can quickly become cluttered with tiles – what do you do?*



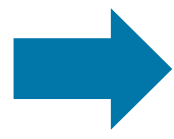
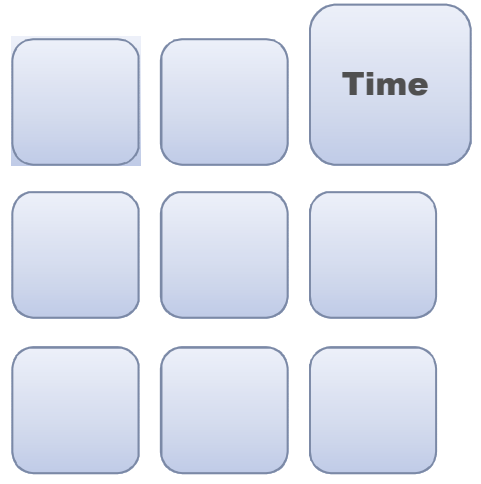


# Fluid Dashboards

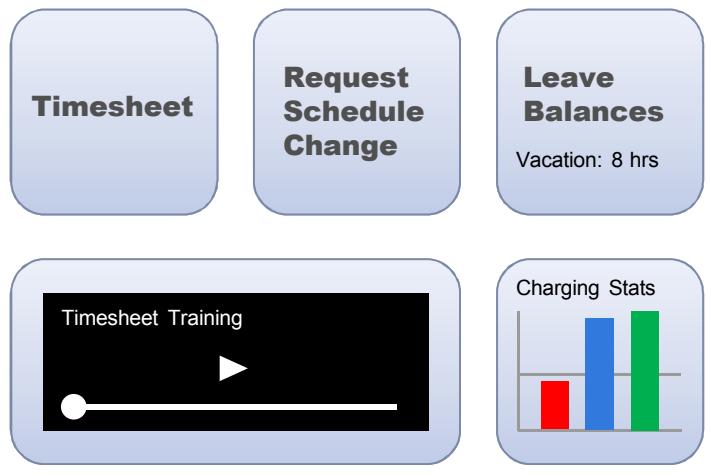
## Breaking down a Homepage

*Our self-service model is now to point our homepage tiles to Fluid Dashboards, or Application Homepages, which allows us to provide richer content in a more intuitive structure.*

Homepage



Application Homepage



*By utilizing Analytics, Component-based, or custom tiles, you can provide users with the information they need at a dashboard level.*

Performance



Time



Timesheet Approvals



Pay and Taxes



Benefits and Retirement



Careers & Hiring



People and Delegation



Learning & Development



HR Queries



Performance Video



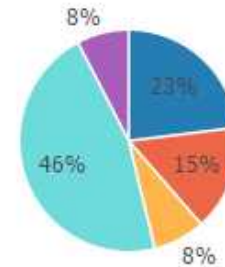
My Performance



Team Performance



Team Performance Status



- Career Development...
- Completed
- Evaluation in Progress
- Goal Setting
- Mid-year Review

Performance Resources

- [ePMF \(Legacy System\)](#)
- [ePerformance Tool Info](#)
- [Key Dates](#)

Performance Feedback





*How to make a dashboard...*



# Custom Tiles

Using the Wizard for some Magic...

*When creating a new tile, we can tie it to a custom App Class, and as always to a new Content Reference.*

*This allows us to utilize a delivered framework to implement reusable content.*

2 Data Source Information

3 Target Page Information

\*Data Type

\*Root Package ID

\*Qualified Package/Class Path

\*Target Page Type

\*Content Reference

Long Description

\*Owner ID

\*Parent

Sequence Number



Leverage Tile Wizard to Create a Tile based on Custom App Class



Tile CREF contains attributes to determine Content and Type of Tile



Custom App Class pulls CREF attributes to generate content into HTML templates that populate Tile Content Area



*We were able to extend a delivered Application Class, and override methods that set tile properties.*

1. Create custom class that extends superclass PTGP\_APPCLASS\_TILE:Tiles:Tile
  2. implement `getTileLiveData` method
  3. Set the `TileHtmlArea` Property
  4. Class structure mirrors content types

*Our goal was to generate HTML content in the Tile based on dynamic content that we could define and configure through the PIA.*



# Custom Tiles

## Content Reference Setup

- *Create a new content reference that the tile will point to.*
- *Desired Attributes are added to determine content type, as well as the source for the content that the tile will build.*

Content Ref Administration

CreatedBy mmarthe  
Parent Folder SNL Tiles

\*Name   
\*Label

Long Description (254 Characters)

Product   
Sequence number

Owner ID

Usage Type   
Storage Type

Template Name

\*Valid from date    
Valid to date

Creation Date 01/26/2017

No Template  
 Fluid Mode  
 Display on Small Form Factor

URL Information

Node Name

URL Type

\*Portal URL

Hide from portal navigation     Hide from MSF navigation    IWC Message Events

Content Reference Attributes

Name

Label   Translate

Attribute value

Name

Label   Translate

Attribute value



# Custom Tiles

## Content Reference Setup

*Currently we have three content types, two based on a Navigation Collection and one on a Video.*

1. *Navcollection Links*
2. *Video*
3. *MiniHomepage*

### Content Ref Administration

CreatedBy mmarthe  
Parent Folder SNL Tiles

\*Name   
\*Label

Long Description (254 Characters)

Product   
Sequence number   
Owner ID

Usage Type   
Storage Type   
Template Name

\*Valid from date    
Valid to date

Creation Date 01/26/2017

No Template  
 Fluid Mode  
 Display on Small Form Factor

#### URL Information

Node Name

URL Type

\*Portal URL

Hide from portal navigation  Hide from MSF navigation [IWC Message Events](#)

#### Content Reference Attributes

Name

Label   Translate

Attribute value

Name

Label   Translate

Attribute value



## An Example...

Content Reference (My Sweet Video)



HTML Template (Video)



URL ID of video location (in this case Kittens on Youtube)



Build HTML and Set TileHTMLArea Property

```
<iframe height="1" width="1" src=www.youtube.com/kittens>
```





# Mini Homepage Tile

## Tiles within Tiles

*A mini-homepage is a collection of Tiles, within a tile. Users no longer need to navigate down another layer to a Fluid Dashboard or secondary homepage.*

The screenshot shows a 'Performance' mini-homepage tile with a dark blue background and a light blue header. The content is organized into several sub-tiles:

- My Performance:** A white tile with a circular gauge chart and a person icon.
- Team Performance:** A white tile with a circular gauge chart and a group of people icon.
- Team Performance Status:** A white tile with a pie chart and the text 'No Documents were found. Select to Configure'.
- Performance Administration:** A white tile with an icon of three people and a document.
- Performance Feedback:** A white tile with an icon of a person and a speech bubble.

At the bottom left of the mini-homepage, there is a row of three small icons: a document with a person, a bar chart with an upward arrow, and a calendar.



*Making a Tile...*

# Navigation Collections



A tool to help you control your destiny...

*Navigation Collections are a powerful tool that allow you to aggregate content at levels which you define, and provide a configurable and reusable means to do so.*

*Currently we use Navigation Collections in 3 ways:*

- 1. Tile Wizard**
- 2. Customized Tiles**
- 3. Fluid Component Master Lists**

# Navigation Collections



## Building one through code

`&myPortal = PortalRegistry API Object`

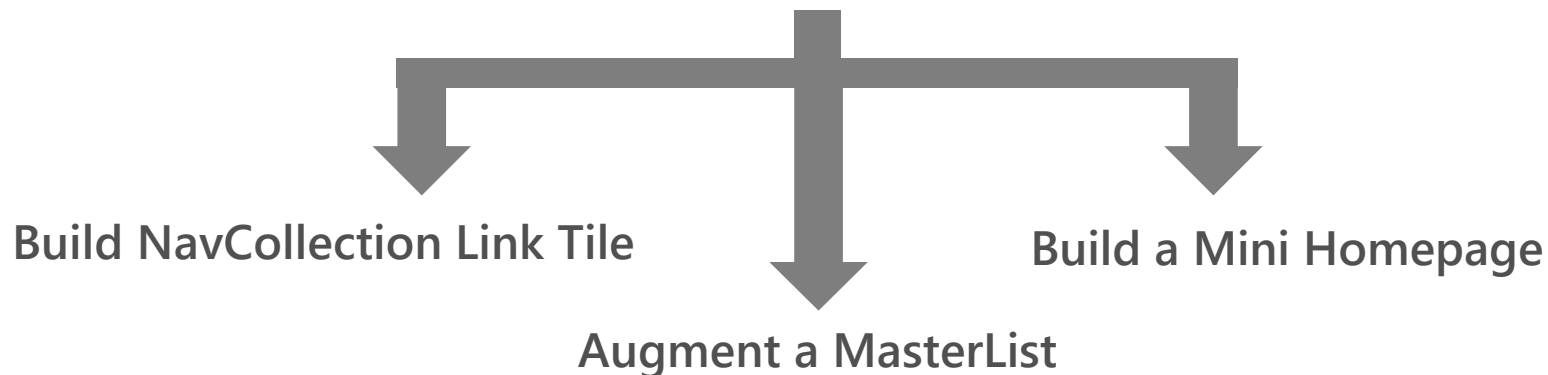
`&CrefToFind = Current Content Reference API Object`

`&myCref = &myPortal.PortalObject(&crefToFind)`

`&myNavColl = &myCref.getAttributes(NavigationCollection)`

`&myCollection = &myNavColl.GetContentReferenceCollection`

For 1 to `&myCollection.Count`





# Master List/Side Panel 1

## Building one through code

*We have the Tile Wizard based left-hand navigation panel wrapped around most of our Fluid and Classic Components.*

*In Fluid Components, if you add the PT\_SIDE\_PAGETABS definition, page tabs displayed on top, are instead displayed as rows in the side panel.*



**My Requests** 5 rows

**All Open / In Progress** 5 [Add Service Request](#)

Request ID	Subject	Status	Date Required	Alert
0000000111	Bad Hard Drive	Open	10/08/2014	>
0000000110	Bad CD ROM	Open	09/19/2014	>
0000000107	Roof is leaking	Open	08/22/2014	>
0000000103	Office light not working	Open	08/14/2014	>
0000000102	Display not working	Open	08/13/2014	>



# Master List/Side Panel 1

## Building through code

*However, with some of the delivered Fluid Component, such as Personal Details and Benefits Summary, the side panel control is embedded directly in the Page Layout and built through PeopleCode in a MasterList Application Class.*

*We leveraged the same methodology to build Navigation Collections in conjunction with Related Content Event Mapping to inject our configurable menu items into the side panel MasterList with no customization footprint on the delivered objects.*

The screenshot displays a side panel with a navigation menu on the left and a main content area on the right. The navigation menu includes the following items:

- Addresses (highlighted in green)
- Contact Details
- Marital Status
- Name
- Ethnic Groups
- Emergency Contacts
- Additional Information
- Disability
- Veteran Status

The main content area shows the following details:

- Home Address**: 123 Wallaby Drive, Albuquerque, NM. The address is displayed in a text box with a "Current" label and a right-pointing arrow.
- Mailing**: No data exists. Below this text is a button labeled "Add Mailing Address".



Event Mapping on Component Post-build configured














Calls custom app class that invokes Navigation Collection build method



Attributes from Navigation Collection are pulled in and new rows are inserted into side panel row set during Post-Build

**Michael Marthe**  
Software Systems Engi SE

-  **Addresses**
-  Contact Details
-  Marital Status
-  Name
-  Ethnic Groups
-  Emergency Contacts
-  Additional Information
-  Disability
-  Veteran Status
-  Benefits and Retirement
-  Team Performance

**Home Address**

123 Wallaby Drive  
Albuquerque, NM Current >

**Mailing**

No data exists.

[Add Mailing Address](#)

# Related Content Event Mapping



## Customizing the code through configuration

*Related Content Event mapping allows for the injection of customized PeopleCode on Component level, and Component Record Events. You have control to insert prior to, or post event.*

*Your custom Application Class must extent the PT\_RCF:ServiceInterface class.*

*Note: In delivered PeopleCode for the Masterlist, Post-Build in the component only set up the container rows for the side panel. Labels and Images are added in PageActivate, and the transfer happens on FieldChange.*

*PeopleTools > Portal > Related Content Service > Manage Related Content Service*



*Tying into a delivered MasterList...*



Where we plan to be...

*We hope to continue leveraging the new and modern functionalities that are delivered, and customized, to meet organizational desires.*

---

**Additional Fluid Dashboards**

---

**Related Content and Event Mapping**

---

**Delivered/Custom Fluid Components**

---

**Live Tile Data**

---

