Software
Developers
Conference
August 9-10, 2001
Arlington, VA

COD
Common Record
&
XML

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SFA Schools Channel

Introduction/purpose

- What is XML?
- Why is SFA Adopting XML?
- XML Basics and Buzzwords
- XML Benefits
- Adopting XML
  - Where to Go For More Information
  - How to Adopt XML: Checklist
- Conclusion and Questions

What Is XML?

Definition:
XML stands for E**x**tensible **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?

- 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?

- 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

123456789 19820304 Jones Sally A531 Tower Drive Apt 3C Alexandria VA 22314 202 1234567 Sally.A.Jones@email.org 123 972 VA 19820304

Limitations of Flat Files

- 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?

You wanna do what?!

NO!! Anything but that!

Are you kidding?!

No Way!

XML Bridges the Technology Gap

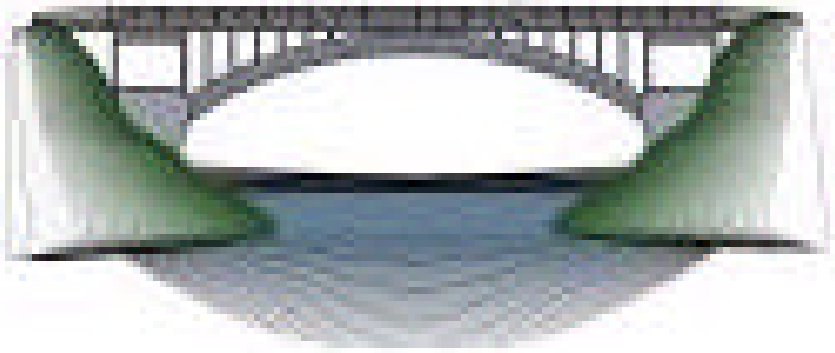
Legacy Systems

Transport Mechanism

Standards

Common Elements

XML



XML Basics and Buzzwords

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

XML Basics and Buzzwords

Person Block

```
<Person>
        <Name>
                <FirstName>Sally</FirstName>
                <MiddleInitial>A</MiddleInitial>
                <LastName>Jones</LastName>
        </Name>
        <Contact>
                <Address>
                        <Addr Num=”1”>431 Simple Sreet</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

Reusable Block

<Student>

Person

</Student>

<Borrower>

Person

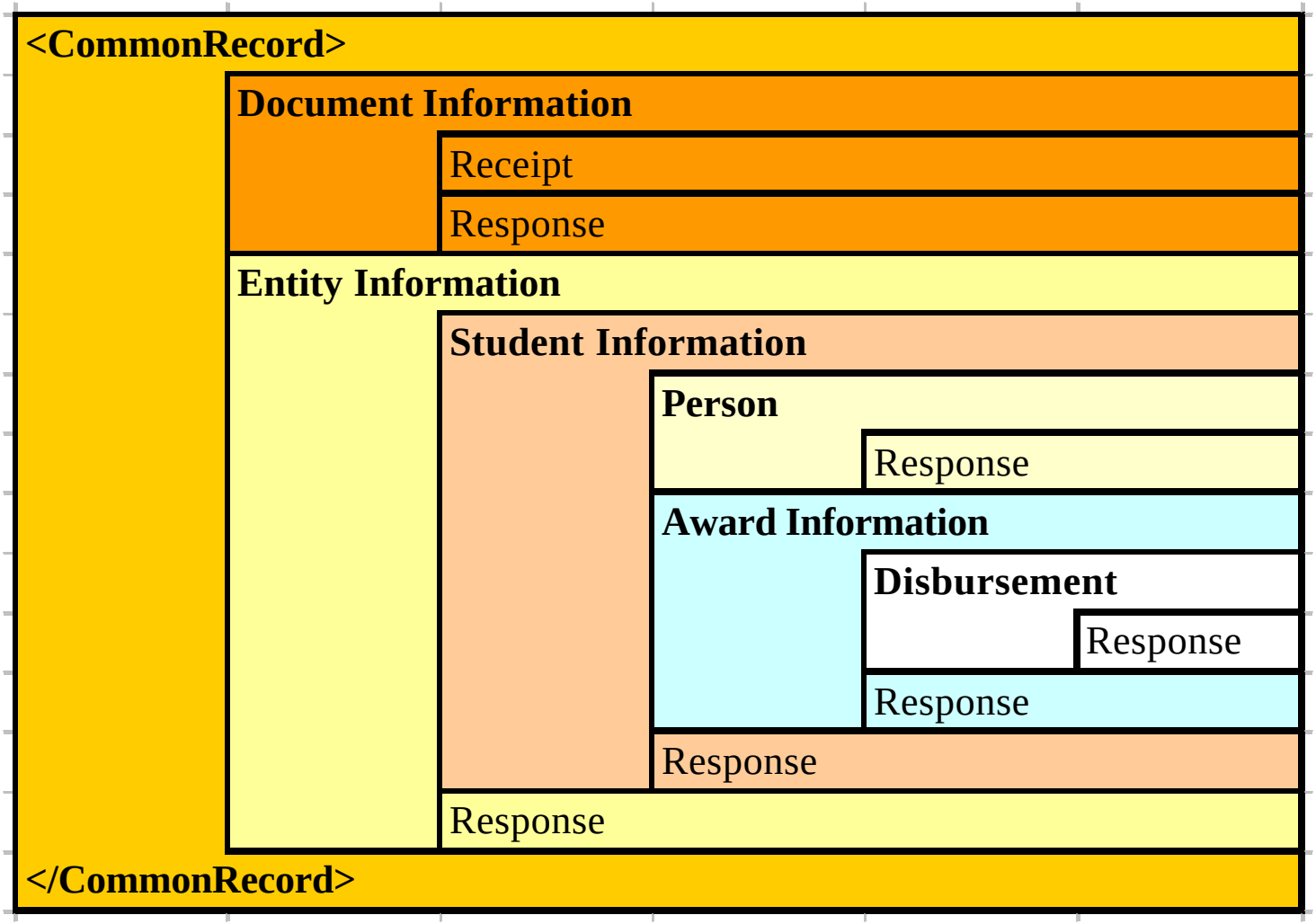
</Borrower>

<Cosigner1>

Person

</Cosigner1>

XML Basics and Buzzwords



Draft 7/18/01

XML Basics and Buzzwords

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

- 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

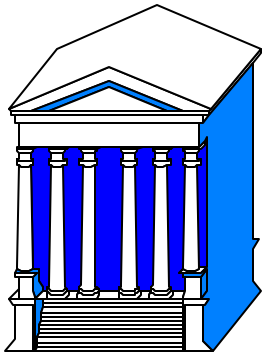
XML Benefits

- 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

XML Benefits

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

Adopting XML: Where to Go for More Information

Remain calm… but get excited!

- **For Schools:** Institution Solution Providers will develop products that will utilize XML, and should appear seamless
- **For Institution Solution Providers:** SFA will continue to communicate with you on the basic elements of conversion to the XML Common Record, enabling you to assist schools
- **For EDExpress users:** EDExpress will be modified, probably in 2003-2004

Adopting XML: Where to Go for More Information

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

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

How to Adopt XML: Checklist

- 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

"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

Discussion