

# **XML:** Changing the Way SFA Does Business

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# Introduction/Purpose

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- What is XML?
- Why is SFA adopting XML?
- XML Basics and Buzzwords
- XML Benefits
- Adopting XML
  - Where to go for more Info
  - How to adopt XML: Checklist
- Conclusion and Questions



# What Is XML?

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## Definition:

XML stands for **E**xtensible **M**arkup **L**anguage

- XML is a **transport device**
- It is a **meta-markup language** much like HTML
- XML is **extensible**, which means that content can be added easily



# What Is XML?

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- XML is a method for putting structured data in a text file
- XML looks a bit like HTML, but isn't HTML
- XML is text, but isn't meant to be read
- XML is a family of technologies
- XML is verbose, but that is not a problem
- XML is new, but not that new
- XML is license-free, platform-independent and well-supported



# Why is SFA Adopting XML?

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- XML allows schools to use one **Common Record** between disparate databases or different systems like CommonLine and COD
- XML allows users to **share information seamlessly**
- XML is **future-oriented**
- XML is the standard language of e-business and the Internet
- XML lets the industry describe virtually any type of data and deliver it across a network



# The Flat File

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12345678919820304Jones  
A531 Tower Drive Apt 3C

Sally

Alexandria

VA223142021234567Sally.A.Jones@email.o  
rg123972VA19820304

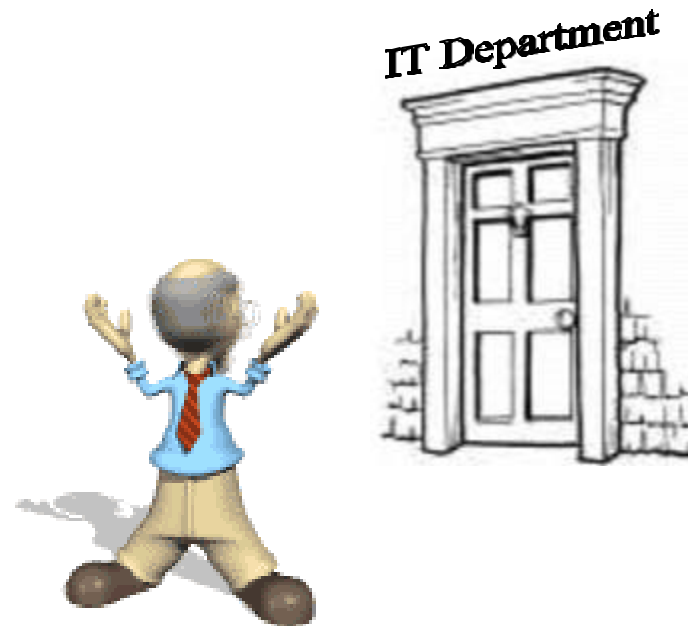
# Limitations of Flat Files

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- Fixed length
- Not human readable
- Not flexible (can't add or change elements easily)
- Can't easily share data across disparate systems
- Record layouts tend to span across many business processes and systems

# What Happens When You Have to Make a Change?

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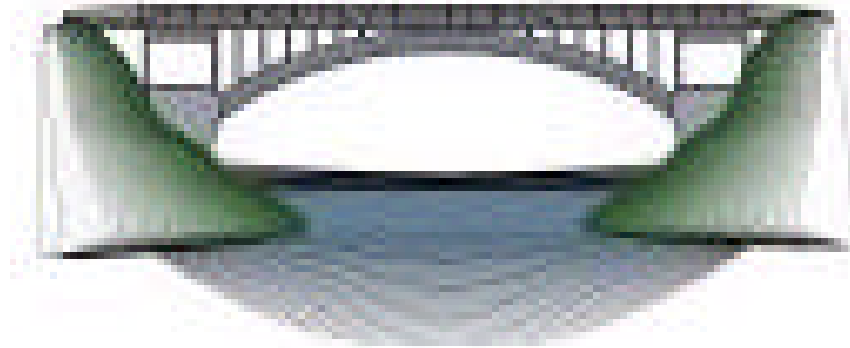


# XML Bridges the Technology Gap

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**Legacy  
Systems**

**Transport Mechanism  
Standards  
Common Elements**



**XML**

# XML Basics and Buzzwords

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Addr	element
<Addr>	tag
</Addr>	end tag
<Addr>431 Simple Street</Addr>	content
<Addr Num "1">431 Simple Street</Addr>	attribute
<Address>	complex element
<Addr Num "1">431 Simple Street</Addr>	
</Address>	

# XML Basics and Buzzwords

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## Person Block

```
<Person>
  <Name>
    <FirstName>Sally</FirstName>
    <MiddleInitial>A</MiddleInitial>
    <LastName>Jones</LastName>
  </Name>
  <Contact>
    <Address>
      <Addr Num="1">431 Simple Street</Addr>
      <Addr Num="2">Apt 700</Addr>
      <City>Alexandria</City>
      <State>VA</State>
      <ZipCode>22314</ZipCode>
    </Address>
    <Phone>2021234567</Phone>
    <Email>Sally.A.Jones@email.org</Email>
  </Contact>
</Person>
```



# XML Basics and Buzzwords

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## Reusable Block

<Student>

Person

</Student>

<Borrower>

Person

</Borrower>

<Cosignor1>

Person

</Cosignor1>



# XML Basics and Buzzwords

## Document

<CommonRecord>			
Document Information			
	Receipt		
	Response		
Entity Information			
	Student Information		
	Person		
		Response	
	Award Information		
		Disbursement	
			Response
		Response	
	Response		
</CommonRecord>			

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# XML Basics and Buzzwords

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**DTD:** Master listing of all the elements including where and how they need to be placed in the documents

**Schema:** An XML application that can describe the allowed content of documents

**Parser:** Tool that reads the document and divides it into individual elements, attributes, and other pieces

**Validation:** Process of checking structural validity of document



# XML Benefits

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- Format is human readable easing problem solving
- Format is student-centric, showing data for multiple financial aid programs on a single record
- The entire common record or only those portions of the common record which changed can be transmitted
- XML for the Common Record makes it easily changed or extensible



# XML Benefits

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- XML is technology-neutral allowing trading partners to use different technologies in their own applications
- XML enabled SFA to work with other data trading partners and standards bodies (CommonLine, NCHELP and PESC) to ensure the common record allows for easy inclusion of other student financial resource data

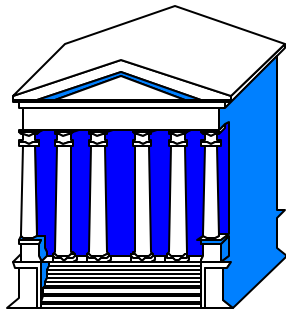




# XML Benefits

```
<LastName>Jones</LastName >
<FirstName >Sally</FirstName>
  <FFELSub>
    <AwardAmt >2625</AwardAmt >
    <CostofAttend>15000</CostofAttend>
  </FFELSub>
```

```
<LastName>Jones</LastName >
<FirstName >Sally</FirstName>
  <Pell>
    <AwardAmt >3200</AwardAmt >
    <CostofAttend>8000</CostofAttend>
  </Pell>
```



Lender/Guarantor



School



COD



**NASHVILLE**  
NASFAA 2001  
JULY 22-25

# XML Benefits

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- Technological foundation for future integration initiatives – building the foundation for real time processing.



# Adopting XML: Where to Go for More Information

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**Remain calm... but get excited!**



- Institutional Solution Providers will develop products that will utilize XML, and should appear seamless to you
- SFA has communicated with software developers and third party servicers on the basic elements of conversion to the XML Common Record to assist their schools
- EDEExpress will be modified, probably in 2003-2004



# Adopting XML: Where to Go for More Information

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- The following is a short list of sources for more information on XML:
  - <http://www.w3.org/>
  - <http://www.ebxml.org/>
  - <http://www.oasis-open.org/cover/sgml-xml.html>
- Search on Extensible Markup Language or XML
- Books, publications, and trade articles
- Institutional Solution Providers
- The *Schools Portal* ([sfa4schools.sfa.ed.gov](http://sfa4schools.sfa.ed.gov)) and *IFAP* ([ifap.ed.gov](http://ifap.ed.gov)) are updated continually on COD's development



# Adopting XML: Where to Go for More Information

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Questions or comments  
can be directed to SFA's  
Customer Service Call Center at



**(800) 433-7327**

or email us at



**[sfa.customer.support@ed.gov](mailto:sfa.customer.support@ed.gov)**

- Customer Service Representatives are available Monday-Friday, 9 am-5pm, Eastern Time



# How to Adopt XML: Checklist

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- Talk with the Institution Solution Providers
- Meet with your IT Department
- Consult with your Colleagues
- Start planning for implementation of the common record



# XML: Your Bridge to the Future

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*"And I'm not saying that the work around XML is done. In fact, you might say it's just at the beginning, because for every real world object, whether it's a healthcare record, a banking record, a supply chain dialogue, around every one of those things we need rich standards. And we need very rich software tools that can map between different schemas, data layouts, map between one version of a schema and another version of a schema. So the very platform itself has to embrace XML in a very deep way."*

Bill Gates,  
Chairman of Microsoft



# Conclusion

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# Discussion

