

OMB Office of E-Gov

VUE-IT User Guide

Visualization to Understand Expenditures in Information Technology

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Suggestions, Modifications and Corrections

Suggestions for improvements, clarifications, and corrections to this manual are invited.

Please submit them to the mailbox of the Office of E-Gov at:
fea@omb.eop.gov

Table of Release Notes

<u>Data</u>	<u>Version</u>	<u>Note</u>
December 2008	0.1	Released with VUE-IT 0.2

1 Introduction to VUE-IT

VUE-IT stands for Visualization to Understand Expenditures in Information Technology and provides users with a drill down browsing capability to browse the list of Federal IT investments as drawn primarily from the Report on Information Technology (IT) Spending for the Federal Government (<http://www.whitehouse.gov/omb/budget/fy2009/sheets/itspending.xls>). The IT Spending Report is developed using data from the Agency A-11 Exhibit 300 & Exhibit 53 budget submissions. A wealth of information is presented for each investment, including budget data, high risk status, management watch list status, and project descriptions. More importantly, the tool allows the user to see totals by category as they browse by agency or business line.

2 VUE-IT's Functionality

Major functionality of VUE-IT includes:

- Organizes IT investments by the service groupings of the Federal Enterprise Architecture (FEA), as well as by agency and bureau.
- Displays investment data for:
 - * FY 2009 budget requests
 - * FY 2009 - Development, Modernization, and Enhancement (DME) breakouts
 - * FY 2009 - Steady State breakouts
 - * Percentage contribution
 - * Total aggregate of IT investments
 - * Unmapped High Risk Projects (projects on the High Risk List that are not associated with a specific investment in the agency's IT portfolio)
- Provides a hierarchical, drill-down functionality for users to navigate between summarized data at the service group and agency level to more detailed investment data.
- Provides the capability to examine IT budget planning and project execution data through the lens of the Office of Management and Budget's High Risk List (HRL) and Management Watch List (MWL):
 - * Users can apply data filters to reveal investment totals on the HRL and MWL.
 - * At the individual investment level, VUE-IT provides details on the rationale behind the inclusion of the investment on the HRL or MWL.
- Tables can be sorted interactively by users to display data in ascending or descending order for each data column.

3 General Use and Navigation

3.1 Browsing

VUE-IT organizes IT investments by categories. Categories are common attributes of investments that are meaningful for aggregation. The categories are broken down into two types: Organization [agency, bureau] and Function [groups of services, business reference model (BRM) code or service reference model (SRM) code, and BRM or SRM sub-functions]. At the homepage for VUE-IT, the spending for the entire federal government is shown. The active view is underlined. The user can choose change how the view is broken down from Service Group View to Agency View by clicking on the grayed out non-underlined category. By clicking on the name of a particular line of information, the user can see a breakdown of that particular line. In some cases, the breakout spending lines are blue – indicating that the line can be expanded on the same page by clicking. In other cases the breakout spending lines are white – indicating that clicking the name will take you to a new page.

On the front page, the default view is of the summary of the entire Federal government; notice how the breakout of the Federal government IT spending is by Service Group.

Services to Citizens	\$12,107	\$17,571	\$29,678	42%	2,291
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A blue breakout line

- Click on the breakout line “Services to Citizens” and notice how the breakout line expands from a group of services to show all of the individual BRM codes in that group.

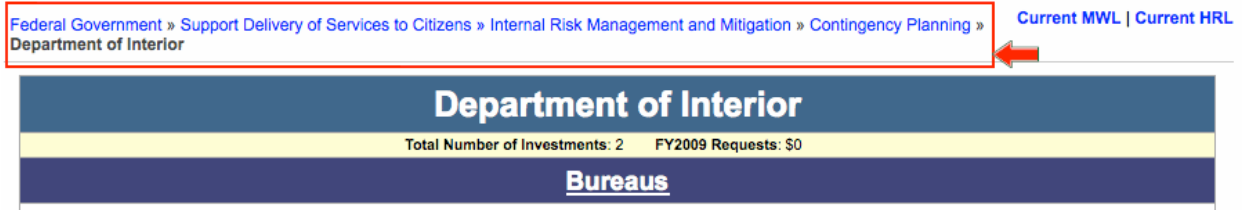
<u>Service Groups</u>	Agencies
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The View Bar (here showing the Service Groups View as active)

- Change to the Agency View of the Federal Government by clicking on the grayed out “Agency” of the View Bar.
- The table can be sorted to show how much the agencies spend on development, modernization, and enhancement.
- The table can also be sorted to only show projects that are on either the High Risk List or Management Watch List, those projects that are on both lists, and the union of the lists.

3.2 Breadcrumb Trail and the Blue Bar

At the top of the data window, there is a blue bar that indicates what category is being subdivided in the data window. Above this blue bar is a breadcrumbs trail that lists all of the categories that have been applied to the current view. Clicking on part of the breadcrumb trail will take the user back up to the level of that level of the path above.



The breadcrumb trail.

3.3 Filters

VUE-IT has three filter options for users to further refine the data they see on the screen. The three filters are: High Risk, Watch List, and On HR or Watch List.

High Risk

Clicking the High Risk List check box will filter the numbers so that only investments on the high risk list are represented. Lines with no such investments will be grayed out. If both the watch list and high risk filters are activated, the view will show only figures for investments that are on both the watch list and the high risk list.



The High Risk checkbox

Watch List

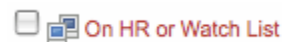
Clicking the Watch List check box will filter the numbers so that only investments on the management watch list are represented. This watch list is not the same thing as the GAO watch list. Lines with no such investments will be grayed out. If both the watch list and high risk filters are activated, the view will show only figures for investments that are on both the watch list and the high risk list.



The Watch List checkbox

On HR or Watch List

Clicking the On HR or Watch List check box will filter the numbers so that investments on both the High Risk List and the Management Watch List are highlighted.



The On HR or Watch List checkbox

The screenshot below shows the High Risk filter checked and highlights the changed data.

Service Groups		Agencies			
Filters: <input checked="" type="checkbox"/> High Risk <input type="checkbox"/> Watch List <input type="checkbox"/> On HR or Watch List		Download CSV Extract [Download Other Lists]			
Name	DME	SS	FY2009 Requests	%	Investments
Services to Citizens	\$6,911	\$5,577	\$12,488	18%	181
Community and Social Services	\$1	\$26	\$27	0%	2
Correctional Activities	N/A	N/A	N/A	N/A	N/A
Defense and National Security	\$3,548	\$2,522	\$6,070	9%	36
Disaster Management	\$172	\$105	\$277	0%	9

Example of a checked filter and its affect on the display of data.

3.4 Downloading Files

VUE-IT allows users to download all of the data from their current screen. Data from the High Risk/Watch List and individual investments can also be downloaded as a spreadsheet. To download the spreadsheet for the displayed data, click the “Download Excel CSV” button.



The Download Excel CSV button

Users can click on the ‘Download Other Lists’ link to navigate to a download page, as shown below, to download the Management Watch List and High Risk List as PDF files or download the full data extract of the lists in Excel CSV files.

[Home](#)

VUE-IT Data Extract Downloads

Below are links to various data sets, including the MWL and HRL reports:

List	PDF	CSV
Management Watch List		
High Risk List		
Full Detail Extract	Coming Soon	

The download page with links to PDF and CSV documents.

3.5 Detail View Link

Clicking the Detail View button (see below) will take the user to a page showing every investment in the breakout line. To avoid showing too many investments at once, this button only appears once several categories have been selected to narrow down the scope.

Filters: High Risk | Watch List | On HR or Watch List Download CSV Extract [Download Other Lists]

Name	DME	SS	FY2009 Requests	%	Investments
Central Records and Statistics Management [CA]	\$630	\$296	\$926	100%	13
Total	\$630	\$296	\$926	100%	13

The Detail View button

To learn more about the detail view, see section 4.

3.6 Sorting Tabular Data

Clicking the sorting arrows (see below) will rearrange the breakout lines to sort in ascending or descending order by the column whose sorting arrows are clicked.

Name	DME	SS	FY2009 Requests	%	Investments
Services to Citizens	\$12,107	\$17,571	\$29,678	42%	2,291
Defense and National Security	\$6,004	\$5,590	\$11,594	16%	268
Transportation	\$1,619	\$1,509	\$3,128	4%	183
Health	\$1,404	\$2,004	\$3,408	8%	104

The sorting arrows

4 Information in the Category Views

The category views show aggregated information about all of the investments that are in the categories described by the bread crumb trail. It also breaks down this aggregation based which view is active in the View Bar.

The following information about the category and its constituent categories is shown by this view:

- Proposed amount of DME money for the breakout line or overall category
- Proposed amount of SS money for the breakout line or overall category
- Total proposed amount of money for the breakout line or overall category. This is the sum of DME and SS.
- The percentage that the breakout line’s total proposed spending makes up of the overall category’s total proposed spending
- The number of investments that compose the breakout line or overall category

If one is on the Agencies view, than there will be a column entitled Unmapped HR. The values in this column represent the number of investments that don’t map to current budget submissions. Clicking on the number will take the user to a page showing the unmapped investments and the reasons they are on the High Risk list.

There are some data issues that will become apparent in viewing data in VUE-IT and that could affect the category numbers. There are unmapped High Risk List projects, which is when a

project has a UPI number that doesn't appear in the 2009 budget data. Also, in the bureau hierarchy there are some missing bureau designations, so one might see a project name listed as "missing subLOB description for subLOB 999" or "UNKNOWN Sub-agency – 03". Additionally, there may be inconsistencies across agencies in FEA mappings since they have discretion on choosing their mappings. In some cases, agencies map to the mission area of the agency rather than the mission area of the investment when they select their FEA categorization.

5 Investment Detail View

5.1 Table of Contents

On the upper right of the investment details page will be the table of contents that lists the titles of all the investments on that particular page. If the investments can be broken into sub-categories of bureau or sub-line-of-business then these categories are separated in the table of contents. Clicking a particular investment in the table of contents will move the browser window down to that investment and highlight it in light blue.

The table of contents has a legend at the top for the symbols that appear next to certain projects. A project can be listed as being on the Watch List, the High Risk list, or it can be designated as an E-Gov Initiative.

The screenshot shows a 'Table of Contents' panel with a legend at the top. The legend includes three items: 'Watch List' with a magnifying glass icon, 'High Risk' with a red star icon, and 'E-Gov Initiative' with a blue 'E' icon. Below the legend is a list of 13 investment items under the heading 'Central Records and Statistics Management [CA]'. Each item is preceded by a number and some have additional icons (magnifying glass or star) next to them. The items are:

1. Census - 2010 Census Planning and Development - Decennial Response Integration System
2. Census - 2010 Census Planning and Development - Field Data Collection Automated
3. Census - American Community Survey
4. Census - Data Access and Dissemination System
5. Census - Decennial 2010 Systems Design and Integration, and Decennial 2010 Testing and Evaluation
6. Census - Demographic Surveys Statistical IT Support
7. Census - Economic Census and Surveys
8. Census - Field Support Systems
9. Census - Geographic Support Systems
10. Census - MAF/TIGER Enhancements
11. Census - Part 1 Small/Other Projects Roll-up
12. Census - Part 3 Information System Support and Review Office
13. Census - The Longitudinal Employer-Household Dynamics Program (LEHD)

5.2 Investment Specific Information

The information presented by the tool for a specific investment is not affected by the path the user took to reach the investment. VUE-IT displays the same information for a given investment irrespective of whether the user browsed by line of business first or agency first. As with the table of contents, this list is separated into sections if there are sub-categories of bureau or sub-line-of-business. For each investment, there is an investment name, UPI number, description, total and development and steady state components of the proposed FY budget, and a link to the owning agency's Exhibit 300s.



Census - Decennial 2010 Systems Design and Integration, and Decennial 2010 Testing and Evaluation

006-07-01-02-01-4004-00

[[Link to Agency Exhibit 300s](#)]

This is an integrated set of tasks oriented towards developing an IT architecture that enables the Bureau to conduct a reengineered short-form only Census in 2010 that mitigates risk, produces more accurate and complete data, and contains costs.

FY09 DME: \$584.69 | FY09 SS: \$19.469 | FY09 Total: \$604.159

HIGH RISK INCLUSION CRITERIA:

1. Criteria 2 - MWL Holdovers

MANAGEMENT WATCHLIST CRITERIA:

1. Weak Evaluation
2. Weak Security

MANAGEMENT WATCHLIST EXHIBIT 300 EVALUATIONS:

Alignment with the President's Management Agenda (PMA): 4 out of 5

Project Management (PM): 4 out of 5

Acquisition Strategy (AS): 3 out of 5

Performance Information (PI): 4 out of 5

Security (SE): 3 out of 5

Privacy (PR): 4 out of 5

Enterprise Architecture (EA): 4 out of 5

Alternative Analysis (AA): 3 out of 5

Risk Management (RM): 3 out of 5

Cost Schedule and Performance (PS): 2 out of 5

Overall Evaluation: 34 out of 50

([Exhibit 300 Evaluation Criteria](#))

Data displayed for an investment on the High Risk List and Management Watch List.

For those investments that are on the high risk list or the management watch list, the information displayed for that particular investment will include the criteria explaining why they are on the High Risk List or Management Watch List. There is a link provided for those projects on the Management Watch List explaining the score values.

5.3 Investment Specific Flags

If an investment is on the management watch list, you will see the image of a magnifying glass to the right of its name in the table of contents and above its entry in the main section of the detail view.



The watch list symbol

If an investment is on the high risk list, you will see the exclamation mark symbol to the right of its name in the table of contents and above its entry in the main section of the detail view.



The high risk symbol

If an investment is part of an E-Gov initiative, you will see the E with a star symbol to the right of its name in the table of contents and above its entry in the main section of the detail view.



The E-Gov symbol

6 Unmapped High Risk Projects

Projects are unmapped when they have a UPI number that does not appear in the 2009 IT budget data. This means they are not able to be mapped to current IT investment. To view an Agency's unmapped high risk projects, from the index page click on the Agencies tab. A column will appear that shows the number of unmapped projects and a link to view them.

7 Providing Feedback

Feedback, comments, and suggestions on the VUE-IT application are welcomed. There are two options for users to provide feedback.

1. One way is to email the FEA office at fea@omb.eop.gov.
2. The other option is to use the VUE-IT Requirements Community Wiki Page at http://colab.cim3.net/cgi-bin/wiki.pl?VisualizationTo_Understand_Expenditures_In_Information_Technology.

8 Glossary

A glossary is provided by the VUE-IT application in order to ensure that users have a common understanding of terms used through the application. The glossary is accessible through the 'About VUE-IT' link.