



Northern Trust

SITE CATALYST LINK IMPLEMENTATION GUIDE

Corporate Online Marketing

May 2010

Prepared by: Calvin Parks

Table of Content

SiteCatalyst Link Implementation Guide	4
Legend	5
Campaign Tracking	5
HTML	5
HTML Sample	6
Image Sample	6
Check Box Sample	7
Submit Button Sample	7
Considerations	8
Flash	9
Action Script 2	9
Configuration Code	9
Move to New Line on Timeline Sample	11
Control Timeline of Another Movieclip Sample	11
Open URL Sample	11
Stop Sample	12
Rewind Sample	12
Pause Sample	12
Play Sample	13
Considerations	13
Action Script 3	14
Configuration Code	14
Move to New Line on Timeline Sample	16
Control Timeline of Another Movieclip Sample	16
Download PDF Sample	18
Open URL Sample	18
Considerations	18
Delve Player Tracking.....	18
Site Gizmo Tracking.....	19
Flash Link Tracking	20
Action Script 2	20
Configuration Code	20
Download PDF Sample	21
Open URL Sample	22
Considerations	22
Action Script 3	23
Configuration Code	25
XML Menu Driven System Sample	25
Non XML Menu Driven System Sample	26
Considerations	27
Delve Player Button Tracking.....	27

Reporting	29
Campaign Tracking	29
Conversion (Goal) Report	29
Links Reports	30
Flash Link Tracking	31
Links Reports	31
Appendix: Accounts and Servers	34

SiteCatalyst Link Implementation Guide

Overview

As part of the enhancement effort of our enterprise web analytics tool, custom link coding is required to enable tracking of Northern Trust's campaign conversion and link tracking for the Omniture SiteCatalyst tool. This guide will assist media designers and developers in implementing SiteCatalyst code for the HTML and Flash – Action Script 2 and 3 – languages.

Working page examples can be found in each section and code samples can be downloaded at www.northerntrust.com/COMAssets/misc/SiteCatalyst_Samples.zip. These should be used as references only. Actual codes should be copied directly from this document.

Objectives

At the end of this guide, you will be able to:

- Recognize code variables for campaign conversion and link tracking.
- Understand the relationship between link tracking and conversion tracking.
- Implement campaign tracking in HTML and Flash languages.
- Implement link tracking in Flash languages.
- Locate test results in the SiteCatalyst User Interface Reports.

Legend

Color	Meaning
Yellow	Content can -or- will need to be changed due to Omniture requirements
Red	Content can change due to HTML/Javascript requirements
Green	Content can -or- will need to be changed/deleted due to Flash requirements
Purple	Content can be changed for content reasons.
RedFont	Content might have to change due to server configurations.

Campaign Tracking

HTML

Working Ex: <http://www.northerntrust.com/ntlanding/TESTSITE/campaigntestConsolidated.html>

The HTML link is implemented using the anchor tag “<a>”. This tag has 3 properties whose values must be set; they are “*href*”, “*name*” and “*onclick*”.

The “*href*” property value is set to “#”, which is ignored when the link is actually clicked on by the user.

The “*onclick*” property value is set to javaScript code which executes various variable assignment and function calls which control both SiteCatalyst and the browser DOM.

LinkNameforSiteCatalyst -> set to user defined value label used in reports
this.name -> set to user defined value used for HBX conversion
s.linkTrackVars -> cleared to null values then set to standard values
s.linkTrackEvents -> cleared to null values then set to standard values
s.events -> set to standard values
s.eVar10 -> set to user defined value
s.products -> set to user defined value
s.prop13-> set to user defined value
s.prop14-> set to user defined value
s.tl()-> executes SiteCatalyst link while setting to user defined parameter value
Location.href-> go to new page. Can be changed to window.open() (see considerations);
return false -> causes the href to be ignored

HTML Sample

```
<a href="#" onclick="
  var linkNameforSiteCatalyst='HTML Link';
  this.name='x&lid='+linkNameforSiteCatalyst;
  s.linkTrackVars="";
  s.linkTrackEvents="";
  s.linkTrackVars='events,products,prop13,prop14,prop15,eVar10';
  s.linkTrackEvents='event8,event9';
  s.events='event8,event9';
  s.eVar10=linkNameforSiteCatalyst;
  s.products=';;;event9=' + 20;
  s.prop13=s.pageName;
  s.prop14=linkNameforSiteCatalyst;
  s.prop15=s.prop13+'|'+s.prop14;
  s.tl(this,'o',linkNameforSiteCatalyst);
  location.href='http://www.northerntrust.com/legacy';
  return false;
">HTML Link</a>
```

Image Sample

```
<a href="#" onclick="
  var linkNameforSiteCatalyst='Image link';
  this.name='x&lid='+linkNameforSiteCatalyst;
  s.linkTrackVars="";
  s.linkTrackEvents="";
  s.linkTrackVars='events,products,prop13,prop14,prop15,eVar10';
  s.linkTrackEvents='event8,event9';
  s.eVar10=linkNameforSiteCatalyst;
  s.events='event8,event9';
  s.products=';;;event9=' + 20;
  s.prop13=s.pageName;
  s.prop14=linkNameforSiteCatalyst;
  s.prop15=s.prop13+'|'+s.prop14;
  s.tl(this,'e',linkNameforSiteCatalyst);
  location.href='http://www.northerntrust.com/ourexperts';
  return false;
"></a>
```

Check Box Sample

```
<div class="checkboxBox"><input type="checkbox" id="Q_1900" title="I would like a free  
consultation on how Hedge Fund Monitor can serve my needs." value="00" onclick="
  var linkNameforSiteCatalyst='Check Box';
  this.name='x&lid='+linkNameforSiteCatalyst;
  s.linkTrackVars="";
  s.linkTrackEvents="";
  s.linkTrackVars='events,products,prop13,prop14,prop15,eVar10';
  s.linkTrackEvents='event8,event9';
  s.eVar10=linkNameforSiteCatalyst;
  s.events='event8,event9';
  s.products=';;;event9=' + 20;
  s.prop13=s.pageName;
  s.prop14=linkNameforSiteCatalyst;
  s.prop15=s.prop13+'|'+s.prop14;
  s.tl(this,'o',linkNameforSiteCatalyst)";
/></div>
<div class="checkboxText"><label for="Q_1900"> I would like a free consultation on how Hedge  
Fund Monitor can serve my needs </label></div>
```

Submit Button Sample

```
<a href="#"
  onclick="
    var linkNameforSiteCatalyst='Submit Button on Form';
    this.name='x&lid='+linkNameforSiteCatalyst;
    s.linkTrackVars="";
    s.linkTrackEvents="";
    s.linkTrackVars='events,products,prop13,prop14,prop15,eVar10';
    s.linkTrackEvents='event8,event9';
    s.events='event8,event9';
    s.eVar10=linkNameforSiteCatalyst;
    s.products=';;;event9=' + 10;
    s.prop13=s.pageName;
    s.prop14=linkNameforSiteCatalyst;
    s.prop15=s.prop13+'|'+s.prop14;
    s.tl(this,'e',linkNameforSiteCatalyst);
    document.sg_FormFor195796.submit();
    return false;

"></a>
```

Considerations

1. Make sure you include the SiteCatalyst JavaScript library code at the bottom of the page.

```
<script src="http://www-xp.ntrs.com/incs/s_code.js"></script>
<script src="http://www.northerntrust.com/incs/logSC.js"></script>
```

2. Make sure you log the page with SiteCatalyst servers.

```
<
script>)
// parameters are channel,page name
// to hardcode the page name, place the text in quotes: "My Test Page"
logSiteCatalyst("campaignLanding","Campaign Test 2010");
</script>
```

3. “window.open” can be used to open a URL in a new window.

 window.open (URL, windowName[, windowFeatures])

- a. URL

 The URL of the page to open in the new window. This argument could be blank.

- b. windowName

 A name to be given to the new window. The name can be used to refer this window again. To open a pop-up window use the value “_blank” for the window name.

- c. windowFeatures

 A string that determines the various window features to be included in the popup window (like status bar, address bar etc)

The following code opens a new browser window with standard features.

```
window.open ("http://www.javascript-coder.com","mywindow");
```

4. When using tracking codes within <form> tags, be sure to add a “name” property to the opening tag supplied by Survey Gizmo, if one does not exist. For example:

```
<form action=
"http://app.sgizmo.com/s/passme.php?id=ONAG4ETP7FMBP7HTXQGA1P9B78S8SJ-29
0937" method="post" enctype="multipart/form-data" class="sg_Survey_Form"
id="sg_FormFor290937" name="sg_FormFor290937">
```


Flash

Action Script 2

Working Ex: <http://www.northerntrust.com/ntlanding/TESTSITE/campaigntestConsolidated.html>

Action Script 2 is implemented using the SiteCatalyst ActionSource component. Make sure the ActionSource component is in your library (see: considerations below). Place an instance of the component on the same frame as the configuration code.

1. Then on the “root” level of the movie, place the “CONFIGURATION code” (see below) on the 1st layer and 1st frame of your movie.
2. Then set the `pageName` variable to the appropriate values
i.e. `(pageName="campaignLanding/Campaign Test 2010");`. It must match the value in the containing HTML page `logSiteCatalyst()` parameters
i.e. `(logSiteCatalyst("campaignLanding","Campaign Test 2010");)`
3. “Account” and “Server” related variables (red font) in the configuration code section will have to be modified for each website. Reference the Appendix – Accounts and Servers for their values.

The “onPress” or “onRelease” eventHandlers for trackable buttons and movies should contain the code to set property value and execute function calls which control the SiteCatalyst component. You must place the “BUTTON AND MOVIE code” (see below) on appropriate movie and button instances. Then make necessary changes to its customizable variables.

Configuration Code

//***** This “**CONFIGURATION code**” goes in frame #1 of your movie (layer 0) *****

```
import com.omniture.AS2.ActionSource;  
var s:ActionSource;
```

```
var pageName:String= new String();
```

```
pageName="campaignLanding/Campaign Test 2010";
```

```
function configActionSource() {
```

```
    s = new ActionSource();
```

```
    /* Specify the Report Suite ID(s) to track here */  
    s.account = "ntnortherntrust";
```

```

/* You may add or alter any code config here */
s.pageName = "";
s.pageURL = "";

s.charSet = "UTF-8";
s.currencyCode = "USD";

/* Turn on and configure ClickMap tracking here */
s.trackClickMap = true;
s.movieID = "";

/* Turn on and configure debugging here */
s.debugTracking = true;
s.trackLocal = true;

/* WARNING: Changing any of the below variables will cause drastic changes
to how your visitor data is collected. Changes should only be made
when instructed to do so by your account manager.*/

s.cookieDomainPeriods=2;
s.linkTrackVars="products,eVar10,events,prop14";
s.linkTrackEvents="event8,event9";

s.visitorNamespace = "northerntrust";
s.dc = "122";
s.trackingServer = "metrics.northerntrust.com";
s.trackingServerSecure = "smetrics.northerntrust.com";
}
configActionSource();

//***** This "BUTTON AND MOVIE code" goes on appropriate movie and button instances
*****

```

Download PDF Sample

```

on (release) {
_root.s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
_root.s.linkTrackEvents='event8,event9';
_root.s.eVar10='Download PDF';
_root.s.prop13= _root.pageName;
_root.s.prop14='Download PDF';
_root.s.prop15=s.prop13+'|'+s.prop14;
_root.s.events='event8,event9';
_root.s.products=';;;event9=15';
_root.s.trackLink(this,'o',s.prop14);
getURL("http://www.northerntrust.com/ntlanding/PFS/Fall09/Tax/ebooks/NT_ebook1_RothIRA.pdf", "_blank");
}

```

Move to New Line on Timeline Sample

```
on (release) {
    _root.s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
    _root.s.linkTrackEvents='event8,event9';
    _root.s.eVar10='Move to new position on main timeline';
    _root.s.prop13=_root.pageName;
    _root.s.prop14='Move to new position on main timeline';
    _root.s.prop15=s.prop13+'|'+s.prop14;
    _root.s.events='event8,event9';
    _root.s.products=';;;event9=15';
    _root.s.trackLink(this,'o',s.prop14);
    gotoAndStop("new");
}
```

Control Timeline of Another Movieclip Sample

```
on (release) {
    _root.s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
    _root.s.linkTrackEvents='event8,event9';
    _root.s.eVar10='Control timeline of another movieclip';
    _root.s.prop13=_root.pageName;
    _root.s.prop14='Control timeline of another movieclip';
    _root.s.prop15=s.prop13+'|'+s.prop14;
    _root.s.events='event8,event9';
    _root.s.products=';;;event9=15';
    _root.s.trackLink(this,'o',s.prop14);

    tellTarget ("movieclip") {
        gotoAndStop(10);
    }
}
```

Open URL Sample

```
//on (release) {
    _root.s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
    _root.s.linkTrackEvents='event8,event9';
    _root.s.eVar10='Go to outside URL';
    _root.s.prop13=_root.pageName;
    // go to out side URL
    _root.s.prop14='Go to outside URL';
    _root.s.prop15=s.prop13+'|'+s.prop14;
    _root.s.events='event8,event9';
    _root.s.products=';;;event9=10';
    _root.s.trackLink(this,'o',s.prop14);
    getURL("http://www.northerntrust.com","_blank");
    gotoAndStop(1);
}
```

Stop Sample

```
on (release) {
    _root.s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
    _root.s.linkTrackEvents='event8,event9';
    _root.s.eVar10='stop';
    _root.s.prop13= _root.pageName;
    _root.s.prop14='stop';
    _root.s.prop15= _root.s.prop13+'|'+_root.s.prop14;
    _root.s.events='event8,event9';
    _root.s.products=';;;event9=20';
    _root.s.trackLink(_level0,'o','stop');
    _parent.stop();\n
}
```

Rewind Sample

```
on (release) {
    _root.s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
    _root.s.linkTrackEvents='event8,event9';
    _root.s.eVar10='rewind';
    _root.s.prop13= _root.pageName;
    _root.s.prop14='rewind';
    _root.s.prop15= _root.s.prop13+'|'+_root.s.prop14;
    _root.s.events='event8,event9';
    _root.s.products=';;;event9=20';
    _root.s.trackLink(_level0,'o','rewind')
    _parent.gotoAndPlay(1);
}
```

Pause Sample

```
on (release) {
    _root.s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
    _root.s.linkTrackEvents='event8,event9';
    _root.s.eVar10='pause';
    _root.s.prop13= _root.pageName;
    _root.s.prop14='pause';
    _root.s.prop15= _root.s.prop13+'|'+_root.s.prop14;
    _root.s.events='event8,event9';
    _root.s.products=';;;event9=20';
    _root.s.trackLink(_level0,'o','pause');
    gotoAndStop(2);
    _parent._parent.stop();
}
```

Play Sample

```
on (release) {
    _root.s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
    _root.s.linkTrackEvents='event8,event9';
    _root.s.eVar10='play';
    _root.s.prop13= _root.pageName;
    _root.s.prop14='play';
    _root.s.prop15= _root.s.prop13+'|'+_root.s.prop14;
    _root.s.events='event8,event9';
    _root.s.products=';;;event9=30';
    _root.s.trackLink(this,'o','play');
    gotoAndStop(1);
    _parent._parent.play();
}
```

Considerations

1. ActionSource component can be installed into your new movie library by copying it from the library of any of the flash sample movies used in this document and pasting it into the new library.
2. In the configuration code, the “pageName” variable must match the same page name given to the “logSiteCatalyst” command on the HTML page where the flash movie exists. ie(
pageName="campaignLanding/Campaign Test 2010";)

Action Script 3

Working Ex: <http://www.northerntrust.com/ntlanding/PFS2010/generations/index.html>

Action Script 3 is implemented using the SiteCatalyst ActionSource component. Make sure the ActionSource component is in your library (see: considerations below). Place an instance of the component on the same frame as the configuration code.

1. Then on the “root” level of the movie, place the “CONFIGURATION code” (see below) on the 1st layer and 1st frame of your movie.
2. Then set the pageName variable to the appropriate values i.e.(pageName= “campaignLanding/PFS Campaign 2010-Wealth and Wisdom Across Generations”). It must match the value in the containing HTML page logSiteCatalyst() paramaters i.e.(logSiteCatalyst("campaignLanding","PFS Campaign 2010-Wealth and Wisdom Across Generations");
3. “Account” and “Server” related variables (red font) in the configuration code section will have to be modified for each website. Reference the Appendix – Accounts and Servers for their values.

The “Press” or “Release” or “click” eventHandler functions for buttons and movies that you want to track should contain the “EVENT HANDLER code” below. Then make necessary changes to it's customizable variables.

Configuration Code

//***** This “**CONFIGURATION code**” goes in frame #1 of your movie (layer 0) *****

```
import com.omniture.ActionSource;
var s:ActionSource;
```

```
var pageName:String="campaignLanding/PFS Campaign 2010-Wealth and Wisdom Across Generations";
```

```
function configActionSource() {
```

```
    s = new ActionSource();
```

```
    /* Specify the Report Suite ID(s) to track here */
    s.account = "ntnortherntrust";
```

```
    /* You may add or alter any code config here */
    s.pageName = "";
    s.pageURL = "";
```

```
    s.charSet = "UTF-8";
    s.currencyCode = "USD";
```

```
/* Turn on and configure ClickMap tracking here */
s.trackClickMap = true;
s.movieID = "";
```

```
/* Turn on and configure debugging here */
s.debugTracking = true;
s.trackLocal = true;
```

```
/* WARNING: Changing any of the below variables will cause drastic changes
to how your visitor data is collected. Changes should only be made
when instructed to do so by your account manager.*/
```

```
s.cookieDomainPeriods=2;
s.linkTrackVars="products,eVar10,events,prop14";
s.linkTrackEvents="event8,event9";
```

```
s.visitorNamespace = "northerntrust";
s.dc = "122";
s.trackingServer = "metrics.northerntrust.com";
s.trackingServerSecure = "smetrics.northerntrust.com";
}
configActionSource();
```

```
function removeSpecialCharacters(inString:String) {
var textString:String = inString;
var newTextString:String;
```

```
newTextString=textString.split("&#xD;").join("");
newTextString=newTextString.split("&").join("AND");
```

```
newTextString=newTextString.split("=").join("");
newTextString=newTextString.split("#").join("");
newTextString=newTextString.split("!").join("");
newTextString=newTextString.split("").join("");
newTextString=newTextString.split("%").join("");
newTextString=newTextString.split("(").join("");
newTextString=newTextString.split(")").join("");
newTextString=newTextString.split(":").join("");
newTextString=newTextString.split("*").join("");
newTextString=newTextString.split("/").join("");
newTextString=newTextString.split("\\").join("");
newTextString=newTextString.split("[").join("");
newTextString=newTextString.split("]").join("");
newTextString=newTextString.split(";").join("");
newTextString=newTextString.split("<").join("");
newTextString=newTextString.split(">").join("");
newTextString=newTextString.split("~").join("");
newTextString=newTextString.split("^").join("");
newTextString=newTextString.split("|").join("");
```

```
return newTextString;
}
```

//**** This “EVENT HANDLER code” goes on frame where button instances existence begins ****

Move to New Line on Timeline Sample

```
frame1_mc.frame1_to_a_btn.addEventListener(MouseEvent.CLICK, doToA);
function doToA(e:MouseEvent):void{
    var linkName:String;
    var linkURL:String;
    linkName='PFSNA040910Generations_CS Read more 1';
    linkName=removeSpecialCharacters(linkName);

    MovieClip(root).s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
    MovieClip(root).s.linkTrackEvents='event8,event9';
    MovieClip(root).s.eVar10='PFSNA040910Generations_CS Read more 1';
    MovieClip(root).s.prop13=MovieClip(root).pageName;
    MovieClip(root).s.prop14=linkName;
    MovieClip(root).s.prop15=MovieClip(root).s.prop13+'|'+linkName;
    MovieClip(root).s.events='event8,event9';
    MovieClip(root).s.products=';;;event9=40';
    MovieClip(root).s.trackLink(linkURL,'e',linkName);

    gotoAndStop("frame1a");
}
```

Control Timeline of Another Movieclip Sample

// this example assumes a button is named “frame1_to_e_btn”. and resides inside movieClip “frame1_mc”.

```
frame1_mc.frame1_to_e_btn.addEventListener(MouseEvent.CLICK, doToE);
function doToE(e:MouseEvent):void{
    var linkName:String;
    var linkURL:String;
    linkName='PFSNA040910Generations_CS Read more 1';
    linkName=removeSpecialCharacters(linkName);

    MovieClip(root).s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
    MovieClip(root).s.linkTrackEvents='event8,event9';
    MovieClip(root).s.eVar10='PFSNA040910Generations_CS Read more 1';
    MovieClip(root).s.prop13=MovieClip(root).pageName;
    MovieClip(root).s.prop14=linkName;
    MovieClip(root).s.prop15=MovieClip(root).s.prop13+'|'+linkName;
    MovieClip(root).s.events='event8,event9';
    MovieClip(root).s.products=';;;event9=40';
    MovieClip(root).s.trackLink(linkURL,'e',linkName);

    someMovieClip_mc.gotoAndStop("frame1a");
}
```

Download PDF Sample

// this example assumes a button is named "famEd_2_btn".

```
famEd_2_btn.addEventListener(MouseEvent.CLICK, doFamEd2);
function doFamEd2(e:MouseEvent):void{
// Begin Omniture code
var linkName:String;
var linkURL:String;
linkName='PFSNA040910Generations_Res Fam Ed Living Well Roadmap';
linkName=MovieClip(root).removeSpecialCharacters(linkName);
MovieClip(root).s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
MovieClip(root).s.linkTrackEvents='event8,event9';
MovieClip(root).s.eVar10=linkName;
MovieClip(root).s.prop13=MovieClip(root).pageName;
MovieClip(root).s.prop14=linkName;
MovieClip(root).s.prop15=MovieClip(root).s.prop13+'|'+linkName;
MovieClip(root).s.events='event8,event9';
MovieClip(root).s.products=';;;event9=40';
MovieClip(root).s.trackLink(linkURL,'e',linkName);
// End Omniture code

navigateToURL(new
URLRequest("http://www.ac.northerntrust.com/content//media/attachment/data/white_paper/0708
/document/Living_Well_Roadmap.pdf"),"_blank");
}
```

Open URL Sample

// this example assumes a button is named "phil_3_btn".

```
phil_3_btn.addEventListener(MouseEvent.CLICK, phil3);
function phil3(e:MouseEvent):void{
// Begin Omniture code
var linkName:String;
var linkURL:String;
linkName='PFSNA040910Generations_Res Phil Diversity of Giving';
linkName=MovieClip(root).removeSpecialCharacters(linkName);
MovieClip(root).s.linkTrackVars='eVar10,events,products,prop13,prop14,prop15';
MovieClip(root).s.linkTrackEvents='event8,event9';
MovieClip(root).s.eVar10=linkName;
MovieClip(root).s.prop13=MovieClip(root).pageName;
MovieClip(root).s.prop14=linkName;
MovieClip(root).s.prop15=MovieClip(root).s.prop13+'|'+linkName;
MovieClip(root).s.events='event8,event9';
MovieClip(root).s.products=';;;event9=40';
MovieClip(root).s.trackLink(linkURL,'e',linkName);
// End Omniture code

navigateToURL(new
URLRequest("http://www.northerntrust.com/pws/jsp/display2.jsp?TYPE=interior&XML=pages/nt/0
705/1178054075579_880.xml"),"_blank");
}
```

Considerations

1. ActionSource component can be installed into your new movie library by copying it from the library of any of the flash sample movies used in this document and pasting it into the new library.
2. In the configuration code, the “pageName” variable must match the same page name given to the “logSiteCatalyst” command on the HTML page where the flash movie exists. ie(`pageName="campaignLanding", "PFS Campaign 2010-Wealth and Wisdom Across Generations"`);

DELVE PLAY Button tracking

1) Copy and past the following HTML block of code to the bottom of your HTML page and before the ending “</body>” tag

```
***** BEGIN: add this block of code to the bottom of your HTML file. *****
<script type="text/javascript">
var playMovieEventDetected= new Boolean(false);
function delvePlayerCallback (playerId, eventName, data)
{
  var id = "limelight_player_415692";
  if (eventName == 'onPlayerLoad' && (DelvePlayer.getPlayers() == null ||
DelvePlayer.getPlayers().length == 0))
  {
    DelvePlayer.registerPlayer(id);
  }
  // alert("event is: "+eventName);

  switch(eventName)
  {
    case 'onPlayerLoad':
      // do something
      break;
    case 'onMediaLoad':
      // do something
      break;

    case 'onPlayStateChanged':
      if (data.isPlaying==true) {
        if (playMovieEventDetected==false) {
```

```

        sendCampaignTrackingLink();
        playMovieEventDetected=true;
    }
}
break;
}
}

function sendCampaignTrackingLink() {
    var linkNameforSiteCatalyst='Campaign Test
link';

    this.name='x&lid='+linkNameforSiteCatalyst;
    s.linkTrackVars="";
    s.linkTrackEvents="";

    s.linkTrackVars='events,products,prop13,prop14,prop15,eVar10';
    s.linkTrackEvents='event8,event9';
    s.events='event8,event9';
    s.eVar10=linkNameforSiteCatalyst;
    s.products=';;;event9=' + 100;
    s.prop13=s.pageName;
    s.prop14=linkNameforSiteCatalyst;
    s.prop15=s.prop13+'|'+s.prop14;
    s.tl(this,'e',linkNameforSiteCatalyst);
    return false;
}
</script>
***** END: add block of code *****

```

2) Then you must update the value of the var id = “????????” with the value for the id of the lime light player on the page. This id can be found in the HTML file in the command
“<script>LimelightPlayerUtil.initEmbed('limelight_player_415692');</script>
The “limelight_player_415692” is the id in this example.

SITE GIZMO CODE...

There are 3 things that must be done to add campaign tracking to a site gizmo generated survey page.

1) The survey HTML will contain a site gizmo form defined by the “<form></form>” opening and closing tags. The opening form tag of the site gizmo generated form must be edited by adding an onSubmit definition. The following code must be add. onSubmit="return sendCampaignInfo();" Below is an example of the final opening form tag.

***** EDIT: this line of code. *****

```
<form action="http://www.surveygizmo.com/s3/html/406037/bd220c0a25ad"
method="post" enctype="multipart/form-data" class="sg-survey-form"
id="sg_FormFor406037" name="sg_FormFor406037" onSubmit="return
sendCampaignInfo();">
```

2) The following code must be added to the bottom of your HTML file.

***** BEGIN: add this block of code to the bottom of your HTML file. *****

```
<script>
    var submitButtonPressed=false;
    function sendCampaignInfo() {

        if(!submitButtonPressed) {
            var linkNameforSiteCatalyst='Nov29_v3_NTO_test_Submit';
            this.name='x&lid='+linkNameforSiteCatalyst;
            s.linkTrackVars="";
            s.linkTrackEvents="";
            s.linkTrackVars='events,products,prop13,prop14,prop15,eVar10';
            s.linkTrackEvents='event8,event9';
            s.events='event8,event9';
            s.eVar10=linkNameforSiteCatalyst;
            s.products=';;;event9=' + 100;
            s.prop13=s.pageName;
            s.prop14=linkNameforSiteCatalyst;
            s.prop15=s.prop13+'|'+s.prop14;
            s.tl(this,'e',linkNameforSiteCatalyst);
            return true;
        }
        submitButtonPressed=true;
    }

</script>
```

3) Ensure that the page is registered in SiteCatalyst using the logSiteCatalyst similar to the sample below.

```
<script type="text/javascript">
logSiteCatalyst("campaignLanding","NTOpen Test 2010");
</script>
```

Flash Link Tracking

Action Script 2

Working Ex: None

Action Script 2 is implemented using the SiteCatalyst ActionSource component. Make sure the ActionSource component is in your library (see: considerations below). Place an instance of the component on the same frame as the configuration code.

1. Then on the “root” level of the movie, place the “CONFIGURATION code” (see below) on the 1st layer and 1st frame of your movie.
2. Then set the pageName variable to the appropriate values
i.e.(pageName="campaignLanding/Campaign Test 2010");. It must match the value in the containing HTML or ECMS page logSiteCatalyst() paramaters
i.e.(logSiteCatalyst("campaignLanding","Campaign Test 2010");)
3. “Account” and “Server” related variables (red font) in the configuration code section will have to be modified for each website. Reference the Appendix – Accounts and Servers for their values.

The “onPress” or “onRelease” eventHandlers for trackable buttons and movies should contain the code to set property value and execute function calls which control the SiteCatalyst component. You must place the “BUTTON AND MOVIE code” (see below) on appropriate movie and button instances. Then make necessary changes to it's customizable variables.

Configuration Code

//***** This “**CONFIGURATION code**” goes in frame #1 of your movie (layer 0) *****

```
import com.omniture.AS2.ActionSource;  
var s:ActionSource;
```

```
var pageName:String= new String();  
pageName="campaignLanding","Campaign Test 2010";
```

```
function configActionSource() {
```

```
    s = new ActionSource();
```

```
    /* Specify the Report Suite ID(s) to track here */  
    s.account = "ntnortherntrust";
```

```

/* You may add or alter any code config here */
s.pageName = "";
s.pageURL = "";

s.charSet = "UTF-8";
s.currencyCode = "USD";

/* Turn on and configure ClickMap tracking here */
s.trackClickMap = true;
s.movieID = "";

/* Turn on and configure debugging here */
s.debugTracking = true;
s.trackLocal = true;

/* WARNING: Changing any of the below variables will cause drastic changes
to how your visitor data is collected. Changes should only be made
when instructed to do so by your account manager.*/

s.cookieDomainPeriods=2;
s.linkTrackVars="products,eVar10,events,prop14";
s.linkTrackEvents="event8,event9";

s.visitorNamespace = "northerntrust";
s.dc = "122";
s.trackingServer = "metrics.northerntrust.com";
s.trackingServerSecure = "smetrics.northerntrust.com";
}
configActionSource();

//***** This "BUTTON AND MOVIE"code goes on appropriate movie and button instances *****

```

Download PDF Sample

```

on (release) {
var linkName:String = 'Download PDF';
_root.s.linkTrackVars='prop13,prop14,prop15';
_root.s.prop13=_root.pageName;
_root.s.prop14=linkName;
_root.s.prop15=s.prop13+'|'+s.prop14;
_root.s.trackLink(this,'o',linkName);
getUrl("http://www.northerntrust.com/ntlanding/PFS/Fall09/Tax/ebooks/NT_ebook1_RothIRA.pdf", "_blank");
}

```

Open URL Sample

```
//on (release) {  
var linkName:String = 'Go to outside URL';  
_root.s.linkTrackVars='prop13,prop14,prop15';  
_root.s.prop13=_root.pageName;  
_root.s.prop14=linkName;  
_root.s.prop15=s.prop13+'|'+s.prop14;  
_root.s.trackLink(this,o,linkName);  
getURL("http://www.northerntrust.com", "_blank");  
gotoAndStop(1);  
}
```

Considerations

1. ActionSource component can be installed into your new movie library by copying it from the library of any of the flash sample movies used in this document and pasting it into the new library.
2. In the configuration code, the “pageName” variable must match the same page name given to the “logSiteCatalyst” command on the HTML or ECMS page where the flash movie exists. ie(
pageName="campaignLanding","Campaign Test 2010 ");

Action Script 3

Action Script 3 is implemented using the SiteCatalyst ActionSource component. Make sure the ActionSource component is in your library (see: considerations below). Place an instance of the component on the same frame as the configuration code.

1. Then on the “root” level of the movie, place the “CONFIGURATION code” (see below) on the 1st layer and 1st frame of your movie.
2. Then set the pageName variable to the appropriate values
i.e.(pageName= “us/pfs/Personal Financial Services - United States”). It must match the value in the containing HTML or ECMS page logSiteCatalyst() paramaters
i.e.(logSiteCatalyst(“us/pfs/Personal Financial Services - United States”);
3. “Account” and “Server” related variables (red font) in the configuration code section will have to be modified for each website. Reference the Appendix – Accounts and Servers for their values.

The “Press” or “Release” or “click” eventHandler functions for buttons and movies that you want to track should contain the “EVENT HANDLER code” below. Then make necessary changes to it's customizable variables.

Configuration Code

//***** This “**CONFIGURATION code**” goes in frame #1 of your movie (layer 0) *****

```
import com.omniture.ActionSource;
var s:ActionSource;

var pageName:String="us/pfs/Personal Financial Services - United States";

function configActionSource() {
    s = new ActionSource();

    /* Specify the Report Suite ID(s) to track here */
    s.account = "ntnortherntrust";

    /* You may add or alter any code config here */
    s.pageName = "";
    s.pageURL = "";

    s.charSet = "UTF-8";
    s.currencyCode = "USD";

    /* Turn on and configure ClickMap tracking here */
    s.trackClickMap = true;
    s.movieID = "";
```



```

/* Turn on and configure debugging here */
s.debugTracking = true;
s.trackLocal = true;

/* WARNING: Changing any of the below variables will cause drastic changes
to how your visitor data is collected. Changes should only be made
when instructed to do so by your account manager.*/

s.cookieDomainPeriods=2;
s.linkTrackVars="products,eVar10,events,prop14";
s.linkTrackEvents="event8,event9";

s.visitorNamespace = "northerntrust";
s.dc = "122";
s.trackingServer = "metrics.northerntrust.com";
s.trackingServerSecure = "smetrics.northerntrust.com";
}
configActionSource();

```

XML Menu Driven System Sample

Working Ex:

http://www.northerntrust.com/pws/jsp/display2.jsp?TYPE=landing&XML=pages/ntlanding/pfs_us&pageTimeout=600

//**** This "EVENT HANDLER code" goes on frame where button instances existence begins ****

```

function subBtClickHandler(e:Event):void {
var bt:MovieClip=MovieClip(e.target);
var id:Number=bt.idNum;

sendToSC(id);
var url:URLRequest=new URLRequest(xml.children()[btNum].children()[id].@link);
navigateToURL(url,"_self");
}

function removeSpecialCharacters(inString:String) {
var textString:String = inString;
var newTextString:String;

newTextString=textString.split("&#xD;").join("");
newTextString=newTextString.split("&").join("AND");

newTextString=newTextString.split("=").join("");
newTextString=newTextString.split("#").join("");
newTextString=newTextString.split("!").join("");
newTextString=newTextString.split("").join("");
newTextString=newTextString.split("%").join("");
newTextString=newTextString.split("(").join("");
newTextString=newTextString.split(")").join("");
newTextString=newTextString.split(":").join("");
newTextString=newTextString.split("*").join("");
newTextString=newTextString.split("/").join("");

```

```

newTextString=newTextString.split("\\").join("");
newTextString=newTextString.split("[").join("");
newTextString=newTextString.split("]").join("");
newTextString=newTextString.split(";").join("");
newTextString=newTextString.split("<").join("");
newTextString=newTextString.split(">").join("");
newTextString=newTextString.split("~").join("");
newTextString=newTextString.split("^").join("");
newTextString=newTextString.split("|").join("");

return newTextString;
}

function sendToSC(id:Number) {
var linkName:String;
var linkURL:String;
linkName="FLASH_"+xml.children()[btNum].@name+"_"+xml.children()[btNum].children()[id].@name;
linkName=removeSpecialCharacters(linkName);
s.linkTrackVars='prop13,prop14,prop15';
s.prop13=pageName; // page name value is set on frame #1 of movie
s.prop14=linkName;
s.prop15=s.prop13+'|'+linkName;
s.trackLink(linkURL,'e',linkName);

}

```

Non XML Menu Driven System Sample

Working Ex: None

```

your_button_Name.addEventListener(MouseEvent.CLICK, your_function_name);
function your_function_name(e:MouseEvent):void{
// Begin Site code
var linkName:String;
var linkURL:String;
linkName='your link name goes here';
linkName=removeSpecialCharacters(linkName);
s.linkTrackVars='prop13,prop14,prop15';
s.prop13=pageName; // page name value is set on frame #1 of movie
s.prop14=linkName;
s.prop15=s.prop13+'|'+linkName;
s.trackLink(linkURL,'e',linkName);
// End Site code
}

```

Considerations

1. This is an example of the XML structure that the code above requires.

```
var xml:XML = new XML("<nav>"  
    "<item name='WHAT WE DO'>"+"<item name='FINANCIAL PLANNING'"  
    link='http://www.northerntrust.com/pws/jsp/display2.jsp?TYPE=interior&XML=pag  
es/nt/0406/55629375_4012.xml&TYPE=interior'></item>" + "</nav>");
```

2. ActionSource component can be installed into your new movie library by copying it from the library of any of the flash sample movies used in this document and pasting it into the new library.
3. In the configuration code, the “pageName” variable must match the same page name given to the “logSiteCatalyst” command on the HTML or ECMS page where the flash movie exists. ie(pageName="us/pfs/Personal Financial Services - United States");)

DELVE PLAY Button tracking

Copy and past the following HTML block of code to the bottom of your HTML page and before the ending “</body>” tag

Then you must edit the value of the var id = “????????” and add the id of the lime light player. This id can be found at in the HTML file in the command “<script>LimelightPlayerUtil.initEmbed('limelight_player_415692');</script>”

***** BEGIN: add this block of code to the bottom of your HTML file.

```
<script type="text/javascript">  
var playMovieEventDetected= new Boolean(false);  
function delvePlayerCallback (playerId, eventName, data)  
{  
    var id = "limelight_player_415692";  
    if (eventName == 'onPlayerLoad' && (DelvePlayer.getPlayers() == null ||  
DelvePlayer.getPlayers().length == 0))  
    {  
        DelvePlayer.registerPlayer(id);  
    }  
    // alert("event is: "+eventName);  
  
    switch(eventName)
```

```

{
  case 'onPlayerLoad':
    // do something
    break;
  case 'onMediaLoad':
    // do something
    break;

  case 'onPlayStateChanged':
    if (data.isPlaying==true) {
      if (playMovieEventDetected==false) {
        sendCampaignTrackingLink();
        playMovieEventDetected=true;
      }
    }
    break;
}
}
}

function sendCampaignTrackingLink() {
  var linkNameforSiteCatalyst='Campaign Test
link';

  this.name='x&lid='+linkNameforSiteCatalyst;
  s.linkTrackVars="";
  s.linkTrackEvents="";

  s.linkTrackVars='events,products,prop13,prop14,prop15,eVar10';
  s.linkTrackEvents='event8,event9';
  s.events='event8,event9';
  s.eVar10=linkNameforSiteCatalyst;
  s.products=';;;event9=' + 100;
  s.prop13=s.pageName;
  s.prop14=linkNameforSiteCatalyst;
  s.prop15=s.prop13+'|'+s.prop14;
  s.tl(this,'e',linkNameforSiteCatalyst);
  return false;
}
</script>

```

***** END: add block of code *****

Reporting

Once implementation is complete, push the files to production (SiteCatalyst is not active in UAT environments). Test your files by clicking on each coded item and locate the results in the SiteCatalyst User Interface Reports.*

* If you are a 3rd party vendor, your Northern Trust contact will push the files to production and will provide you with temporary access to the web-based tool.

Campaign Tracking

Testing campaign tracking requires verifying your results in the Conversion (Goal) and Links Reports.

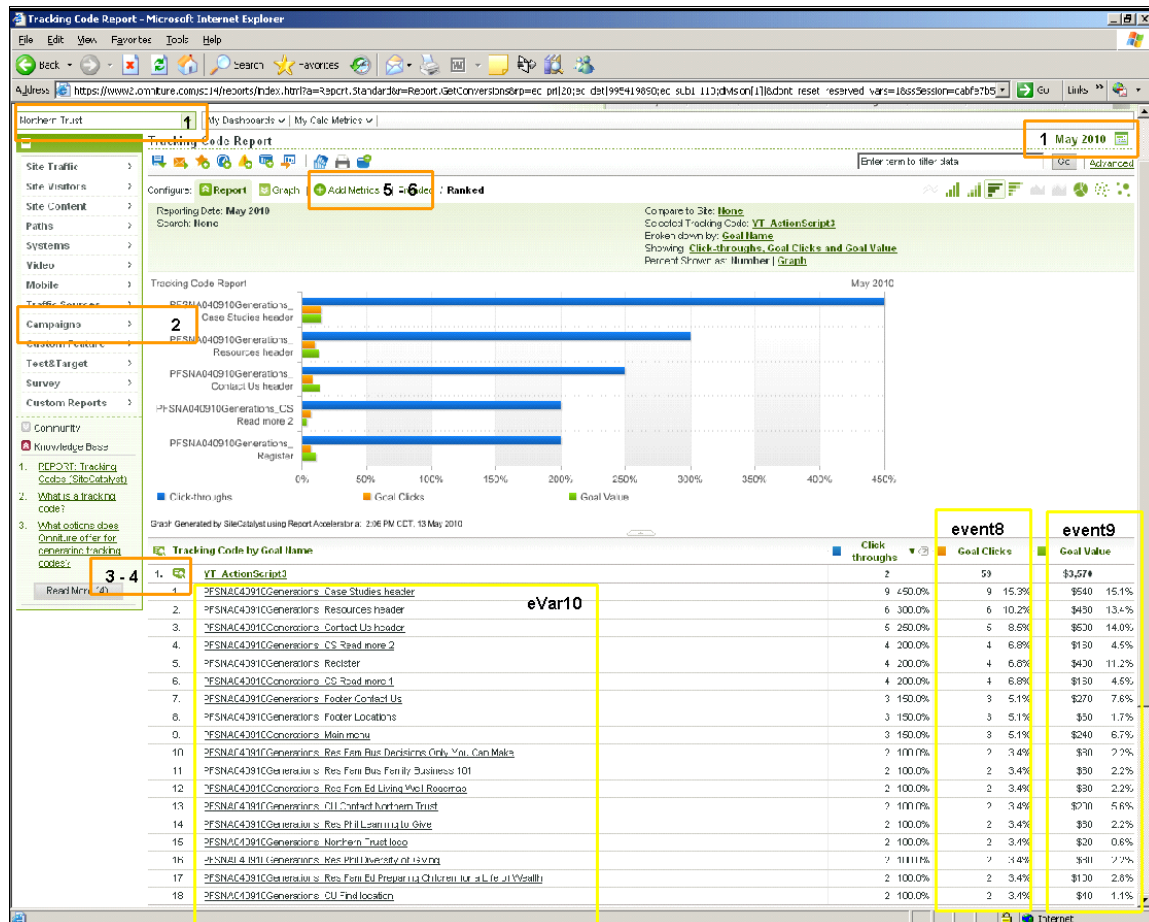
Conversion (Goal) Report

Campaign conversion tracking is active only when a “response” triggers the conversion activities. To create a response, place a tracking code into the query string of your destination URL:

http://www.northerntrust.com/ntlanding/PFS2010/generations/index.html?cmpid=YT_ActionScript3_Test1, where ?cmpid=YourInitials_TestDescription_TestNumber.

Then, locate your test results in the Conversion (Goal) Report to verify your conversion values.

1. Select the Report Suite and Date Range
2. Navigate to Campaigns > Tracking Code > Tracking Code
3. Locate your tracking code and click on the green drill down icon
4. Select Campaigns > Goal Name
5. On your Configure header, click on Add Metrics
6. Select Goal Clicks and Goal Values and OK

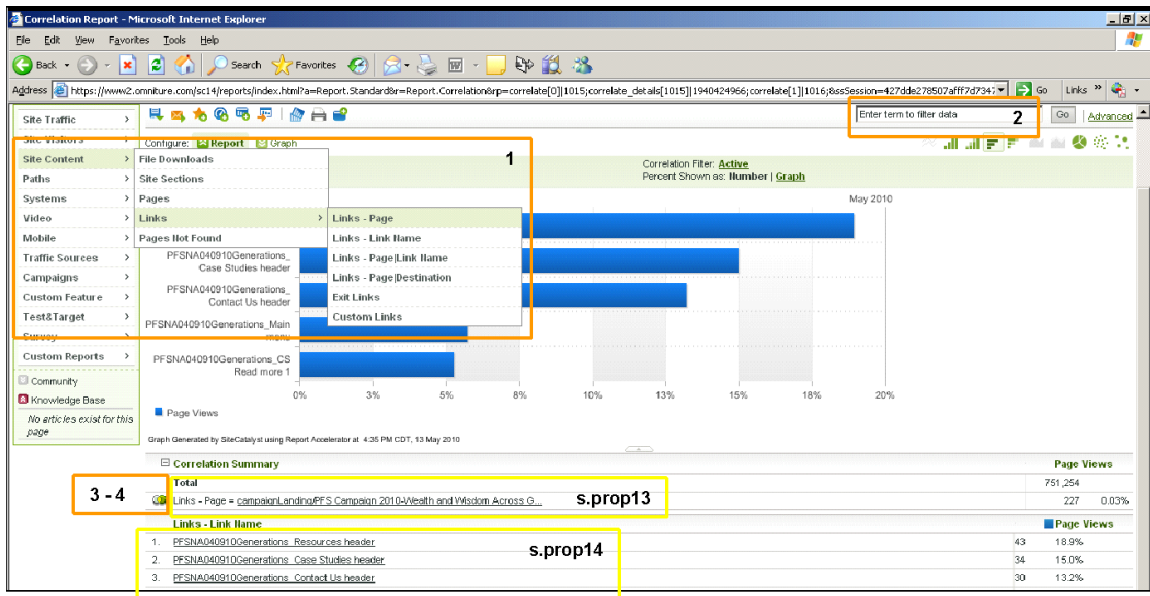


Links Reports

Locate your test results in the Links Reports to verify your link values.

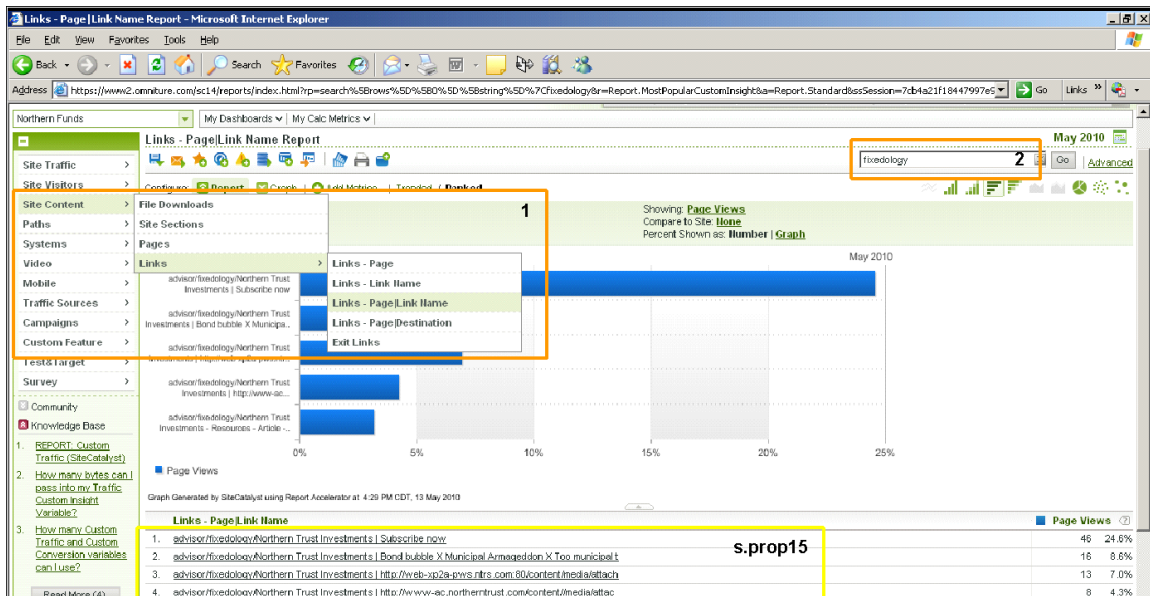
For the Northern Trust and Intranet websites, follow these steps:

1. Navigate to Site Content > Links > Links – Page
2. Search for your page name
3. Click on the green drill down icon
4. Select Site Content > Links – Link Name



For all other websites, follow these steps:

1. Navigate to Site Content > Links > Links – Page|Link Name
2. Search for your page name



Flash Link Tracking

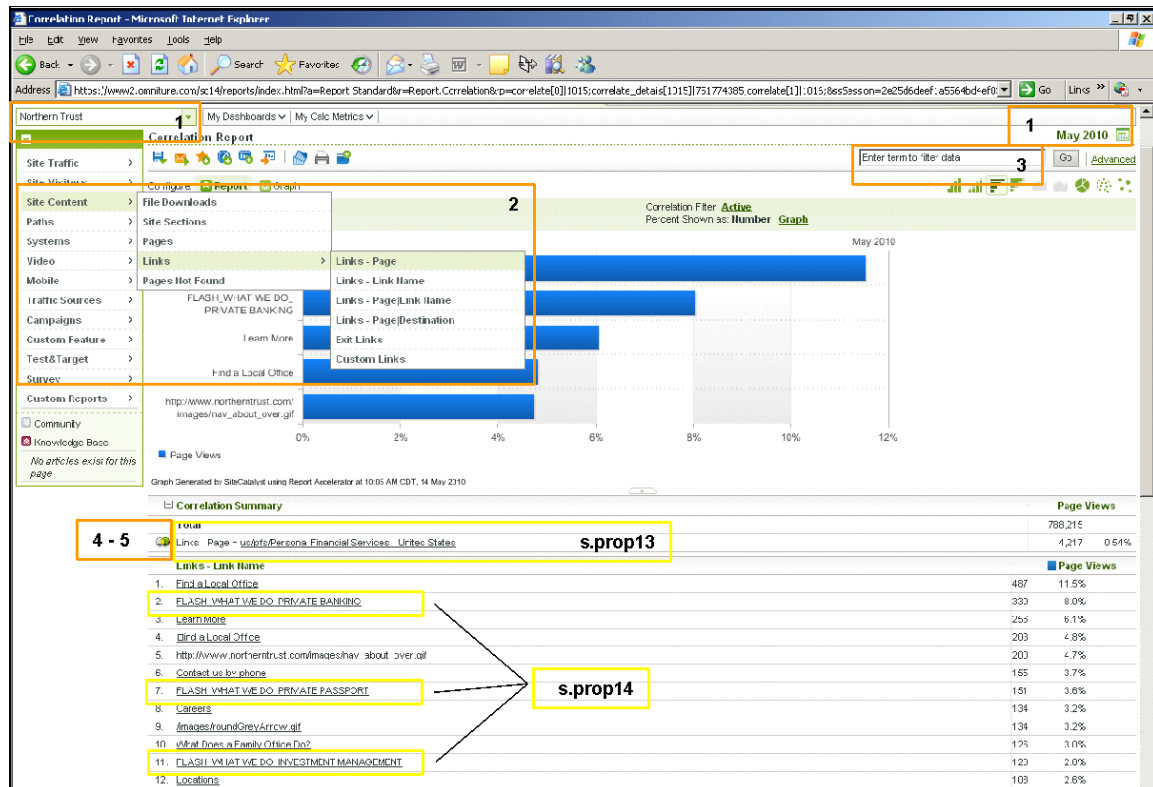
Testing flash link tracking requires verifying your results in the Links Reports.

Links Reports

Locate your test results in the Links Reports to verify your link values.

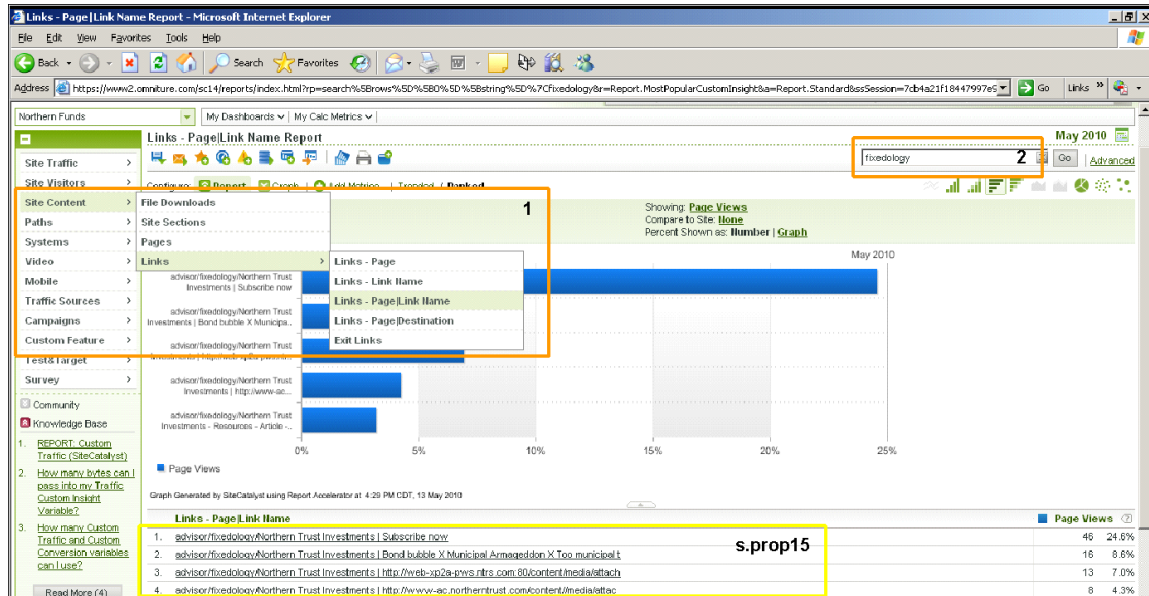
For the Northern Trust and Intranet websites, follow these steps:

1. Select the Report Suite and Date Range
2. Navigate to Site Content > Links > Links – Page
3. Search for your page name
4. Click on the green drill down icon
5. Select Site Content > Links – Link Name



For all other websites, follow these steps:

1. Navigate to Site Content > Links > Links – Page|Link Name
2. Search for your page name



Appendix: Accounts and Servers

“Account” and “Server” related variables in the flash configuration code section differ for each website. Change the variables to correspond with the website that the flash resides on.

Northern Trust

```
account name="ntnortherntrust"  
s.trackingServer="metrics.northerntrust.com"  
s.trackingServerSecure="smetrics.northerntrust.com"  
s.visitorNamespace="northerntrust"  
s.dc is 122
```

Northern Trust Open

```
account name="ntnortherntrustopen"  
s.trackingServer=metrics.northerntrustopen.com""  
s.trackingServerSecure="smetrics.northerntrustopen.com"  
s.visitorNamespace="northerntrust"  
s.dc is 122
```

Intranet

```
account name="ntintranet"  
s.trackingServer="" --don't have as we couldn't set this due to it being an internal  
server  
s.trackingServerSecure="" --don't have as we couldn't set this due to it being an  
internal server  
s.visitorNamespace="northerntrust"  
s.dc is 122
```

Northern Funds

```
account name="ntnorthernfunds"  
s.trackingServer="metrics.northernfunds.com"  
s.trackingServerSecure="smetrics.northernfunds.com"  
s.visitorNamespace="northerntrust"  
s.dc is 122
```

Northern Trust Investments

account name="ntnorthernfunds"
s.trackingServer="metrics.northerntrustinvestments.com"
s.trackingServerSecure="smetrics.northerntrustinvestments.com"
s.visitorNamespace="northerntrust"
s.dc is 122

Northern Institutional Funds

account name="ntnorthernfunds"
s.trackingServer="metrics.northerninstitutionalfunds.com"
s.trackingServerSecure="smetrics.northerninstitutionalfunds.com"
s.visitorNamespace="northerntrust"
s.dc is 122

IRAS

account name="ntiras"
s.trackingServer="metrics.northerntrust.com"
s.trackingServerSecure="smetrics.northerntrust.com"
s.visitorNamespace="northerntrust"
s.dc is 122

Wealth Advisor

account name="ntwealthadvisor"
s.trackingServer="metrics.northerntrust.com"
s.trackingServerSecure="smetrics.northerntrust.com"
s.visitorNamespace="northerntrust"
s.dc is 122