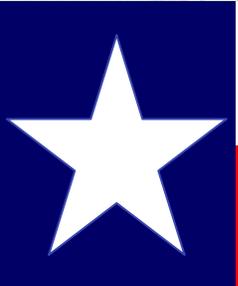


# Elimination of 80-Column Reporting

May 21, 2008

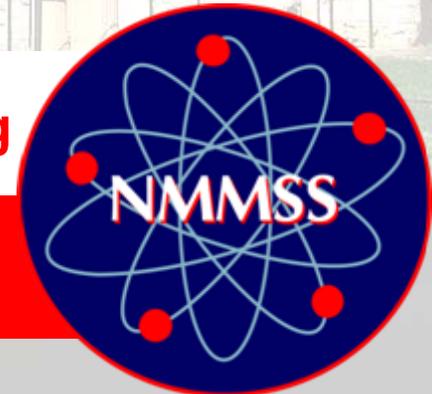
Neil Passman

Standish Technologies



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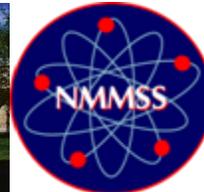
# Introduction

- Topics
  - Review of 80-Column Reporting
  - Problems with 80-Column Reporting
  - What is XML
  - Benefits to using XML Reporting
  - Creating XML Files
  - Problems with dual format (XML & 80-Column) support



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# Sample 80 Column File

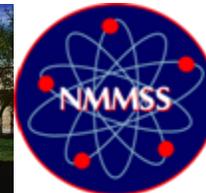
- Annual 741 Report

```
ABC ABC 052108 A M103                                05212008
ABC ABC 052108 A M201LNBurnup                        20309 J
ABC ABC 052108 A M202NPProduction                    50309 J
ABC ABC 052108 A M203TNDecay                         50309 J
ABC ABC 052108 A M501                                119475600      18159      66411200
ABC ABC 052108 A M502                                20728900      321433      13350800
ABC ABC 052108 A M503                                1359100       363321      1359100
ABC ABC 052108 A M70120      5107970}           142460}32
ABC ABC 052108 A M70250      10900           32
```



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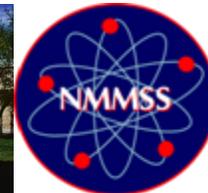
# Problems with 80 Column Format

- Problem – Very Inflexible
  - Adding or changing a field within a line usually requires changing all following fields.
    - Examples:
      - December 19, 2007 notice from NMMSS's Jay Riggins that the NRC's requirement to capture Gross and Net Weight information in expanded field size will force the industry to find a new location for detailed obligation information (currently columns 32-35 on record type 5).
      - Inability to use 80 column format to report source material weights to 3 decimal places.



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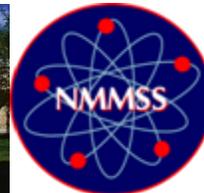
# Problems with 80 Column Format

- Problem – Lack of full SAMS support
  - See the following statement from NMMSS:
    - The NMMSS upgrade version of SAMS will only support XML. A program will be supplied to convert 80-column to the new XML format. I will have to research whether the program will do the reverse. My initial guess is no because you risk the possibility of truncating data so that it will fit the fixed length areas of the 80-column format. (Ex. The length of the Transaction Transfer Number will be expanded to 8 (currently 6). If a transaction has an 8 character transfer number, it will not fit into the 6 columns allocated for transfer numbers in the 80-column formatted file.)



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# Problems with 80 Column Format

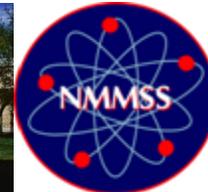
- Other Problems

- Almost indecipherable without referring to D-24.
- Awkward formats such as the elimination of decimal points in values.
- Use of special characters for negative values.
- Difficult to create or edit manually (must use a text editor that tracks columns).



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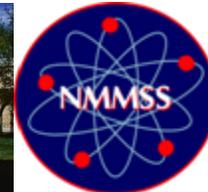
# What is XML

- XML stands for “Extensible Markup Language”
- Adds structure to basic text.
- Readable without the use of special software.
- Documents have no predefined structure.



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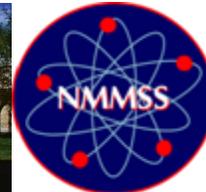
# What is XML

- Simple Example – Meeting Registration Form
  - You filled in an online PDF form that looked as follows:



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# What is XML

Register\*

NMSS Users Annual Training Meeting 2008  
May 20-22, 2008

Please type or print:

Title:

Last Name:

First Name:  Initial:

Badge Name (Nickname):

Job Title:

Organization:

Address:

City:  State:  Zip Code:

Country:

Phone (with area code):  Extension:  Fax (with area code):

Email:

DOE or DOE Contractor  
 NRC or NRC Licensee

**Meeting Contact**

Shirley Williams  
Program Administrator  
Phone: 678-328-1131  
Email: [swilliams@nacintl.com](mailto:swilliams@nacintl.com)

\* This form is for meeting registration only, hotel reservations need to be made separately.

You can register for the NMSS Users Annual Training Meeting in the following ways:



Mail  
Training Meeting  
P.O. Box 922088  
Norcross, GA 30010



Submit By Email

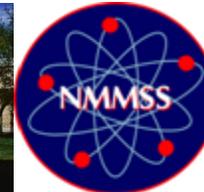


Please indicate any Special Needs.



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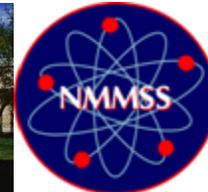
# What is XML

- If you chose “Submit by E-mail” an E-mail was sent to NMMSS with the following attachment:



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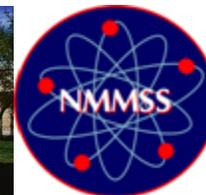


# What is XML

- `<?xml version="1.0" encoding="UTF-8" ?>`
- `<form1>`
- `<Title>Mr.</Title>`
- `<LastName>Passman</LastName>`
- `<FirstName>Neil</FirstName>`
- `<MiddleName />`
- `<BadgeName>Neil</BadgeName>`
- `<JobTitle>President</JobTitle>`
- `<Organization>Standish Technologies</Organization>`
- `<Agency>2</Agency>`
- `<Address>2 Cherokee Place</Address>`
- `<City>Pittsburgh</City>`
- `<State>PA</State>`
- `<ZipCode>15228</ZipCode>`
- `<Email>neilp@standtech.com</Email>`
- `<SpecialNeeds />`
- `<Country>United States</Country>`
- `<PhoneNum>4127824350</PhoneNum>`
- `<PhoneNum>4125635031</PhoneNum>`
- `<PhoneNum>211</PhoneNum>`
- `</form1>`

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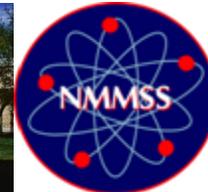
# Benefits to using XML Reporting

- Field information not restricted by location or field size.
- New fields can be easily added.
- Field descriptions embedded in the XML file.
- Easily viewed and prepared with Notepad or a number free XML editors.



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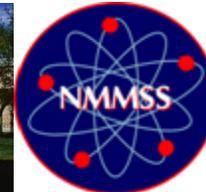
# Creating XML Files

- Use an XML editor.
- Use SAMS (XML will be the native output format).
- Custom software.
- Vendor software.



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# Problems with Duel Format (XML & 80-Column) Support

- Additional cost to DOE, reactor operators, fuel suppliers and software vendors.
- Compatibility problems when transferring materials between RIS codes.
  - Example: Reactor operator uses XML with 3 decimal precision for source material, but fuel supplier uses 80-column format.



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