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Hot off the Press: SAS® Marketing Automation 6.1

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ABSTRACT

SAS® Marketing Automation 6.1 is a major release that introduces a new browser-based user interface for business analysts. The new look and feel deliver a highly interactive and intuitive user experience while delivering key customer-driven features, including support for control groups, live seeds, enhanced campaign definitions, and improved scheduling and execution. This paper introduces new navigation, improved search capabilities and easier sharing of information; it also presents easier reuse of treatments, campaign components, and scheduling and control group methodologies. Various control group techniques will be presented, including:

- Hold-out control groups
- A/B testing control groups
 - Champion/challenger
 - Challenger/challenger

Business case studies based on customer examples illustrate the matching of campaign business goals with the appropriate control group technique and why they are needed for robust marketing measurement.

INTRODUCTION

SAS Customer Intelligence 6.1 introduces a shared user experience environment for the key components: SAS Marketing Automation, SAS Real-Time Decision Manager, SAS Marketing Optimization, and SAS Digital Marketing. SAS Marketing Automation takes advantage of the single integrated user interface and delivers on the promise of a consistent user interface across multiple applications. In addition, key new functional features such as Automatic non-visual holdout control groups and A/B testing are now available along with various other new features and capabilities.

Integrated User Interface

A key design point of the Customer Intelligence 6.1 release is the improved user experience. Within the user interface environment are Workspaces and Categories. Workspaces group logical areas of functionality across the components based on what task the user is trying to accomplish. Workspaces include Designer, Definitions, Setup, and Administration.

The individual workspaces contain sets of categories which delineate types of user tasks and capabilities for each Workspace. An example is the user can choose the Designer Workspace and the Selection Campaigns category to build a SAS Marketing Automation 6.1 campaign. An open application object area allows users to dock multiple open objects and switch between objects. When building a campaign, the user navigates through a series of campaign pages which are defined as part of the campaign definition in use. The user can scroll through the available pages via a coverflow or use Page Manger to navigate across the pages. Using Page Manager, the user can decided to modify the list of pages to view or re-display hidden pages. Attachments and Comments are also available as new pages for campaigns.

The campaign diagram page allows the user to build a visual campaign flow and includes a new node for constructing A/B tests. The selection summary page allows the user to view a table of all marketing cells contained with the campaign. Treatments can also be created and managed in the Treatments category and then assigned for use to individual campaigns.

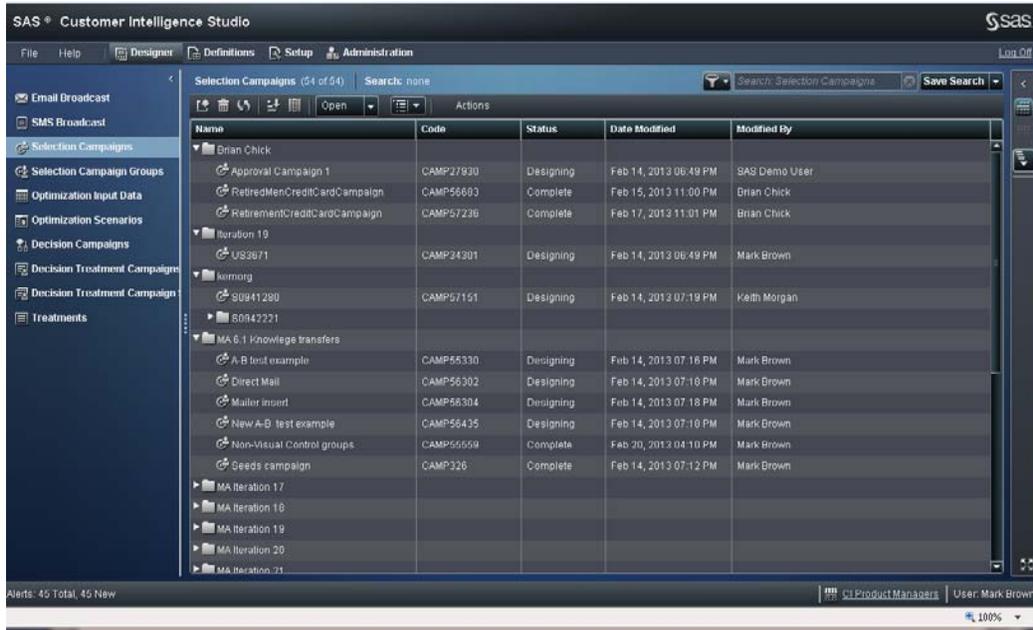


Figure 1 Designer Workspace and Selection Campaign category selected

Automatic Non-Visual Holdout Control Groups

Automatic Non-Visual Holdout control groups allow the user to directly incorporate holdout control groups in campaigns to evaluate the effectiveness of a communication by comparing the responses of an audience that receives the communication with responses of an audience that does not receive the communication. The non-visual control group is not represented by cells in the diagram to reduce node clutter. The control group name, code, count, and association to marketing cells are tracked in the common data model for reporting purposes, and the control group count is displayed on the relevant communication nodes in the campaign diagram, along with the overall cell population. The user can define default values for holdout control group at the Business Context level.

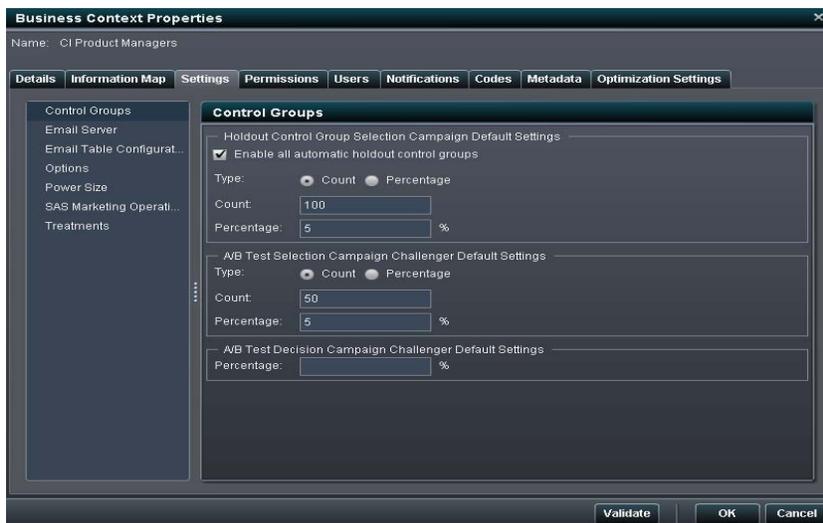


Figure 2 Define Control group default values in Business Context

In addition, the user can also define within a campaign definition the desired behavior when the audience size is too small to populate the holdout control group. The settings available allow the user to either choose to not populate

the holdout control group and market to the entire population or to fail the execution of the campaign and not generate any exports.

Within the campaign, the control group page allows the user to view the settings from the Business Context and change those settings. If the settings are altered by the user, they can also reset the settings to the Business Context defaults or push down changed or default settings into the campaign diagram.

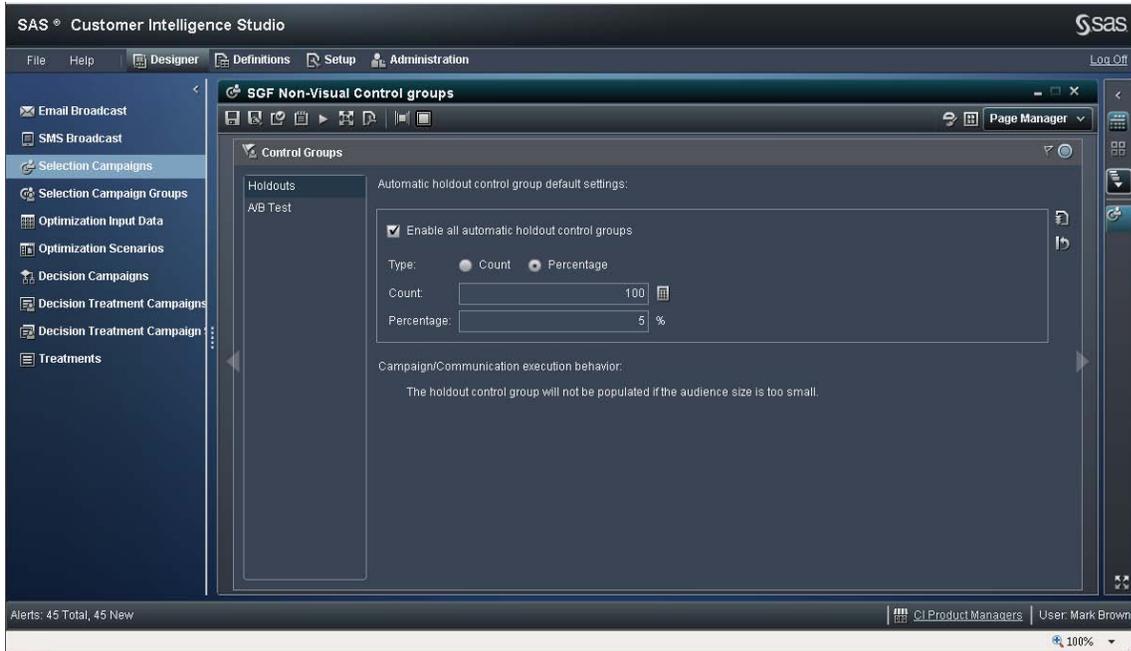


Figure 3 Control groups page within campaign

Automatic holdout control groups are configured in the Communication node on a per-marketing cell basis. The size of the holdout control group will be determined by the default value from the Control Groups page and can be overridden by the user in the Holdouts tab of the communication node.

Acxiom01 Properties

Cell Name	Cell Code	Input Count	Enable Holdout	Holdout Na...	Holdout Code	Size	Actual
S1C5	S1C5	4	<input type="checkbox"/>	Generic_S...	Generic_...		
S1C4	S1C4	3	<input type="checkbox"/>	Generic_S...	Generic_...		
S1C3	S1C3	3	<input type="checkbox"/>	Generic_S...	Generic_...		
S1C2	S1C2	3	<input type="checkbox"/>	Generic_S...	Generic_...		
S1C1	S1C1	3	<input type="checkbox"/>	Generic_S...	Generic_...		
S2C6	S2C6	200	<input checked="" type="checkbox"/>	Generic_S...	Generic_...	50	50
S2C5	S2C5	1,000	<input checked="" type="checkbox"/>	Generic_S...	Generic_...	100	100
S2C4	S2C4	1,500	<input checked="" type="checkbox"/>	Generic_S...	Generic_...	150	150
S2C3	S2C3	500	<input type="checkbox"/>	Generic_S...	Generic_...		
S2C2	S2C2	500	<input type="checkbox"/>	Generic_S...	Generic_...		
S2C1	S2C1	500	<input type="checkbox"/>	Generic_S...	Generic_...		
S2C7	S2C7	200	<input type="checkbox"/>	Generic_S...	Generic_...		
S2C8	S2C8	200	<input type="checkbox"/>	Generic_S...	Generic_...		
S2C9	S2C9	200	<input type="checkbox"/>	Generic_S...	Generic_...		
S2C10	S2C10	200	<input type="checkbox"/>	Generic_S...	Generic_...		

Count
 Subject: Customer Total: 4,716 Dropped: 300 Last run on: Feb 27, 2013 02:48 PM

Figure 4 Communication node Holdouts tab

Figure 4 Communication node Holdouts tab

The size of the automatic non-visual control group is displayed on the Communication node within the campaign and tracked in the common data model for reporting purposes.

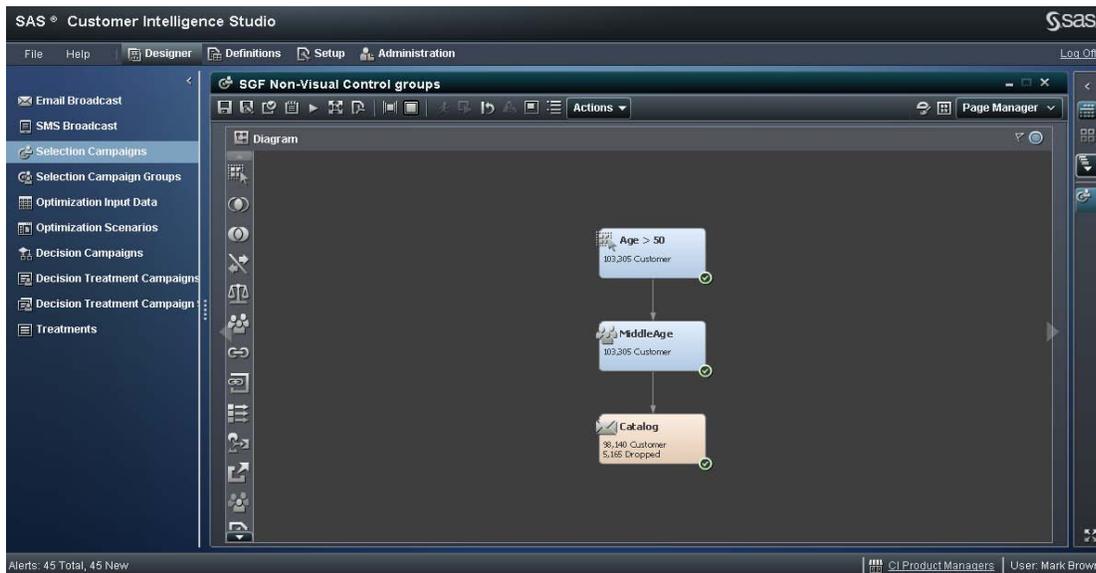


Figure 5 Automatic non-visual control group of 5% dropped count displayed on Catalog communication

A/B Testing

A new A/B Test node enables the user to partition an audience into champion and challenger groups for testing. The node generates output marketing cells which can then be linked to Communication nodes. Each cell can be linked to only one Communication node to preserve the validity of the test. Two types of A/B testing are available: Champion/Challenger and Challenger/Challenger.

Champion/Challenger

A Champion/Challenger test generates marketing cells that reflect the audiences for a champion communication and one or more challenger communications that are being tested against the champion. In a Champion/Challenger test, an overall holdout control group can also be created before the champion and challenger cells are populated. Any records not required by the holdout control group or by the challenger cells are assigned to the champion. If the

champion has a defined size limit, the additional records can be assigned to a remainder cell and the remainder cell is not considered part of the defined test, but is available for other communication purposes.

A/B test selection campaign challenger default settings can be entered at the Business Context and allow the user to specify a count or percentage. Also, A/B test Champion/Challenger settings are available within campaign definitions to specify the desired behavior if the incoming population is too small to populate a challenger cell. The user can opt to no populate any challenger cells or fail the execution of the campaign and not generate any exports.

In the campaign, the user adds an A/B test node to the campaign diagram and connects the incoming population to be used for the test. The A/B test node properties allow the user to choose which type of test is to be performed and then define the structure of the test.

A/B Test Properties

Name: A/B Test

Description: Example for SGF

Type: Champion/Challenger Challenger/Challenger

Sort criteria: none (random)

Enable the holdout control group Size: 5% Actual:

Create challengers using: Counts Percentages

Output cells:

Type	Cell Name	Cell Code	Size	Limit	Actual
Champion			*		

Create output cell for remainder

Make output cells available for linking

Count

Subject: Customer Total: Dropped: Last run on:

OK Cancel

Figure 6 A/B Test node default properties with no test defined

A business example of employing an A/B test methodology is a marketing department that wants to create a campaign that compares a new challenger treatment against the standing champion treatment that has been used in previous campaigns. The champion offer is a direct mail piece with a treatment for free Movie channels for cable subscribers willing to switch service providers for 6 months. The first challenger offer uses direct mail to offer free installation and no free movie channels and the second challenger offer uses email to offer free installation and a fixed monthly cost for two years with no free movie channels. The campaign designer wants use allocate an audience of 5,000 to the first challenger and 7,000 to the second challenger because the second offer is email and less expensive to send.

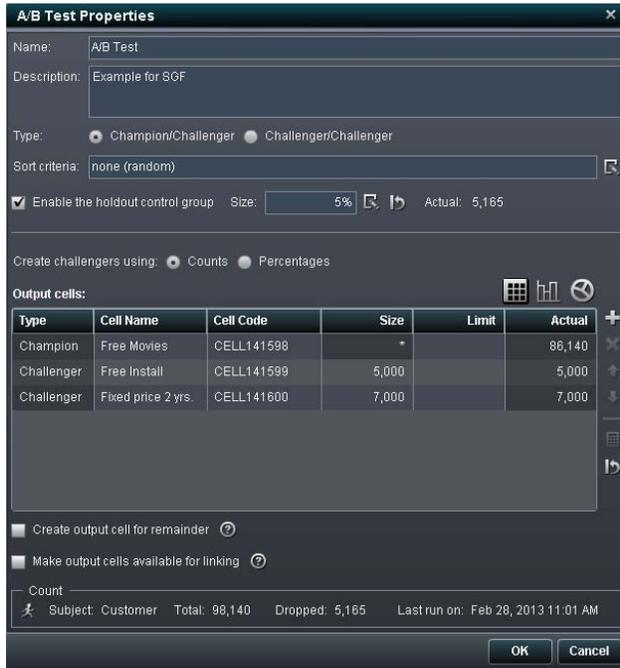


Figure 7 Champion – Challenger example

The associations between the Control and Test marketing cells are recorded in the Common data model for reporting purposes. The association between the control and test marketing cells and the holdout control group are also recording in the common data model.

CI_MARKETING_CELL	
MARKETING_CELL_SK	CONTROL_GROUP_TYPE_CD
Free Movies_CG_SK	_AU
Free Movies_SK	_CP
Free Install_SK	
Fixed price 2 yrs_SK	

Figure 8 CI_MARKETING_CELL table in Common Data Model

CI_CTL_GRP_CELL_X_TEST_CELL	
CONTROL_GROUP_CELL_SK	MARKETING_CELL_SK
Free Movies_CG_SK	Free Movies_SK
Free Movies_CG_SK	Free Install_SK
Free Movies_CG_SK	Fixed price 2 yrs_SK
Free Movies_SK	Free Install_SK
Free Movies_SK	Fixed price 2 yrs_SK

Figure 9 CI_CTL_GRP_CELL_X_TEST_CELL table in Common Data Model

CHALLENGER/CHALLENGER SECTION

A Challenger/Challenger test generates marketing cells that reflect the audiences for set of challenger communications that are being tested against each other. In a Challenger/Challenger test, an overall holdout control group can also be created before the challenger cells are populated. Any records not required by the holdout control group or by the challenger cells are available for the optional remainder cell. The remainder cell is only populated if there are limits on all the challengers. The remainder cell is not considered part of the defined test, but is available for other communication purposes.

A business example of employing a Challenger/Challenger test is a marketing department that wants to create a campaign that compares several challenger treatments against each other where there is no previous Champion offer. The first Challenger is a direct mail piece with a treatment for free Movie channels for cable subscribers willing to switch service providers for 6 months. The second challenger offer uses direct mail to offer free installation and no free movie channels and the third challenger offer uses email to offer free installation and a fixed monthly cost for two years with no free movie channels. The marketing population will be distributed equally among the three Challengers unless limits apply.

A/B Test Properties

Name: A/B Test

Description: Example for SGF

Type: Champion/Challenger Challenger/Challenger

Sort criteria: none (random)

Enable the holdout control group Size: 5% Actual: 5,165

Output cells:

Type	Cell Name	Cell Code	Limit	Actual
Challenger	Free Movies	CELL141598		32,714
Challenger	Free Install	CELL141599		32,713
Challenger	Fixed price 2 yrs.	CELL141600		32,713

Create output cell for remainder

Make output cells available for linking

Count

Subject: Customer Total: 98,140 Dropped: 5,165 Last run on: Feb 28, 2013 01:16 PM

OK Cancel

Figure 10 Challenger – Challenger example

The associations between the Control and Test marketing cells are recorded in the Common data model for reporting purposes. The association between the control and test marketing cells and the holdout control group are also recording in the common data model.

CI_MARKETING_CELL	
MARKETING_CELL_SK	CONTROL_GROUP_TYPE_CD
Free Movies_CG_SK	_AU
Free Movies_SK	_CL
Free Install_SK	_CL
Fixed price 2 yrs_SK	_CL

Figure 11 CI_MARKETING_CELL table in Common Data Model

CI_CTL_GRP_CELL_X_TEST_CELL	
CONTROL_GROUP_CELL_SK	MARKETING_CELL_SK
Free Movies_CG_SK	Free Movies_SK
Free Movies_CG_SK	Free Install_SK
Free Movies_CG_SK	Fixed price 2 yrs_SK
Free Movies_SK	Free Install_SK
Free Movies_SK	Fixed price 2 yrs_SK
Free Install_SK	Fixed price 2 yrs_SK

Figure 12 CI_CTL_GRP_CELL_X_TEST_CELL table in Common Data Model

“LIVE” SEED LISTS

Seed lists as used in marketing campaigns are typically composed of people within the marketing company who need to see the result of the campaign to ensure that the end product is correct. While this list may to a large degree be fairly static, occasionally the content of the Seed List will need to be altered to account for personnel changes or new requirements.

Seed lists, as provided in Marketing Automation 5.41, were created as a snapshot (or “tear off”) copy when used in a Campaign or Communication Definition. The implication of this was that as business needs changed or personnel in the marketing department changed the Seed List content was not easily updated at the Campaign level. Also, Seed Lists used in Communication Definitions or Communication Nodes in Campaigns applied across all exports generated in the Communication. This meant that a Communication could not be used with multiple exports where some needed the Seeds and others did not.

The following figures show examples of Seeds being used in a Communication Definition containing multiple Exports. In this example both the SDM Email Broadcast export and the CSV formatted general customer list export will contain the Seed List members.

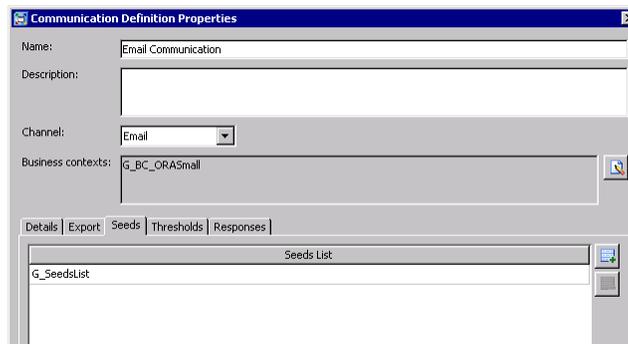


Figure 13 Communication Definition Seeds tab

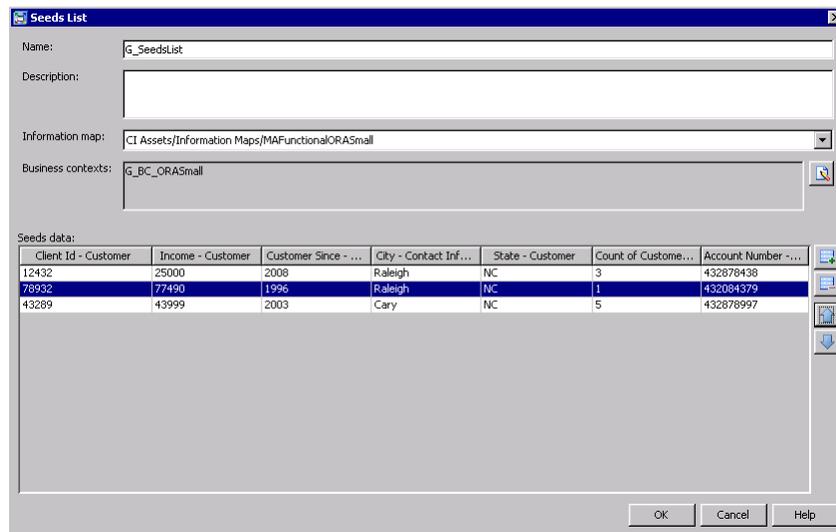


Figure 14 Seeds List Definition (MA 5.41)

SEED LISTS IN SAS MARKETING AUTOMATION 6.1

With the redesign of Seed Lists in CI6 several improvements have been made to the way seed lists are managed and used. First, there is no longer a single Seed List definition that is applied to all Seed Lists using an information map. Each Seed List can have an independent set of columns and can be modified at any time to add or remove columns. This allows additional flexibility and avoids having unnecessary columns in Seed Lists.

Second, Seed Lists now apply at the Export level rather than the Communication level. This allows application of Seed Lists to only those exports that require Seeds and allows each independent Export in a Communication node to make use of Seed Lists only when needed. For instance the marketing department can now add Seeds to the export file being sent to the mail house but generate a second export contains only the actual end customers, both from a single Communication.

Finally, and most importantly, Seed Lists are now updated immediately in Campaigns when changes are made in the Seed List definition. This allows the content of the Seed Lists in Campaigns to be accurate and up to date when Campaigns run and generate exports. If the content of the Seed List definition is updated the revised content is available the next time an Export that uses the Seed List is created. To help keep the Campaign Manager informed of the “live” nature of the Seed Lists there is a new “Usage” page that lists the objects in the system that are using a Seed List. This Usage page in the Seed List displays the Campaigns, Export Definitions, and Communication Definitions (via the Communication Definition using an Export Definition) that make use of the Seed List. The Usage page also shows a count of the number of places that the Seed List is used that the current user is not allowed to view based on their permissions. When a campaign manager needs to modify a Seed List they can now do this in one place and all the Campaigns using this Seed List will automatically pick up the changes on their next execution.

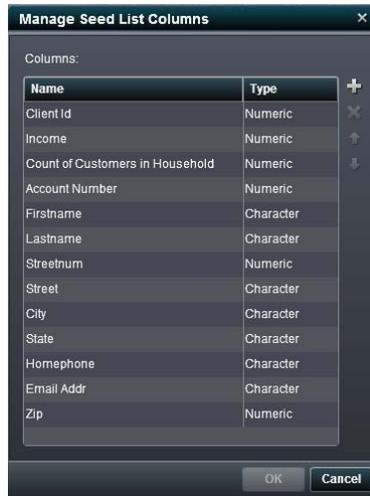


Figure 15- Seed List Column Management

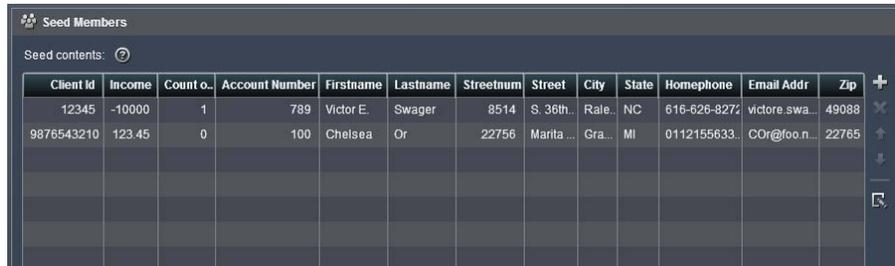


Figure 16 - Adding Seed List Members



Figure 12 - Seed List Usage Page

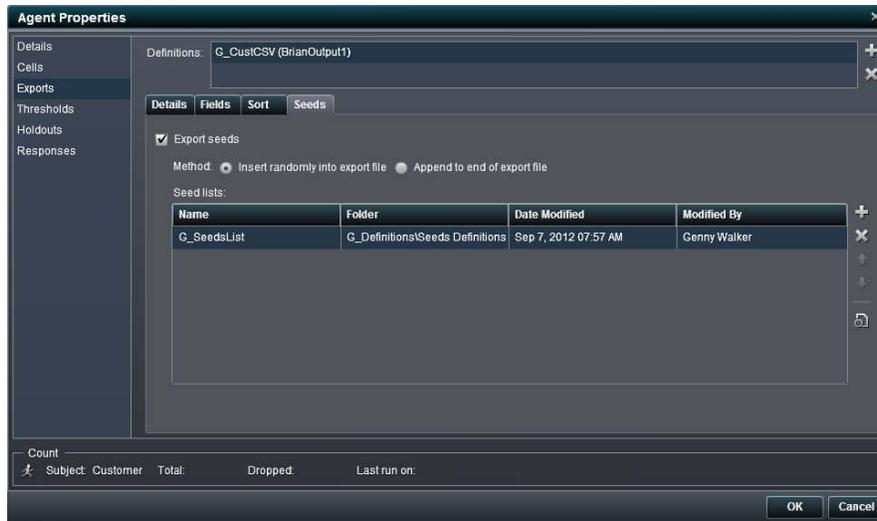


Figure 13 - Using Seed Lists in Export tab of Communication Node

SCHEDULING AND EXECUTION ENHANCEMENTS

Many customers appreciate the convenience of using scheduled executions of campaigns to automate the repetitive nature of many marketing campaigns. The desire is to have the ability to “fire and forget” a recurring campaign such that once the campaign is in production the campaign manager can simply monitor the results of the campaign and make adjustments to the campaign as required.

With Marketing Automation 5.41 many of these capabilities existed, but with CI6 there have been some fairly major enhancements to the general scheduling and execution functionality. The main enhancements include the following:

1. Addition of a new "Manual" scheduling mode that can be used when a campaign is first created and the schedule is not yet defined. This mode can also be used for campaigns that do not use scheduling where the campaign manager may prefer to execute the campaign directly.
2. There is now the ability to schedule a campaign on specific days of the week (Monday, Thursday and Saturday for instance) when using a Weekly recurrence pattern for scheduling.
3. Enhanced Synch Schedule functionality that allows the user to determine if their campaign schedule matches the Schedule Manager view of the schedule and if it is different to view the Schedule Manager version of the schedule. The campaign manager can then choose to synch the campaign schedule with that in the Schedule Manager.
4. The ability to explicitly remove the schedule for a campaign from the Schedule Manager directly from within a campaign.
5. Occurrence management enhancements that include removing the limit on occurrences (was 999), no longer resetting occurrence numbering when re-scheduling a campaign, no longer overwriting occurrences when using manual execution mode, no longer overwriting Common Data Model content, and allowing the deletion of occurrences including updating the Common Data Model contact history information. These changes allow better recording and reporting of execution results from the Common Data Model for both manual and scheduled campaigns.
6. An enhanced Gantt chart view of the schedule and execution history that now includes differentiating the display of manual executions vs. scheduled executions, successful vs. failed executions, and the display of deleted occurrences. This provides a simplified way to visually understand the future schedule and past executions of your campaigns.

With the new functionality of CI6 the campaign manager can more easily manage their campaign schedules and can rely on the resulting Common Data Model content to produce reports of campaign performance.

Communication	Occurrence Number	Type	Status	Count	Date Executed
Woodworking Email		Manual	Failed		Feb 11, 2013 02:05 PM
Golf and Cruise Email		Manual	Failed		Feb 11, 2013 02:05 PM
Golf and Cruise Email	1	Manual	Successful	3,113	Feb 11, 2013 02:08 PM
Woodworking Email	1	Manual	Successful	1,000	Feb 11, 2013 02:08 PM
Golf and Cruise Email	2	Scheduled	Successful	3,113	Feb 11, 2013 04:00 PM
Golf and Cruise Email	3	Scheduled	Successful	3,113	Feb 11, 2013 06:00 PM
Golf and Cruise Email		Scheduled	Deleted		Feb 11, 2013 08:00 PM
Woodworking Email	2	Scheduled	Successful	1,000	Feb 11, 2013 09:01 PM
Golf and Cruise Email	5	Scheduled	Successful	3,113	Feb 11, 2013 10:01 PM
Golf and Cruise Email	6	Scheduled	Successful	3,113	Feb 12, 2013 12:01 AM
Golf and Cruise Email	7	Scheduled	Successful	3,113	Feb 12, 2013 02:00 AM
Woodworking Email	3	Scheduled	Successful	1,000	Feb 12, 2013 03:01 AM

Figure 14 – Execution page History tab

ENHANCED CAMPAIGN DEFINITIONS

Campaign Definitions in previous CI releases were fairly basic in their functionality. They allowed for the creation of a basic structure to be used in creating a campaign, including defining which steps would be included in the definition, and creation of custom details for the various steps. Within the Brief step there was also the ability to define custom statuses for campaigns, and within the Approval step there was the capability to define the Approvers for the campaigns. Once the definition was used to create a campaign the information defined in the Campaign definition was static and could not be altered in the Campaign itself. For instance there was no ability to alter the Approver for a

campaign once the campaign was created.

With the delivery of CI6 and the restructuring of Campaigns to be defined as a set of discrete pages there are additional capabilities that can be offered through the Campaign Definition. Enhancements in this area include the following:

1. Approval, Optimization and the use of Initiating campaign statuses are all controlled explicitly for a definition.
2. New behavioral selections for Holdout and A/B Test control groups are configurable on a per-definition basis.
3. Custom Details are separated into individual Pages of the campaign and no longer need to be associated with specific steps of the campaign. Custom Detail Pages can be located anywhere within the Campaign pages.
4. A default campaign Page Layout is provided but can be modified to customize the layout for specific types of campaigns or specific customer needs. This can include removing unnecessary pages, hiding pages that are not typically used, as well as structuring the Design and Process galleries for improved workflow.
5. Page layouts are customizable based on role, with separate layouts for Editors, Viewers, and Approvers allowed. This can be used to limit the visibility of specific campaign content based on role.
6. An enhanced Checklist that can be customized on a per definition basis, including the ability to define custom checklist items that are not visualized as Pages in the Campaign.
7. A new Campaign Permissions page that allows the definition creator to continue to define Approvers for approval style campaigns, but also to define a preset list of Groups and Users that will be included as Viewers or Editors in the campaigns created from the definition.

When a Campaign is created using a new Campaign Definition there is also some additional flexibility provided for customization of the campaign by the campaign manager. For instance, if the campaign manager does not like the page layout provided in the definition they are able to modify the page order and page visibility to suit their specific needs. Also, for Approval style campaigns there is not the capability to add or remove approvers after the campaign is created. This can only be done by someone who is already an approver, which still allows for control of the approval process, but also allows for the potential of delegation of authority for specific campaigns without the need for multiple specific campaign definitions.

The following series of images shows an example campaign definition:

The screenshot shows a 'Properties' dialog box for a campaign definition. The fields are as follows:

- Name:** Approval Definition
- Description:** This is the standard approval style campaign definition.
- Code:** Default to business context (dropdown menu)
- Status:** Include 'initiating' as a campaign status
- Approval:** Add ability to submit campaign for approval
- Optimization:** Add ability to include campaign in optimization group
- Diagram Properties:**
 - Use the most current data when referenced by a link
 - Use the most current data when executing communications
 - Produce counts for all nodes when executing

Figure 20 - Campaign Definition Properties Page

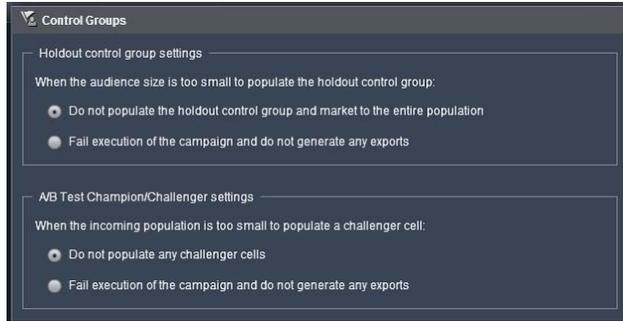


Figure 21 - Campaign Definition Control Groups Page

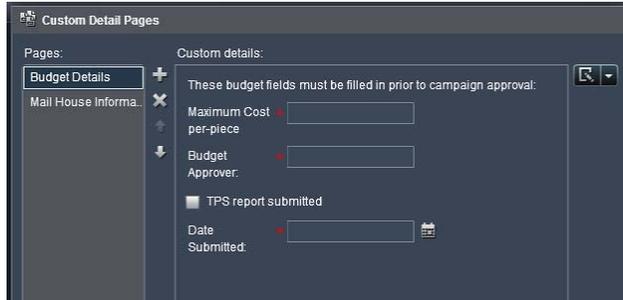


Figure 5 - Campaign Definition Custom Detail Pages Page

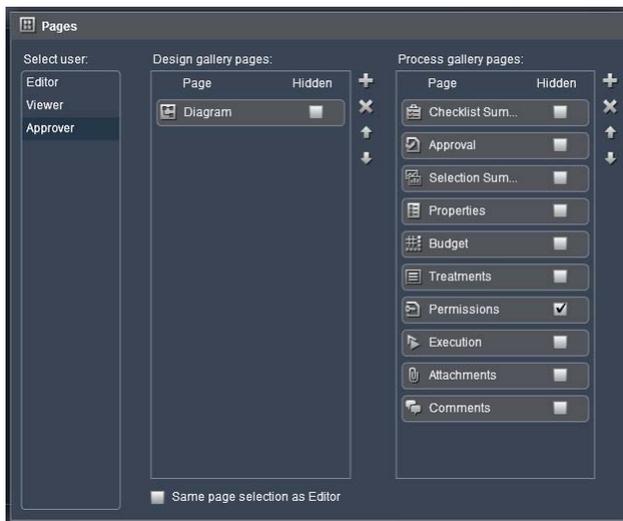


Figure 6 - Campaign Definition Pages Page

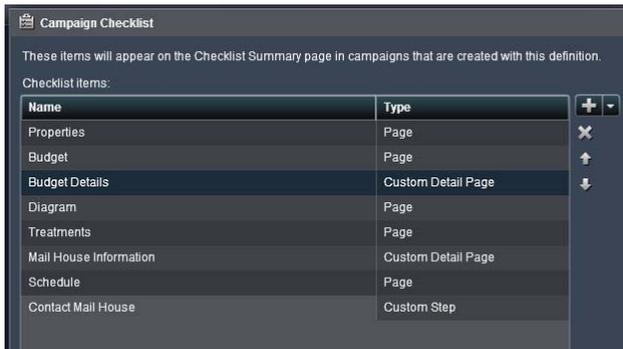


Figure 7 - Campaign Definition Campaign Checklist Page

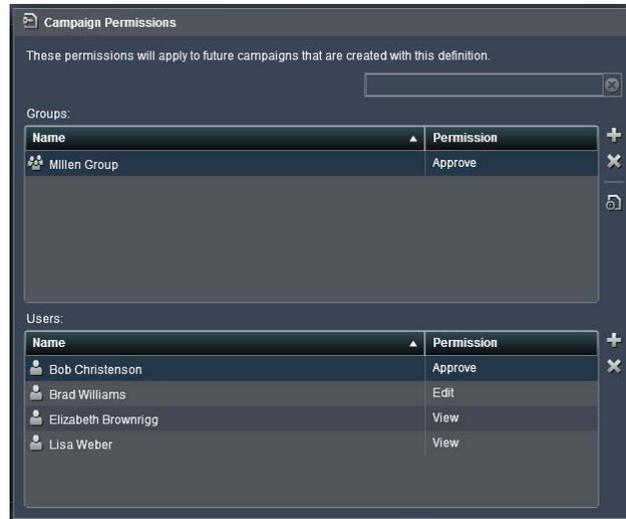


Figure 8 - Campaign Definition Campaign Permissions Page

TREATMENTS

Treatments are now managed as a category in the Designer workspace. Users can new treatments with custom details and available treatments via a grid view, hierarchy view or detail view. The detail allows a display of the image for a treatment. Faceted searching is available to filter the treatment list and searches can be saved for reuse.

Treatments are now assigned to marketing cells via the Treatment page in a campaign. The users adds treatments to the campaign from the list of available treatments and then assigns treatments to individual marketing cells via a grid view or a matrix view. Assignment can be accomplished either by choosing marketing cells for a treatment or treatments for a marketing cell using the Flip Axis option.

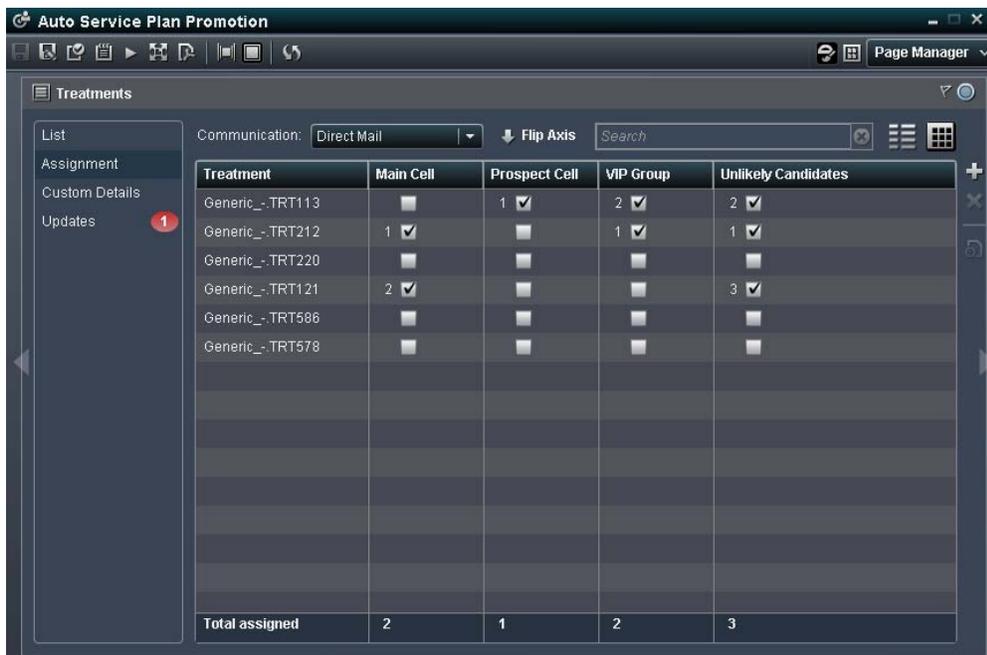


Figure 26 Treatments page assignment tab (Matrix view)

All the marketing cells in the campaign are now available in one location for treatment assignment. Treatments can be updated and the user can decide whether or not to accept the updated treatment. The updates to the treatment are available for preview.

CONCLUSION

Sas Marketing Automation 6.1 represents a comprehensive solution to plan, test and execute marketing campaigns so you can improve marketing efficiency and effectiveness. With the addition of non-visual automatic holdout control groups and A/B testing, the solution is advanced in the ability to test and measure treatments.

The new user interface seamlessly integrates the companion modules within the SAS Customer Intelligence suite and presents the user with the ability to move across applications to achieve optimal marketing results.

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