

Paper 218-26

How to publish your old reports on the web without SAS® web facilities

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ABSTRACT

You would like your reports to be available in HTML format for a better diffusion, as ODS allows you to do with the new version of SAS. But what if your company uses an older version of SAS? What if reports are produced using software other than SAS? Or what if ODS just can't do the right type of report requested?

Here is a portable, platform-independent solution which will allow you to translate all your reports to HTML, regardless of the software used to create them, using only the SAS/BASE software.

INTRODUCTION

Step by step, this is how one goes from a flat report produced by any given software into a new way to distribute data, allowing digital flipping through every page of your new electronic reports.

For the sake of the following example, we have printed the first and eighth page of our SAS/REPORT -produced model.

THE "OLD TYME REPORT"

As an example of different ways of doing the move to HTML, here is a report created from the samples provided in the SAS/REPORT documentation (example # 9). Once again, note that this process can also be applied to reports created using non-SAS software.

In this example, notice the sequence breaks relative to the salesmen and the sectors ❶. Also, notice the messages ❷ following each salesman's report: it is a focus on the salesman's performance.

PAPER OUTPUT

Here is the standard example from SAS/REPORT:

Northeast Sector			1
Store managed by Alomar ❶			
Department	Sales	Profit	

Canned	\$420.00	\$168.00	
Meat/Dairy	\$190.00	\$47.50	
Paper	\$90.00	\$36.00	
Produce	\$86.00	\$21.50	
	-----	-----	
	\$786.00	\$196.50	
Sales are in the target region. ❷			

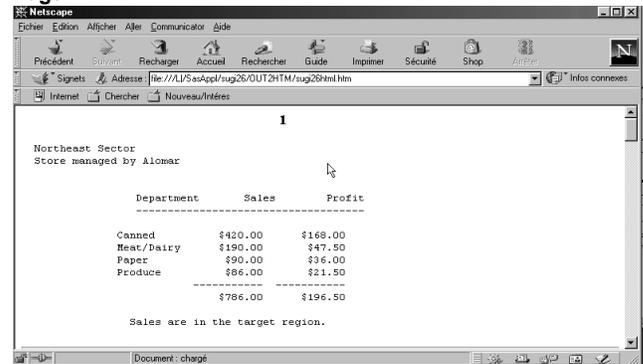
Southwest Sector			8
Store managed by Taylor			
Department	Sales	Profit	

Canned	\$120.00	\$48.00	
Meat/Dairy	\$130.00	\$32.50	
Paper	\$53.00	\$21.20	
Produce	\$50.00	\$12.50	
	-----	-----	
	\$353.00	\$88.25	
Sales are below the target region.			

A FIRST TRANSFORMATION WITH %OUT2HTM

Using the new macro introduced in SAS 6.12, one can conveniently translate a SAS/REPORT-produced report in HTML format, simply by incorporating certain macros throughout the program. We may also spiff up the esthetics of our report, by changing, for instance, the background color, separators, text color, and other such slight details. Here is a first, minimal transformation, after a few improvements to our program:

Page 1



Page 8



CONTINUING THE TRANSFORMATION WITH VERSION 8, USING ODS

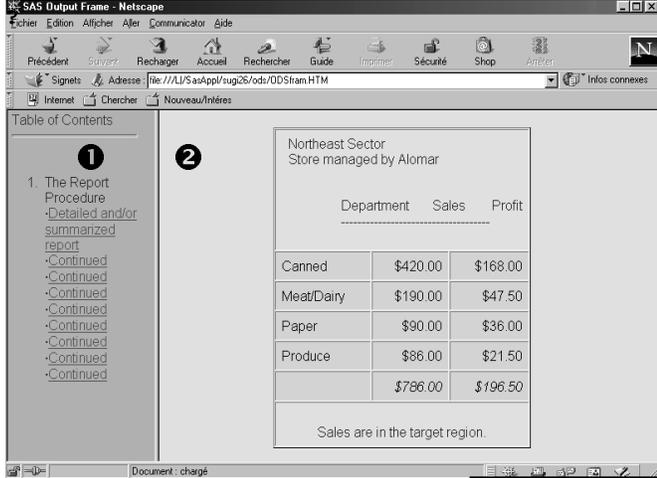
From version 8, SAS/BASE comes with ODS (Output Delivery System), which brings in new possibilities to improve the presentation of your report. Of course, the aforementioned macros must be replaced with corresponding ODS specifications. However, this allows for more flexibility and customization using the easy to use, and well-documented TEMPLATES. Our report is thus better rendered. Note that only the basic functions were used to produce this output. You may wish, as with the previous example, to add certain attributes enabling further customization of your report.

COMPARING THE RESULTS

At this point, we can come to certain conclusions, notably that the results are quite interesting, considering the quality of the output, and how little time is required to process them.

However, there are drawbacks. Remember that you must first modify your programs with new formatting instructions, and that they must have been produced by SAS in order to feature these new functions. A non-SAS-produced report cannot be transformed to HTML this way. What to do then? Either you write a new SAS program which will interpret the report and force the new HTML functions into it, or you take the easiest route, using the NMR application.

Page 1

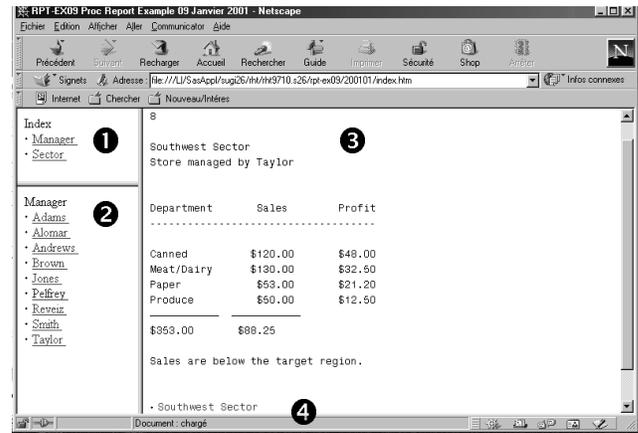


- 1 This frame lists the report's index, corresponding to each page of the report..
- 2 This area shows the HTML version of the selected report page.

BASIC NMR (NEW MILLENIUM REPORT)

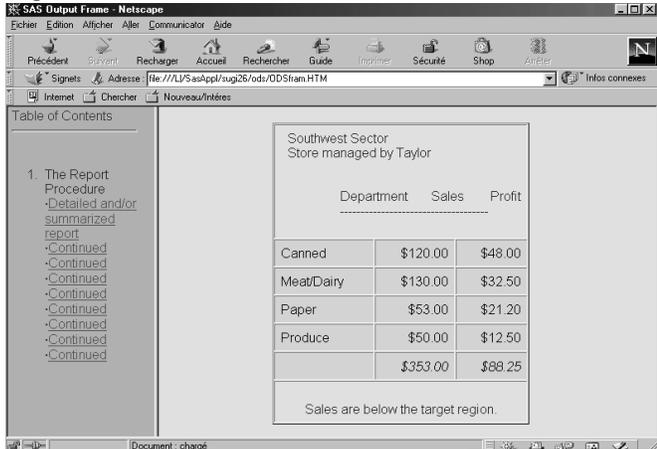
WE ARE NOW READY TO ENTER A NEW ERA

Just as most sites on the WWW feature a site map, we may integrate our report map into our HTML report, consisting in several indexes. Report readers familiar with paper output will now be efficiently navigating through their reports right on their computer screen.



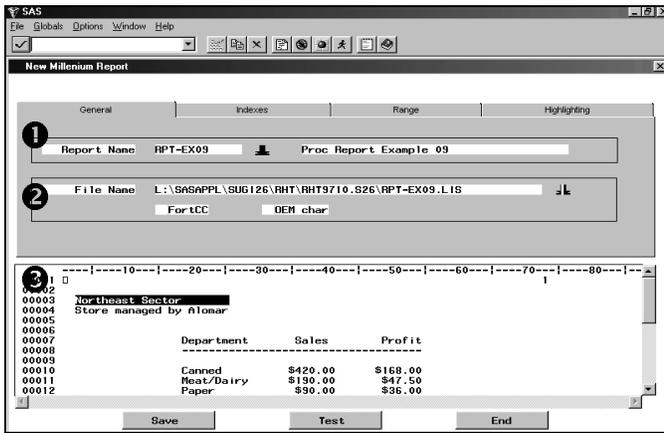
- 1 This first area lists the existing indexes.
- 2 This area lists the contents of the selected index.
- 3 This area either lists subsequent indexes, or goes right to the selected report page.
- 4 This HTML link goes back to a previous index.

Page 8

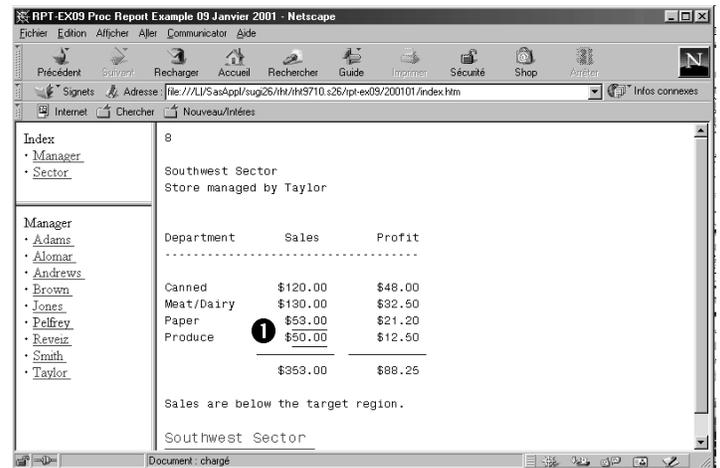


PROPERTY DEFINITIONS

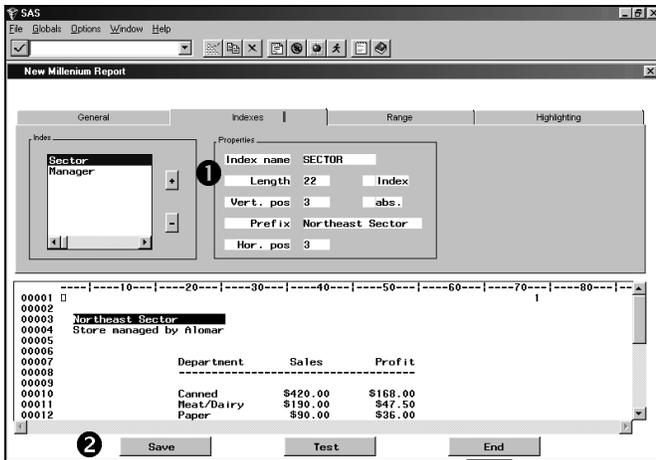
This new report differs from the previous reports in many ways. The following screen grab should allow you to quickly grasp the global properties of the report (described below), as well as the different indexes which we are introducing in our new report.



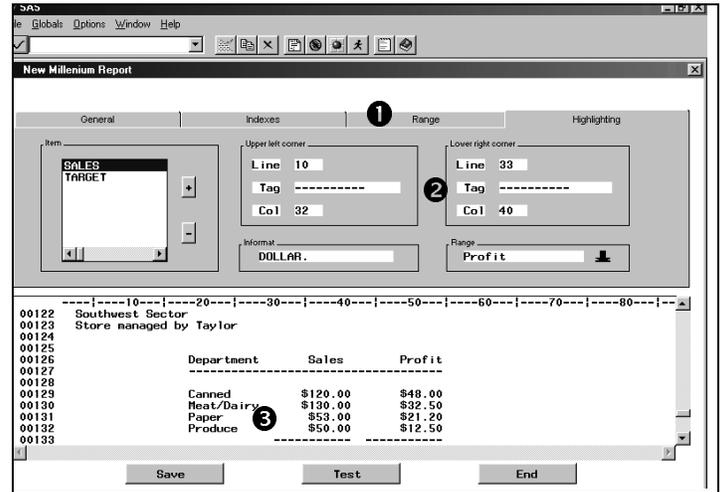
- 1 The first area displays the NMR properties .
- 2 The General tab displays the report title, as well as the report file which we are transforming
- 3 The requested report is displayed in the third area; indexes are also indicated here.



- 1 According to the defined range, NMR underlines sales values below \$75.00.



- 1 In the Index tab, we may create the various indexes; in order to do this, we specify the (X, Y) coordinates of these indexes, or directly mark text in the third area, in which case the coordinates are automatically entered.
- 2 The various buttons allows us, for any given report, to test, save and load our attributes to/from a file



- 1 In the Range tab, we make ranges and specify color and highlighting attributes.
- 2 The Highlighting tab allows you to specify the coordinates for the upper-left and lower-right corner of the region to highlight, depending on the range selected.
- 3 The requested report is displayed in the third area; the corresponding highlighted area is marked here.

ADVANCED NMR (NEW MILLENIUUM REPORT)

In this property editor, let's now apply new criteria, allowing us to highlight certain values inside the report, according to defined ranges, in a similar way as the CSF (Critical Success Factor) which graphically highlights the value of certain data by applying a special color to it.

The NMR directory structure, which we did not demonstrate in this paper, allows the archival of older versions of a report when creating new ones. Moreover, within this directory structure, we have implemented a security feature disabling user access to irrelevant or confidential data.

NMR FEATURES

- The interpretation of any given report in post-processing mode, thus independently of source platform;
- Easy-to-define indexes, using text marking or direct input;
- Management of reference indexes, displayed at the bottom of reports when used;
- Data highlighting for specified ranges.
- Parameters can be saved to be re-used in another report;

NMR is made of two components: an interactive tool for parameter entry, and the report translation routine, whether in batch or online mode. Together, they accomplish the tedious work of formatting any document, in little time, and with great convenience.

CONCLUSION

We shall conclude this paper by saying that while one can easily produce an electronic report from a paper output using the old methods, doing so requires the output to come from SAS, and it also implies tedious re-coding, in order to account for these new changes. Using NMR is a fast, convenient way to achieve the same results, with even more possibility of customization, and total platform independence.

NMR's advanced features allow certain, crucial points from a report to be properly highlighted.

The property definition which is the core of NMR can be realized with little effort and no programming knowledge. That said, the definition will only be valid as long as the properties' position doesn't change.

ACKNOWLEDGMENTS

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