

Targeters

Presenter's Name Presenter's Title



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Agenda

- Working with Targeters
- Profile and Content Groups
- Using Targeted Email

Learning Objectives

At the end of this lesson you should be able to:

- Understand the use of Targeters
- Create Targeters using conditions and rulesets
- Use Targeting Servlet Beans to display Targeters
- Learn about the SGML format for storing Targeters
- Use Profile Groups to create segments of users
- Create Content groups to group content into logical groups
- Match profile groups to content groups using Targeters
- Create and send targeted email





Working with Targeters

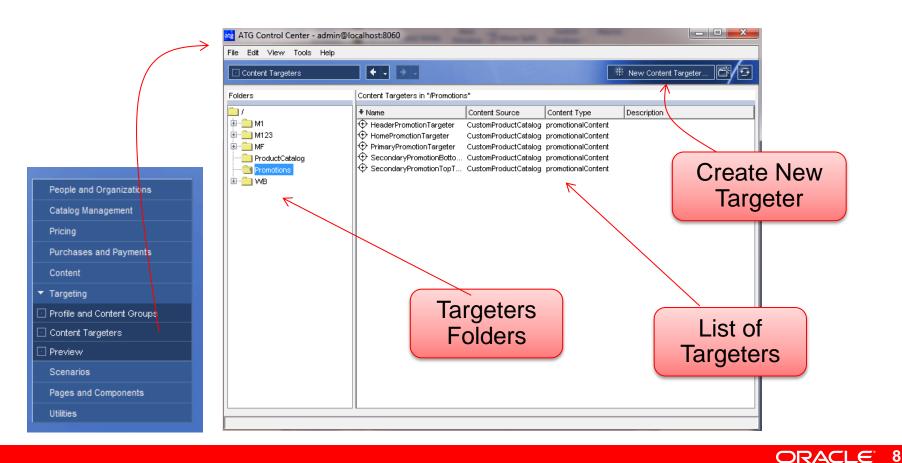


Targeters Overview

- Targeters are an excellent way to match content groups to user segments using merchandiser specified business rules.
- Targeters contain two kinds of rules:
 - Show rules,
 - Hide rules.
- Each rule type is made up of specific conditions related to:
 - Content,
 - People,
 - Date and time,
 - Environmental conditions.
- Once the rules are defined, developers use targeting servlets or scenarios/slots to display them on page.

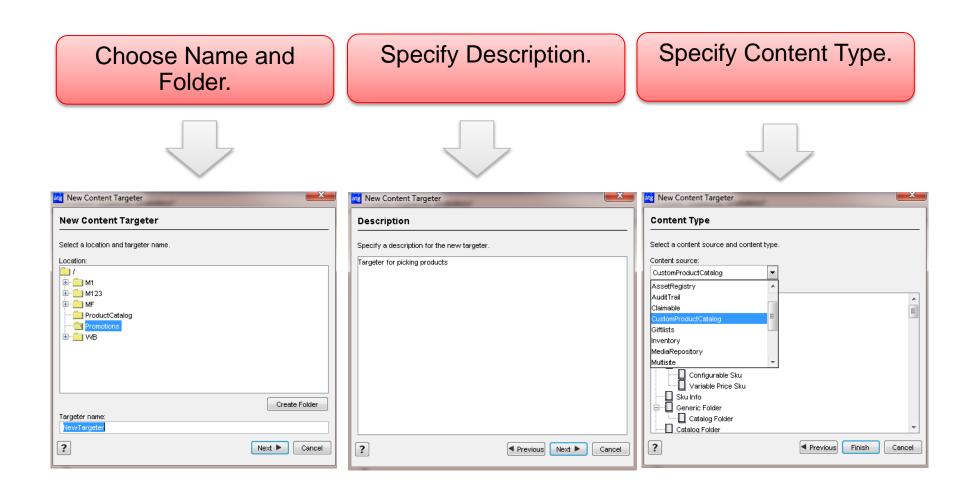
Targeters in ACC – Listing Targeters

 The content targeters list can be used to view targeters in ACC.



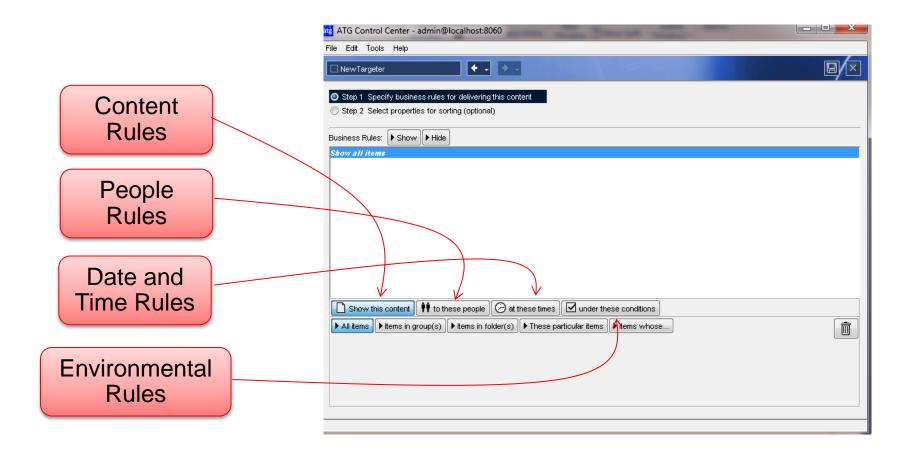
Enablement 2.0

Content Targeter Wizard



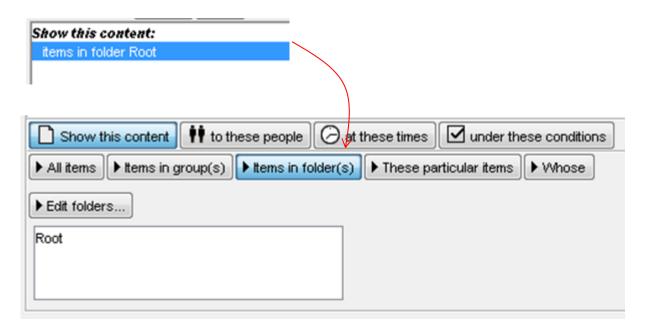
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Specify Business Rules



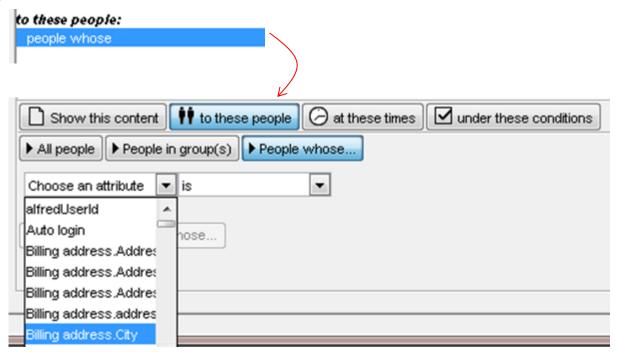
Content Conditions

- Content conditions are used to find content items that match some specific criteria.
- AND and OR conditions can be used to combine the rules.



People Conditions

- People conditions are tested against visitor profile properties to see if the rule set should be applied.
- All profile attributes are available in the conditions windows.
- They can be combined with AND and OR.



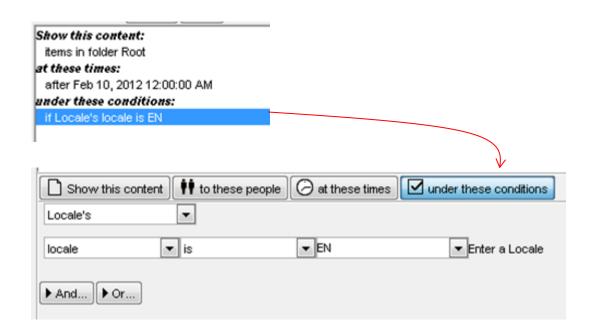
Date and Time Conditions

 Date and time conditions are tested against the current time to see if the rule set should be applied.

Show this content:	
items in folder Root	
at these times:	
after Feb 10, 2012 12:00:00 AM	
Show this content to these people	ple at these times under these conditions
▶ On ▶ Between ▶ Starting on ▶ Up	until ▶ These week days ▶ These month days
Starting on ▶ 02-10-2012 At 12 : 00 am ▼ All day	

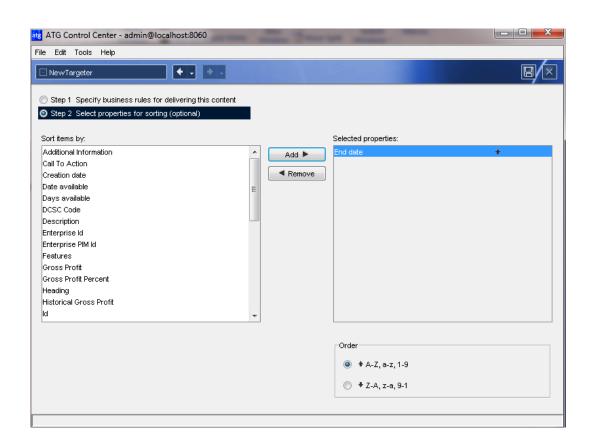
Environmental Conditions

- Environmental conditions cover properties that are not necessarily related to the visitor's profile or the current time.
- An example could be the type of web browser a visitor is using or the locale of the visitor.

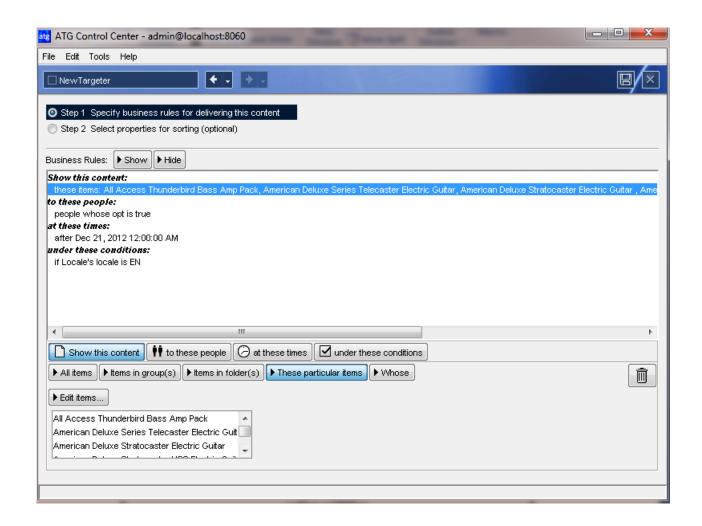


Sorting Properties

 Optionally, you can sort the results based on content item properties.



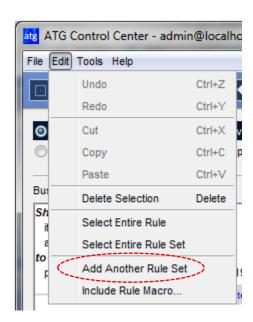
A Completed Targeter



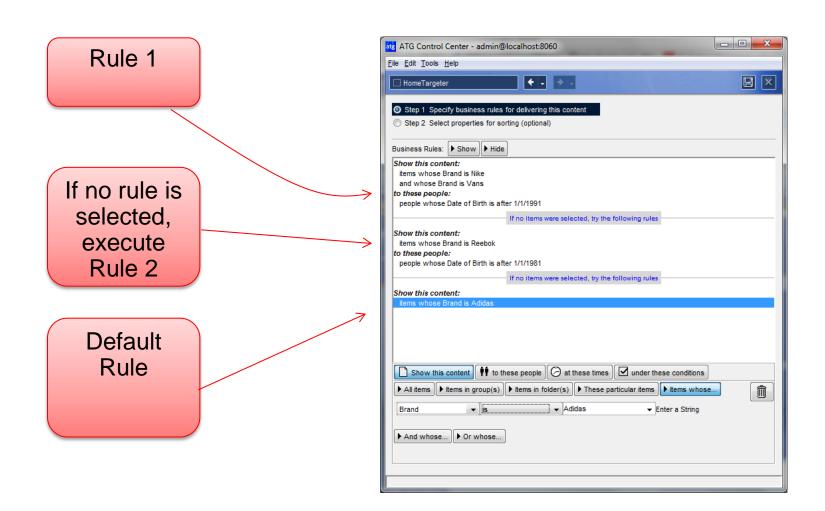
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Creating Multiple Rule Sets

- Rules can be broken into rule sets.
- Business rules are evaluated sequentially as they appear.
- If no items are selected in a set, evaluation will proceed to the next rule set.
- This allows you to create default content if certain conditions fail.
- You must organize the rules into rule sets as you create them. You cannot break rules into sets later.

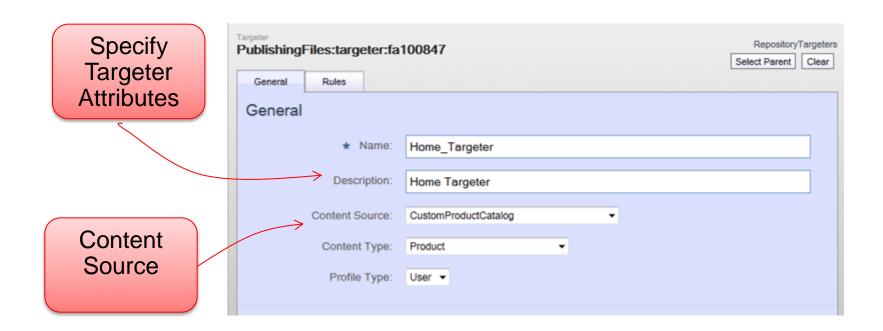


Multiple Rule Sets

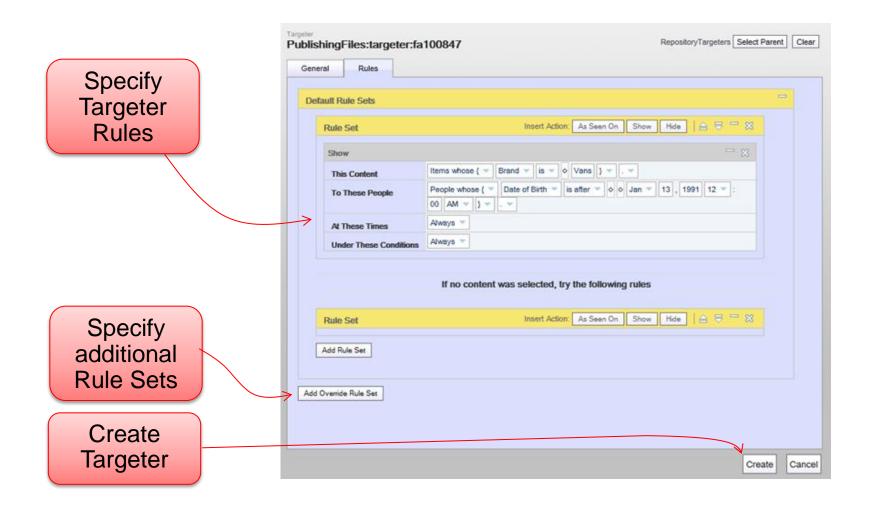


Creating Targeters in BCC (1)

- BCC is the preferred mechanism to create targeters.
- Create a personalization project to create new targeters.



Creating Targeters in BCC (2)



Targeting Servlet Beans

- Targeters can be embedded on the page using targeting servlet beans.
- ATG ships with the targeting servlet beans that help with this activity.
- Each of the servlet beans perform a targeting operation
 - TargetingArray passes the results as an array to another servlet bean for display.
 - TargetingFirst display the first n items returned by the targeter.
 - TargetingForEach displays all items returned by the targeter.
 - TargetingRandom randomly selects and displays n items returned by the targeter.
 - TargetingRange displays a subset of the items returned by the targeter, specified by a range.



Example: Displaying Targeter

- TargetingForEach is a common servlet bean used to diplay targeting content.
- The targeter parameter in all servlets takes either a slot or a targeter.

Creating Rules for Targeting Content

- The typical way to create content targeting rules is to use the Targeting and Segmentation interface in the BCC or the ATG Business Control Center.
- You can also create targeting rules by hand.
- You can define the targeting rules either as a property of a rule set service or in a separate rules file.
- A rules file is a text file with a .rules extension.
- Rules use SGML format.

Elements of Rule Sets

- Rule sets use SGML format with special tags to describe the rules
- Rules define the possible matches between items in the repository and a user.
- A rule set is made up of rules and sorting directives.
- Rules are either accept rules or reject rules.
- Sorting directives determine the order in which targeting results should be returned for display.
- Targeting rules use operators like "and," "equals," and "includes" to establish relationships between properties of target objects and properties of source objects.

Rule Sets Tags

Tags	Description
<ruleset> Tag</ruleset>	The required top-level parent tag
<accepts> Tag</accepts>	A container for all the accept rules
<rejects> Tag</rejects>	A container for the reject rules
<includes> Tag</includes>	Include entire rule sets within another rule set
<rule> Tag</rule>	Define rules
<valueof> Tag</valueof>	Can contain one or more valueof tags, depending on the rule's operation attribute
<sortby> Tag</sortby>	A container for all the sorting directives
<sortbyvalue> Tag</sortbyvalue>	A property of the target object used for sorting
<site> Tag</site>	Use in environments that support several websites

Simple Rule Set Example

Show this content:

items whose Brand is Adidas

```
<ruleset>
 <accepts>
    <rule op\=and tag\="Show">
      <rule op\=and tag\="Content">
        <rule op\=any tag\="ContentSources">
        </rule>
        <rule op\=and tag\="ContentConditions">
          <rule op\=eq>
            <valueof target\="brand">
            <valueof constant\="Adidas">
          </rule>
        </rule>
      </rule>
    </rule>
 </accepts>
</ruleset>
```

Complete Rule Set Example

```
<ruleset>
  <!-- Accept rules -->
  <accepts>
    <rule op=eq name="Rubber sector">
      <valueof target="industry sector">
      <valueof constant="rubber">
    </ri>
    <rule op=includes name="Rubber analysts">
      <valueof bean="Profile.sectorsCovered">
      <valueof constant="rubber">
    </rule>
  </accepts>
  <!-- Reject rule -->
  <rejects>
    <rule op=eq name="U.S. companies"</pre>
      <valueof target="companyCountry">
      <valueof constant="United States">
    </rule>
 </rejects>
  <!-- Sorting Directive -->
  <sortby>
    <sortbyvalue value="company" dir=ascending>
  </sortby>
</ruleset>
```

Setup Targeting Services By Hand

- When you create a targeter using the ATG Business Control Center, the system automatically sets up the components needed to make your targeting rules work.
- When you create targeting rules by hand, you need to create or configure these components yourself, including:
 - Setting up a RuleSetService,
 - Setting up a RuleBasedRepositoryTargeter,
 - Setting up a TargetingSourceMap service.

What are the two kinds of rules in targeters?

Answer: Targeters can contain either show rules or hide rules.



How can you apply complex conditions that need more than one condition?

Answer: Conditions can use AND and OR rules to combine the rules.

How do you qualify if a user should see the content in a targeter?

Answer: Using people conditions.

What do date and time conditions allow you to do?

Answer: Date and time conditions allow a rule set to be applied based on date and time.

What conditions allow you to check locale of a browser?

Answer: What conditions allow you to check locale of a browser?

Name a few targeting servlet beans.

Answer: TargetingArray, TargetingFirst, etc.

Name a few rule set tags.

Answer: Rule set, accepts, rejects, etc.

Summary

- Targeters provide a way to match content groups to user segments using merchandiser specified business rules.
- Content, people, date and time, and environmental conditions are elements of a targeter.
- Content conditions are used to find content items that match some specific criteria.
- People conditions are tested against visitor profile properties to see if the rule set should be applied.
- Date and time conditions are tested against the current time to see if the rule set should be applied.
- Environmental conditions cover properties that are not necessarily related to the visitor's profile or the current time.
- You can add multiple rule sets to a targeter.
- ATG ships with targeting servlet beans that can be used to embed targeters on a page.





Profile and Content Groups



Content and Profile Groups Overview

- A profile group or user segment represents a segment of your target audience.
- A content group is a collection of content items that share common properties.
- Grouping profile and content items provides:
 - Rule re-use,
 - Rule nesting,
 - Use of rules in scenarios and targeters,
 - Ease of maintenance,
 - Easier to read and understand the intent.

Profile Groups

- A profile group or user segment represents a segment of your target audience.
- Profile groups are created with the same include or exclude rules used in targeting.
- You can setup a profile group HighEarners as:

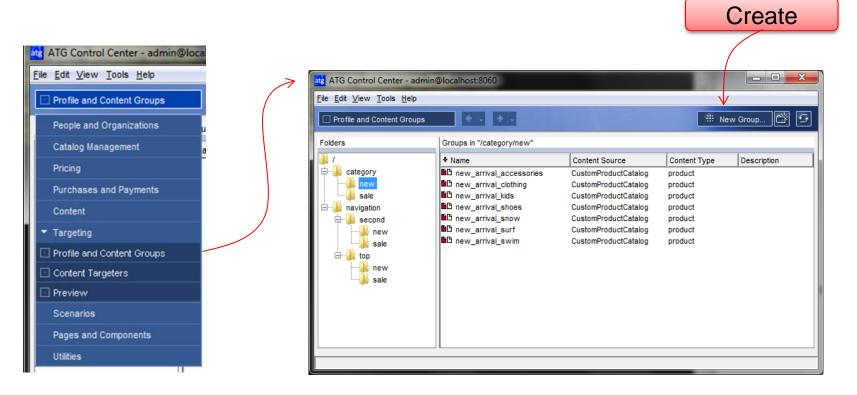
And use it in targeting as:

```
Show this content:
   newLuxuryCars.jsp
To these people:
   people in group HighEarners
```

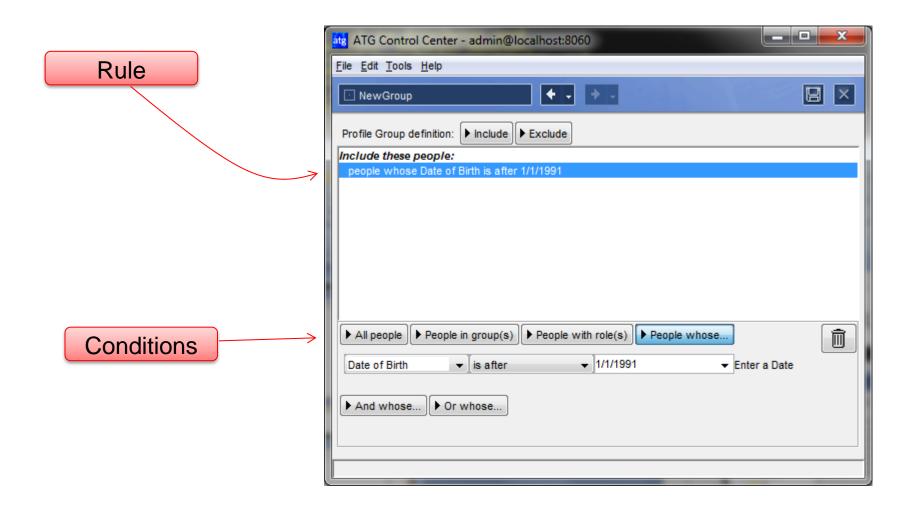
Creating Profile Groups

You can create profile groups in ACC.

 In the BCC they are called user segments. There is added functionality available through the BCC.



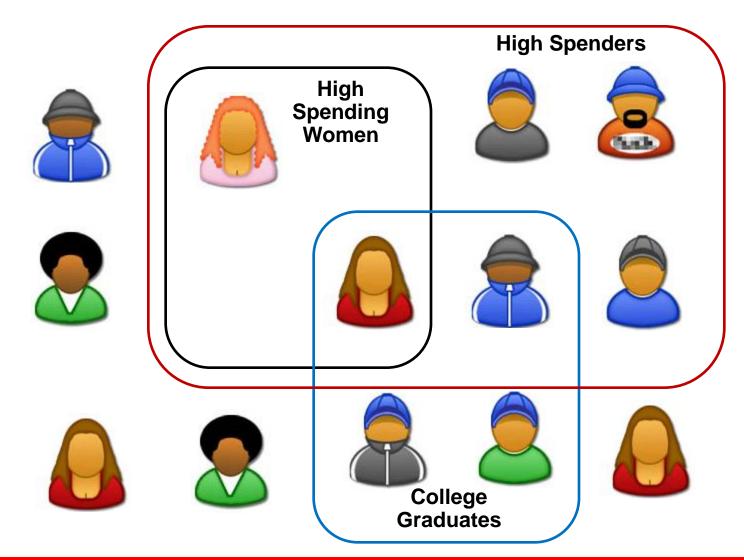
Defining Profile Group Members



Profile Groups and User Directory

- Profile groups can exist independently of organizations and rules.
- Both can be used in content targeting and scenario.
- While a person can only belong to one organization, he/she can belong to multiple profile groups.
- Profile groups are lighter for targeting rule reuse.

Profile Groups Example



Content Groups

- Content groups are a collection of content items that share common properties.
- Content groups are created with the same include or exclude rules used in targeting.
- You can setup a content group NewNYInfo as:

```
Include this content:
  items whose TargetAudience is NewUsers
  and whose keywords includes New York
```

And use it in targeting as:

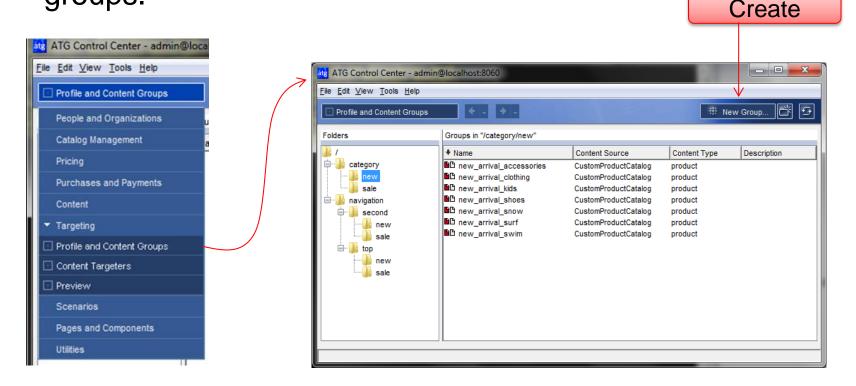
```
Show this content:
   items in group NewNYInfo
to these people:
   people whose Registration date is after 03/31/2004
```



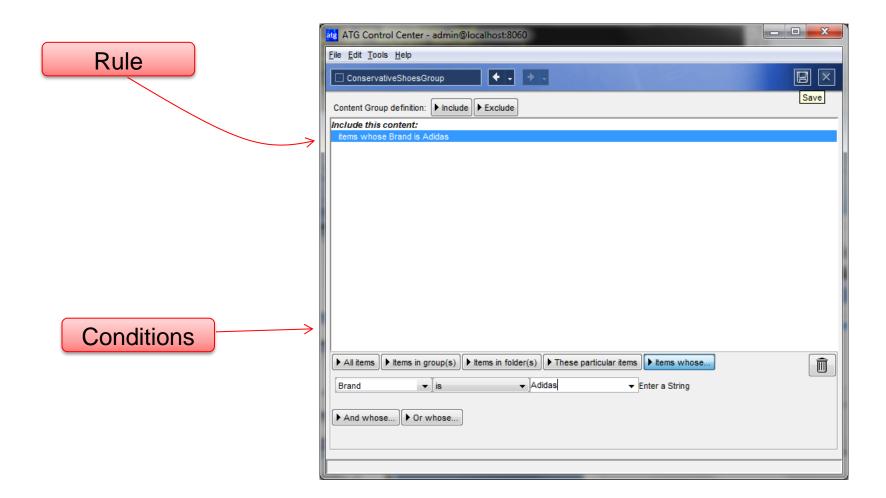
Creating Content Groups

 Content groups are best created and managed in the Business Control Center.

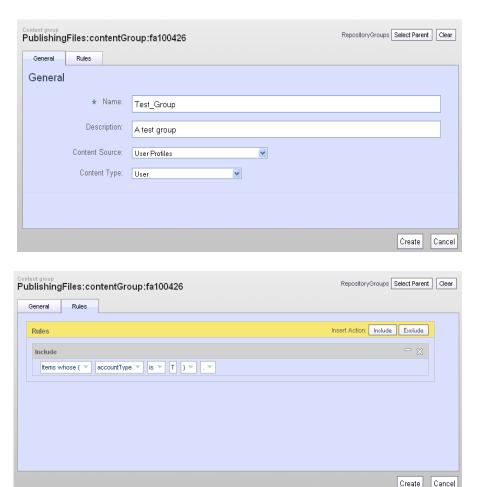
 The user interface is same for profile groups and content groups.



Defining Content Items



Creating Content and Profile Groups in BCC

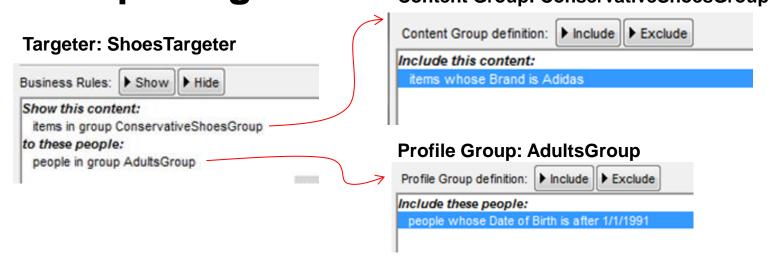


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Putting Content Groups and Profile

Groups Together

Content Group: ConservativeShoesGroup



- Once profile and content groups are set up, they can be reused in targeters.
- Reusing promotes better maintainability and cleaner targeters.

Why should you create profile and content groups?

Answer: For rule reuse, nesting, and ease of maintenance.

What are profile groups called in the BCC?

Answer: In the BCC, they are called user segments.



What is the difference between organization and profile groups?

Answer: User can belong to one organization but he can belong to many profile groups.

Where can you create profile and content groups?

Answer: Using ACC and BCC.

Summary

- A profile group or user segment represents a segment of your target audience.
- A content group is a collection of content items that share common properties.
- Both profile and content groups are created using the same include/exclude rules used in targeting.
- Once profile and content groups are set up, they can be reused in targeters.
- Profile and content groups can be created in the ACC and BCC.



Section 3:

Using Targeted Email



Targeted Email Overview

- As part of promotional campaigns, websites may send targeted emails. This helps them build long-term customer relationships.
- ATG allows us to compose and deliver email using the same profile groups and targeting rules.
- Targeted email usage examples:
 - Send a confirmation message to a new user who registers at a site.
 - Notify frequent customers of special sales.
 - Notify all users who have not logged in to a site in several months that their accounts will be closed soon.
 - Send out a mass mailing with each message tailored to its recipient.

How to Send Targeted Email Overview

- The following are the steps to create a targeted email:
 - Step 1: Create and prepare email info bean.
 - Step 2: Create an email template file.
 - Step 3: Send targeted email.
- Administrators should be ready to handle various error conditions during transmission and after transmission.

Step 1 - Create and Prepare Email Info Bean

- Create a targeted email info bean using the ATG OOTB class atg.userprofiling.email.TemplateEmailInfoImpl.
- The properties of a TemplateEmailInfolmpl object store values that are specific to an individual email campaign.
- The templateURL property specifies the mail content based on a JSP or HTML template.

Create Email Info Bean Example

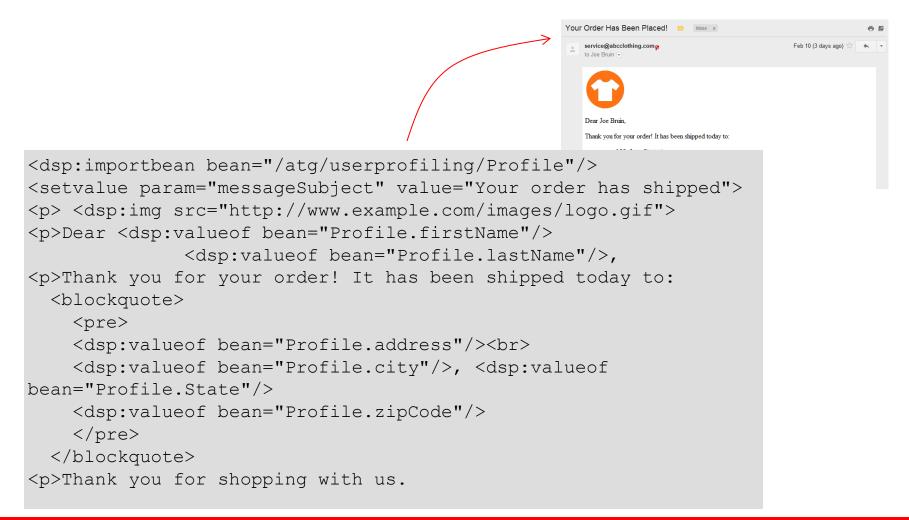
- Important properties are TemplateEmailInfoImpl:
 - messageFrom,
 - messageTo,
 - messageSubject,
 - messageAttachments,
 - templateURL: URL for template file that is used to render email content,
 - contentProcessor: Email content processor component.

```
$class=atg.userprofiling.email.TemplateEmailInfoImpl
templateURL=/email/orderConfirmationEmail.jsp
mailingName=Order Confirmation Email
messageFrom=support@abcclothing.com
messageSubject=Your Order has been placed!
fillFromTemplate=true
contentProcessor=/atg/userprofiling/email/HtmlContentProcessor
```

Step 2 - Creating a Targeted Email Template

- The email template page can include ATG servlet beans and additional JSP tags like any other pages.
- The page template for your targeted email is specified by the templateURL property of the TemplateEmailInfoImpl object.
- If contains links to other URLs on your site, must specify them as absolute URLs in email template.
- Can specify email fields in the template to overwrite email info properties values.

Creating a Targeted Email Template Example



Step 3 - Send Targeted Email

- TemplateEmailSender is the service responsible for sending targeted email.
- Its sendEmailMessage method takes a TemplateEmailInfo object together with a list of recipient profiles.
- The TemplateEmailSender does the following:
 - It renders the page given by the TemplateEmailInfo's templateURL for each of the profiles or email addresses provided.
 - It invokes the TemplateEmailInfo's createMessage method to obtain the corresponding JavaMail message.
 - It sends the resulting message to each corresponding user.



Send Targeted Email (2)

TemplateEmailSender Component Configuration:

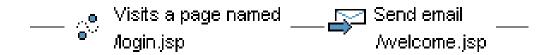
```
$class=atg.userprofiling.email.TemplateEmailSender
emailMessageSender=/atg/dynamo/service/SMTPEmail
encodingTyper=/atg/dynamo/servlet/pagecompile/EncodingTyper
localePropertyName=locale
profilePath=/atg/userprofiling/Profile
requestSetupServlet=/atg/dynamo/servlet/pipeline/DynamoHandler
templateEmailPersister=/atg/userprofiling/email/TemplateEmailPersister
templateRendererServlet=/atg/dynamo/servlet/pipeline/DynamoHandler
```

 You can use TemplateEmailSender's sendEmailMessage method to send email:

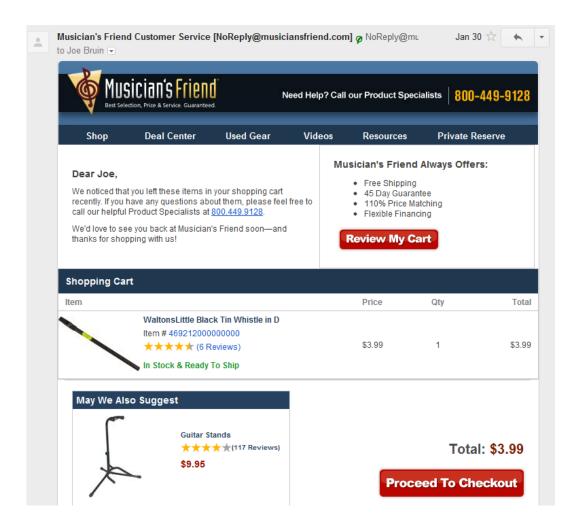
```
Object []recipients = {"bill@example.com", "sam@example.com"};
TemplateEmailSender.sendEmailMessage(TemplateEmailInfo, recipients);
```

Sending Emails from Scenarios

- You can also set up a scenario to send emails.
- Once all parts of the system are configured as specified in the previous sections, the 'Send email' action of the scenario can be used.



Example of a Personalized Email



Handling Email Problems

- Personalization module includes several services that can handle mailing fails.
- Failed email:
 - The message was sent to an illegal email address.
 - TemplateEmailSender finds all profiles that use that address, sets the emailStatus property to invalid.
- Bounced email:
 - The email address is not the actual address of any mailbox.
 - ATG Provides POP3Service which checks periodically at a POP3 mailbox for bounced back messages.
 - POP3Service generates a MailBounceEvent.
 - EmailManager component marks the corresponding user's profile as ineligible for receiving emails.



Handling Mail Problems (2)

- Stopped email campaigns:
 - A mailing is stopped for any reason.
 - ATG includes services that, when the server restarts, checks the database for incomplete mailings and restarts any that it finds.

Distributing a Mailing across Multiple Servers

- The distributed email feature allows you to manage a large mailing efficiently by splitting it into multiple batches or ranges.
- Use distributed email only for mailings to registered users.
- A distributed mailing is handled as follows:
 - Machines should be designated as distributed email servers.
 - When they receive a mailing, they separate the mail into batches.
 - An ID is maintained for the server that has claimed the batch for rendering.



List a few examples of targeted email usage.

Answer: Confirmation message to new users, special offer mails.

What are the steps for creating targeted emails?

Answer: Create and prepare email info bean, create an email template file, and send targeted email.

Section 3 Check Your Understanding

Name some important properties of TemplateEmailInfoImpl bean.

Answer: MessageFrom, MessageTo, messageSubject, etc.

Section 3 Check Your Understanding

How do you personalize the email template jsp?

Answer: You can use ATG servlet beans, targeting, and slots to personalize email template jsps.

Which service is responsible for sending emails?

Answer: TemplateEmailSender is the service responsible for sending targeted email.

Section 3 Check Your Understanding

What does the POP3Service component do?

Answer: ATG Provides POP3Service which checks periodically at a POP3 mailbox for bounced back messages and generates MailBounceEvent.

Summary

- ATG allows us to compose and deliver email using the same profile groups and targeting rules
- To send targeted email, create and configure an email info bean, create an email template and send the email.
- You can send targeted emails using scenarios.
- Personalization module includes several services that can handle mailing fails.
- The distributed email feature allows you to manage a large mailing efficiently by splitting it into multiple batches or ranges





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