



# XML Schema Activities at IRS

U.S. Department of Treasury  
Internal Revenue Service

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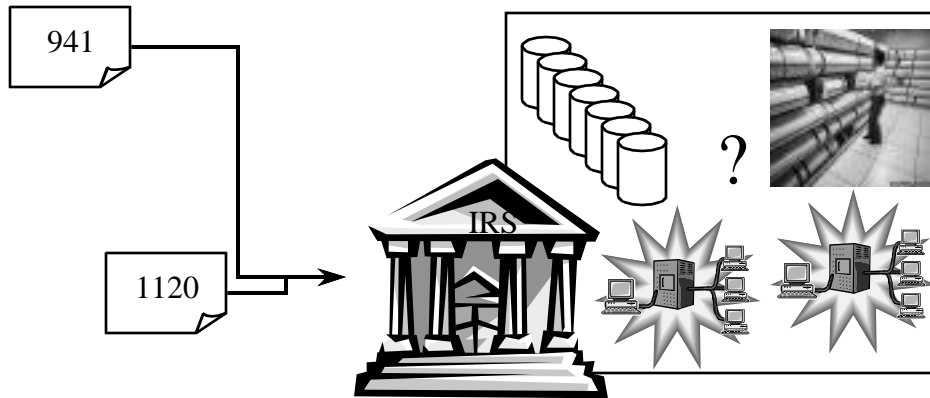


## Meeting IRS Business Needs with XML

- ❖ XML = Industry Standard for Data Exchange
  - ◆ Ease of tax compliance and lower cost for taxpayers
  - ◆ Ease of entry and lower cost for software companies
  - ◆ Subsidiary benefits such as shorter audit cycle time
  
- ❖ XML Schema + XSL = Encoded Business Rules
  - ◆ Fewer Errors
  - ◆ Reduced Costs for Validating Returns
  - ◆ Easier Transitions for Tax Changes



## IRS Immediate Plans for XML Experiment



### *External Communication*

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## Benefits of Using XML for 1120

- ❖ 1120 represents ~85% data elements for IRS
- ❖ Significant overlap with Individual Tax (1040)
- ❖ Effort will reconcile duplicate data elements (e.g., string length for address)
- ❖ Meets external stakeholder request
- ❖ IS/ETA joint effort
- ❖ Scoped pilot
- ❖ Exploit larger base of developers
- ❖ Coordination with external groups

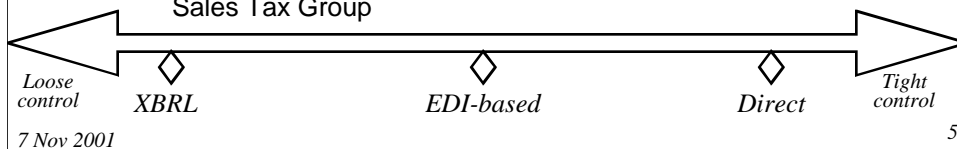
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## Three Approaches for Tax XML Schema Development

- ❖ XBRL (eXtensible Business Reporting Language)
  - ◆ Abstracted data exchange, <item> tag
  - ◆ 2-step validation process: XML parsers + XBRL process
- ❖ EDI based (TIGERS)
  - ◆ Tax Information Group for EC Requirements Standardization
  - ◆ Schema patterned after EDI transaction
  - ◆ Develop derived schemas that inherit from generic, Base Schema
- ❖ Direct
  - ◆ Schema patterned after Microsoft 1040 strawman and TIGERS Sales Tax Group



## IRS XML Work Plan

- ❖ Draft XML Schemas for all 3 variants for 1120 kernel
  - ◆ XBRL
  - ◆ EDI-based (TIGERS)
  - ◆ Direct
- ❖ Develop Instance Documents for 1120 kernel
- ❖ Develop Stylesheets to Transform among Variants
- ❖ Coordinate with other Stakeholders re: Merits of each Variant
  - ◆ TIGERS
  - ◆ International Tax Agencies
  - ◆ Vendors
  - ◆ Corporations
- ❖ Develop all related 1120 forms and schedules in selected variant

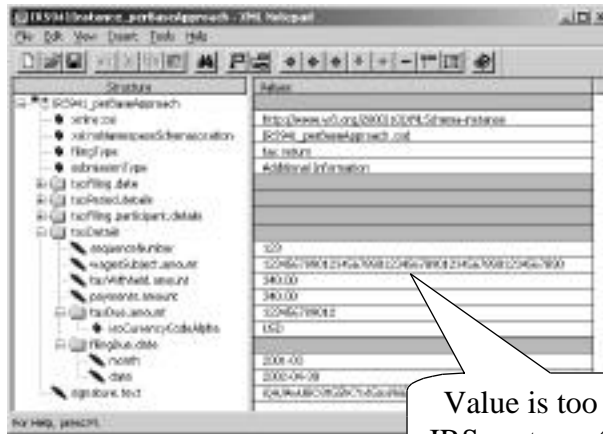
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# One IRS Objective: Validate numeric values

<wagesSubject.amount>12345678901234567890123456789012345678901234567890</wagesSubject.amount>



Value is too large for IRS systems (50 digits)

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# MITRE Approach for 1120 - Direct

IRSXMLSchemaTypes.xsd → IRS Data Types

IRSXMLGeneralElements.xsd → IRS Common Structures

94 Schema Files – 1120

- IRS1120SchedASchema.xsd
- IRS1120SchedCSchema.xsd
- IRS1120SchedDSchema.xsd
- IRS1120SchedESchema.xsd
- IRS1120SchedJSchema.xsd
- IRS1120SchedKSchema.xsd
- IRS1120SchedLSchema.xsd
- IRS1120SchedM1Schema.xsd
- IRS1120SchedM2Schema.xsd
- IRS3115SchedASchema.xsd
- IRS3115SchedBSchema.xsd
- IRS3115SchedCSchema.xsd
- IRS3115SchedDSchema.xsd
- IRS3115Schema.xsd
- IRS4684Schema.xsd
- IRS4797Schema.xsd
- IRS851Schema.xsd
- IRSBadDebtsStatementSchema.xsd
- IRSCharitableContributionsStatementSchema.xsd
- IRSControlledForeignPartnershipSchema.xsd
- IRSDeMinimisExceptionSchema.xsd
- IRSInstallmentSalesScheduleSchema.xsd
- IRSInterestStatementSchema.xsd
- IRSMarkToMarketElectionSchema.xsd
- IRSNonaccrualExperienceMethodScheduleSchema.xsd
- IRSOtherDeductionsStatementSchema.xsd
- IRSOtherIncomeStatementSchema.xsd
- IRSStockOwnershipForeignCorpSchema.xsd
- IRSTaxShelterStatementSchema.xsd

IRS1120Schema.xsd<sub>8</sub>

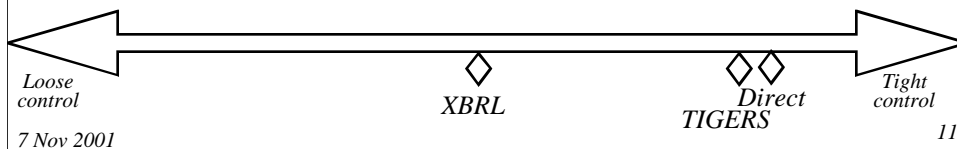
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## Coordination Among Approaches

- ❖ **XBRL (eXtensible Business Reporting Language)**
  - ◆ XBRL 1.0 – Abstracted data exchange
  - ◆ XBRL 2.0 (in draft) – single-schema process, XBRL data types
- ❖ **TIGERS**
  - ◆ Tax Information Group for EC Requirements Standardization
  - ◆ Transition strategy – Develop XML vocabulary
- ❖ **Direct**
  - ◆ Domain-specific tags and business rules
  - ◆ Use of common data types and data structures



## IRS Experiment Current Status

- ❖ **Done:**
  - ◆ All forms and schedules for 1120 and 941 identified and included
    - Common Data Types: IRSXMLSchemaTypes.xsd
    - Common Data Structures: IRSXMLGeneralElements.xsd
    - Specific forms and schedules: 92
- ❖ **In Progress:**
  - ◆ Reconciling duplicate terms & conflicting data types
  - ◆ Developing instance documents
  - ◆ Updating IRS X12 info for TIGERS
  - ◆ Investigating viability of ebXML Transport as transmission specification

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