

**SAS® VISUAL ANALYTICS
SAS VISUAL STATISTICS
7.2, 7.3 AND BEYOND**



VA 7.2 (MAY 2015) KEY ENHANCEMENTS IN VA 7.2

- **Administration**
 - Encryption on disk
 - Better scaling for large number of users accessing small files
 - Enhanced auto loading
- **Reporting**
 - Pass parameter to report via URL
 - Attach PDF to email
 - Geo support for calculated items and custom categories
 - New report theme (SAS Snow)
 - HTML5 Viewer preproduction
- **Printing**
 - New printing options for cover page, hide empty rows and columns, show comments
 - Link between report objects and appendix
 - Ability to print Info Windows
 - Performance improvements
- **Data Management**
 - Access to Google Analytics (out of box measure/dimension groupings)
 - Access to Facebook (public page text)
 - Zipped .csv import
- **SAS Home**
 - HTML5
 - Collections for auto subscription of reports
- **Exploration**
 - Visual Statistics Integration
- **SAS Mobile BI 7.2**
 - Support for smartphones
 - Publish report to users
 - Server side expiration date for reports
- **Office Analytics**
 - Full screen Interactivity Window

VA 7.2 SAS HOME

HTML5 INTERFACE

Side Menu

Welcome, SAS Demo User!

Here are a few quick tips:

- Add application shortcuts to your Home page. You can customize the color and the name.
- Click the icon beside "Home" in the banner to access your applications using a side panel.
- Sign out of your application by selecting your name and clicking "Sign Out".
- Join a SAS community for great discussions on tips and best practices:
<https://communities.sas.com/welcome>

Tech Exchange Content

/Shared Data/Explorations and Reports/Tech Exchange Content

Tech Exchange 7.1
Folder

Recent

- Nice Looking Dashboard
Apr 27, 2015, 11:43:19 AM
- Digital Intelligence - snow_24APR15
Apr 26, 2015, 5:52:53 PM
- Digital Intelligence Exploration 09_A...
Apr 24, 2015, 12:58:27 AM
- VAD 7.1 - One Report Multiple Lang...
Apr 18, 2015, 6:16:21 PM
- Digital Intelligence - light_24APR15
Apr 24, 2015, 12:55:18 AM
- Digital Intell Cluster
Apr 24, 2015, 12:45:25 AM
- Digital Intelligence Model 4_21
Apr 24, 2015, 12:45:26 AM
- Digital Intelligence (Exploration & M...
Apr 24, 2015, 12:45:29 AM
- Digital Intelligence (BI Reports) - ligh...
Apr 24, 2015, 12:45:30 AM

Favorites

Content that you mark as a favorite will be displayed here. [Add favorites](#) now or later.

Links

Links will be displayed here. [Add links](#) now or later.

Digital Intelligence

/Projects/Digital Intelligence/Digital Intelligence

- Digital Intelligence (Exploration & M...
Visual exploration
- Digital Intelligence (Predictive Marke...
SAS report (2G)
- Digital Intelligence (BI Reports)-original
SAS report (2G)

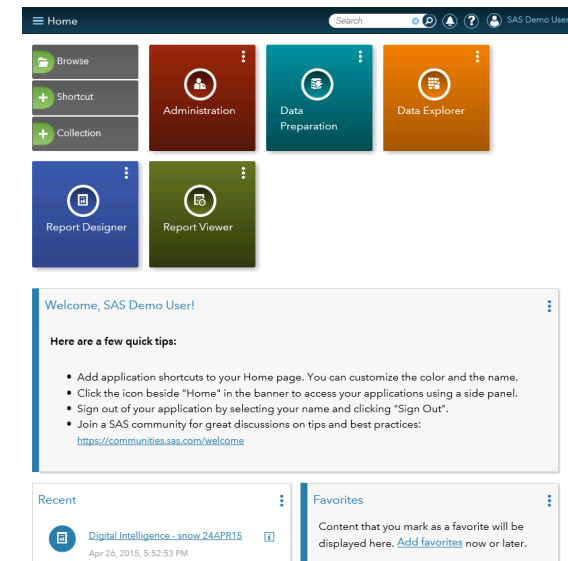
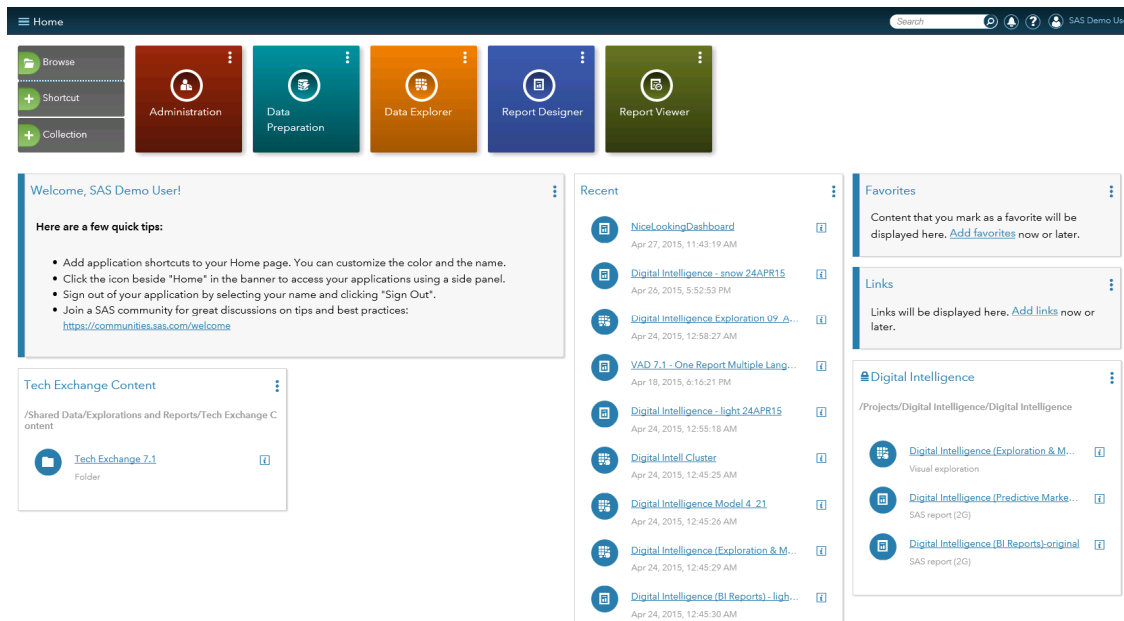
Welcome
Message

Search
Notification
Help
Settings

The application will automatically switch to
Flash if the browser does not support HTML5

VA 7.2 SAS HOME

HTML5 INTERFACE

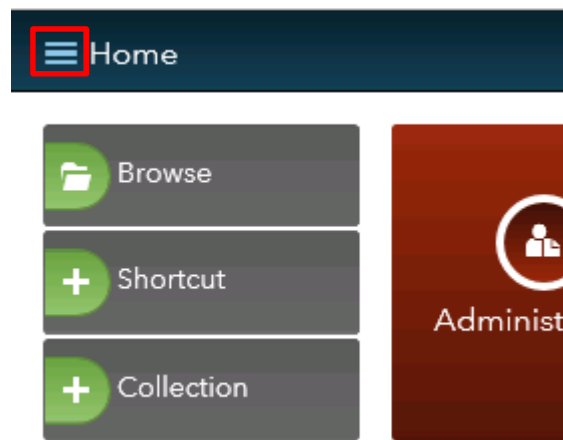


Responsive Design adapts the layout according to browser window size

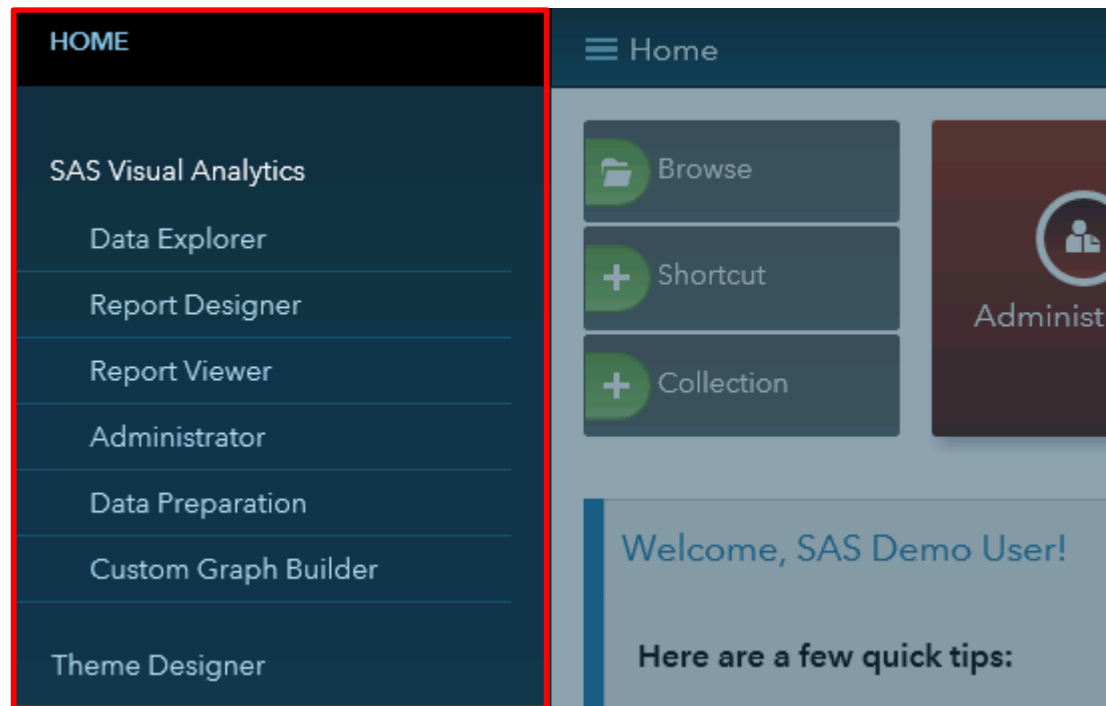
VA 7.2 SAS HOME

HTML5 INTERFACE

Side Menu



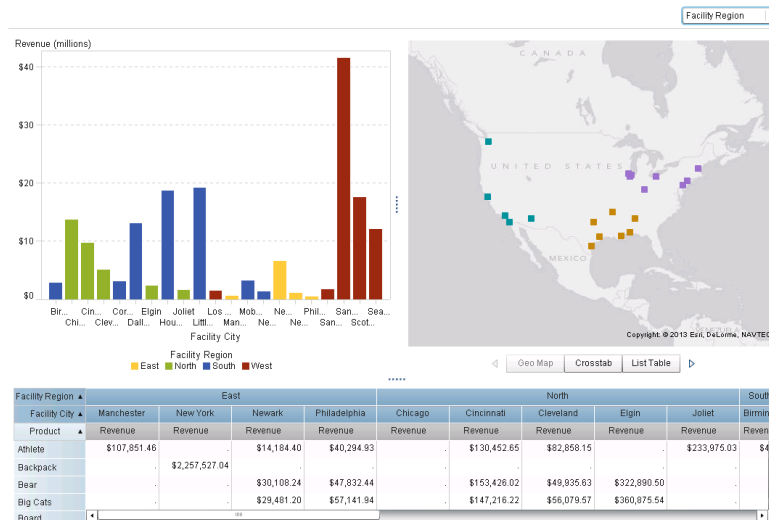
Side Menu provides access to Visual Analytics components.



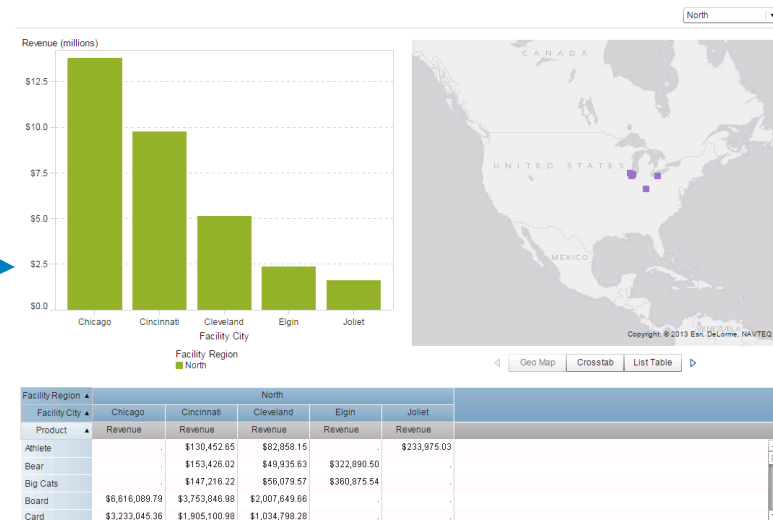
VA 7.2 DESIGNER

PASS PARAMETER TO A REPORT VIA URL

Report saved without selecting any particular Region



Report opened with parameterized URL for specific Region

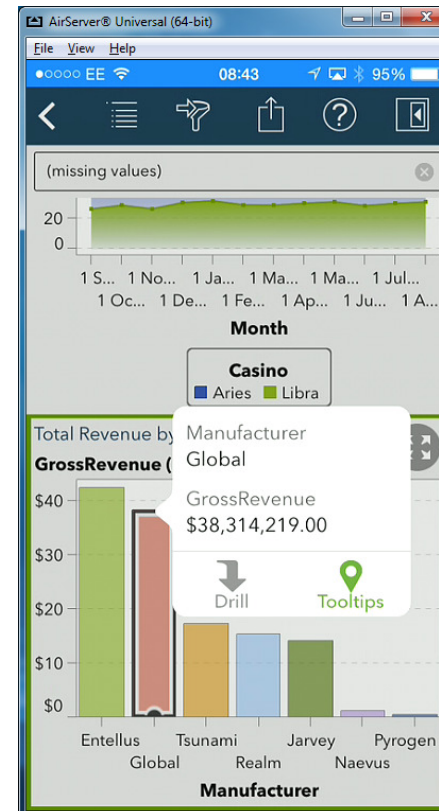
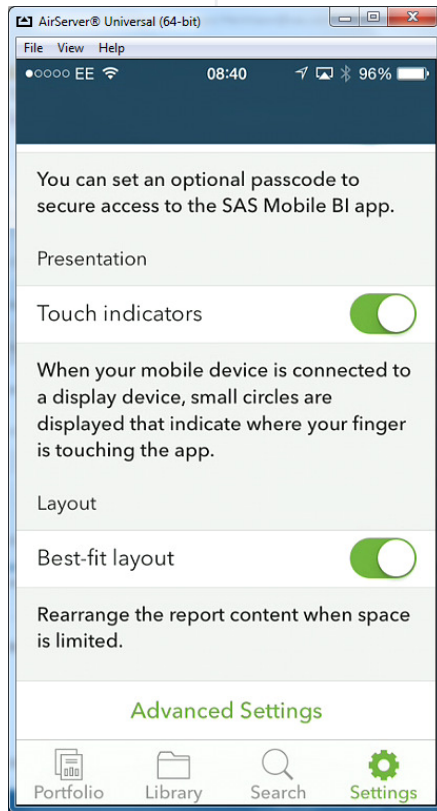


The Dropdown control at the top right as a parameter called **Param Region** assigned to it

Report opened with URL:
http://<host>/SASVisualAnalyticsViewer/VisualAnalyticsViewer_guest.jsp?reportName=VAD+7.2+-+Report+1&reportPath=/Shared+Data/Explorations+and+Reports/Tech+Exchange+7.2&Param%20Region=North

SAS VISUAL ANALYTICS 7.2

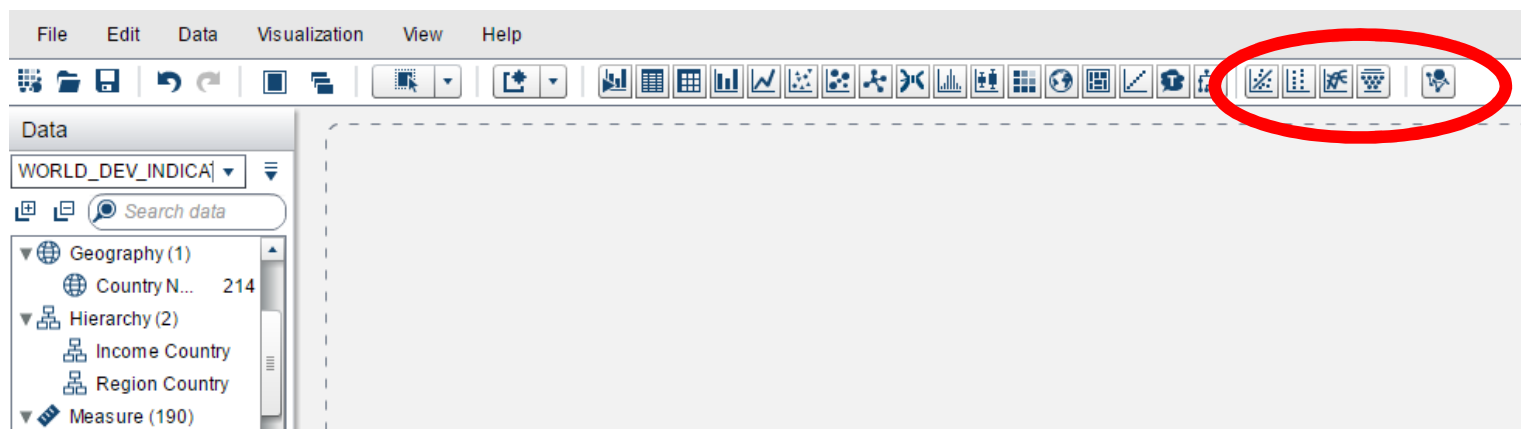
SAS MOBILE BI FOR SMARTPHONES



SAS VISUAL ANALYTICS 7.2

VISUAL STATISTICS INTEGRATION

- Visual Statistics seamlessly integrated into Visual Analytics Explorer



SAS VISUAL ANALYTICS 7.2

VISUAL STATISTICS INTEGRATION

The screenshot displays the SAS Visual Analytics 7.2 interface. The main window shows a visualization titled "Visualization 1" with "Observations Used: 8,165" and "Unused: 2,963". The visualization is a Cluster Matrix showing the relationship between three variables: ".Urban population (%)", ".CO2 emissions (metric tons per capita)", and ".Life expectancy at birth, total (years)". The matrix is a 3x3 grid of scatter plots. The top-left plot shows ".Urban population (%)" vs ".Life expectancy at birth, total (years)". The bottom-left plot shows ".CO2 emissions (metric tons per capita)" vs ".Life expectancy at birth, total (years)". The bottom-right plot shows ".CO2 emissions (metric tons per capita)" vs ".Urban population (% of total)". The plots are color-coded and have ellipses drawn around clusters of data points. A context menu is open over the top-right plot, with the option "Derive a Cluster ID Variable" highlighted in red. Other options in the menu include "Add Measure", "Remove", "Rename...", "Comment", "Duplicate", "Delete...", "Export Score Code...", and "Show Details".

The Parallel Coordinates plot below the Cluster Matrix shows 398 polylines. The x-axis is labeled "Cluster ID" and has three vertical lines at 85.2, 100, and 102.03074713. The y-axis is labeled "Cluster ID" and has three vertical lines at 26.8, 2.1072, and -0.020291129. The polylines are colored green and represent the relationship between the three variables for each cluster.

The left sidebar shows the "Data" pane with a search bar and a list of measures. The "Measure" list includes: ".Birth rate, crude (per 1,000 pe...", ".CO2 emissions (kt)", ".CO2 emissions (metric tons p...", ".Electricity production (kWh)", ".GDP (current US\$)", ".GDP growth (annual %)", ".GDP per capita (current US\$)", ".GDP per capita, PPP (current l...", ".Gross capital formation (% of ...", ".Health expenditure per capita. ...", ".Industry, value added (% of GD...", ".Intentional homicides (per 100...", ".Life expectancy at birth, total (y...", ".Population growth (annual %)", ".Population, total", ".Researchers in R&D (per milli...", ".School enrollment, tertiary (% ...", ".Trade (% of GDP)", ".Urban population (% of total)", ".EC:Agriculture, value added (%...", ".EC:Agriculture, value added (cu...", ".EC:Current account balance (...".

The right sidebar shows the "Properties" pane for "Visualization 1". It includes settings for "Number of bins" (16), "Maximum polylines" (3000), and "Visible roles" (5). There are checkboxes for "Show ellipses" and "Show centroids", both of which are checked. There is also an "Auto-update" checkbox and an "Update" button.

SAS VISUAL ANALYTICS 7.2

VISUAL STATISTICS INTEGRATION

New Custom Category

Name:

Based on: Cluster (WORLD_DEV_INDICATORS_AND_TEXT)

Intervals Distinct Values

Values

Include missing values

New label

- Undeveloped Rural Economies
- 3
- Developing Economies, Rural
- 1
- Developed Economies, Low Emitters
- 2
- Developed Economies, High Emitters
- 0

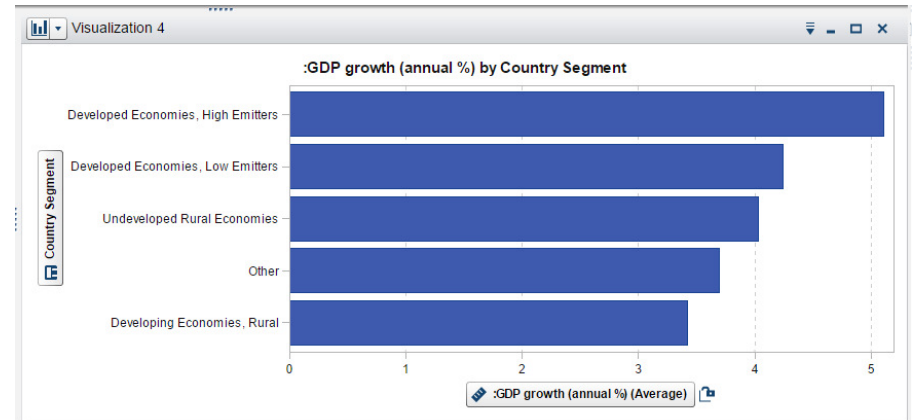
Options for remaining values

Group remaining values as

Show as missing

OK Cancel

Country Segment	:CO2 emissions (metric tons per capita)	:Life expectancy at birth, total (years)	:Trade (% of GDP)	:Urban population total)
Developed Economies, High Emitters	43.906	70.6	119.73702873	81.7
Developed Economies, Low Emitters	2.173	64.8	77.523363031	42.0
Developing Economies, Rural	7.974	73.3	85.680531829	74.9
Other	4.916	66.1	98.029282726	52.8
Undeveloped Rural Economies	0.380	47.5	57.472520625	22.8



SAS VISUAL ANALYTICS 7.2

VISUAL STATISTICS INTEGRATION

The screenshot displays the SAS Visual Analytics 7.2 interface with the following components:

- Top Panel:** Includes the SAS logo, a "Sign Out" link, and a menu bar with "File", "Edit", "Data", "Visualization", "View", and "Help".
- Data Panel (Left):** Shows a tree view of data sources under "WORLD_DEV_INDICA". It includes categories like "Geography (1)", "Hierarchy (2)", and "Measure (190)". A "Property Value" table is visible at the bottom left.
- Visualization 1 (Middle-Left):** Displays a "Cluster Matrix" with two scatter plots showing relationships between variables like "Urban population" and "Life expectancy at birth".
- Visualization 2 (Middle-Right):** Shows a "Fit Summary" for a linear regression model. It includes a "Variable Importance" bar chart, a "Residual Plot", and an "Assessment" plot. The "Variable Importance" chart lists variables like "Cluster", "Trade (% of GDP)", "Industry, value added (% of GDP)", and "Electricity production (KWh)".
- Right Panel (Roles):** Contains configuration options for the visualization, including "Linear Regression", "Data source", "Response", "Continuous Effects", "Classification Effects" (with "Cluster" selected and circled in red), "Interaction Effects", and "Group By".
- Bottom Panel:** Shows an "Influence Plot" with "Cook's D" values for individual observations.

SAS VISUAL ANALYTICS 7.2

VISUAL STATISTICS INTEGRATION

The screenshot displays the SAS Visual Analytics 7.2 interface with a regression model for GDP growth. The main window is titled "Visualization 2" and shows the following components:

- Fit Summary:** Displays the model equation $\text{GDP growth (annual \%)} = \text{R-Square } 0.0213$ and indicates 3,951 observations used and 7,177 unused.
- Variable Importance:** A horizontal bar chart showing the importance of variables. The most important variables are Trade (% of GDP), Industry value added (% of GDP), and Electricity production (kWh).
- Residual Plot:** A scatter plot of Studentized Deleted Residuals versus Predicted Values. A context menu is open over this plot, with "Derive Predicted Values" highlighted in red.
- Cluster Matrix:** A matrix of scatter plots showing relationships between variables like Urban population, CO2 emissions, and Life expectancy at birth.
- Parallel Coordinates:** A plot showing 398 polylines for different clusters, with variables Life expectancy, Urban population, and CO2 emissions.
- Assessment:** A line plot comparing Predicted Average (solid blue line) and Observed Average (dashed green line) of GDP growth across percentiles.
- Influence Plot:** A horizontal bar chart showing Cook's D for individual observations.

The interface includes a "Data" pane on the left with a search bar and a list of measures, and a "Properties" pane on the right for visualization settings. The SAS logo and "Sign Out" link are visible in the top right corner.

VA 7.3 (AUGUST 2015) KEY ENHANCEMENTS IN VA 7.3

Administration

- Webapps optimised. Fast start-up, reduced memory
- New Administrative Reports
 - Relationship Report
 - Mid-tier Performance Report
- Greater use of SAS Environment Manager

Reporting Enhancements

- New HTML5 Report Viewer
- Report Auto-Refresh
- Printing Enhancements

Data Management Enhancements

- MapR Parallel (NFS) and Pivotal HAWQ support

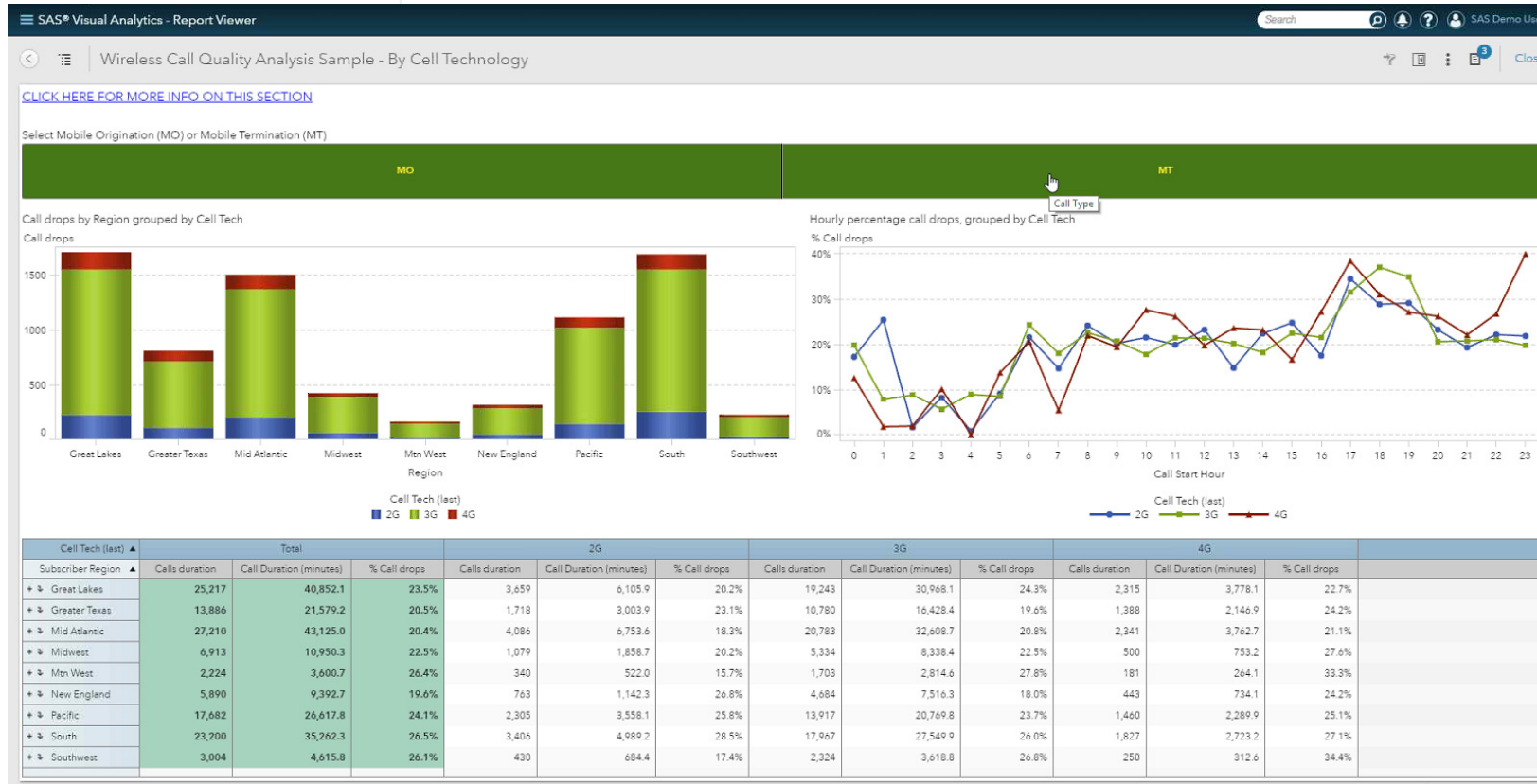
VA 7.3 (AUGUST 2015) KEY ENHANCEMENTS IN VA 7.3

- Most VA admin tasks can now be done using SAS Environment Manager

The screenshot displays the SAS Environment Manager Administration interface. On the left, a navigation pane includes 'Folders', 'Libraries', 'Servers', 'Users', and 'SAS Backup Manager'. The main area shows a table of libraries with columns for Name, Engine, Description, Location, Libref, and Assigned Servers. A context menu is open over the 'STP Samples' library, showing options like 'Basic Properties', 'Keywords', 'Responsibilities', 'Extended Attributes', 'Authorization', 'Apply ACT', and 'Authorization Summary'. The 'Apply ACT' option is highlighted.

Name	Engine	Description	Location	Libref	Assigned Servers
Environment Manager Data Mart LASR	SASIOLA	LASR Library for SAS Environment Manager dat...	/Shared Data/SAS Visual Analytics/Autoload/EV...	EVDMLA	SASApp
SASApp - SASDATA	BASE		/Shared Data		
SASApp - valib	BASE		/Products/SAS Visual A		
STP Samples	BASE	SAS Stored Process Samples.	/Products/SAS Intellige		
Visual Analytics LASR	SASIOLA	Visual Analytics library definition for LASR data.	/Products/SAS Visual A		
Visual Analytics Public Data Provider	BASE	SAS Visual Analytics library definition for public...	/Shared Data/SAS Visu		
Visual Analytics Public LASR	SASIOLA	Visual Analytics Public library definition for LAS...	/Shared Data/SAS Visu		

VA 7.3 (AUGUST 2015) KEY ENHANCEMENTS IN VA 7.3



WHAT NEXT?

VISUAL ANALYTICS 7.4

**Explorer and Designer become One
Full HTML5**

UPGRADE TO LATEST VERSION?

- You are entitled to each and every SAS upgrade at no license cost
- Visual Analytics upgrades are in-situ – no migration process required
- Visual Statistics trial?

ADDITIONAL INFO

USEFUL LINKS...

General VA version information including “what’s new” information (covers versions 6.1 to 7.3)

<http://support.sas.com/documentation/onlinedoc/va/index.html>

VA Community (a great place to ask “how do I...” type questions)

<https://communities.sas.com/community/support-communities/sas-visual-analytics>

Technical papers on VA

<http://support.sas.com/resources/papers/tnote/visualanalytics.html>