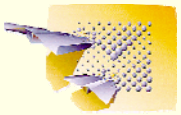
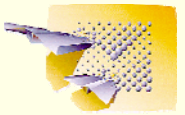


Context Inspired Component Architecture

Creating ASC X12 CICA Constructs

GEFEG



Context Inspired Component Architecture

Creating ASC X12 CICA Constructs with the CICA Editor®

GEFEG


ASC X12 XML Initiative
August 2001 – XML Summit
October 2001 – Started ASC X12 Reference Model for XML Design
June 2002 – Concept Verification
Design piloted with an invoice document
Initial database design and schema generated
October 2002 – Reference Model - Completed and Approved
ASCX12
The Accredited Standards Committee (ASC) X12

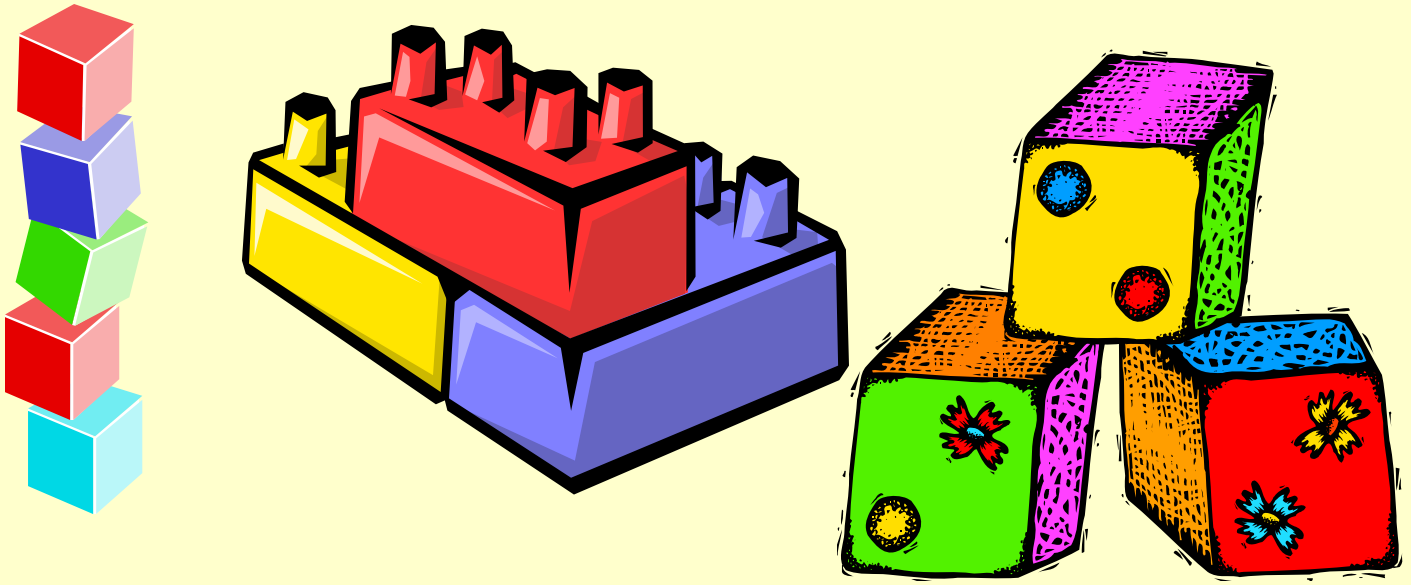

Guiding Principles
Build on the EDI experience but don't repeat mistakes
✓ Effective data exchange tool for many larger enterprises
X Difficult and expensive for small to medium size companies
✓ Generalized standards provide flexibility
X Requires industry specific implementation guides
✓ Rich source of semantic content
X Difficult to integrate across industries
ASCX12
The Accredited Standards Committee (ASC) X12

Guiding Principles

- Do not create a representation of current EDI transaction sets
- Alignment with other standards efforts: W3C, ebXML, UN/CEFACT
- Build on existing foundations and best practices

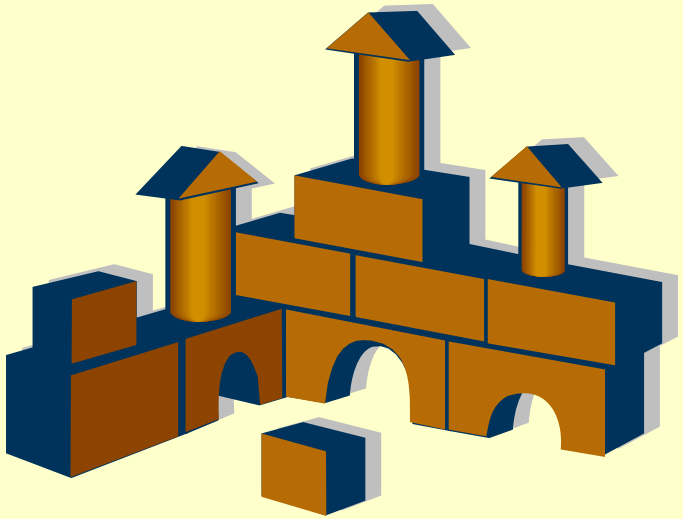
What is CICA

- Neutral Building Blocks



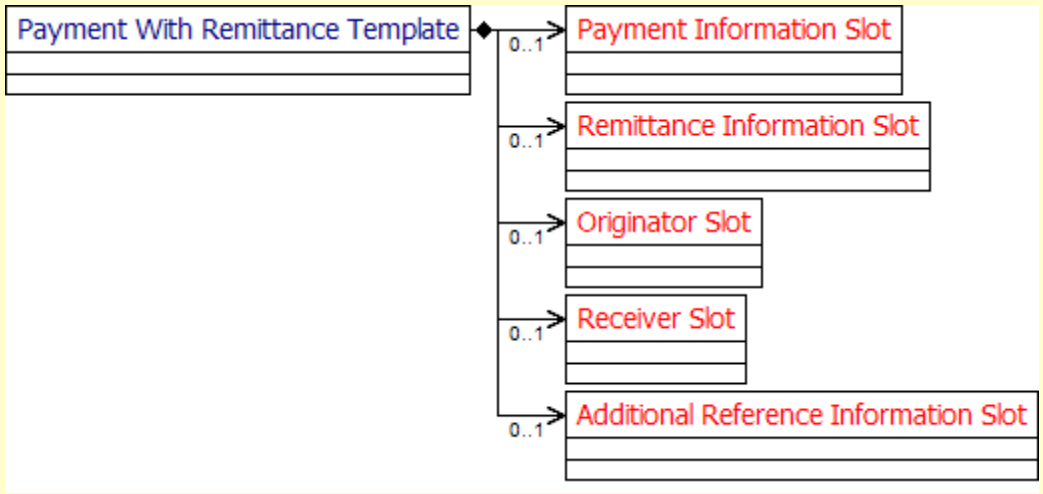
What is CICA

- Combined with a methodology (X12.7)

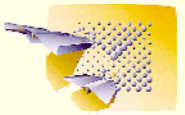


What is CICA

- To Create a data model



What is CICA

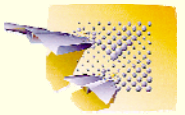


- Add business context and (X12.71) to *derive* CICA based XML messages

```
<xs:element name="Document" type="Document"/>
<xs:complexType name="Document">
        <xs:sequence>
                <xs:element name="Document.Document">
                        <xs:complexType>
                                <xs:sequence>
                                <xs:element ref="Document"/>
                                </xs:sequence>
                        </xs:complexType>
                </xs:element>
        </xs:sequence>
</xs:complexType>
<xs:element name="ConcreteModule" type="ConcreteModule"/>
<xs:complexType name="ConcreteModule">
        <xs:complexContent>
                <xs:extension base="AbstractModule">
                        <xs:sequence>
                                <xs:element name="ConcreteModule.ConcreteAssembly">
```

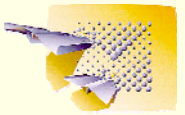

GEFEG

Business Processes and CICA



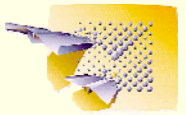
- Business Process modeling is a top-down approach which provides
  - an important roadmap for future developments
  - but not a migration strategy from current document exchange scenarios.
- In order to achieve both goals a meeting of current and future requirements is required.
- The CICA methodology enables
  - a rigorous rationalisation of current data structures which when harmonised across domains provide a library of structures which can be mapped to both current and future exchange definitions.

Data Modeling Concepts



- CICA defines the methodology for creating the data model that consists of:
  - Class Diagrams that define a document interface or data interchange.
  - Variants:
    - Composition relationship vs. attributes
    - Use of 'abstract' types
    - Hierarchy versus 'network'

Modeling Business Transactions with the CICA Editor®

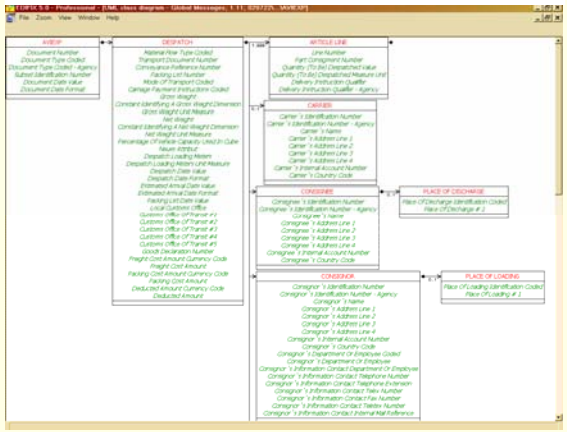


- ... Is the logical continuation of business process modelling and its description.
- The contents of the transactions used in a business process are documented in an understandable and transparent way in the model.
- The models are created syntax-neutral, that means without using any specific X12 or B2B syntax.
- The data model is now ready for the technical implementation in different standards with their individual syntaxes.
- B2B interfaces based on a data model and implemented in different standards are semantically consistent.
- As an addendum to the data models data glossaries, like branching or business vocabularies, or a Global Data Dictionary are generated.

What does the CICA Editor offer ?

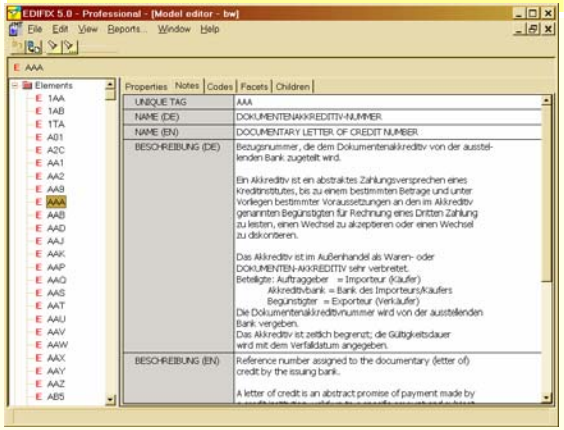
Data modeling and Development of XML Schemas in one Software

Develop syntax neutral models for business documents



Click on picture to enlarge

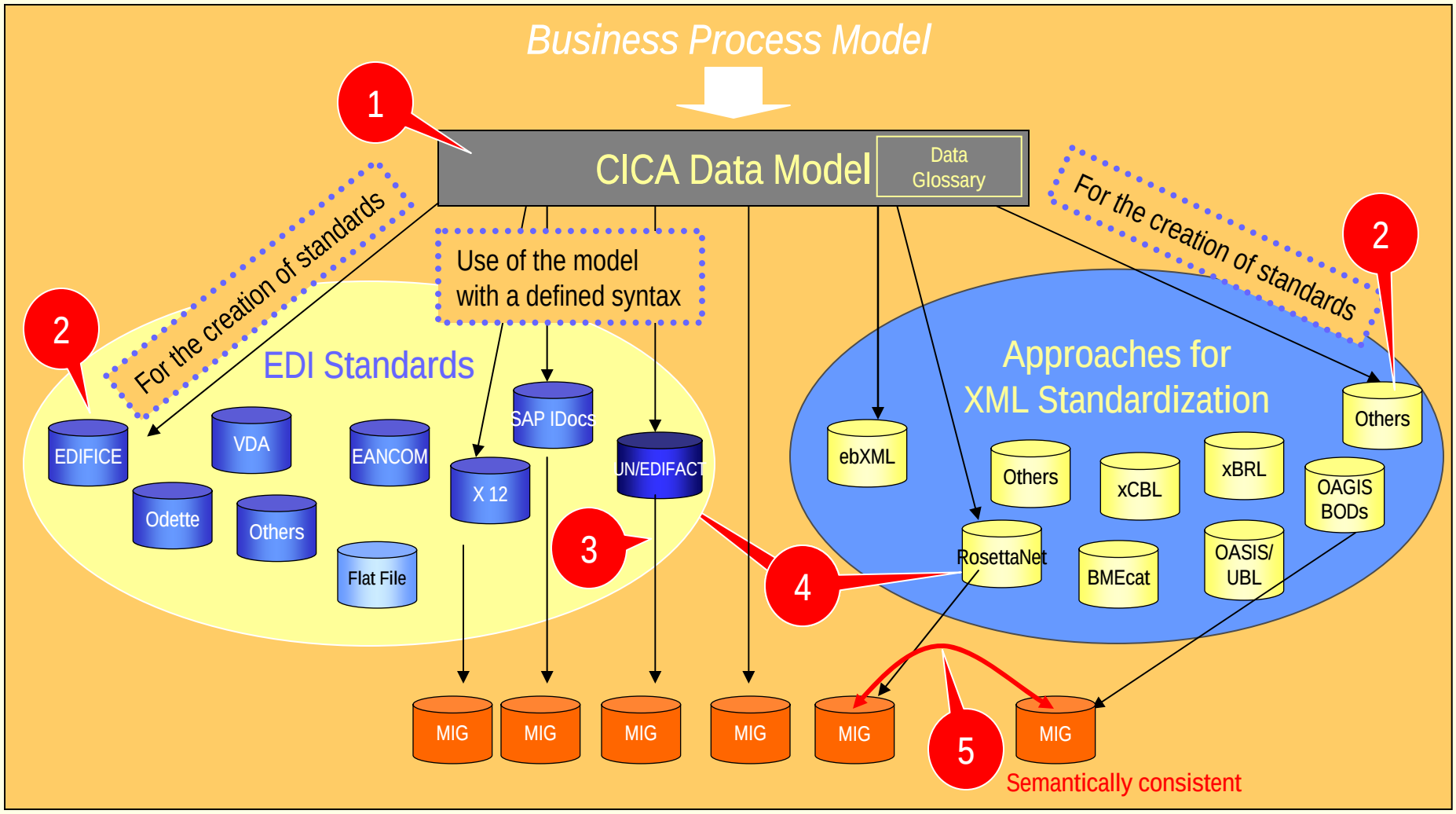
Document the contents of business documents in plain text. As a result a glossary is generated.



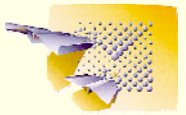
Click on picture to enlarge

Click on picture to enlarge

Generate and Maintain Data Models

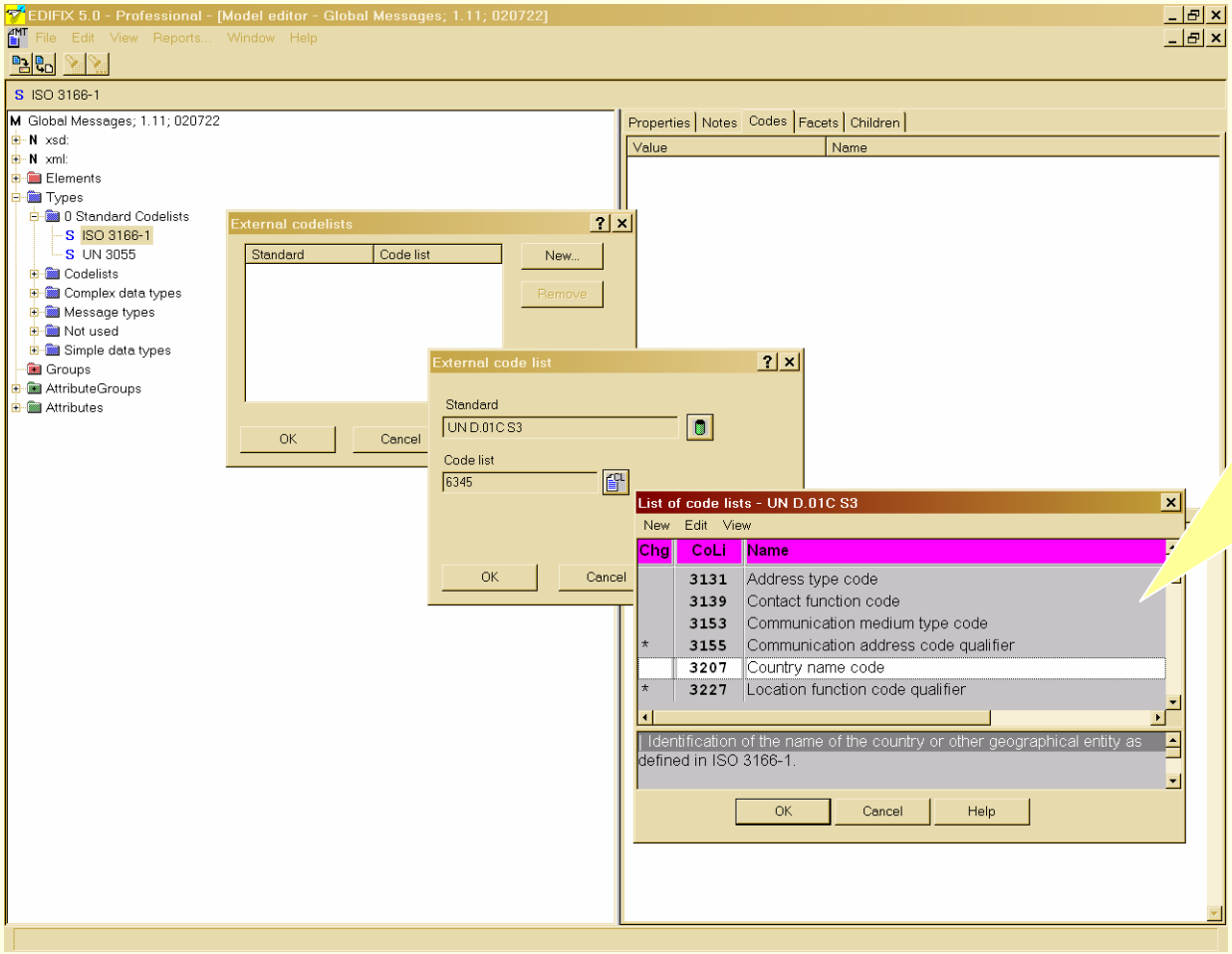


Version Management



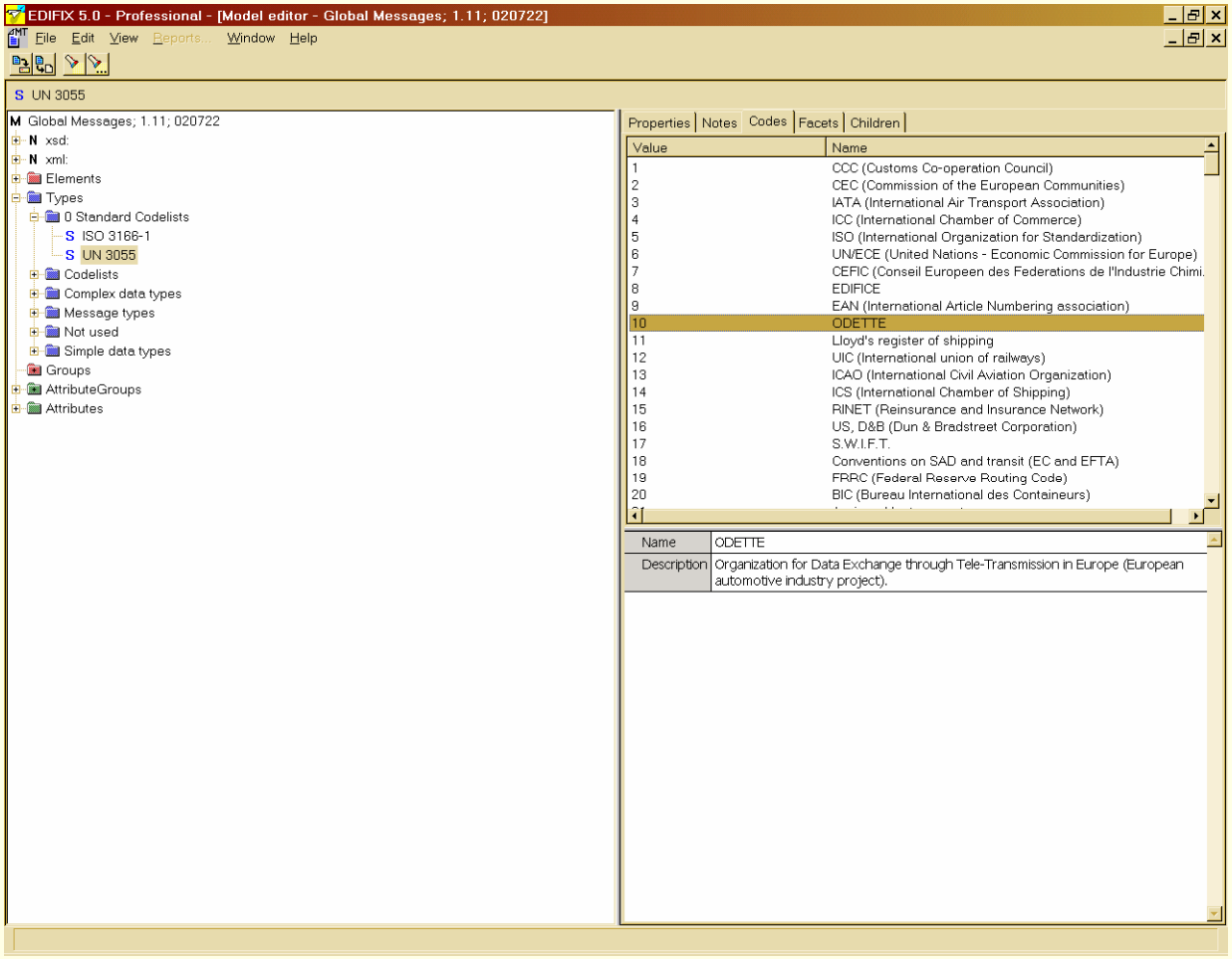
- Different versions of model, and schema standard are supported.
- Copy an existing object and apply changes to the new version.
- All versions are simultaneously accessible.

Usage of Standard (External) Code Lists

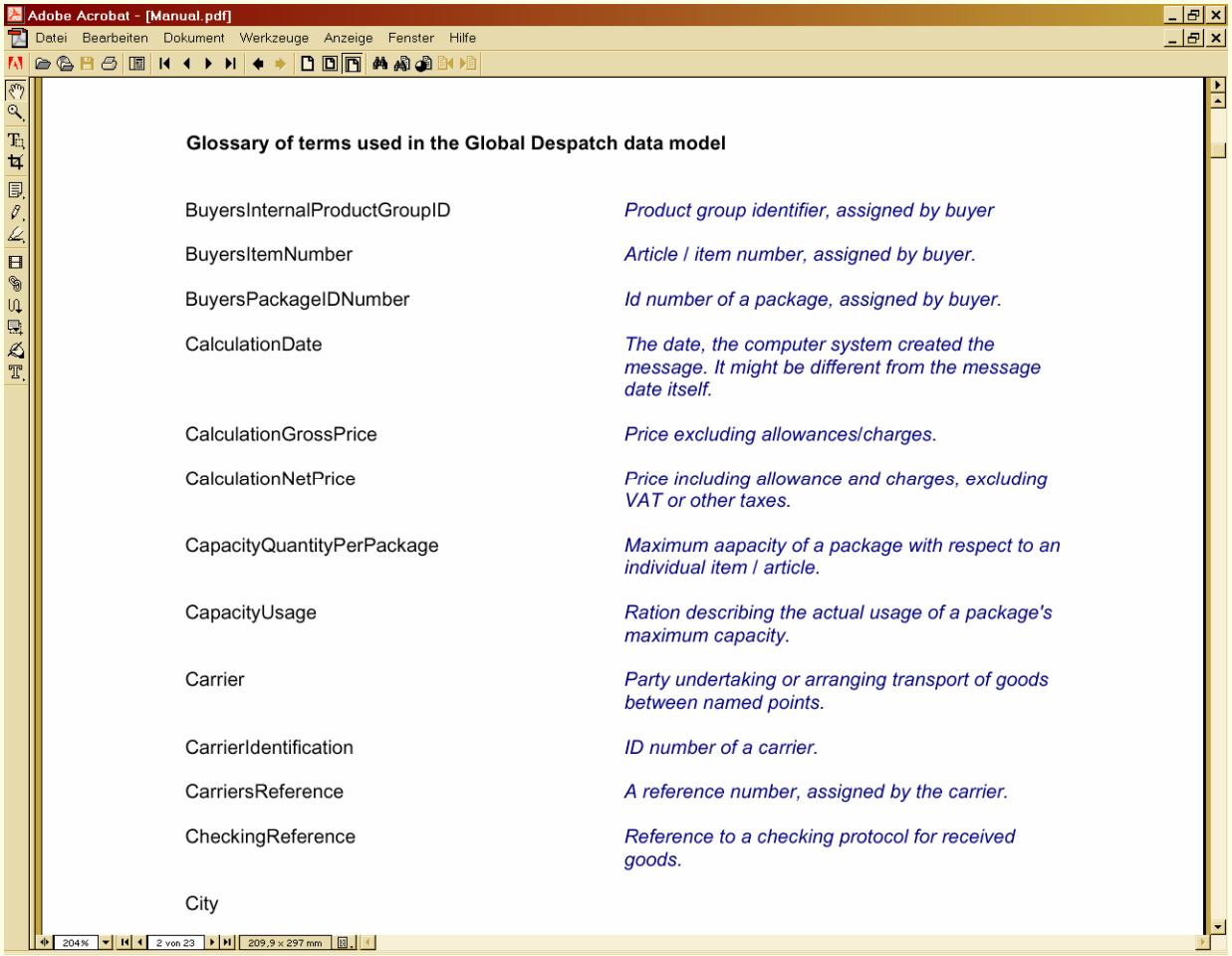


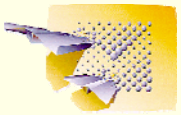
Any code list which is available with a standard can be linked to a model element or data type.

Usage of Standard (External) Code Lists



Automatic Derivation of a Glossary from Model Definitions



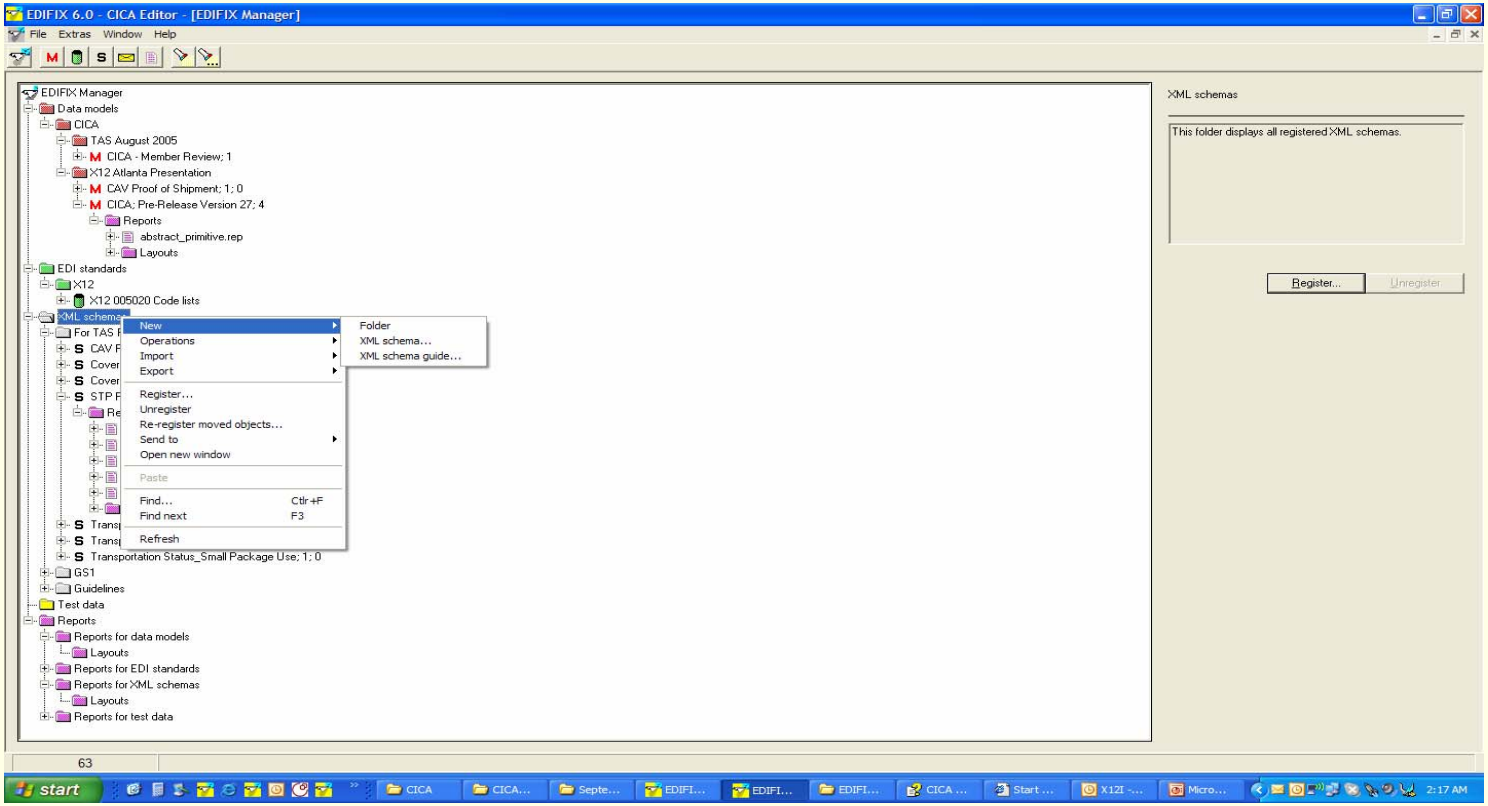


Context Inspired Component Architecture

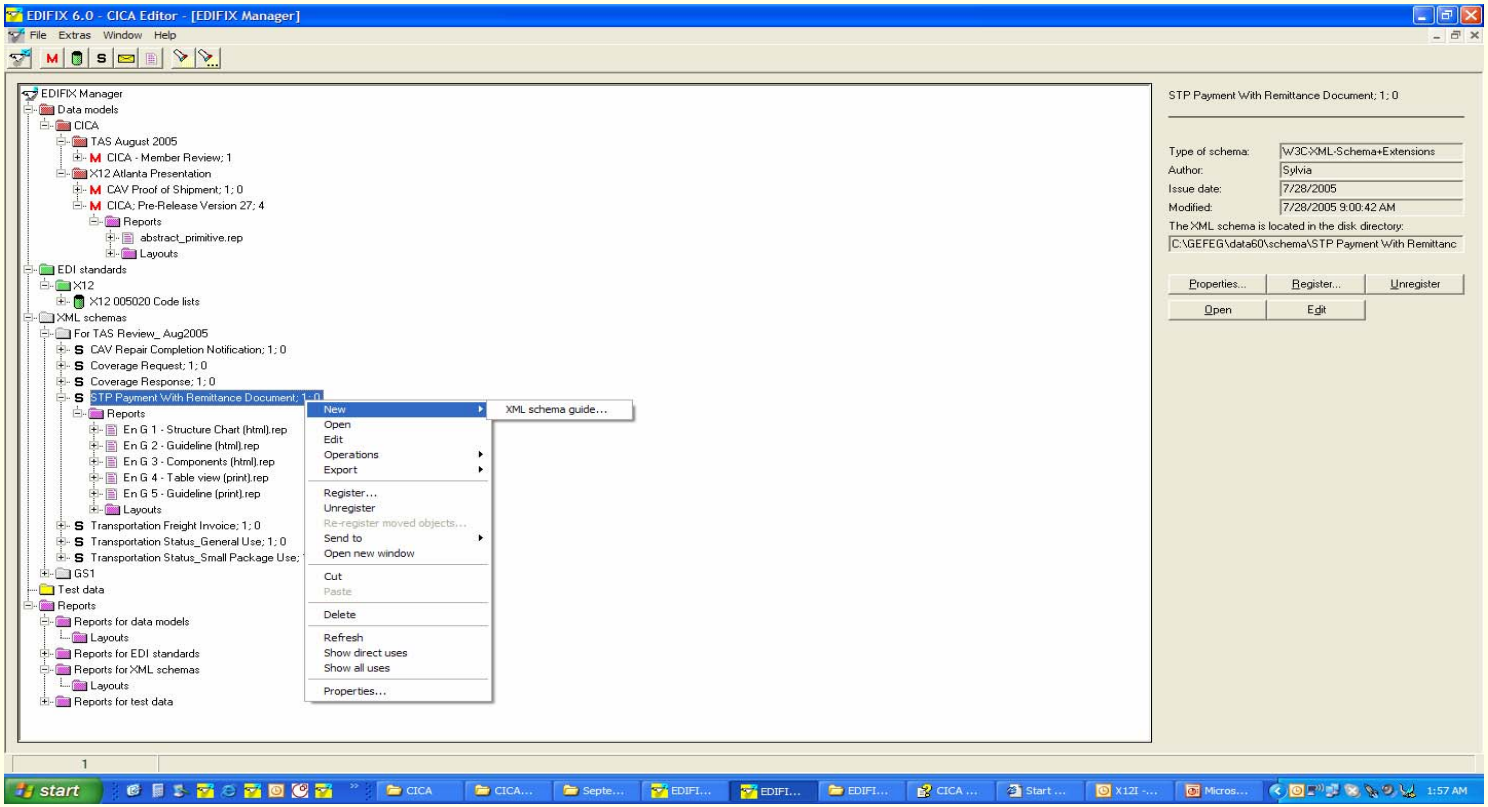
Creating ASC X12 CICA Constructs with the CICA Editor®

GEFEG

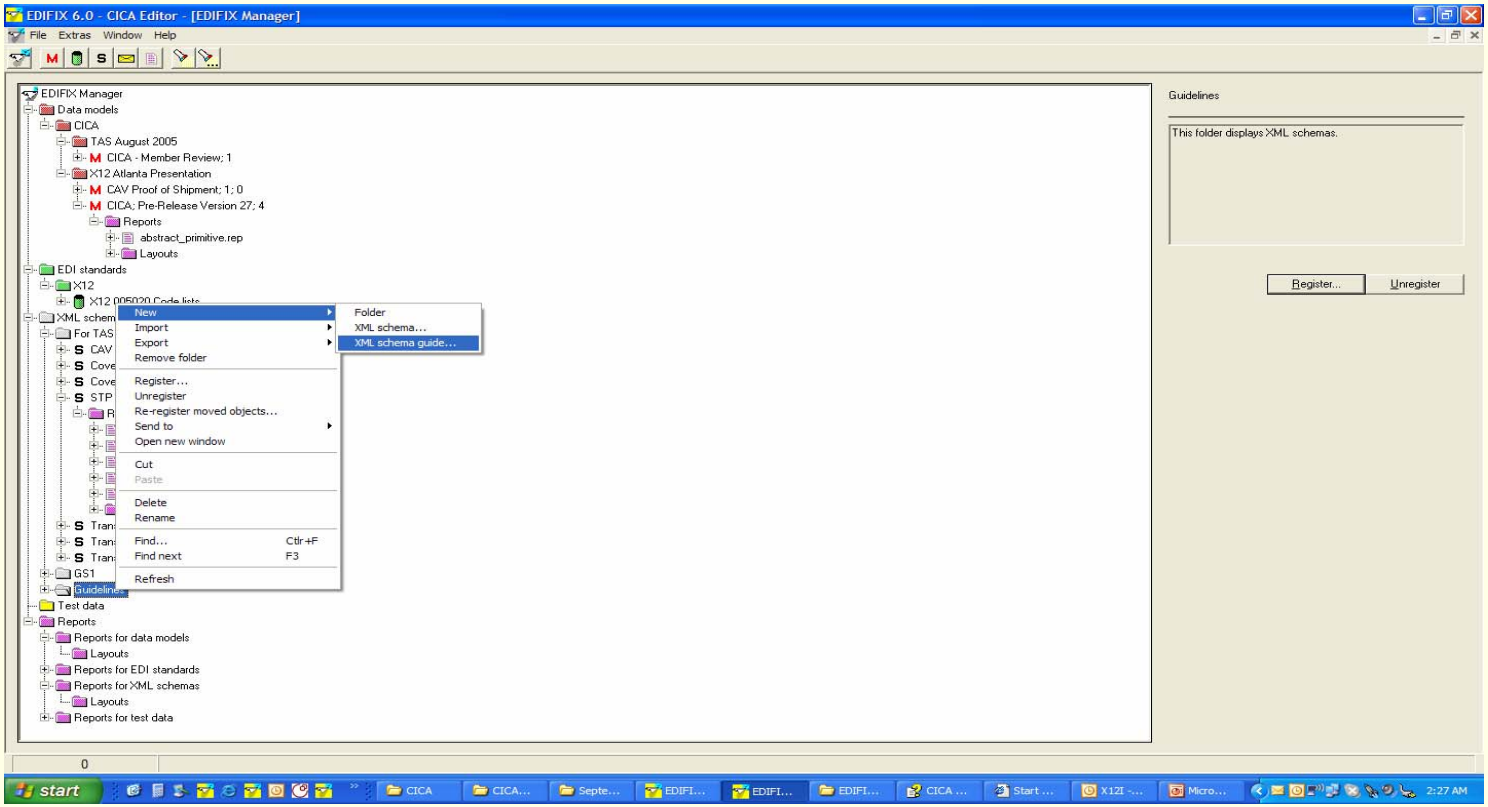
Creating Guidelines



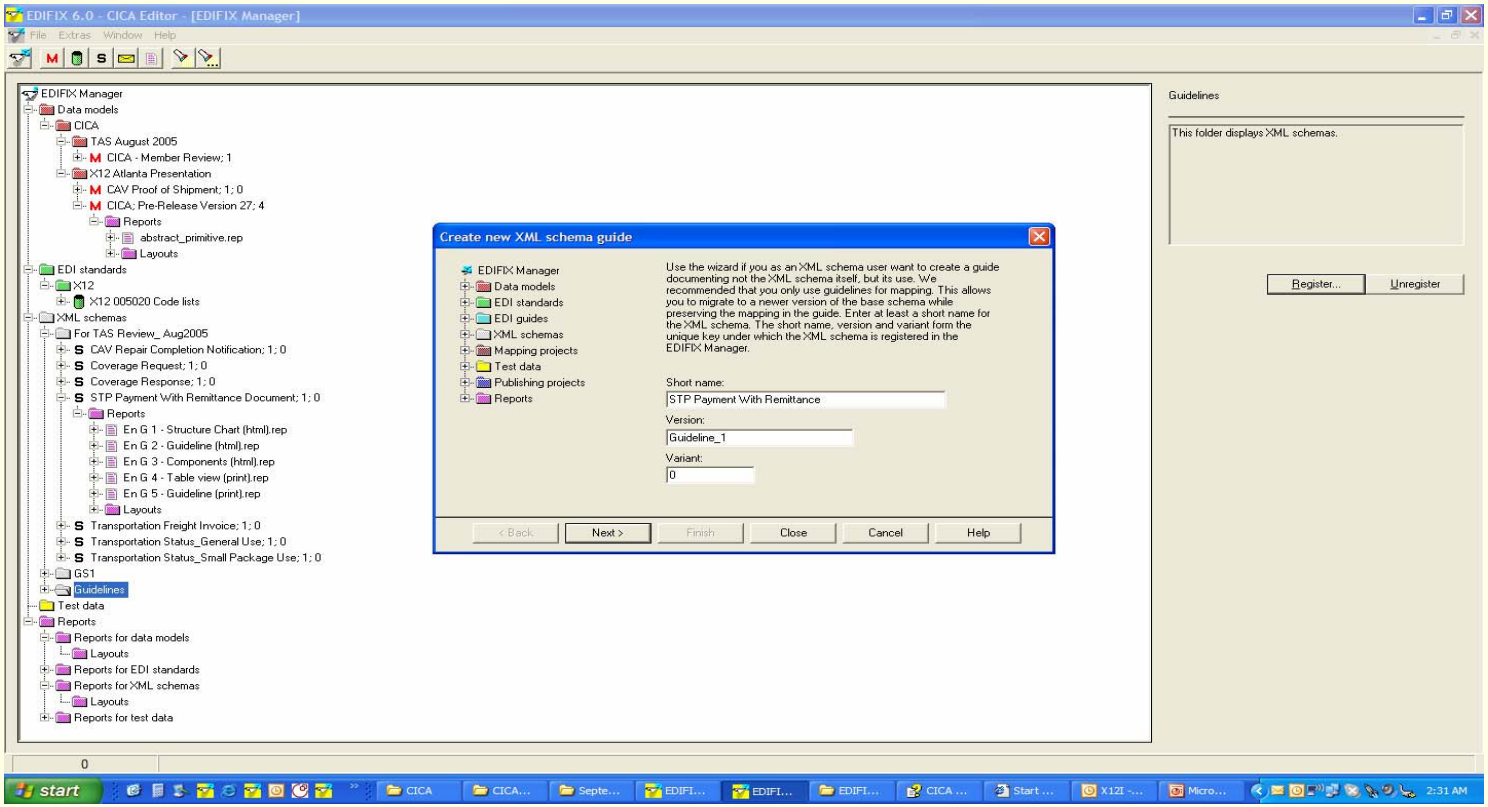
Creating Guidelines



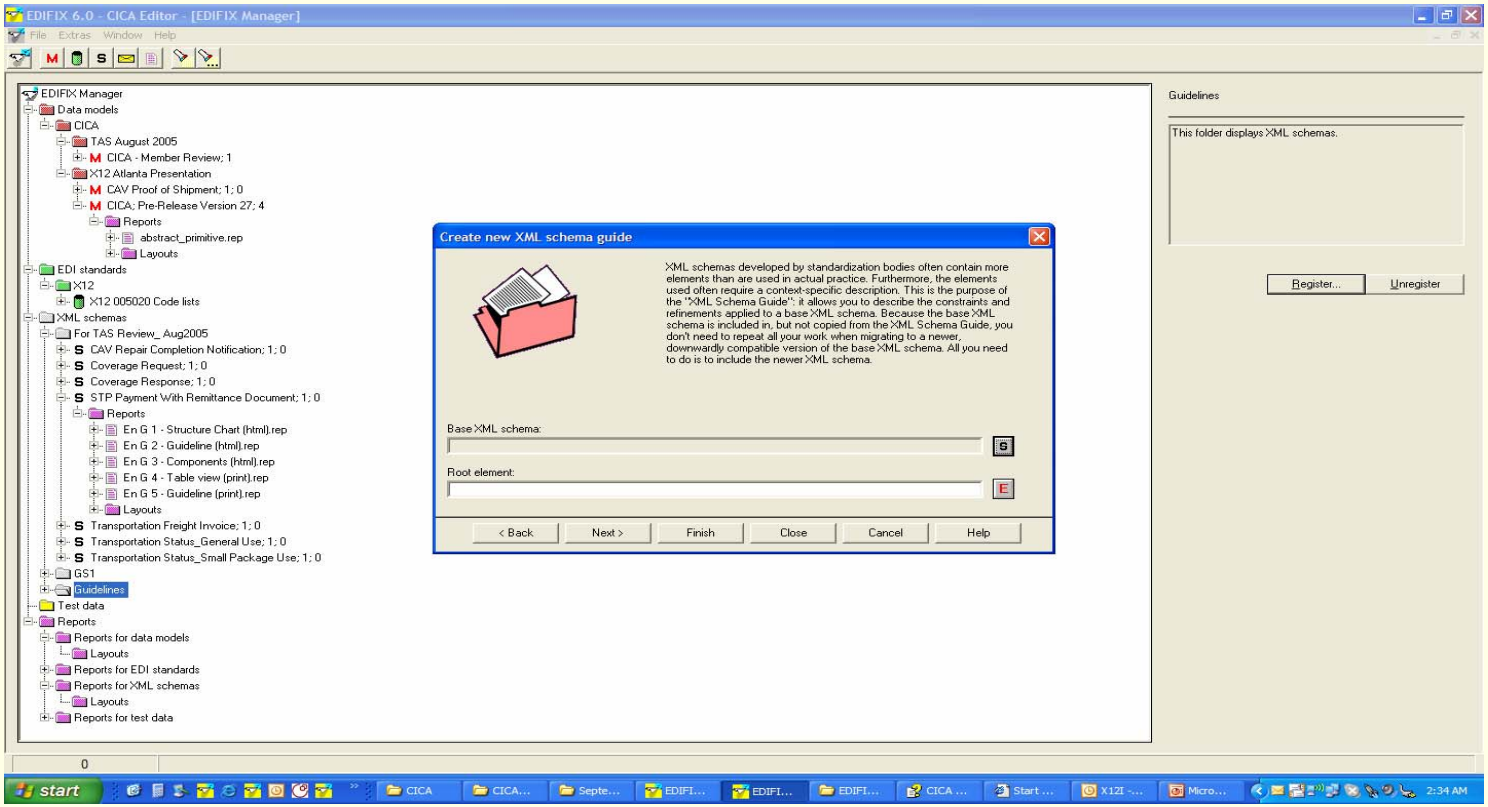
Creating Guidelines



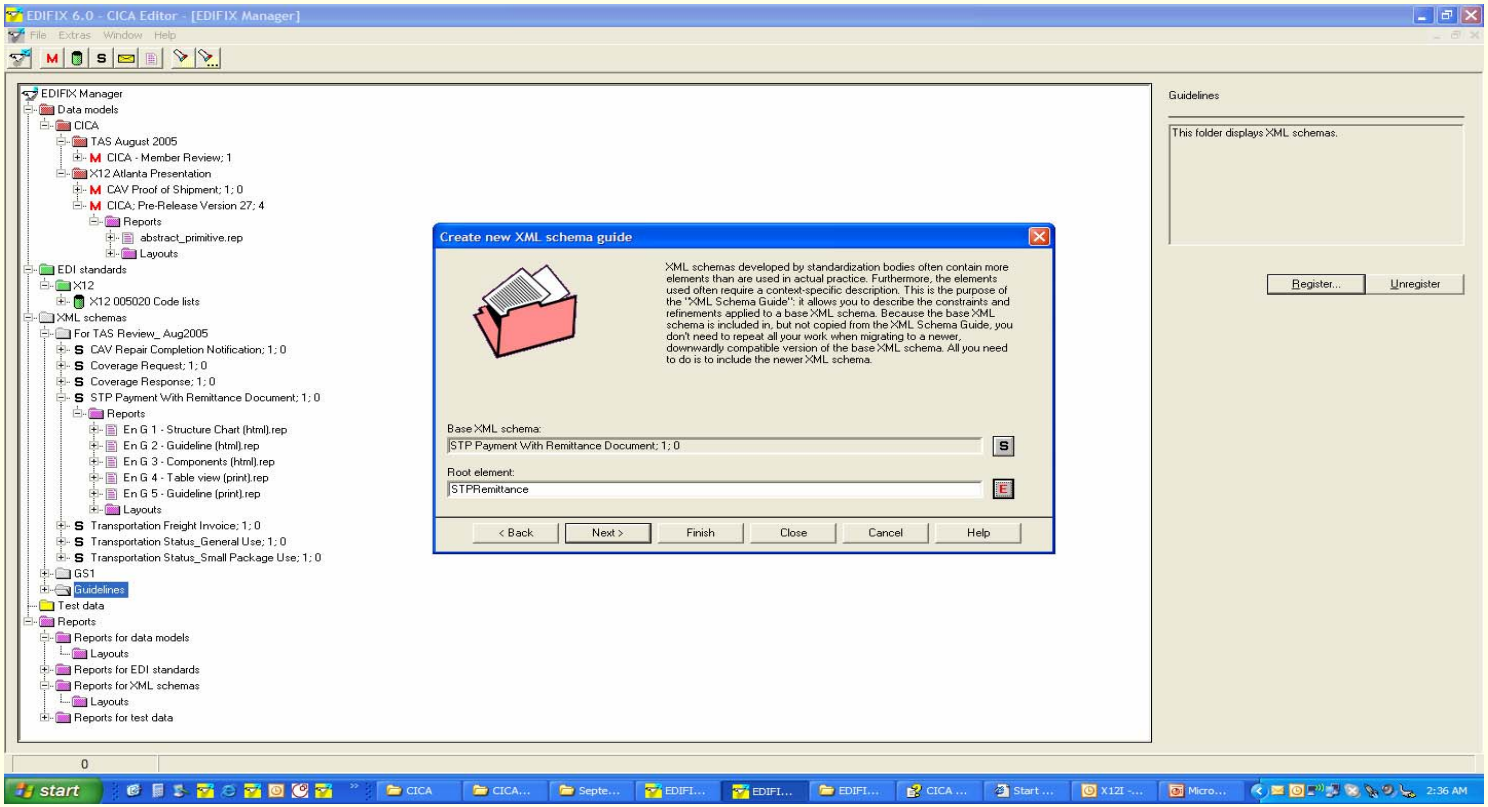
Creating Guidelines



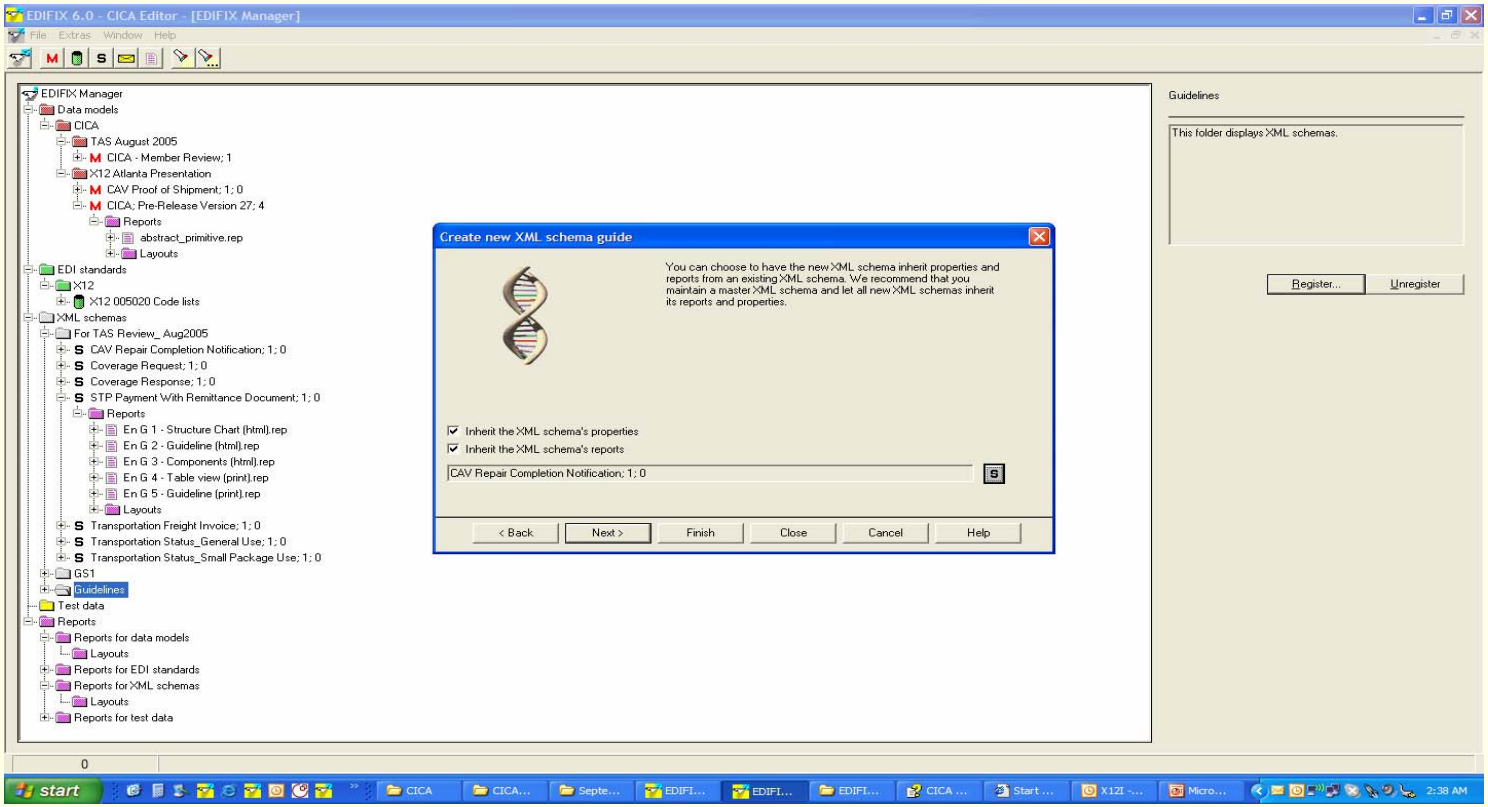
Creating Guidelines



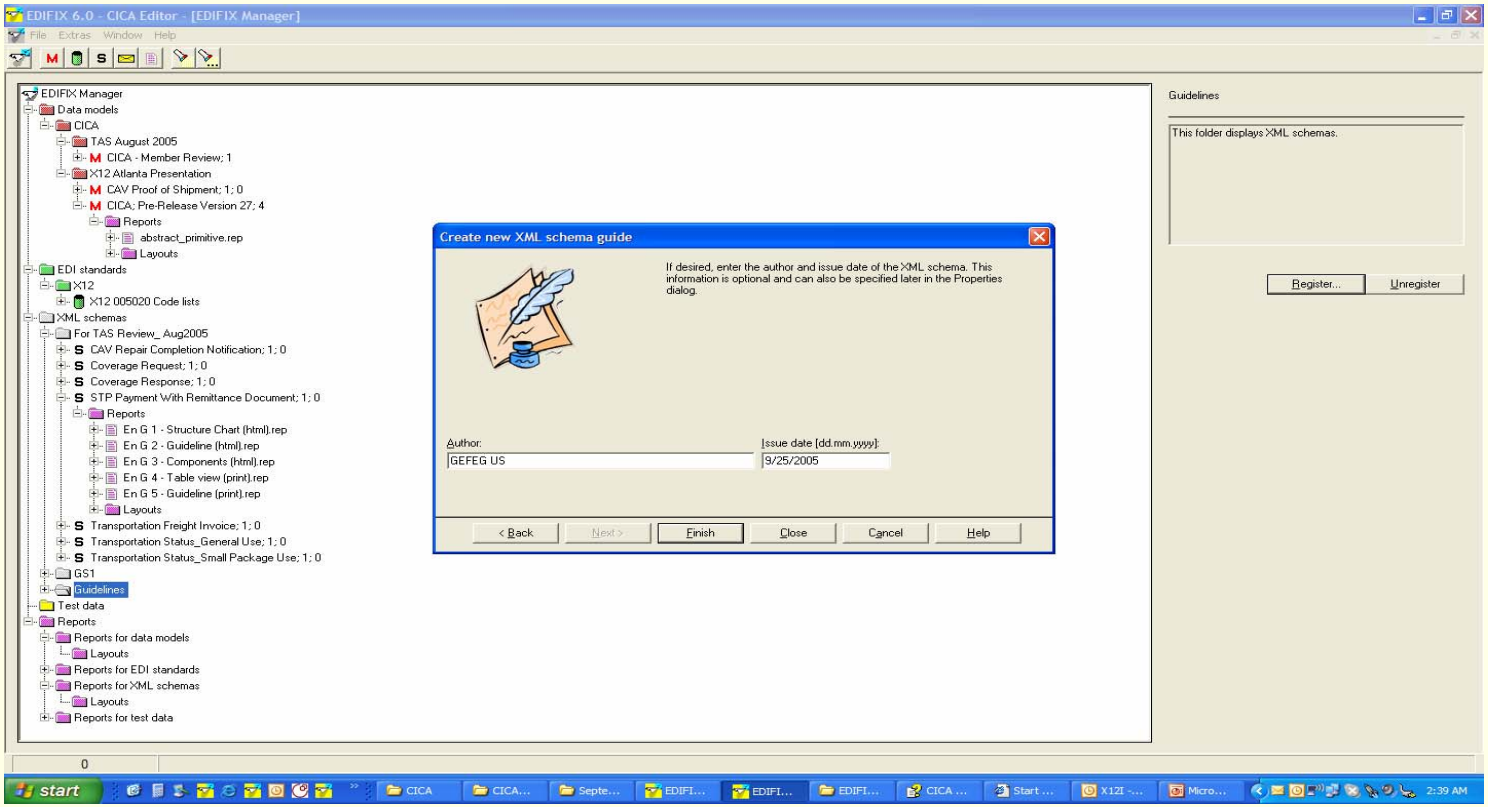
Using the Guideline Wizard



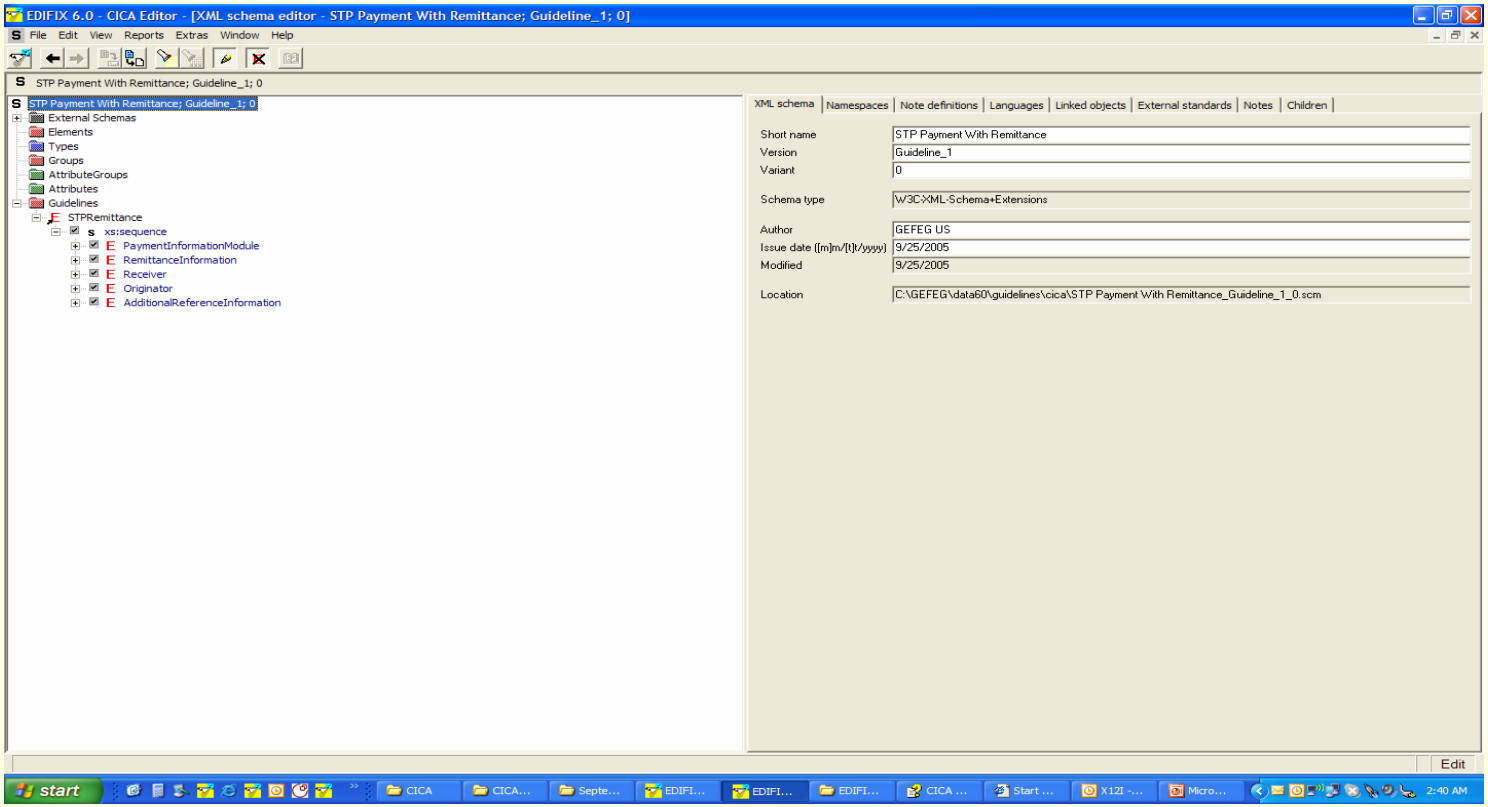
Using the Guideline Wizard



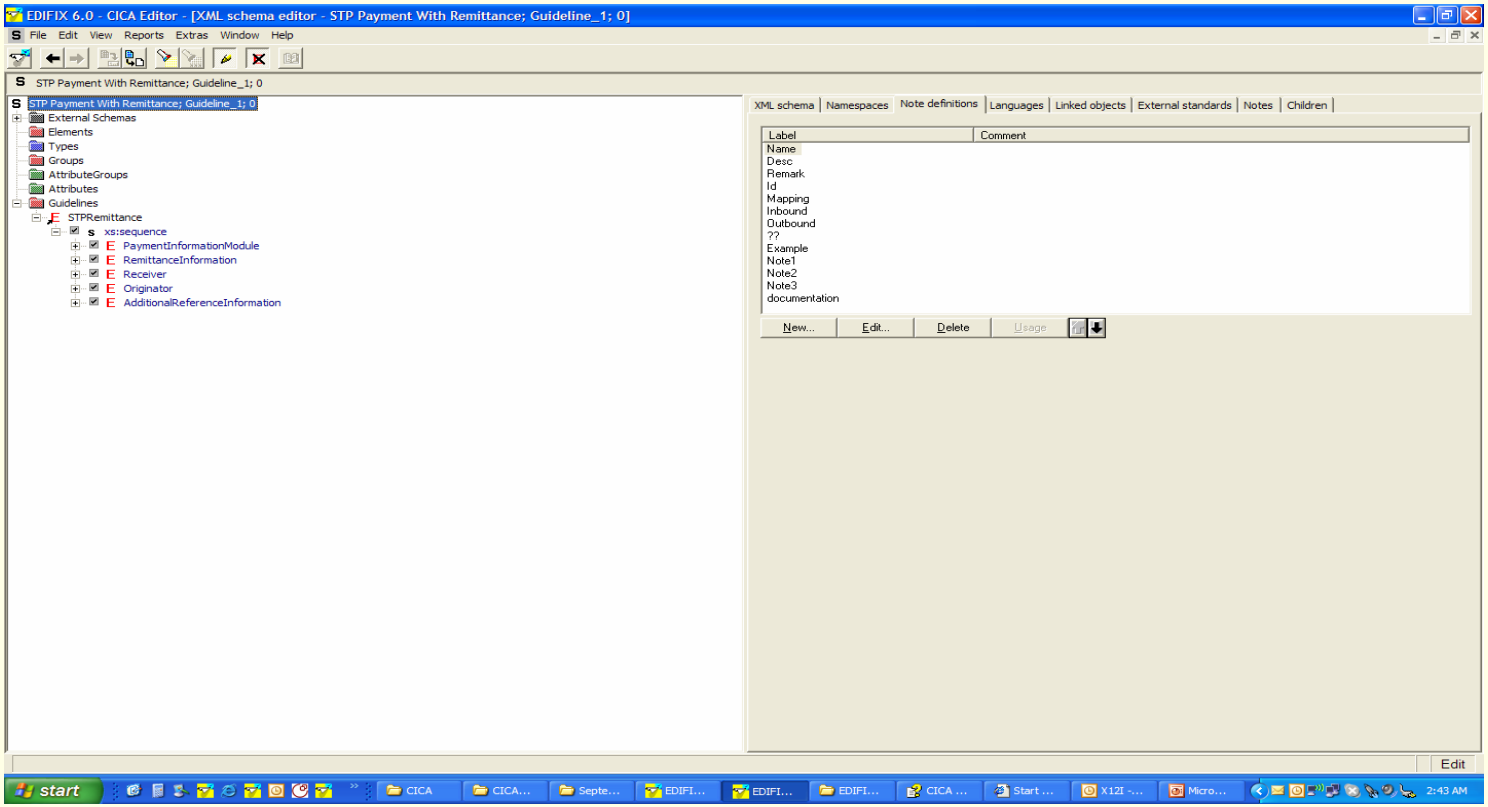
Using the Guideline Wizard



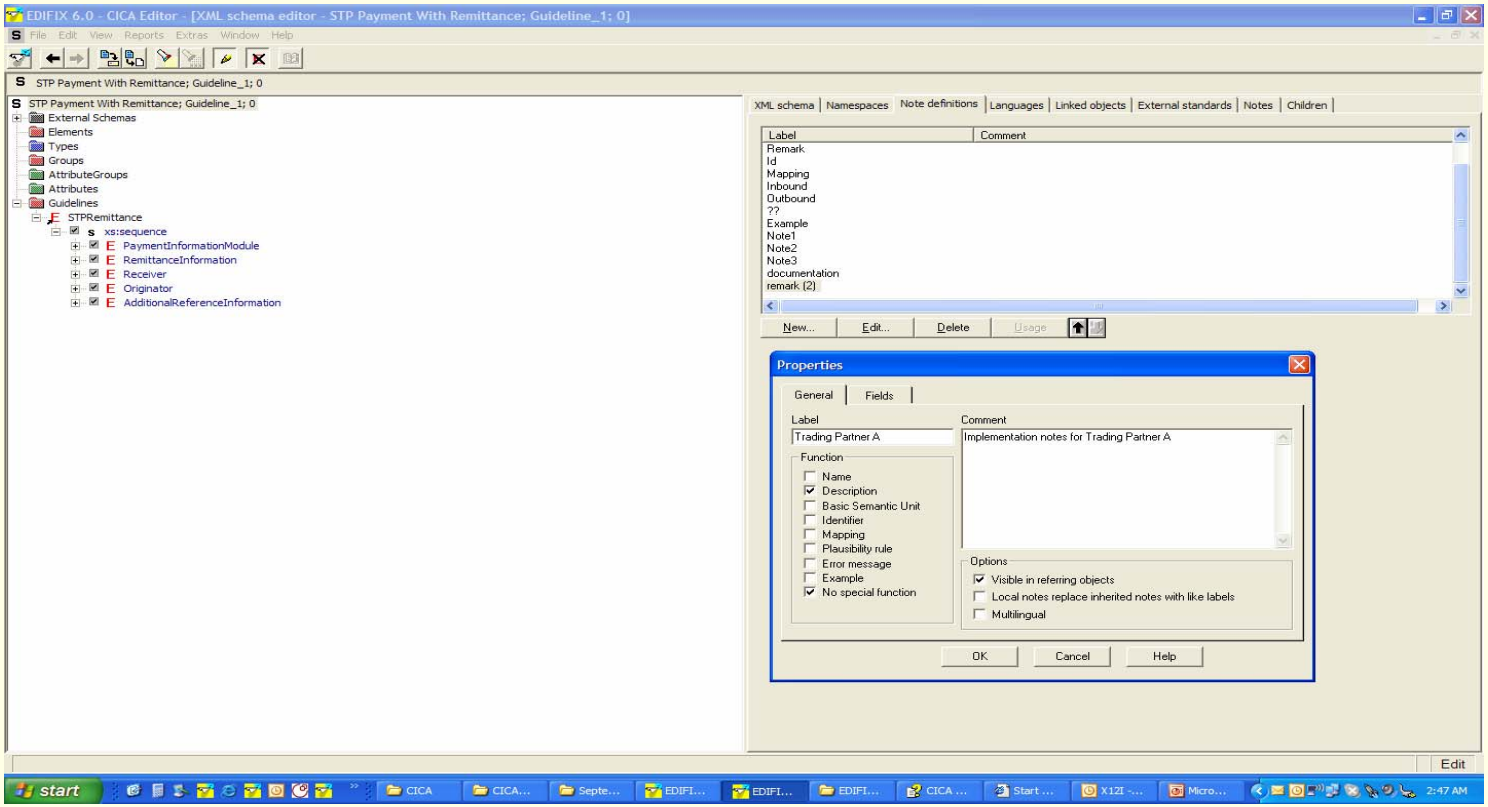
Creating Guidelines



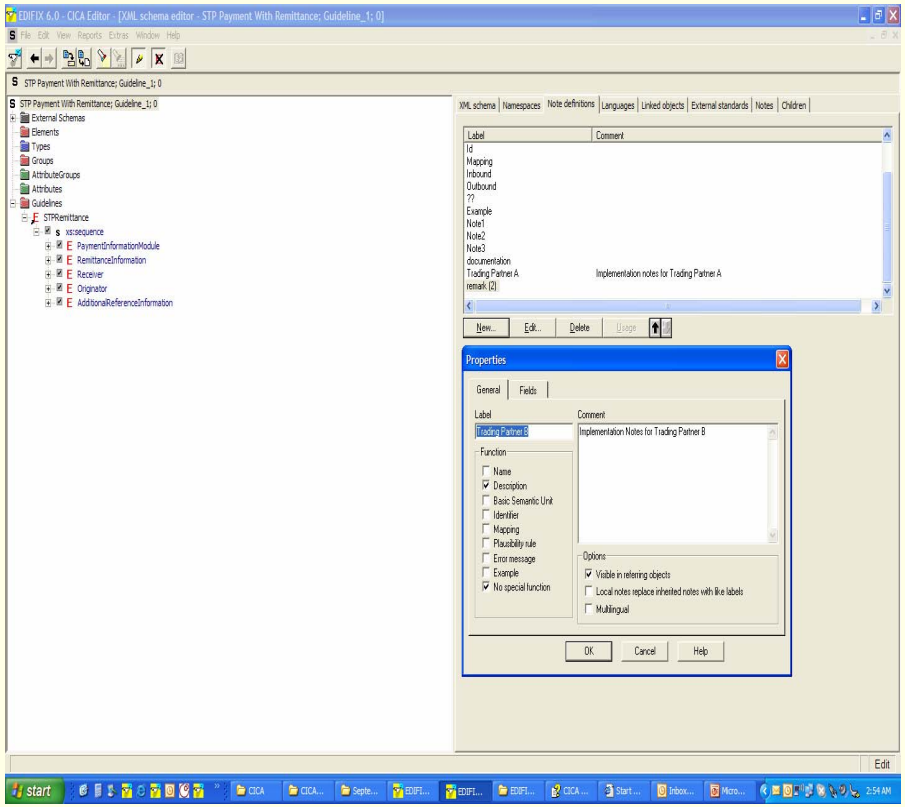
Customizing the Guide

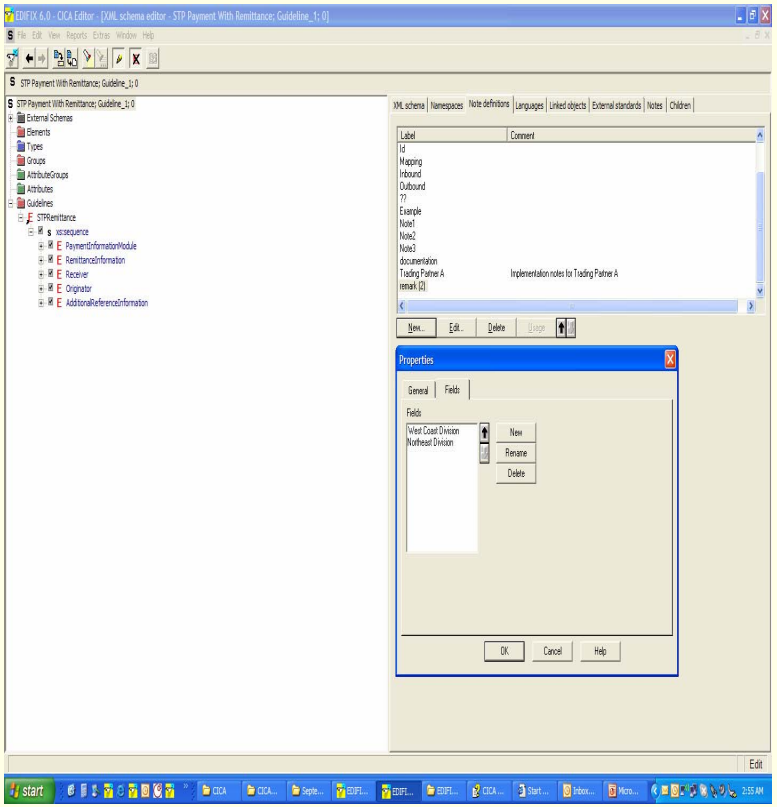


Customizing the Guide

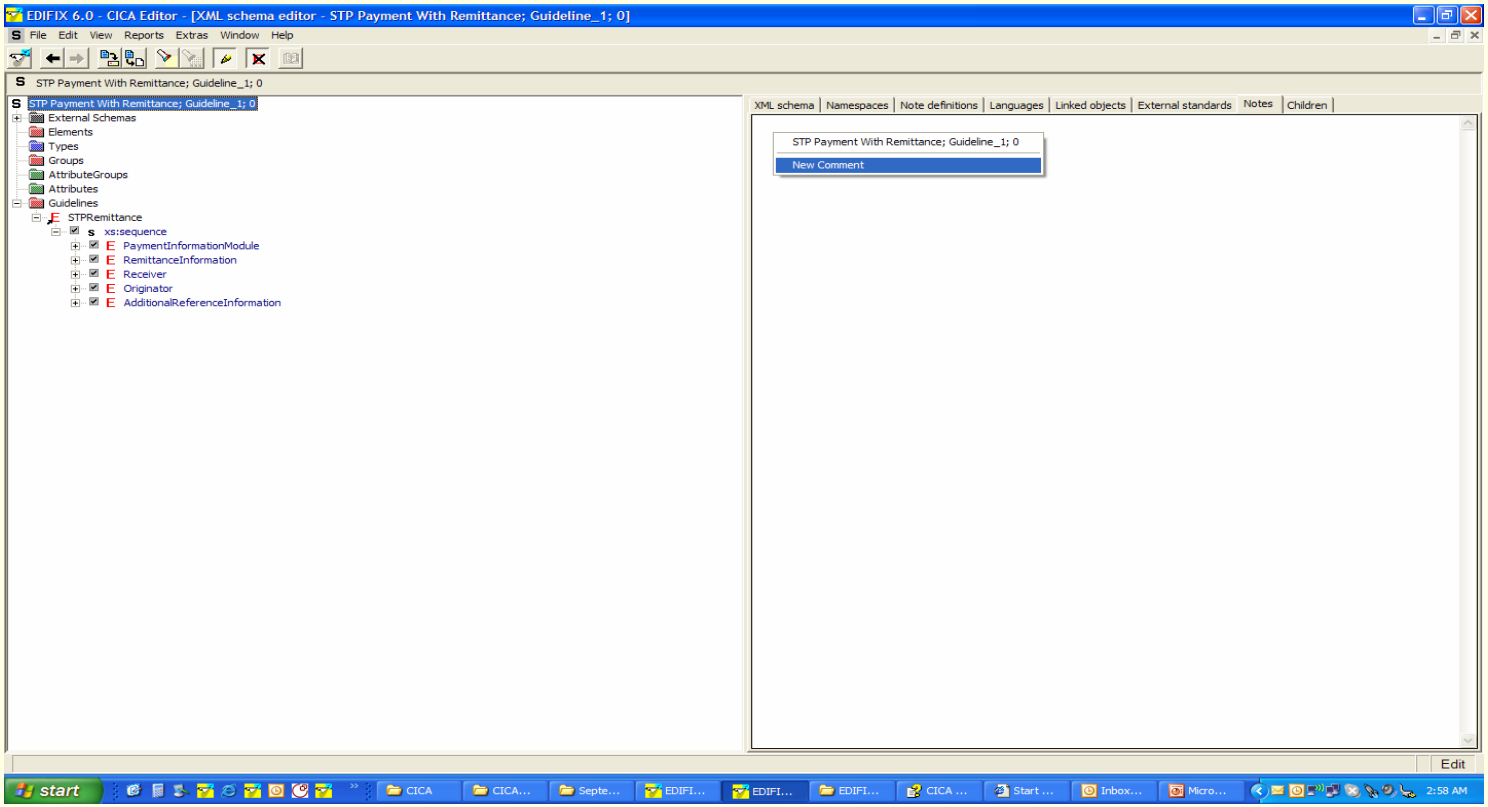


Customizing the Guide

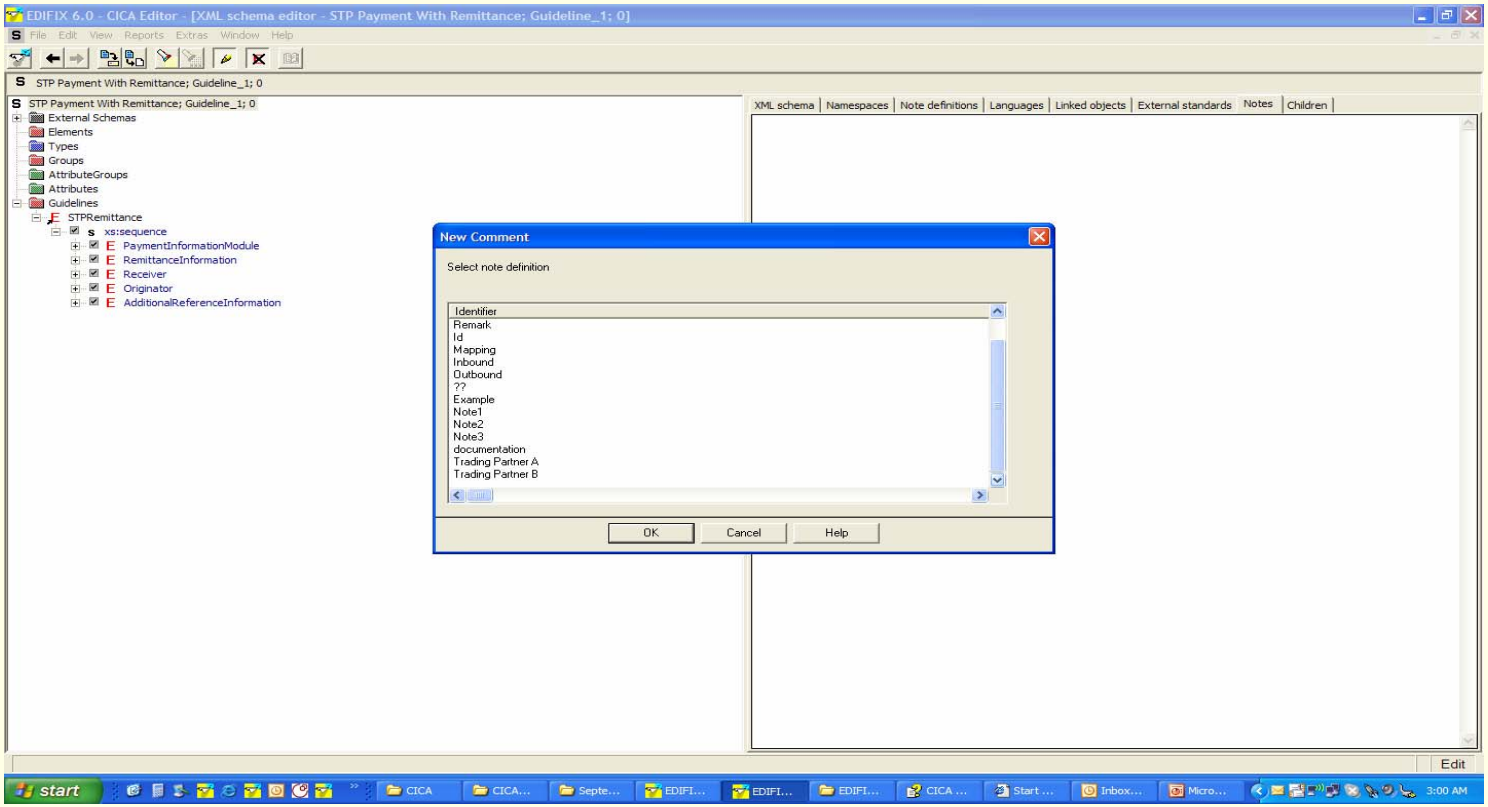




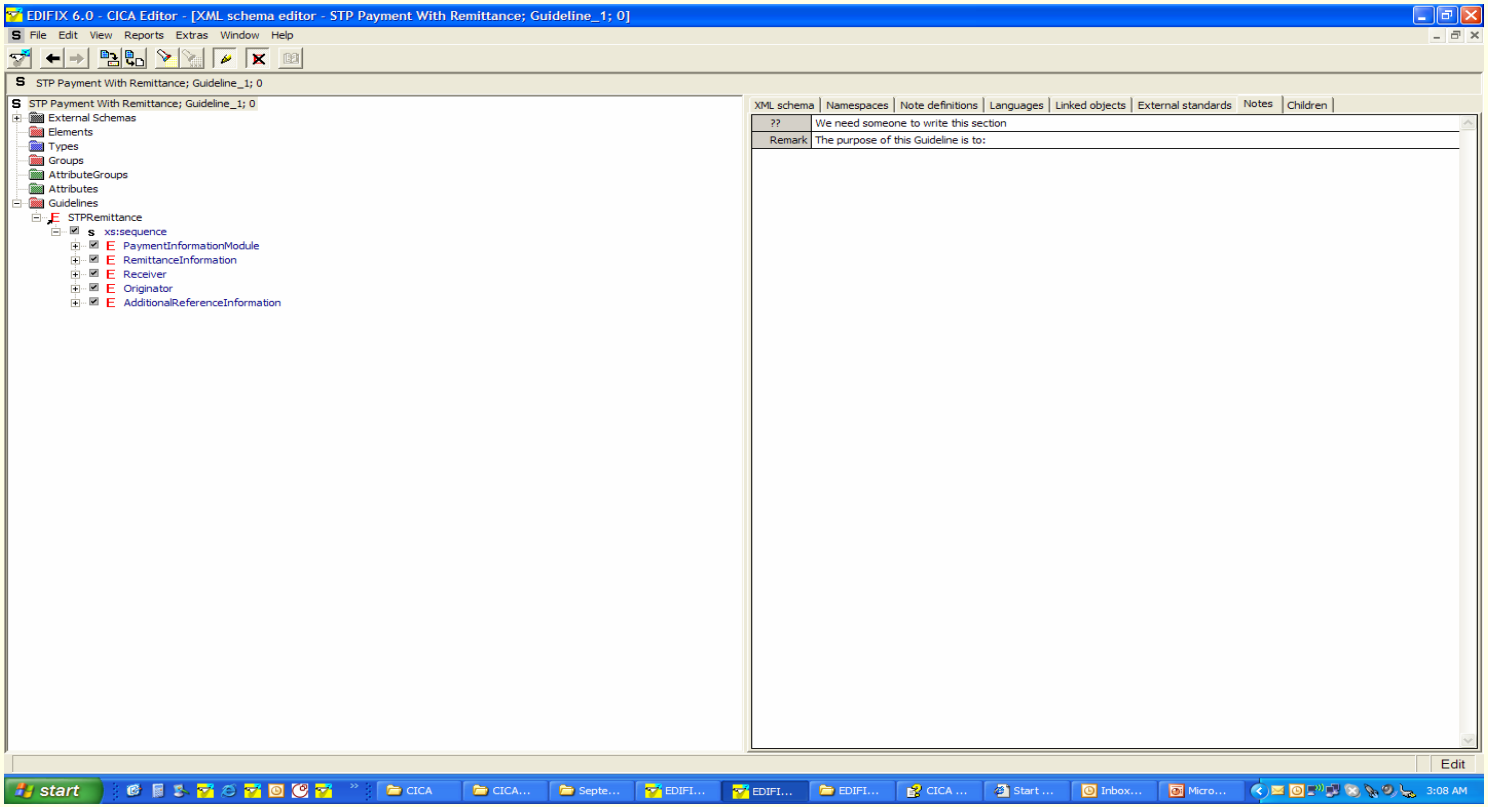
Creating Notes



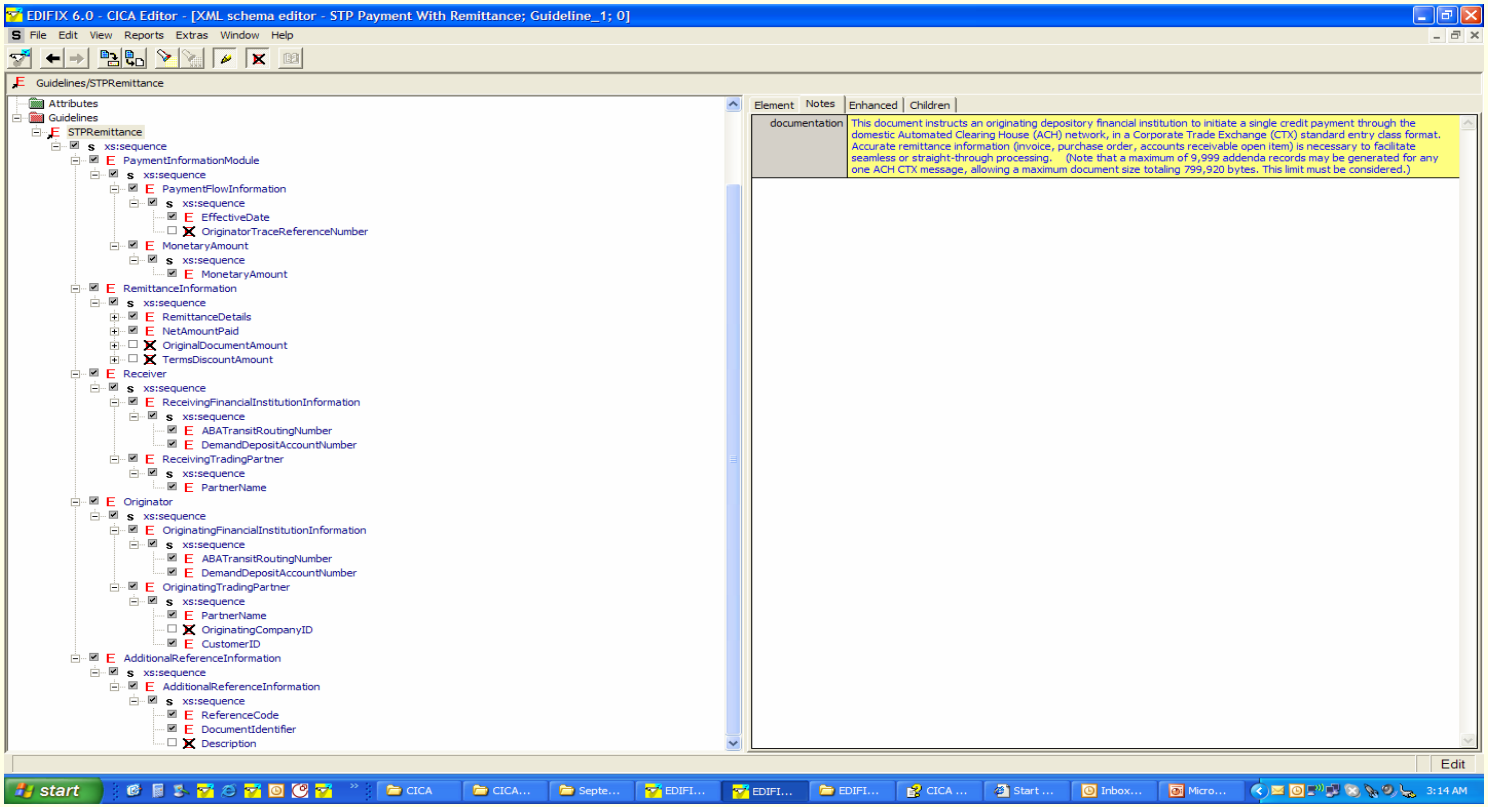
Creating Note Definitions



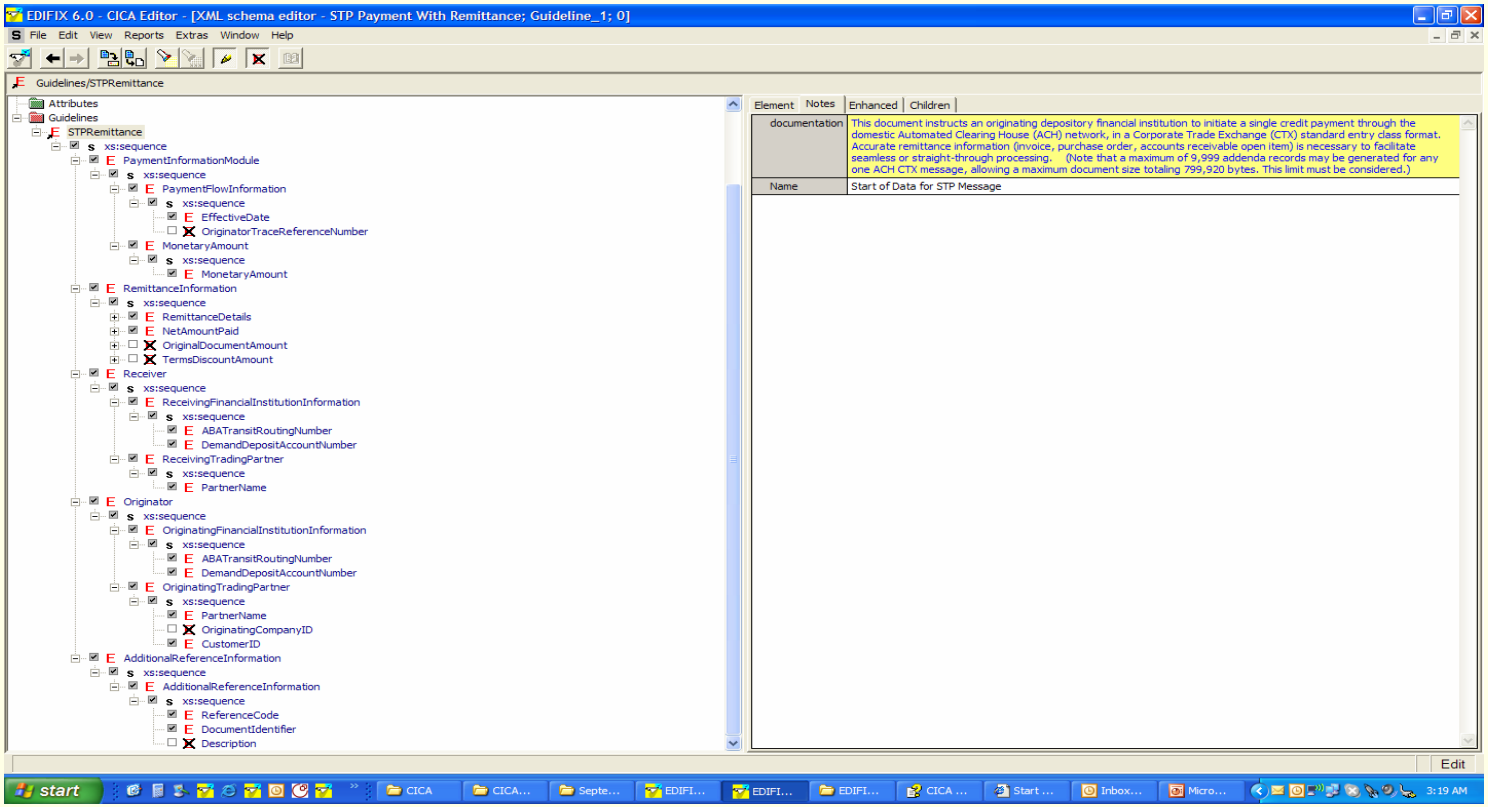
Customizing the Guide



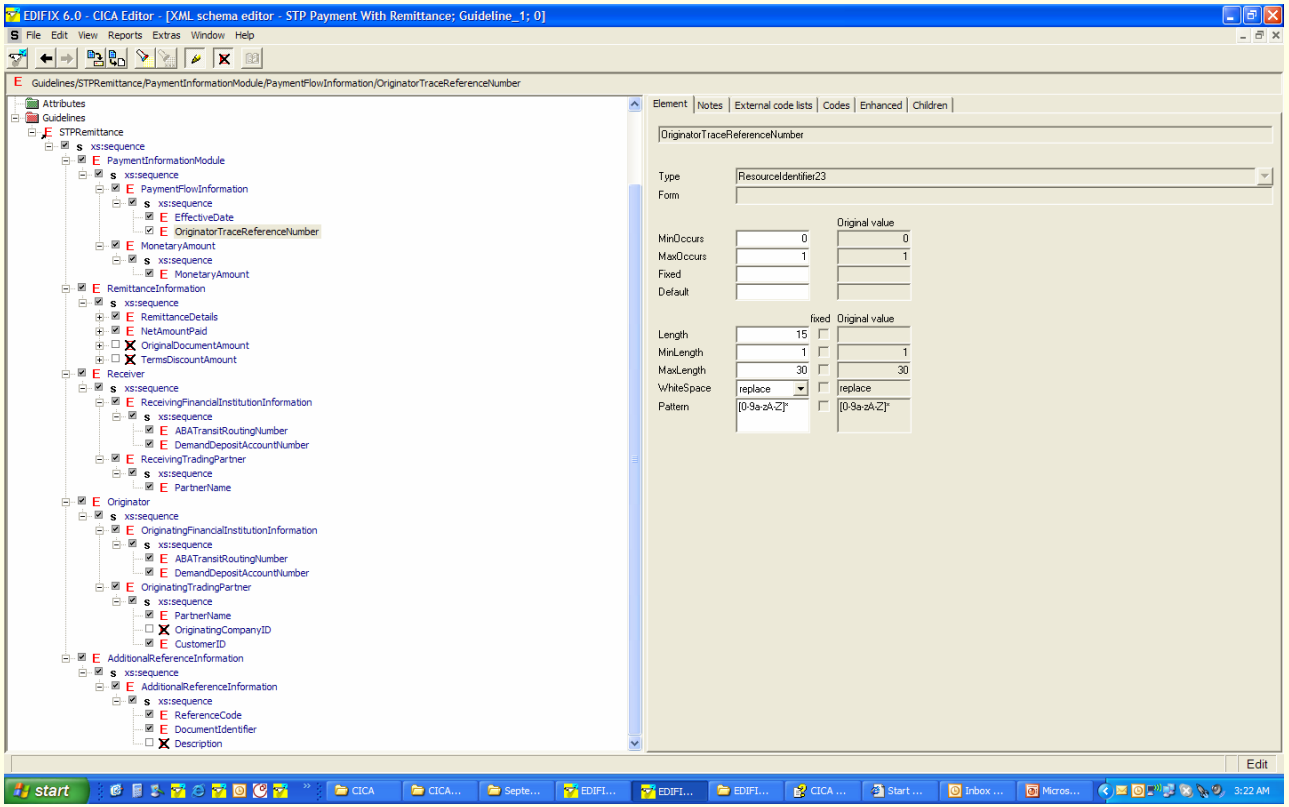
Customizing the Guide



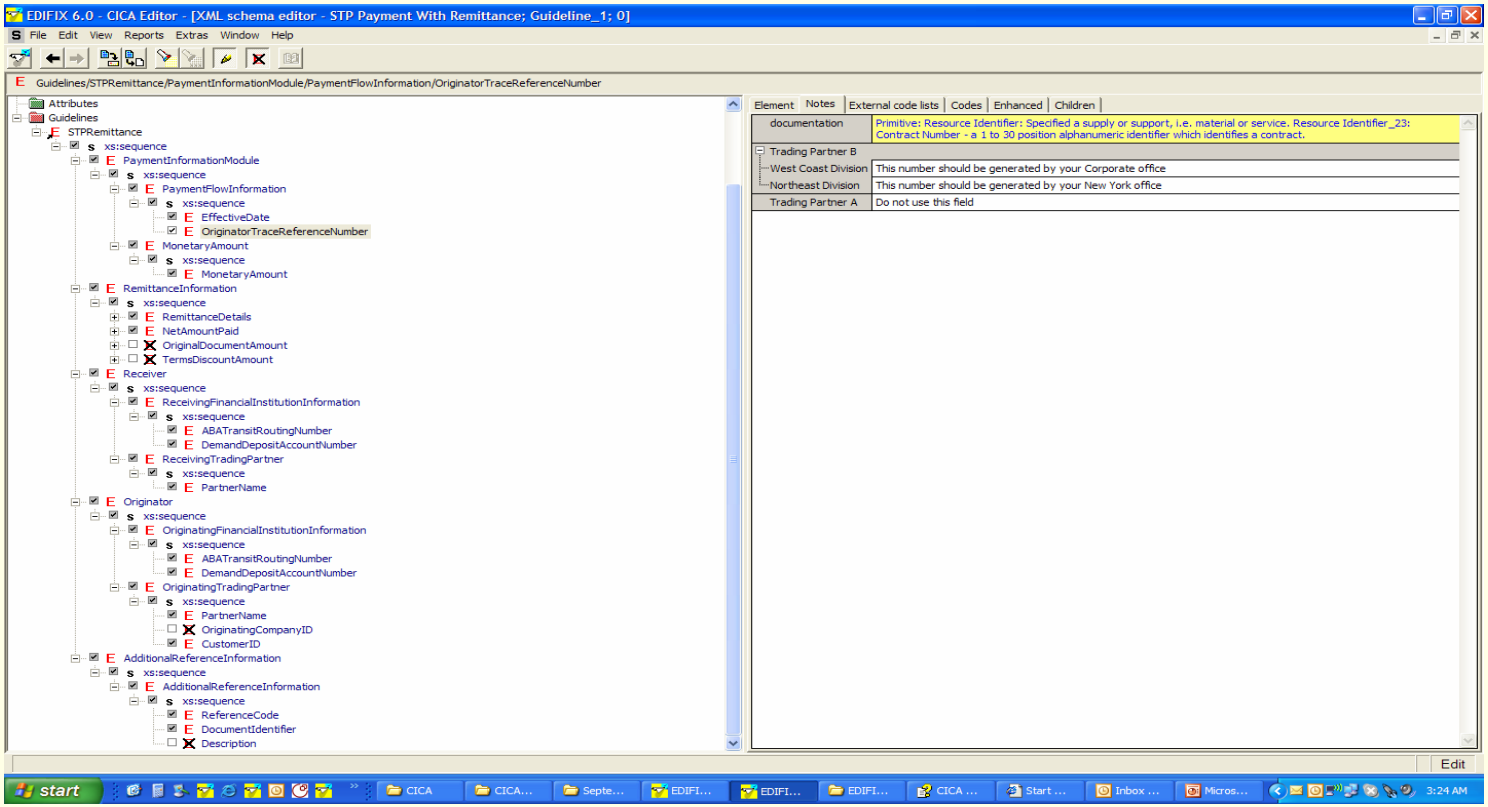
Customizing the Guide



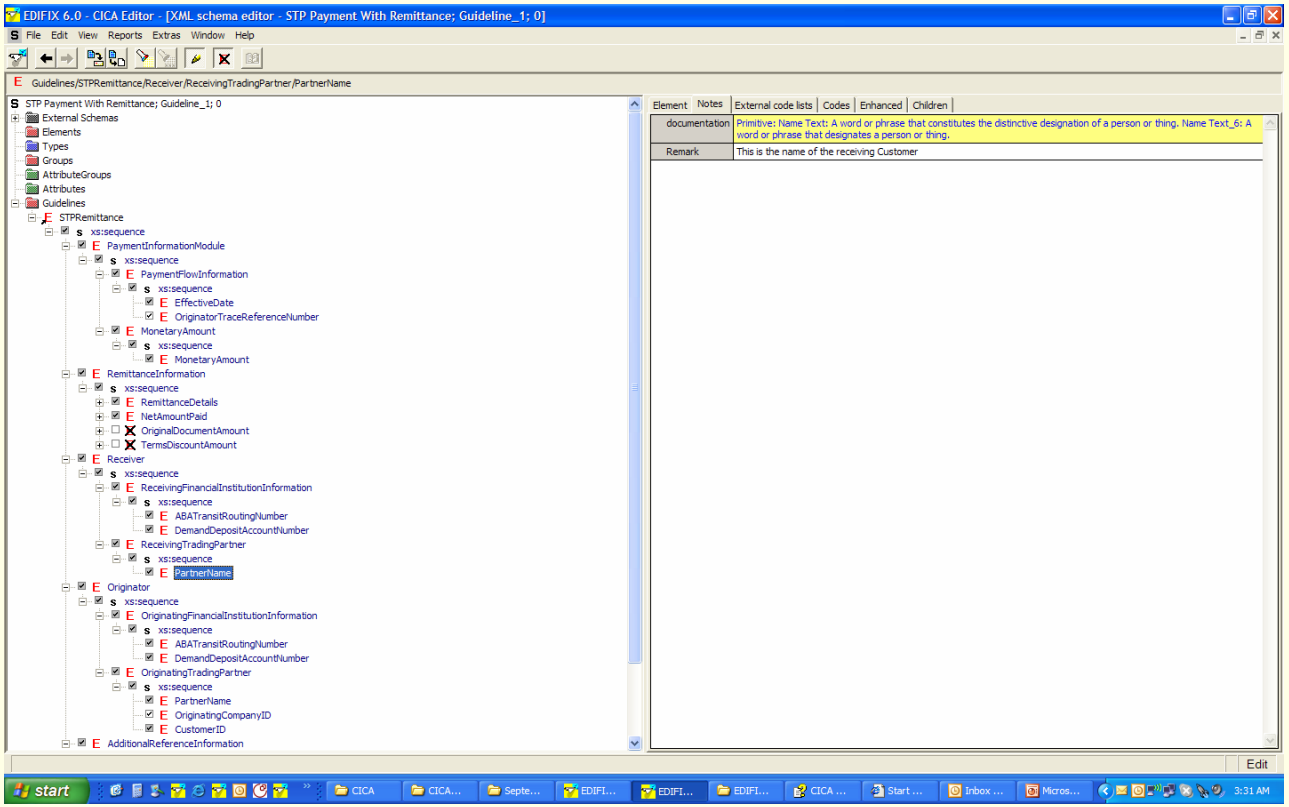
Customizing the Guide



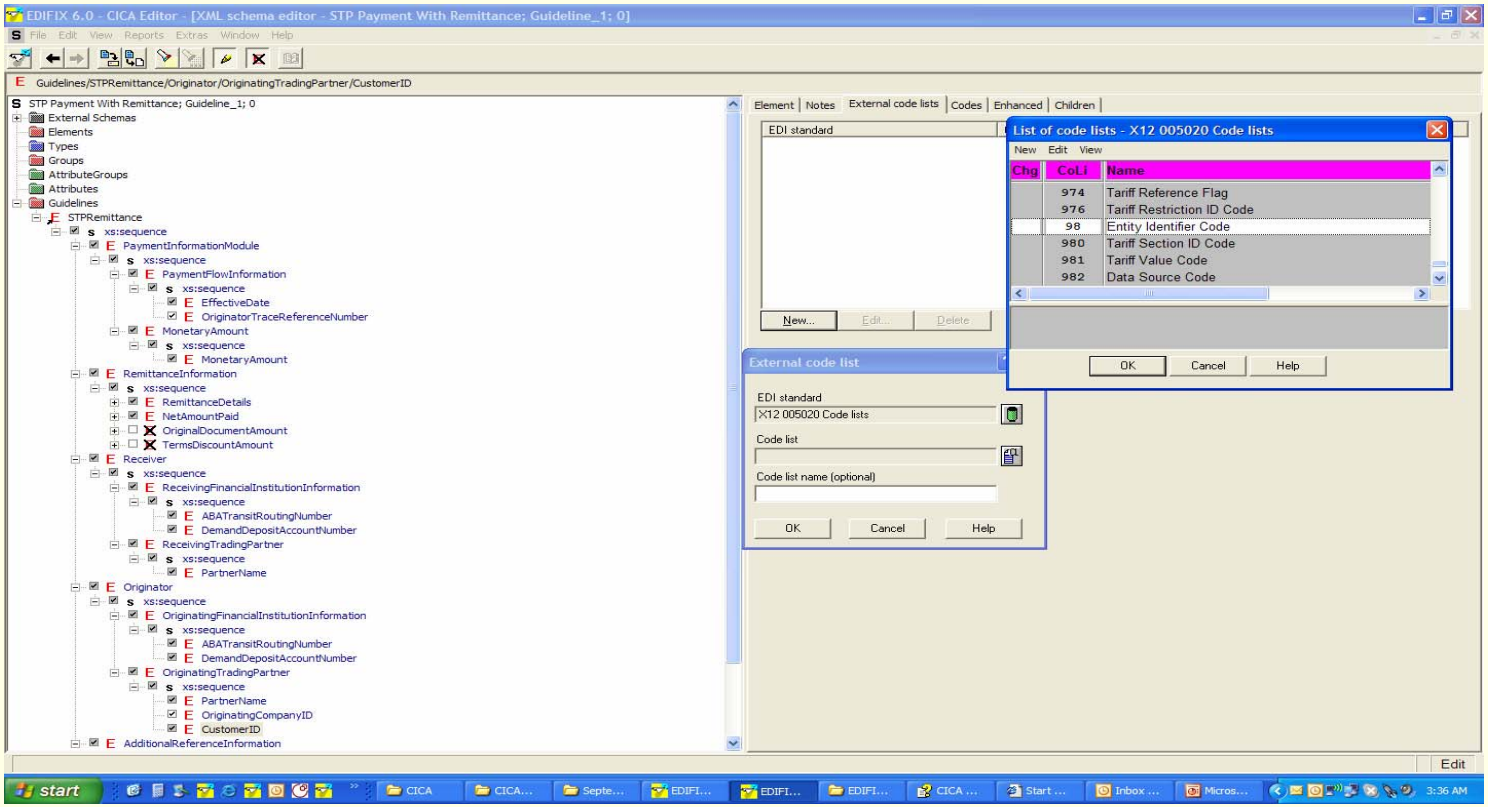
Customizing the Guide



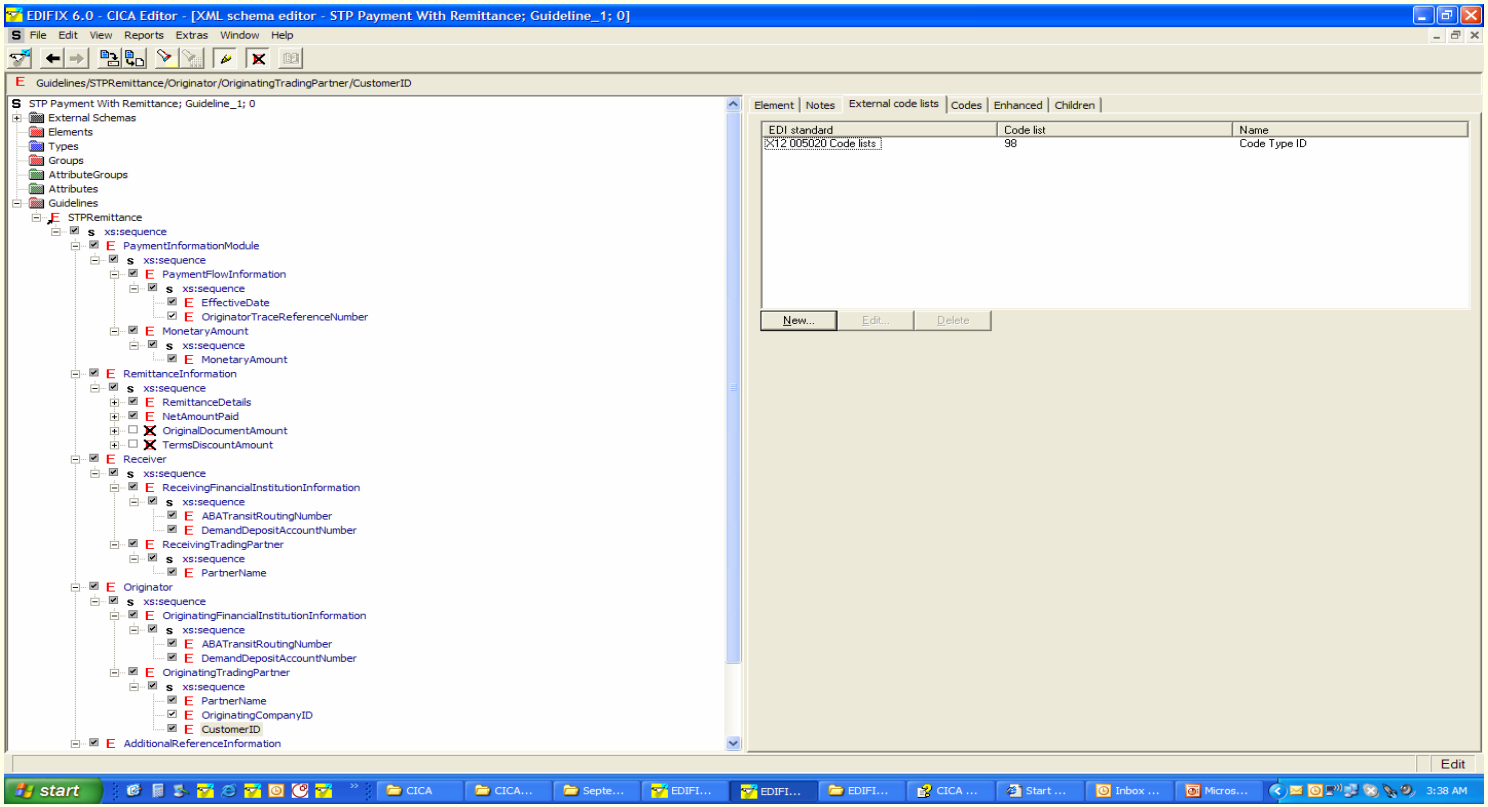
Customizing the Guide



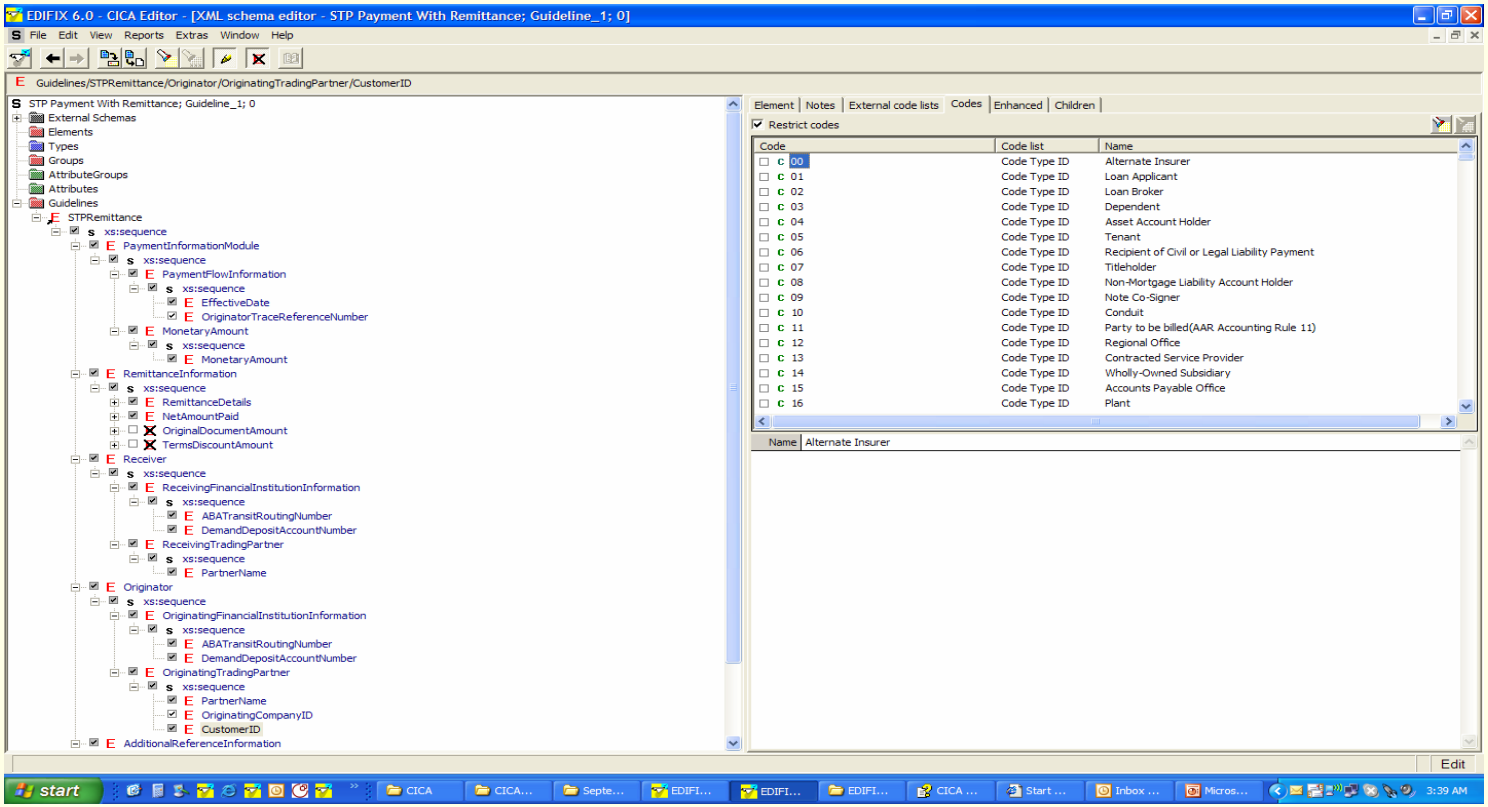
Adding Codes



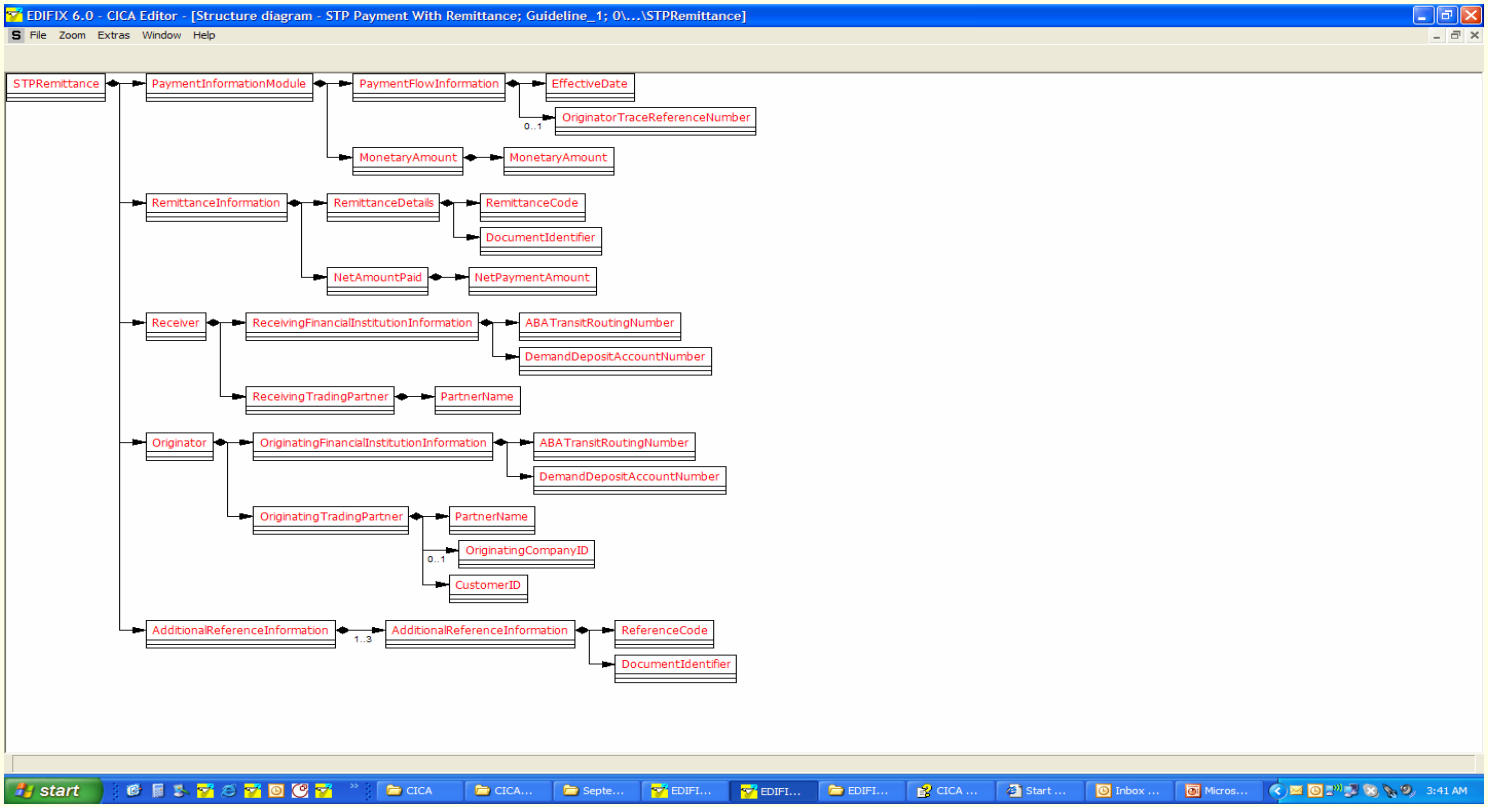
Adding Codes



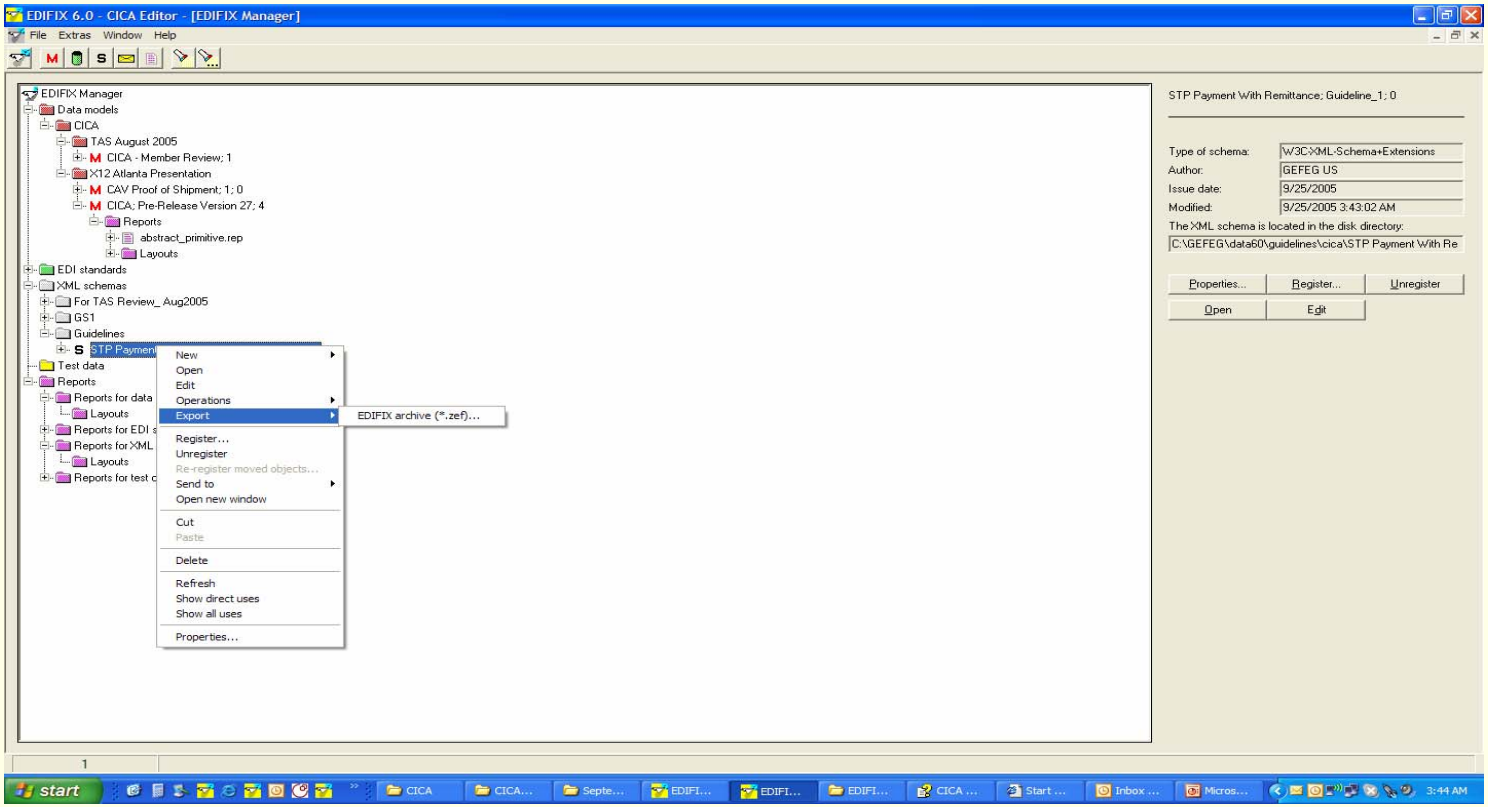
Adding Codes



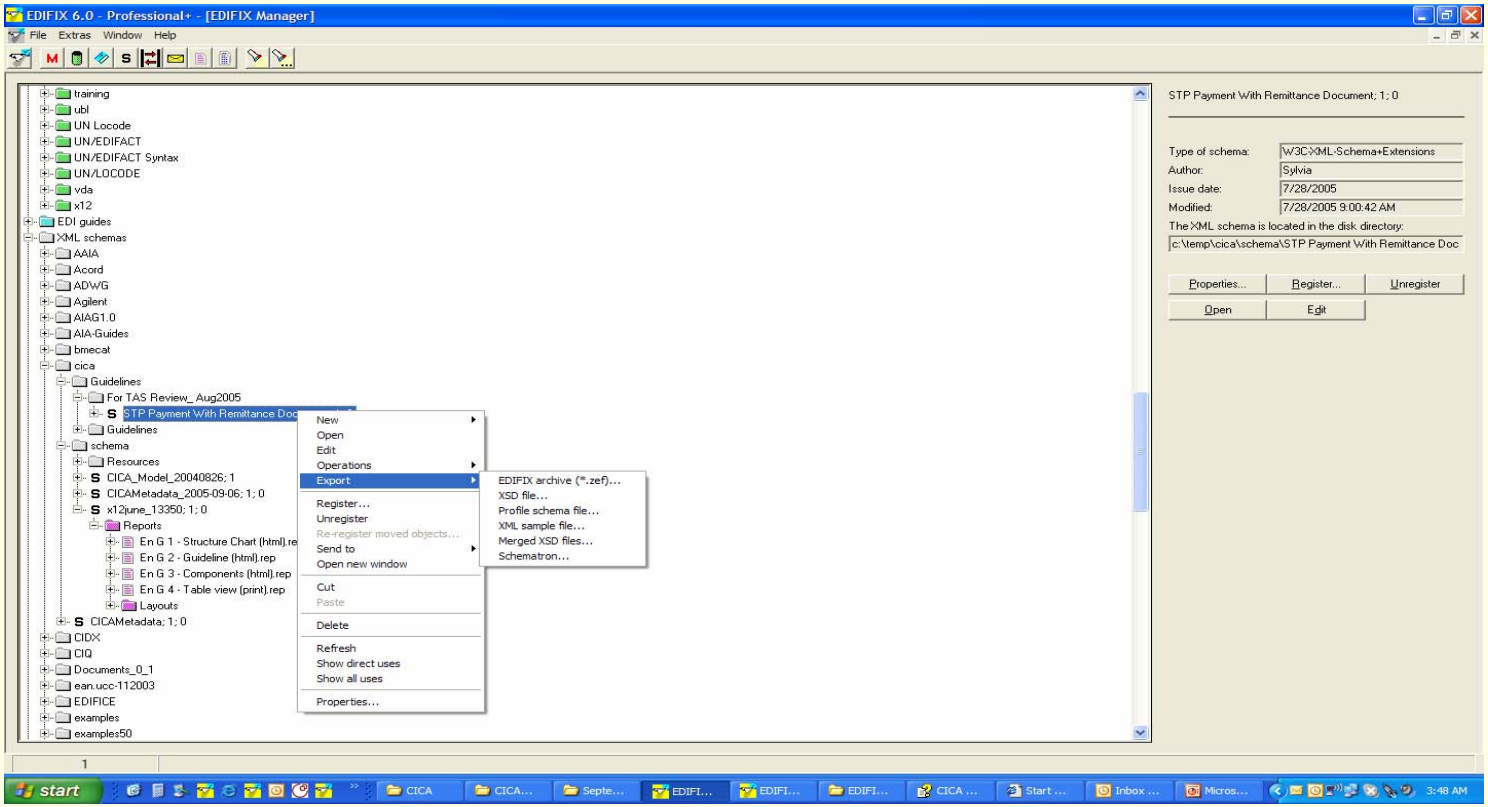
A Data model View of the Guideline

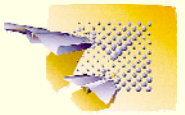


Exporting files



Creating Additional Output

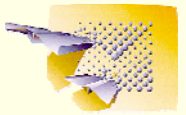




Thank you!

GEFEG

Additional Information



- ASC X12 – http://www.x12.org
- DISA – http://www.disa.org
- GEFEG – http://www.gefeg.com or info-us@gefeg.com