



# DIGITALSPEC

INNOVATIONS | SOLUTIONS | RESULTS

# Capabilities

[www.digitalspec.net](http://www.digitalspec.net)



Schedule 70  
Contract Holder  
Contract # GS-35F-Q435X



# Corporate Profile

## Company Snapshot

- ✓ Founded in 2005
- ✓ Headquartered in Fairfax, VA with 6 client locations
- ✓ Business and IT Consulting Services
- ✓ TS cleared facility
- ✓ 100+ Man Years of Combined Experience
- ✓ Dun and Bradstreet (D&B) Overall Performance Rating of 95%+
- ✓ 100% Customer Retention
- ✓ Primary Focus is US Federal Markets

## Contract Vehicles

- ✓ SBA 8(a)/SDB Certified
- ✓ GSA IT Schedule 70
- ✓ Member of SGT, Inc. team on GSA Alliant
- ✓ Member of A-TEK, Inc. on CIO-SP3 Large Business
- ✓ Teammate of SGT on PBGC-ISES IDIQ
- ✓ Teammate of IBM team on Commodity Future Trading Commission (CFTC) IDIQ BPA
- ✓ Member of IBM team on Office of Personnel Management (OPM) OCIO IDIQ BPA

## Certifications

- ✓ ITIL v3, ITSM, COBIT
- ✓ Project Management Professionals (PMP)
- ✓ Federal Enterprise Architecture Framework (FEAF)
- ✓ ISO 9001
- ✓ IIBA Certified Business Analysts
- ✓ CMMI, Six Sigma, Lean Six Sigma

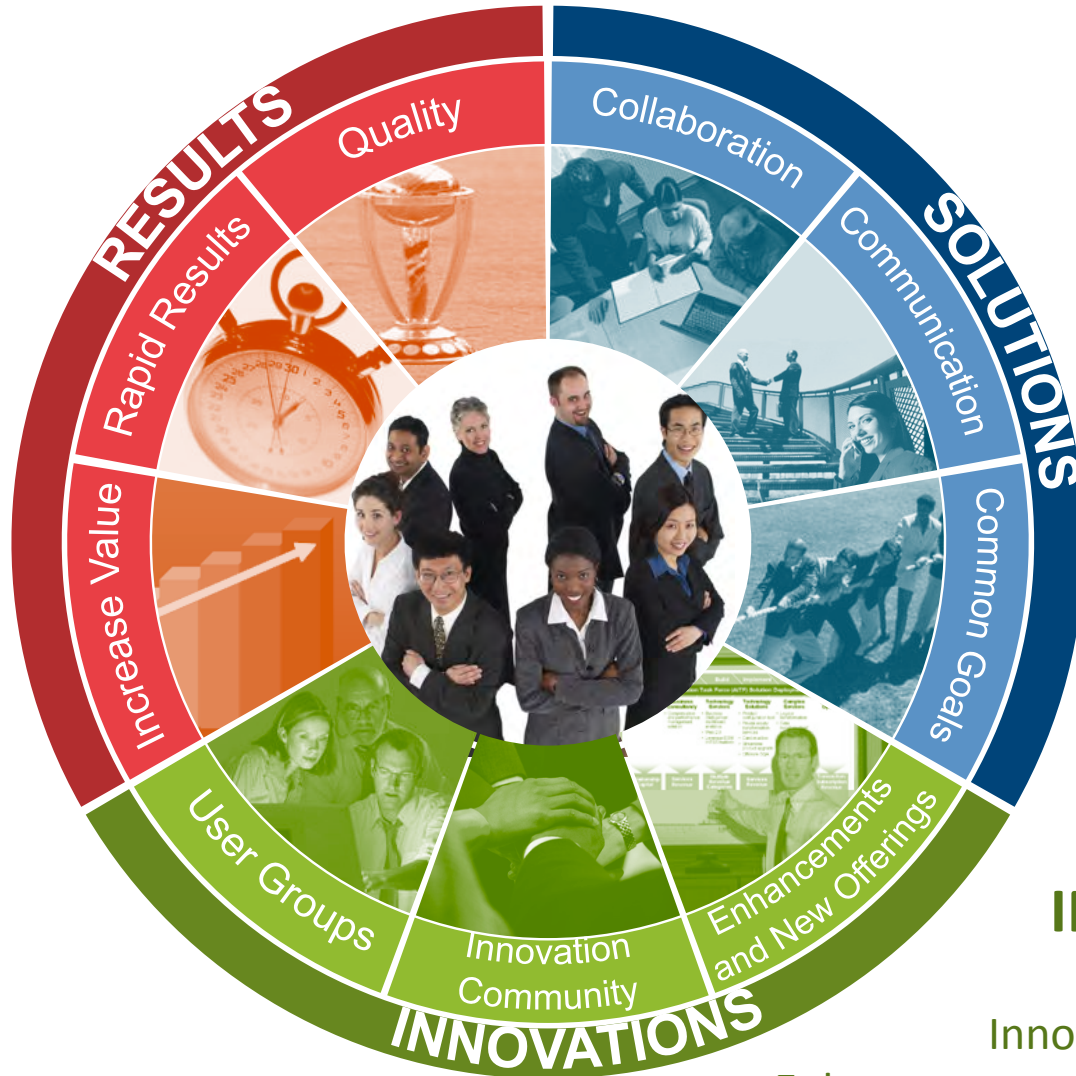
## Why DIGITALSPEC?

- ✓ Highly experienced & hands-on management team
- ✓ Committed to customer's success and satisfaction
- ✓ Proven expertise in delivering services and results
- ✓ Proven hiring practices that recruit certified staff, train and retain the industries finest
- ✓ We stand for: Service, Results, and Adaptability

# Core Values

## RESULTS

Increased Value  
Rapid Results  
Quality



## SOLUTIONS

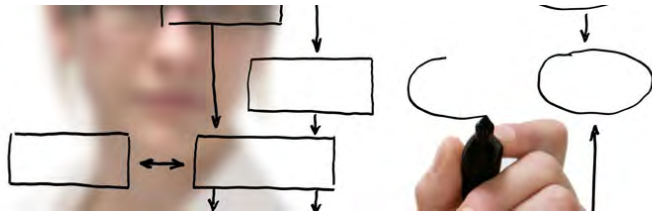
Collaboration  
Communication  
Common Goals

## INNOVATIONS

User Groups  
Innovation Community  
Enhancements and New Offerings

# Core Service Offerings

## Program Management



## Acquisition Management & Support



## Application Development & Integration



## Infrastructure & Security



## Big Data & Analytics



## ITIL Process Consulting



# Client Mission

**Innovation | Solutions | Results**

Investigations & Law Enforcement | Education & Human Resources |  
Transportation | Banking, Pensions & Securities

Program Management

Acquisition Management &  
Support

Application Development &  
Integration

Infrastructure & Security

Big Data & Analytics

ITIL Process Consulting

LOE Estimation Tool | COTS Selection Configurator | Case Management System

# Big Data and Analytics



DIGITALSPEC offers a variety of services for exploration, decision making, forecasting, and overall business intelligence

We offer consulting in what services are appropriate for the problems or questions at hand and design solutions.

DIGITALSPEC uses large datasets (Big Data) to perform a wide array of analyses and analytics

## SERVICES

- Predictive Modeling
- Decision Modeling
- Mathematical Optimization
- Sampling
- Data Collection
- Data Integration
- Data Analysis
- Statistical Analysis

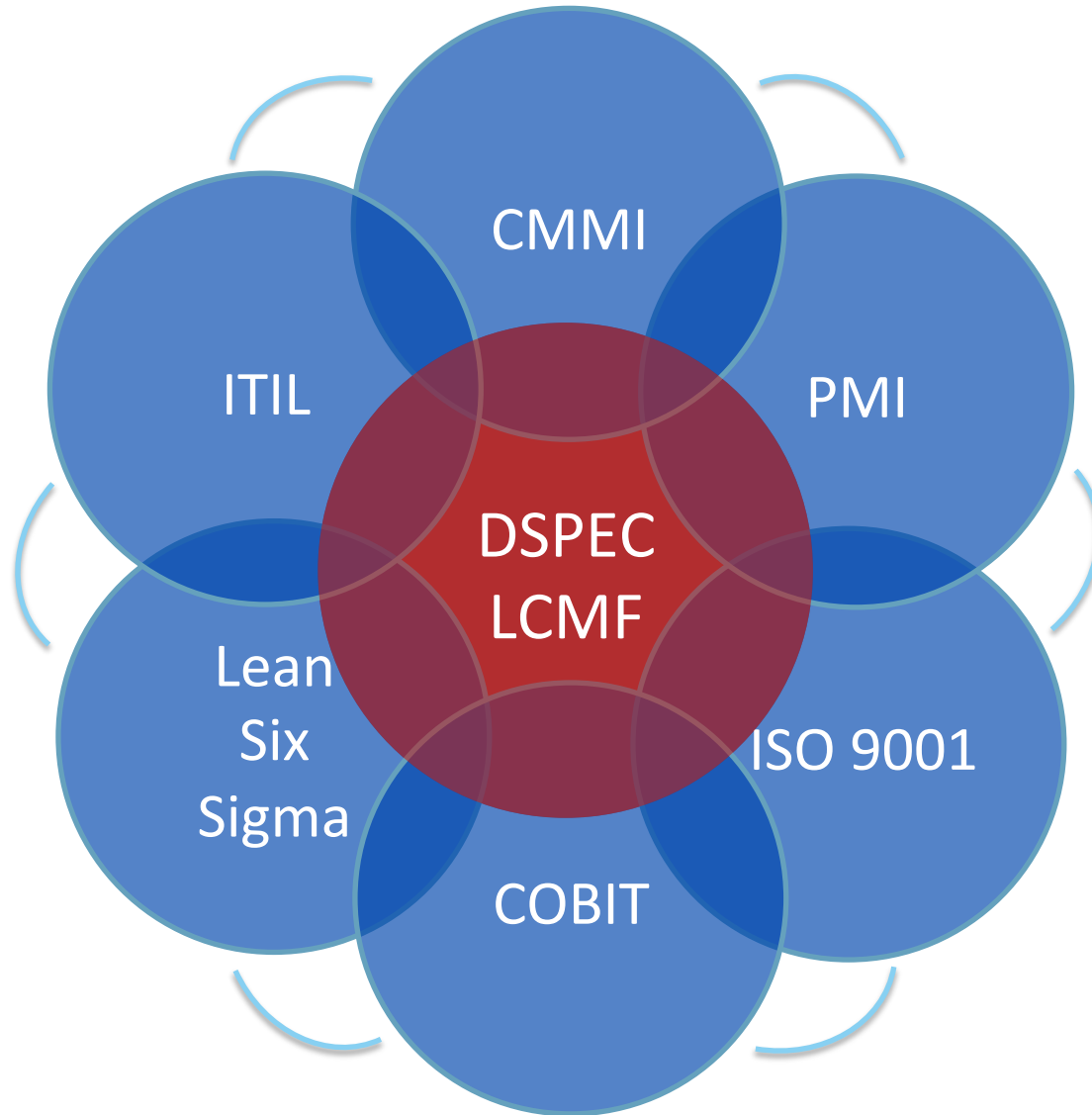
## METHODS

- General Linear Regression
- Generalized Linear Models
- Time-series Models
- Longitudinal Regression
- Hypothesis Testing
- Factor Analysis
- Survival Analysis
- Operations Research

## SOFTWARE AND TOOLS

- R, SAS
- VBA, Excel
- Custom-built
- SQL
- ASP.NET
- Google Analytics
- Cognos

# DSPEC Lifecycle Management Framework (LCMF)



# DIGITALSPEC Products

## LOE Estimation



- Performs statistical analysis on Level of Effort required for a project
- MS Excel interface with backend use of R software
- Utilizes 3 point estimation
- User determined number of Monte Carlo simulations
- Estimates project task durations to specified confidence level

## COTS Selection Configurator



- Tool to analyze up to 20 different COTS products
- Selection Categories
  - Database Management
  - Prioritization
  - Budget Management
  - Project Management
  - Resource Balancing
- 108 different prioritized and weighted criteria
- Summaries: Category, Technical, Cost, Final

## Case Management System



- Fully customizable web-based tool for management of cases, associated documents and records, communication channels and alerts.
- Built on the latest technology including AngularJS, Breeze, and Entity Framework.
- Highly flexible object-oriented system that is easily modified with little impact.



# Executive Leadership

## Dr. Charles Dadoo

### *Managing Principal & CEO*

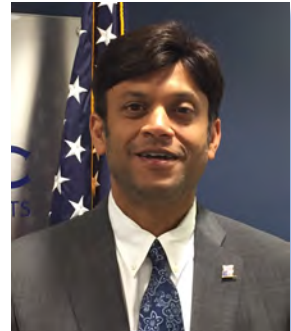
As the Managing Principal & CEO of DIGITALSPEC, LLC. Dr. Dadoo is committed to providing excellent service within all aspects of Business Process, Project Management, Software Engineering and Systems Integration. His knowledge and experience provides leadership and strategic direction within the practice areas offered by DIGITALSPEC, LLC.



## Vishal Dadoo, PMP

### *Executive Principal & President*

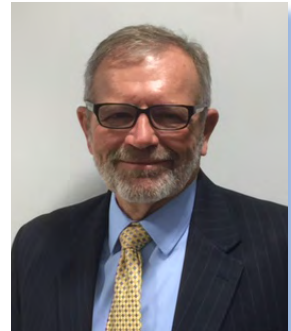
Vishal Dadoo serves as Executive Principal & President of DIGITALSPEC, LLC. Mr. Dadoo brings to DIGITALSPEC more than 20 years of success in the consulting and technology fields. Vishal is proven leader with the ability to build high performing teams, align staff with mission, partnering with staff and clients, motivate teams and individuals, and execute vision to achieve business goals.



## Mike Knowles

### *Vice President, Contracts*

Mr. Knowles, with over 40 years of experience supporting Federal Government. Mike has over 32 years of experience as a Contracting Specialist/Contracting Officer. During his tenure with Federal Government (Navy, Commerce/NOAA, GSA, NARA), he has overseen over \$1 Billion procurements. He held Limited Level III Warrant authorization up to \$500 million. Mike provides expert guidance on contracting, GWAC vehicles, FAR, sub-contracting to program teams.



# Investigations & Law Enforcement

## Office of Personnel Management (OPM) – Federal Investigation Services (FIS)



Providing Federal Investigation Services (FIS) required Program Management Services to include but not limited: Portfolio and Project Management, EVMS, Best Practices, Business & Data Analysis, Market Research, Transition, User Acceptance Testing (UAT), Independent Verification & Validation (IV&V), OPM ITSM Compliance, Requirements Management, in the execution of multiple projects supporting both the agency wide EPIC Transformation and EPIC production environment (\$250M).

## DHS/Customs and Border Protection – SMART (Polygraph Application) – Internal Affairs (IA)



Providing technical and programmatic consulting services for the enhanced system operational, maintenance, integration, and enhancement support of Security Management Assessment Risk Tool (SMART) - IA SharePoint webpages. DSPEC uses client-side JavaScript, CSS, and HTML to render information and layouts in the desired format. The current environment includes: SharePoint 2007, SQL Server 2008, C#.NET, and third party add-on.

## DHS/Customs and Border Protection – SMART Modernization – Office of Internal Affairs (IA)



Supporting IA to redevelop and reconstruct SMART for Credibility Assessment Division aligned with DHS SDLC. DSPEC is providing program management support, requirements analysis, design, software development support, documentation, training and maintenance. The current environment includes: SQL Server 2012/2014, IIS, JavaScript, AngularJS, Breeze, C#.NET

# Investigations & Law Enforcement, cont'd

## DHS/Customs and Border Protection – P3 Program – Office of Air and Marine



Providing program management and acquisition support services to assist the Office of Air and Marine in performing all work efforts associated with executing an effective P-3 program, to include program management support, facilitation, acquisition planning, and other business support functions.

## Office of Personnel Management (OPM) – OCIO BPA (IBM is Prime Contractor)



On OCIO BPA, DSPEC supports IBM on Task Orders issued under the following Specialized Technical Areas (STAs): STA 1: Application Systems and Database Development and Maintenance; STA 3: Capital Planning and Portfolio Management, IT Program Management, IT Security Management, Enterprise Architecture; STA 4: Network Operations and Security. Provides Program Management and Technical Support for the Human Resources Line of Business (HR LOB).

## Office of Personnel Management (OPM) – ARC COTS Interface



Provided services necessary to implement and customize an NLETS query and processing solution. Provided Project Management services, Requirements Analysis, Software Analysis and Design, User Interface Design, Support the configuration/development team, to implement and deploy customized NLETS query (software program) and processing solution (Product Customization). Developed electronic interface between NLETS and FIS Automated Systems conducting Automated Records Checks (ARC) to replace the current manual process.

# Education and Human Resources

## Department of Education – Federal Student Aid – Virtual Data Center (VDC)

Federal  
Student  
Aid

DSPEC provides program management, technical services, and IV&V services to support Data Center (DC) Service Management, DC Operations Management, DC Application Management, DC Network Management, DC Change Management, DC Incident Management, DC Problem Management, DC Capacity Planning, DC Patch Management, Security Management and Project Management. DSPEC supports the FSA's mission by processing over \$150 billion each year in grants, loans, and work-study funds.

## Office of Personnel Management - Web Based National Security Training Project



Providing the development of online web-based training which incorporate the full life-cycle curriculum necessary to delivery and deploy robust and innovative training solutions to OPMs Security Services office. The launch of their first online courses was a success for the Securities Services Department in reaching approximately 3200 field investigators for OPM. Background Investigators across the United States continue to maintain their annual Security Awareness training with minimal cost impact to the Security Services Department.

## DHS/Customs and Border Protection/PwC – Office of Human Resources Management



Awarded sub-contract by PwC (Single Award BPA on GSA MOBIS) to provide support and expertise in the areas of: Program Management, Human Resource Management, Strategic Communications, and Data Analytics. DSPEC assists Internal Affairs (IA) Hiring Working Group in coordinating all activities related to CBP hiring process activities and improvements.

# Transportation

## DHS/Transportation Security Administration – ITIP (CSC is Prime Contractor)



Provides ITILv3.0 Services including Program Management Office (PMO), Quality Assurance, ISO 27001 Certification Audits, Service Level Management, IT Availability, Remedy Support, ITIL v3.0 Process Deployment, Monitoring, and Audits, Change, Release, Configuration Management, IT Asset Management & Logistic support for the IT infrastructure of ITIP Program, required to protect the Nation's transportation systems, while ensuring the freedom of movement for people and commerce.

## Federal Aviation Administration – Office of Acquisition and Business Services



At Federal Aviation Administration (FAA) headquarters, DSPEC provided the Enhanced Acquisition Support Services to the Office of Acquisition and Business Services. Our services encompass a full range of support to various Contracting Officers in the areas of contracting, acquisition and financial services aligned with FAA Acquisition Management System (AMS). This included contract management and administration, acquisition support, negotiation assistance, Acquisition Management System (AMS) documentation preparation and contract closeout support.

# Banking, Pensions, and Securities

## The Carlyle Group – PeopleSoft Financials



Provide Systems Consulting, Requirements Analysis, Systems Testing, Quality Assurance, Automated Testing, and Production Support in the Agile environment to Carlyle PeopleSoft Financials application and Investran, DMLT, Salesforce. DSPEC staff used HP Quality Center suite. Provided systems consulting support and worked closely with Development team(s) across the globe to clarify defects and re-tested the fixes before migrated to production environment.

## PBGC/SGT, Inc – Development, Modernization, and Steady State Support



Supporting SGT in providing services to PBGC in support of Task Orders issued under CIO-SP3 GWAC vehicle: Development of new IT solutions, Modernization and enhancement of existing IT solutions, and steady state (Operations and Maintenance) of existing applications. DSPEC team supports the mission by maintaining services for 35,000 pension plans and 44 million users externally.

## CFTC/IBM – O&M Support Task Order



Provide O&M Lifecycle support to CFTC Mission-critical applications and data residing on servers operating on Microsoft 2003, with Microsoft SQL Server databases. Provide support to CFTC MARS, MAST and DCR applications in Microsoft SQL server and .Net technologies. DSPEC team demonstrates experience with Microsoft Technologies such as MS Visual Studio 2010, SharePoint 2010, C#, Team Foundation Server, etc.

# Our Clients



# Alliance Partners





THANK YOU, FROM  
**DIGITALSPEC**

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Please stay in touch

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**Vishal Dadoo** (Principal)

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# DIGITALSPEC

INNOVATIONS | SOLUTIONS | RESULTS

## LOE Estimation Tool

December 10, 2015



# LOE Estimation Tool

The screenshot shows an Excel spreadsheet titled "LOE Estimation Tool.xlsx - Excel". The spreadsheet content includes:

- Header:** A logo of a globe and the text "LOE ESTIMATION TOOL".
- Text:** "Welcome!"
- Instruction:** "Please Select if this is:"
- Radio Buttons:** Three options: "An Existing Project", "A New Project", and "The Current Project".
- Button:** A "SELECT" button.
- Footer:** "Copyright © DIGITALSPEC 2015" and the DIGITALSPEC logo with the tagline "INNOVATIONS | SOLUTIONS | RESULTS".

The spreadsheet is displayed in a window with a green taskbar at the bottom showing "READY" and a zoom level of "83%".

## How it works

- Runs Monte Carlo simulations that handle uncertainties that can pose potential risks for a project
  - A form of statistical sampling that creates numerous possibilities for time to completion
  - Run off of 3-point estimates predetermined by team for time to completion:
    - Best case scenario
    - Most likely case scenario
    - Worst case scenario
- Once 3-point estimates are pre-determined, the tool uses MS Excel and R to develop a LOE strategy

# Main Tab – Runs Simulations and Creates Test Strategy

Title: UAT Example

Step	Process	Best	Most Likely	Worst	Distribution	Actual Time	CRA Code
1	System shall provide an ARC Interface component	40	80	120	PERT	40	
2	System shall provide role-based User Access Groups	8	16	24	PERT	16	
3	System shall provide an Automated Leads Manager Role	4	8	12	PERT	24	
4	System shall provide an Automated Leads Supervisor Role	8	8	12	PERT		
5	System shall provide an Automated Leads Team Leader Role	8	8	12	PERT		
6	System shall provide an Investigative Assistant (IA) Role	16	24	24	PERT		
7	System shall provide an Investigative Technician (IT) Role	40	80	120	PERT		
8	System shall provide a Trainer Role	8	16	24	PERT		
9	System shall provide an Application Administrator Role	4	8	16	PERT		
10	System shall provide Quality Management Role	8	8	12	PERT		
11	System shall provide Senior Management Role	8	8	12	PERT		
12	System shall provide the ability to assign IAs/ITs/Team Leaders based on skills	16	24	24	PERT		
13	System shall provide a Pre-Reviewer role	40	80	120	PERT		
14	System shall provide a browser-based user interface	8	16	24	PERT		
15	System shall provide the capability to display the actual response to the query	4	8	16	PERT		
16	System shall provide the capability to display the original PII data associated with a response	8	8	12	PERT		
17	System shall provide the capability to display all item data which was provided from PIPS to ARC	8	8	12	PERT		
18	System shall provide a communication banner at user logon	16	24	24	PERT		
19	System shall provide the capability to filter and sort responses in the user interface	40	80	120	PERT		
20	System shall provide the capability to automatically color-code responses	8	16	24	PERT		
21	System shall provide the capability for users take appropriate action to responses or a group of responses	4	8	16	PERT		
22	System shall provide the capability for users to view, retrieve or re-use query information	8	8	12	PERT		
	System shall provide capability for individual execution of any query based on	8	8	12	PERT		

Parameters

Number of Iterations: 100000

Number of Simulations: 3

Default Distribution: PERT

Units of Measure: Man-hours

Refresh Save Project

Percentiles

1%  2.5%  5%  10%  15%  
 20%  25%  30%  35%  40%  
 45%  55%  60%  65%  70%  
 75%  80%  85%  90%  95%  
 97.5%  99%

Additional percentiles if needed:   
 Express in the form of a decimal or percent

START SIMULATION

Risk Assessment (will be available once data is available for analysis)

Actual time to test Step 2

3 point estimates for step 7

Number of iterations sampled in each simulation

Sampling distribution for Monte Carlo simulation for step 14

Percentiles of interest

# LOE Strategy

Step	Capability/Requirement	Best	Most Likely	Worst	PERT Predicted Time	Actual Time to Test	CRA Code	CRA Predicted Time	Allocated Time for Test	Allocated %
90	System shall provide the capability to search audit and transa	16	24	24	22.7	0.00				
91	System shall provide the capability to search "Supervisor Summary Report"	40	80	120	80.0	0.00		80.1		
92	System shall provide the ability to create a "Supervisor Detailed User Productivity Report"	8	16	24	16.0	0.00		16		
93	System shall provide the ability to create a "Supervisor Item Overdue Report"	4	8	16	8.7	0.00		8.7		
94	System shall provide the ability to create a "Overdue Unassigned Report"	8	8	12	8.7	0.00		8.7		
95	System shall provide automatic reporting capability	8	8	12	8.7	0.00		8.7		
96	System shall provide the ability to create a "System Production Report"	16	24	24	22.7	0.00		22.7		
97	System shall provide the ability to create an "Overdue Queries Not Sent Report"	8	8	12	8.7	0.00		8.7		
98	System shall provide the capability to automatically generate a "Batch Report" daily showing quantity of initial queries	16	24	24	22.7	0.00		22.7		
99	System shall provide the capability to ensure system response is through Nlets	40	80	120	80.0	0.00		80		
<b>Test Strategy Estimation</b>		<b>Baseline Mean</b>			<b>2426.4</b>	80		2403.7		
		<b>Calibrated Mean</b>			<b>2401.7</b>					
		<b>Remaining Mean</b>			<b>2321.7</b>					
<b>Baseline 95% Confidence:</b>		2532.2								
<b>Calibrated 95% Confidence:</b>		2504.5								
<b>Remaining 95% Confidence:</b>		2424.5								

Simulation to View: 1

Capability, function, or requirement being tested/planned

Risk Assessment (will be used in the future once data is available)

Estimated man-hours to complete cabability/requirement

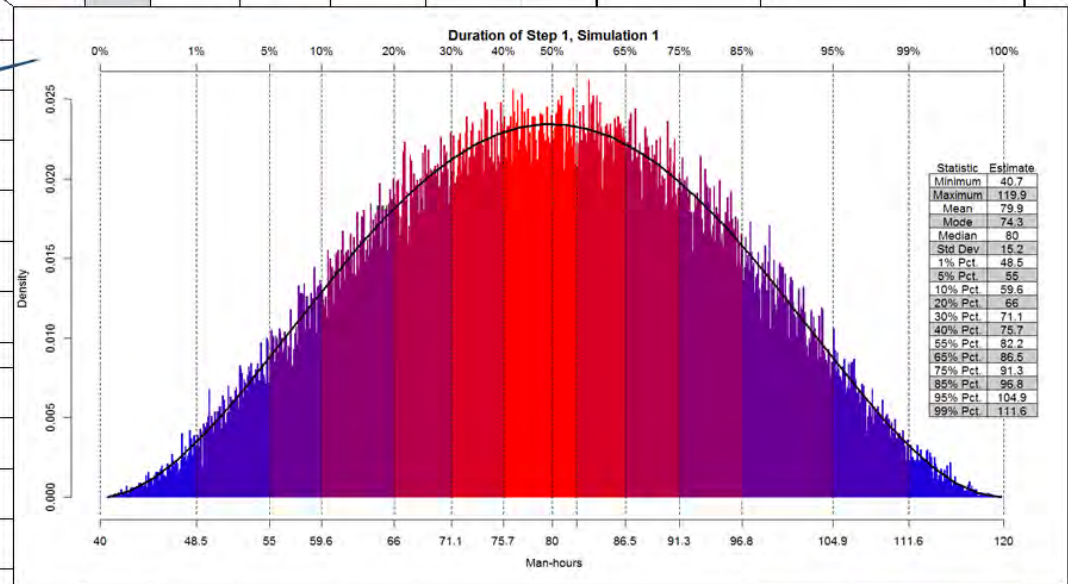
Predicted man-hours to test all capabilities/requirements. Calibrated takes capabilities/requirements that have already been completed/tested into account. Remaining predicts total man-hours left.

95% confidence that total project will not exceed given time

# LOE Strategy (2)

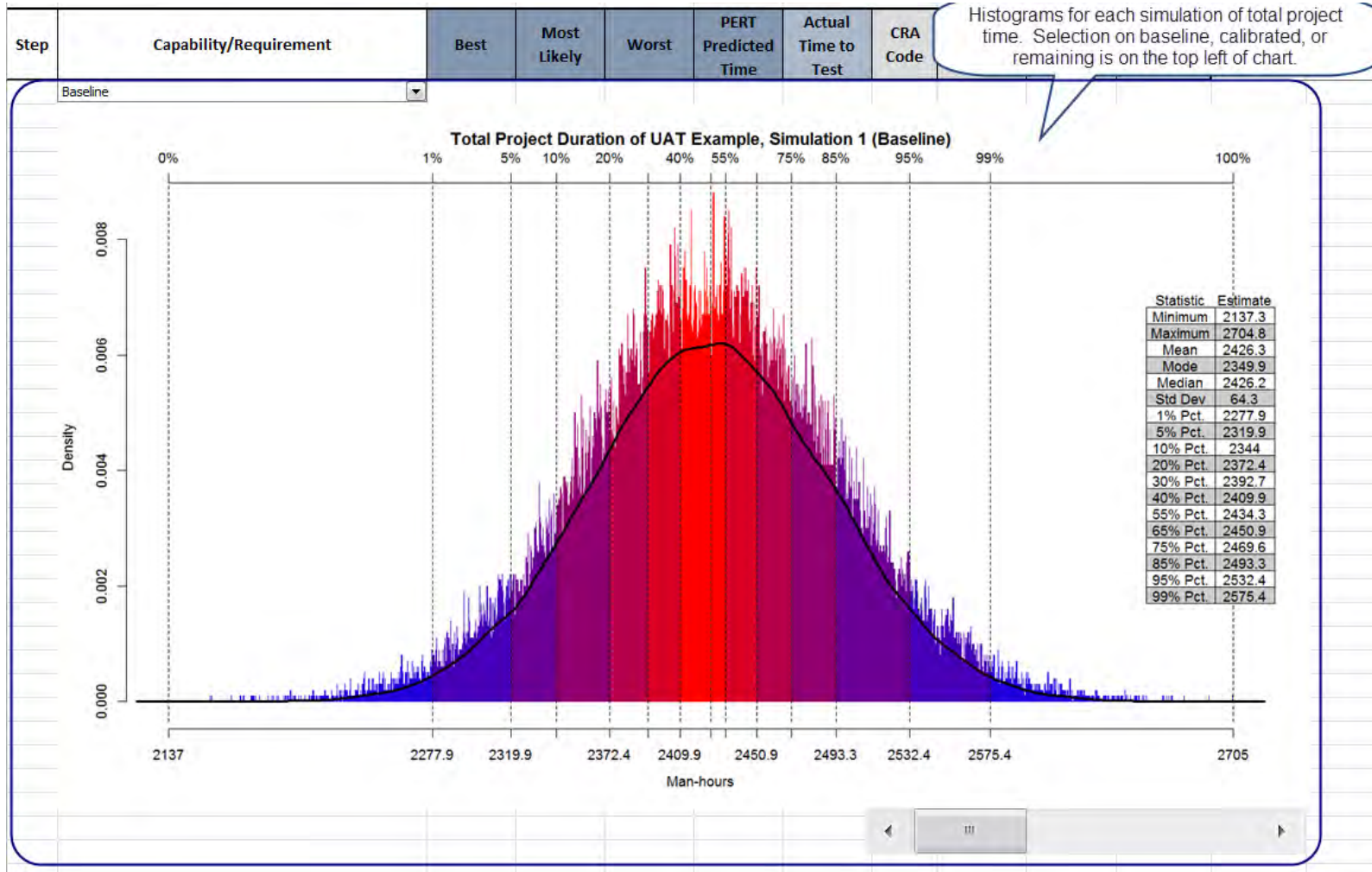
Step	Capability/Requirement	Best	Most Likely	Worst	PERT Predicted Time	Actual Time to Test	CRA Code	CRA Predicted Time	Allocated Time for Test	Allocated %
1	System shall provide an ARC Interface component	40	80	120	80.0					
2	System shall provide role-based User Access Groups	8	16	24	16.0					
3	System shall provide an Automated Leads Manager Role				8.7					
4	System shall provide an Automated Supervisor Role				8.7					
5	System shall provide an Automated Team Leader Role				8.7					
6	System shall provide an Investigative Assistant (IA) Role	16	24	24	22.7					
7	System shall provide an Investigative Technician (IT) Role	40	80	120	80.0					
8	System shall provide a Trainer Role	8	16	24	16.0					
9	System shall provide an Application Administrator Role	4	8	16	8.7					
10	System shall provide Quality Management Role	8	8	12	8.7					
11	System shall provide Senior Management Role	8	8	12	8.7					
12	System shall provide the ability to assign IAs/ITs/Team Leaders based on skills	16	24	24	22.7					
13	System shall provide a Pre-Reviewer role	40	80	120	80.0					
14	System shall provide a browser-based user interface	8	16	24	16.0	0.00		16		

Histogram for Step 1's testing item/completion. Selection for which simulation to view is below the table (not displayed here)



Enter value for percentage of Full factoring: **Partial**  %

# LOE Strategy (3)



# Summary – LOE Estimation Tool Features & Benefits

## Features

Model utilizes a Function or Capability Risk Based Analysis to determine priority of testing (CRA Code)

Evaluation of each Functional Requirement or Capability to provide estimate

SME's provide historical input data (Best, Most Likely, Worst)

Predicted Time to Completion of each function statistically derived

Monte Carlo simulation utilized to determine mean and 95% confidence man hours needed to complete all functions

Model output for each cycle can be recalibrated using actual man hours required to complete each function

Data from each cycle used to provide model coefficients for predicting future cycle time (time per CRA Code)

## Benefits

Provides a time estimation methodology which results in a high confidence that a proposed FIS testing schedule can be accomplished

Utilizes existing data in developing the estimation

Uses a proven technique such as Function Point or Case Point Analysis, or Requirements in providing the estimation

Provides "What IF" capability to estimate resource needs for meeting schedule

Provides "What IF" capability to determine scope change impact on meeting schedule

Provides adequate detail for peer or manager review of the estimate to ensure estimate is comprehensive and as accurate as possible

Actual times for completion are used to calibrate the current model, and to develop historical data which will simplify the estimation effort for future efforts.

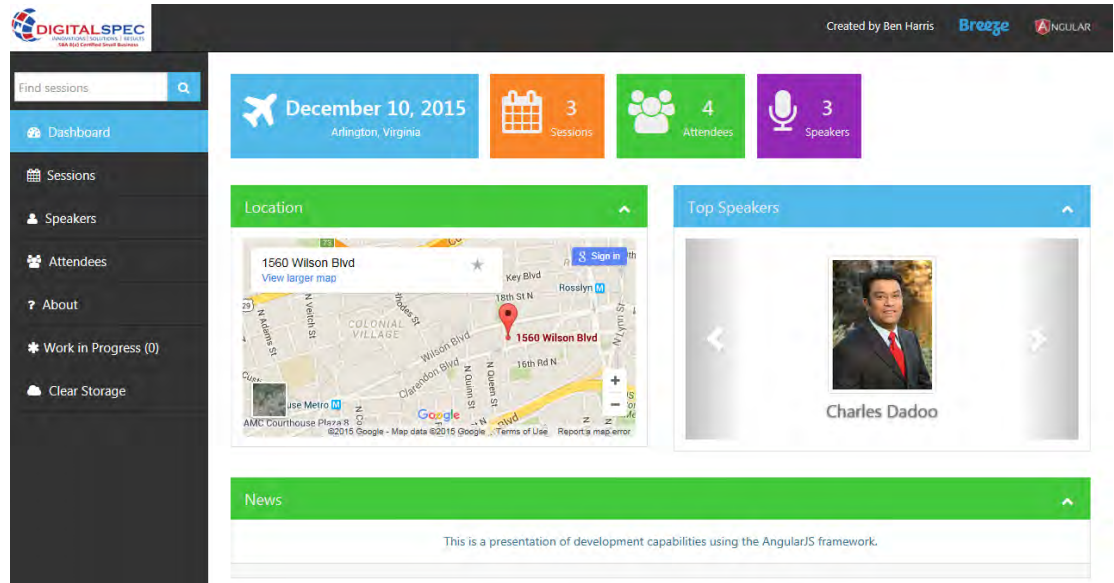


# Case Management System

December 10, 2015



HTML is great for declaring static documents, but it falters when we try to use it for declaring dynamic views in web-applications. AngularJS lets you extend HTML vocabulary for your application. The resulting environment is extraordinarily expressive, readable, and quick to develop.



## **Case Management System**

DIGITALSPEC is developing a case management system framework that will be highly customizable, flexible and fast. As a Single Page Application (SPA), we can provide:

- Rapid development in a modularized fashion
- Customizable widgets
- Endless possibilities

## **Application Framework**

AngularJS is a toolset for building the framework most suited to your application development. It is fully extensible and works well with other libraries. Every feature can be modified or replaced to suit your unique development workflow and feature needs.

## **Management Framework**

- Agile SCRUM
- Iterative and incremental development for swift changes
- Very quick return of functionality
- Focus on meeting business needs

# Current Client

- Current customization being developed for Federal Agency

- Manage the polygraph testing process

- Initiating
- Scheduling
- Document Management
- Work Flow
- Role based views and permissions
- Customizable dashboards
- Communications tracking

Assessments

Assessment 1

Assessment Documents

Exam 1

