

Advanced PDF/HTML Templates

Rocky Mountain Netsuite User Group
March 2019

Agenda

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- What Are Advanced Templates?
- Some Examples
- Netsuite Administrative Details
- Break
- Terminology
- Using the WYSIWYG Editor
- Example: Printing Search Results
- Why Edit Source Code?
- Example: RMNSUG Marketing Email Template
- Resources / Q&A

Why Use Advanced Templates?

Create Beautiful PDF and/or HTML from data in Netsuite.

- Emailing or Printing
- Any type of Transactions
- Custom Records
- [Saved Search Results](#)
- Netsuite Email Marketing Campaigns
- If you use Scripting...
 - ANY record which can be “printed” in Netsuite
 - Any Combination of Records
 - Netsuite Data *plus* “external” data.

ORACLE NETSUITE

page:advanced pdf

Page: Advanced PDF/HTML Templates

Advanced PDF/HTML Templates

Submit New Template

SHOW INACTIVES

EDIT	NAME	SCRIPT ID	TYPE
Customize	Standard Quote PDF/HTML Template	STDTPMLQUOTE	Estimate
Customize	Standard Expense Report PDF/HTML Template	STDTPMLPREPT	Expense Report
Customize	Standard Invoice PDF/HTML Template	STDTPMLCUSTINV	Invoice
Customize	Standard Item Label PDF/HTML Template	STDTPMLITEMLABEL	Item Label
Customize	Standard Journal Entry PDF/HTML Template	STDTPMLJOURNAL	Journal
Customize	Standard Mailing Label PDF/HTML Template	STDTPMLMAILINGLABEL	Mailing Label
Customize	Standard Packing Slip PDF/HTML Template	STDTPMLPACKINGSLIP	Packing Slip
Customize	Standard Customer Payment PDF/HTML Template	STDTPMLCUSTPYMT	Payment
Customize	Standard Picking Ticket PDF/HTML Template	STDTPMLPICKINGTICKET	Picking Ticket
Customize	Standard Price List PDF/HTML Template	STDTPMLPRICELIST	Price List
Customize	Standard Purchase PDF/HTML Template	STDTPMLPURCHORD	Purchase Order

What are Advanced Templates?

- Rendering engine created by Apache and bfo.com
- XML (which you create) fed into the above engine.
- Supercedes “Basic Form Layouts”

Advanced PDF/HTML Templates

The Advanced PDF/HTML Templates feature supports an alternate model for customizing printed and emailed transactions. This model supports more customization capabilities than transaction form layouts, also known as basic layouts. (Basic layouts were previously known as legacy layouts.) To use advanced templates in your account, see [Enabling the Advanced PDF/HTML Templates Feature](#).

When this feature is enabled, you can associate advanced templates with custom transaction forms, so that these templates are used to format printed and email versions of transactions. See [Setting Custom Forms to Use Advanced Templates](#).

You can use advanced PDF/HTML templates to produce either PDF or HTML output, depending upon the settings of your print and email preferences. See [Advanced Templates Support for Company Printing Preferences](#).

Advanced PDF/HTML templates support all transaction and print types supported by basic layouts, including internationalized versions. For a list, see [Reviewing Available Advanced Templates](#).

Standard templates are provided for each supported print type. You can create your own customized templates in a Template Editor that supports current industry standards for HTML-based editing, including rich text editing and HTML markup source editing. You can preview your template as you make changes, and detailed error messages are shown if the template cannot be saved. If required, you can change the script ID of custom templates. See [Customizing Advanced Templates in the Template Editor](#), [Source Code Editing to Customize Advanced Templates](#), [Previewing Advanced PDF/HTML Templates](#), [Error Messages in Advanced Templates](#), and [Changing the Script ID of a Custom Template](#).

You also can use SuiteScript to produce HTML and PDF printed forms that take advantage of advanced template customization capabilities. See [Using Advanced Template Formatting Programmatically](#).

Each printed form that uses an advanced template automatically includes a company logo, based on the image file defined as the Company Logo (Forms) field at Setup > Company > Company Information.

For instructions for defining this image file, see the help topic [Configuring Company Information](#).

Example: Packing Slip

- Custom Logo
- Custom Layout
- Custom Colors
- Barcode
- Order-specific details



7399 S Tucson Way
Ste A3
Centennial CO, 80112
866-454-5523

Packing Slip

Order #SO91605412017
Must ship by: 1/28/2019



Ship To:
Cory anderson
7399 s tucson way
centennial CO 80112

Shipping Method	Order Date
UPS - Ground	1/28/2019

Qty	Shipped	PO	Item	Box	Bin	UPC	Amount
1	1		210-1-978-01503 G Loomis NRX LP Lite Presentation Fly Rod - 1085-4 Green	Tube	AAD-03	601040015032	\$755.00
1	1		205-6-950-00846 Fishpond Waterdance Guide Pack - Driftwood	PAK	SR1	816332008467	\$99.95
1	1		956-13139 Scientific Anglers Amplitude Trout Fly Line WF5F	ENV / PAK	DAA-05	840309131391	\$99.95
1	1		205-3-964-000014 Lake Products THREE-in-One Knot Tying Tool	ENV / PAK	BYB-03	769665000014	\$13.95

Returns or exchanges can be made up to 30 days after purchase. Go to www.avidmax.com/returns for details. Or email us at returns@avidmax.com.

Example: Invoice

- Line-item details
- Remittance “tear off” footer
- Postal Barcode

Please submit all billing inquiries and address changes to billing@vertafore.com or 800-444-4813.

Description	Quantity	Unit Price	Net Price
QQWebRater FL - DMV MVR 3 Year QQ016732 Feb 15, 2019 to Feb 27, 2019; State=FL	8	10.00	80.00
QQWebRater FL - DMV MVR 3 Year QQ016732 Feb 15, 2019 to Feb 27, 2019; State=FL	1	3.30	3.30
QQWebRater FL - Vault MVR 3 Year QQ016732 Feb 15, 2019 to Feb 27, 2019; State=FL	1	10.00	10.00

Subtotal	\$93.30
Sales/Use Tax	\$0.00
Paid Amount:	
Credit:	
Amount Due:	\$93.30

This invoice and any adjustments herein may reflect updates to Vertafore's sales tax collection process in compliance with applicable state and local laws and regulations. We recommend you consult with your accountant or tax advisor to determine if any use tax may be due on this invoice.

Please detach and return this portion with remittance.

Vertafore Account #	Invoice #	Invoice Date	Due Date	Order #
3051097	30418944	2/28/2019	2/28/2019	

Total Amount Due: \$93.30

Check #: _____

Amount Paid: _____

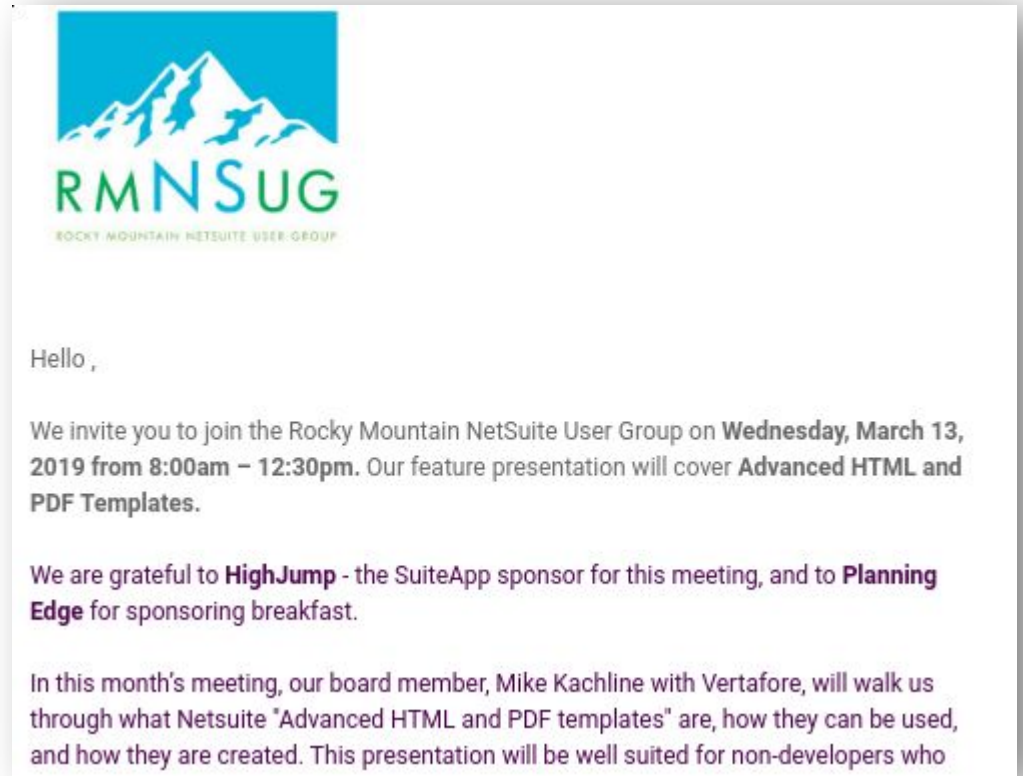
Remit To:

Vertafore, Inc.
Dept. 3759
PO BOX 123759
Dallas, TX 75312-3759

0011 022819 30418944 000000003051097 00009330 0

Example: RMNSUG Email

- Parameterized Values
- (Lesson Learned!)
Calculated Datestamp



Administrative Details

- Enabling this feature
 - Page: Enable Features | SuiteCloud | “Advanced PDF/HTML Templates”
- Finding (Most) Templates
 - Page: Advanced PDF/HTML Templates
 - Page: Marketing Templates
- “HTML” or “PDF”? (Personal Preference)
 - Set Preferences | Transaction | “Printing”
- Associating a Template to a Transaction
 - Page: Transaction Forms | Edit | “Printing Type”

Printing

PRINT USING HTML

TRANSACTION EMAIL ATTACHMENT FORMAT

HTML

PDF

* HORIZONTAL PRINT OFFSET 0.000

* VERTICAL PRINT OFFSET 0.000

ORACLE NETSUITE

Search

Activities Transactions Lists Reports Analytics Customization Docu

Custom Transaction Form

Save Cancel Reset Move Elements Between Subtabs Change ID Acti

* NAME RMNSUG Cash Sale

ID custform_20_931396_166

TYPE Cash Sale

PRINTING TYPE ADVANCED BASIC

PRINT TEMPLATE Standard Cash Sale PDF/HTML Template

EMAIL TEMPLATE Standard Cash Sale PDF/HTML Template

Break

Grab some coffee, it's gonna get Technical!

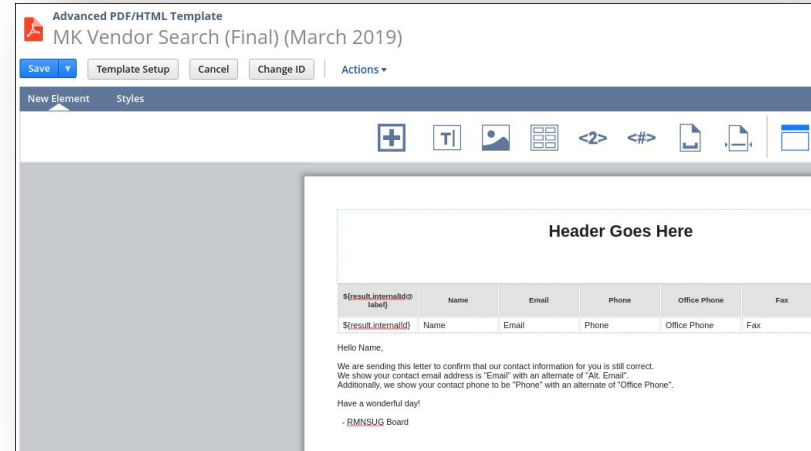
```
<?xml version="1.0"?>
<!DOCTYPE pdf PUBLIC "-//big.faceless.org//report" "report-1.1.dtd">
<pdf>
<head>
<link name="verdana" type="font" subtype="opentype" src="{nsfont.verdana}" src-bold="{nsfont.verdana_bold}"
bytes="2"></link>
  <macrolist>
    <macro id="nlheader">
      <table class="header">
        <tr>
          <td rowspan="3"><#if companyInformation.logoUrl.length != 0> </#if><span class="nameandaddress">{companyInformation.companyName}</span><br />
<span class="nameandaddress">{companyInformation.addressText}</span></td>
          <td align="right"><span class="title">{record@title}</span></td>
        </tr>
        <tr>
          <td align="right"><span class="number">#{record.tranid}</span></td>
        </tr>
        <tr>
          <td align="right">{record.trandate}</td>
        </tr>
      </table>
    </macro>
    <macro id="nlfooter">
      <table class="footer">
        <tr><#if preferences.PRINT_BARCODES>
        <td><barcode codetype="code128" showtext="true" value="{record.tranid}"> </barcode></td>
        </#if>
        <td align="right"><pagenumber/> of <totalpages/>
          </td>
      </table>
    </macro>
  </macrolist>
</head>
<body>
  <table border="1">
    <thead>
      <tr>
        <th align="left">{record@title}</th>
        <th align="right">#{record.tranid}</th>
        <th align="right">{record.trandate}</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td align="left">{record@description}</td>
        <td align="right">#{record.tranid}</td>
        <td align="right">{record.trandate}</td>
      </tr>
    </tbody>
  </table>
</body>
</pdf>
```

Tech Terminology Crash Course

- PDF - “Portable Document Format”
- HTML - “Hypertext Markup Language”
- XML - Extensible Markup Language
- CSS - “Cascading Style Sheets”
- FreeMarker - <https://freemarker.apache.org/>
- BFO (v 1.1.6.1) - “Big Faceless Org” (<https://www.bfo.com/>)

Using the Advanced PDF/HTML WYSIWIG Editor

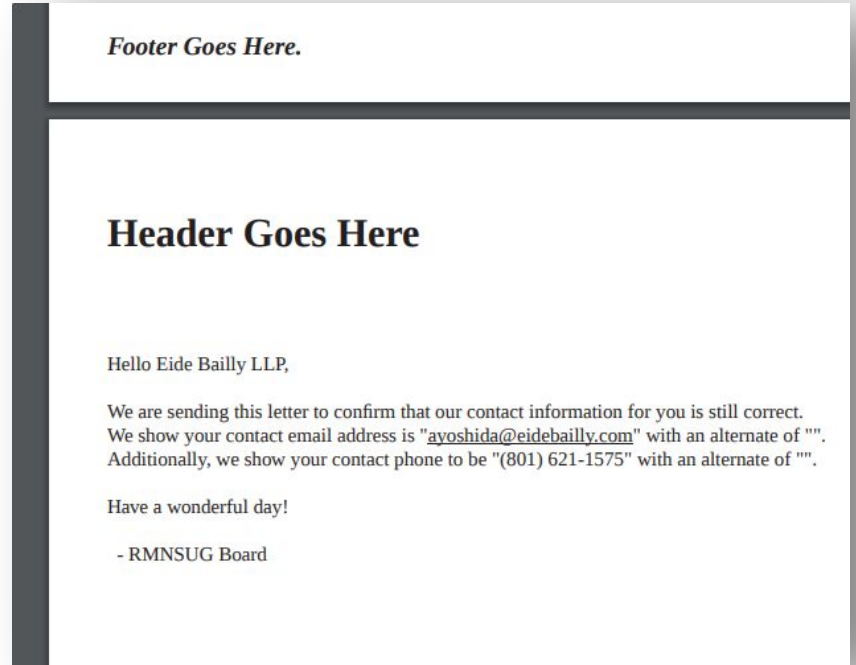
- Looks easy, but limited options.
- Example: Create Letters from a Saved Search
 - 1) Create Header with WYSIWIG
 - 2) Create Footer with WYSIWIG
 - 3) “Source Code” view
 - 4) Replace Table with Useful Snippet
 - 5) Go back to WYSIWIG view



Example: Printing a Saved Search

How to Print a single Page per Search Result Row?

We also want a common “Header” and “Footer” with each page.



Example: Printing a Saved Search

“Prints” Search Results into a more useful PDF or HTML format.

1. Create and Save a Saved Search
2. “Edit” mode of your Search
3. Click “New Template” button

Or

Find your existing template in “Page: Advanced PDF/HTML Templates”

The screenshot displays the Oracle NetSuite interface. At the top, the 'ORACLE NETSUITE' logo is visible. Below it, a navigation bar includes 'Activities', 'Transactions', 'Lists', 'Reports', 'Analytics', 'Customization', 'Documents', and 'Setup'. The main content area is titled 'Saved Vendor Search' and shows 'MK Vendor Search (March2019)'. A red box highlights the 'New Template' button. Below this, there are fields for 'SEARCH TITLE', 'ID', 'OWNER', and 'PUBLIC'. A blue tooltip points to the 'Criteria' tab, stating 'Use this tab to specify criteria that narrow down your search.' Below the search configuration, there is a section for 'Advanced PDF/HTML Templates' with a 'New Template' button. A table lists various templates, including 'MK Vendor Search (Final) (March 2019)' which is highlighted in red.

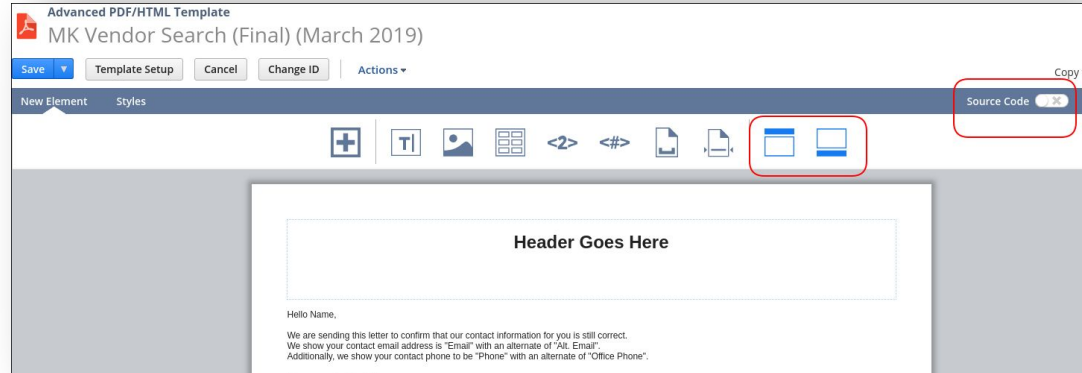
EDIT	NAME	SCRIPT ID	TYPE	REC
Customize	Standard Quote PDF/HTML Template	STDTMPLQUOTE	Estimate	
Customize	Standard Expense Report PDF/HTML Template	STDTMPLXPREPRT	Expense Report	
Customize	Standard Invoice PDF/HTML Template	STDTMPLCUSTINVC	Invoice	
Customize	Standard Item Label PDF/HTML Template	STDTMPLITEMLABEL	Item Label	
Customize	Standard Journal Entry PDF/HTML Template	STDTMPLJOURNAL	Journal	
Customize	Standard Mailing Label PDF/HTML Template	STDTMPLMAILINGLABEL	Mailing Label	
Customize	Standard Packing Slip PDF/HTML Template	STDTMPLPACKINGSLIP	Packing Slip	
Customize	Standard Customer Payment PDF/HTML Template	STDTMPLCUSTPYMT	Payment	
Customize	Standard Picking Ticket PDF/HTML Template	STDTMPLPICKINGTICKET	Picking Ticket	
Customize	Standard Price List PDF/HTML Template	STDTMPLPRICELIST	Price List	
Customize	Standard Purchase PDF/HTML Template	STDTMPLPURCHORD	Purchase Order	
Customize	Standard Return Authorization PDF/HTML Template	STDTMPLRTNAUTH	Return Authorization	
Customize	Standard Sales Order PDF/HTML Template	STDTMPLSALESORD	Sales Order	
Edit	MK Vendor Search (Final) (March 2019)	CUSTTMPL_100_931396_130	Saved Search: MK Vendor Search (March2019)	
Customize	Standard Shipping Label PDF/HTML Template	STDTMPLSHIPPINGLABEL	Shipping Label	
Customize	Standard Multi-Expense Estimate Template	STDTMPLMULTIEXPSTMT	Expense Report	

Example: Printing a Saved Search

How to make one page per Search Row...

1. Trick: Add “page break” div in “Source Code” mode. (See Snippet Below)
2. THEN Use WYSIWIG Editor for content.

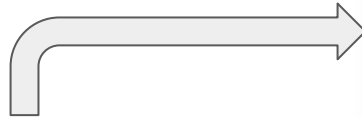
```
<#list results as result>  
<div page-break-after="always">  
Add Your content here from within  
the WYSIWIG.  
</div>  
</#list>
```



Why Edit Source Code?

In Essence... Control.

- Page Breaks
- Refined layout
- Table Striping
- Subsidiary Logos, Watermarks
- Barcodes, Special Fonts
- Looping through multiple records.



Very useful page!

<https://freemarker.apache.org/docs/alphaidx.html>

<#FREEMARKER> Home | Manual | Java API

Manual

☰ / Alphabetical Index

Alphabetical Index

\$|#|<|A|B|C|D|E|F|G|H|I|J|K|L|M|N|O|P|R|S|T

\$

\$(...), Interpolations

#

#, Overall structure, Directives
#{...}, #{...}: Numerical interpolation

<

<#...>, Directives
<#-...->, Overall structure

A

ABC, lower_abc, upper_abc
abs built-in, abs
absolute_template_name built-in, absolute_template_name
absolute value, abs
acquisition, Using acquisition
adding hashes, Concatenation

TEMPLATE AUTHOR'S GUIDE

- + Getting Started
- + Values, Types
- + The Template
- + Miscellaneous

PROGRAMMER'S GUIDE

- + Getting Started
- + The Data Model
- + The Configuration
- + Miscellaneous

TEMPLATE LANGUAGE REFERENCE

- + Built-in Reference
- + Directive Reference
- Special Variable Reference
- Reserved names in FTL
- + Deprecated FTL constructs

XML PROCESSING GUIDE

- Preface
- + Exposing XML documents
- + Imperative XML processing

Example: RMNSUG Marketing Email Template

- Trick: Specify details at top, let template render later on.
- Trick: Using `<#assign>`
- Trick: Using “?date” builtin
- Trick: Using “?string” to format dates

We invite you to join the Rocky Mountain NetSuite User Group on **$\\${rmnsugevent.date?string["EEEE", MMMM dd, yyyy]}$** from 8:00am...

```
RMNSUG Meeting Invite Template.ftl
1 <?xml version="1.0"?>
2 <!DOCTYPE pdf PUBLIC "-//big.faceless.org//report" "report-1.1.dtd">
3 <pdf>
4
5 <#assign rmnsugevent = {
6     "title": "Advanced PDF/HTML Templates",
7     "date": "03/13/2019"?date,
8     "suiteappsponsor": {
9         "name": "Planning Edge",
10        "url": "https://www.planningedge.com/"
11    },
12    "breakfastsponsor": {
13        "name": "Highjump"
14    }
15 } >
16 <#assign eventdescription>
17     In this month's meeting, our board member, Mike Kachline with Vertafore, will walk us
18     through what Netsuite "Advanced HTML and PDF templates" are, how they can be used, and how they
19     are created. This presentation will be well suited for non-developers who want a better
20     understanding of the kinds of business problems which can be solved using Advanced HTML/PDF
21     templates. Since we will cover an example template, you will also get an idea of the "technical
22     chops" needed to implement these.
23 </#assign>
24 <!-- No need to modify from this point forward -->
25 <body>
```


Q&A - Helpful Resources

- Netsuite User Guide - “SuiteBuilder (Customization) Guide”
- Netsuite User Guide - “Advanced PDF/HTML Template Field Reference”
- [Freemaker API Reference](https://freemarker.apache.org/docs/alphaidx.html) https://freemarker.apache.org/docs/alphaidx.html
- [Freemarker - Getting Started](https://freemarker.apache.org/docs/dgui_quickstart.html) https://freemarker.apache.org/docs/dgui_quickstart.html
- [Freemarker - Formatting Dates](#)
- [Adding Fields to an existing Adv PDF/HTML Form](#)
- [BFO 1.1.63 User Guide](https://bfo.com/products/report/docs/userguide.pdf) https://bfo.com/products/report/docs/userguide.pdf
- [BFO API Tags \(Reference\)](https://bfo.com/products/report/docs/tags/) https://bfo.com/products/report/docs/tags/
- [Google Noto Fonts](https://www.google.com/get/noto/) https://www.google.com/get/noto/
- [RMNSUG LinkedIn Forum](#)
- #advancedpdf channel on “[netsuiteprofessionals](#)” Slack Forum
- mkachline@gmail.com