

**Controlling
complexity.**

The IBM Rational Publishing Engine



Agenda

- What is it? / What does it do?
- Creating Templates and using Existing DocExpress (DE) Resources in RPE
- Creating Report Specifications in RPE
- Questions?



What is it?

- Multipurpose Data Extractor, Document Generator and Formatting Automation Engine for DOORS
 - Works with DOORS, TAU and Generic XML data - future releases to include other capabilities for various Rational Tools
 - IBM Rational DOORS Focused
 - Allows for flexible informational model and architecture implementation to maximise the use of DOORS as a requirements management tool, rather than a Document publishing tool
 - Replaces Doc Express 4.x but Greater Improved Performance!!!



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What does it do?

- Automated Document Generation based on standardised and formalised templates for consistent accurate outputs.
 - Separate the Content from the Formatting Tasks
 - Content structured for analysis
 - Documents formatted for communication
 - Consistent Document Formatting
 - Allows for proper use of a controlled, managed and audited system like DOORS
 - Extends the layer of enforcement and control to document production activities
 - Create numerous reports from the same data regardless of the
 - DOORS informational model
 - Module organisation.

(You are Free to Implement DOORS however you wish)



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Rational Publishing Engine benefits

- Increase productivity
 - Analysts focus on solution engineering, not formatting concerns
- Enhance documentation quality and consistency
 - Predefined templates and templates
 - Follow industry standards and guidelines
- Easily implement your own document standards
 - Intuitive Template Editing environment
 - Drag and drop capability
- Avoid wasted engineering time
 - Rapid document generation
 - Easy to use
 - High performance, low resource



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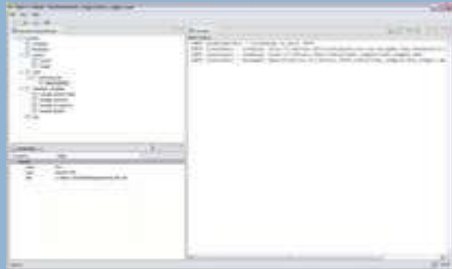
Rational Publishing Engine Highlights

- Extract and Format information
 - Create multiple reports
 - DOORS Objects and Data are format agnostic
- Focus
 - Performance
 - Extreme Flexibility
- Reports are build outside of the DOORS repository,
 - RPE user will not impact the workflow or performance of a DOORS
- Powerful JavaScript evaluation engine
 - Create conditional statements directly in the template definition
 - Can also use DOORS native filtering conditions
- No Need to create DOORS tables
 - Any table can be created with ease and accuracy
- Remote Engine available
 - Offload reporting tasks to remote data processor
 - Free up workstation resources



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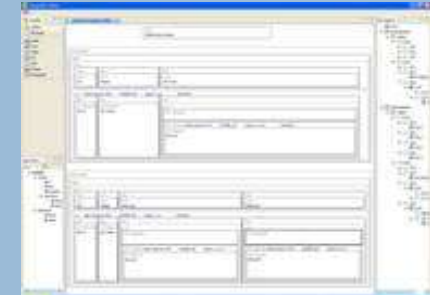
Rational Publishing Engine - Components



“Launcher” – for managing document production



“Tool Integrations” for commanding document generation from within tools
(e.g. DOORS, Tau, Focal Point etc.)



“Document Studio” for creating templates



Reports in multiple formats (e.g. MS Word, PDF, HTML, etc.)



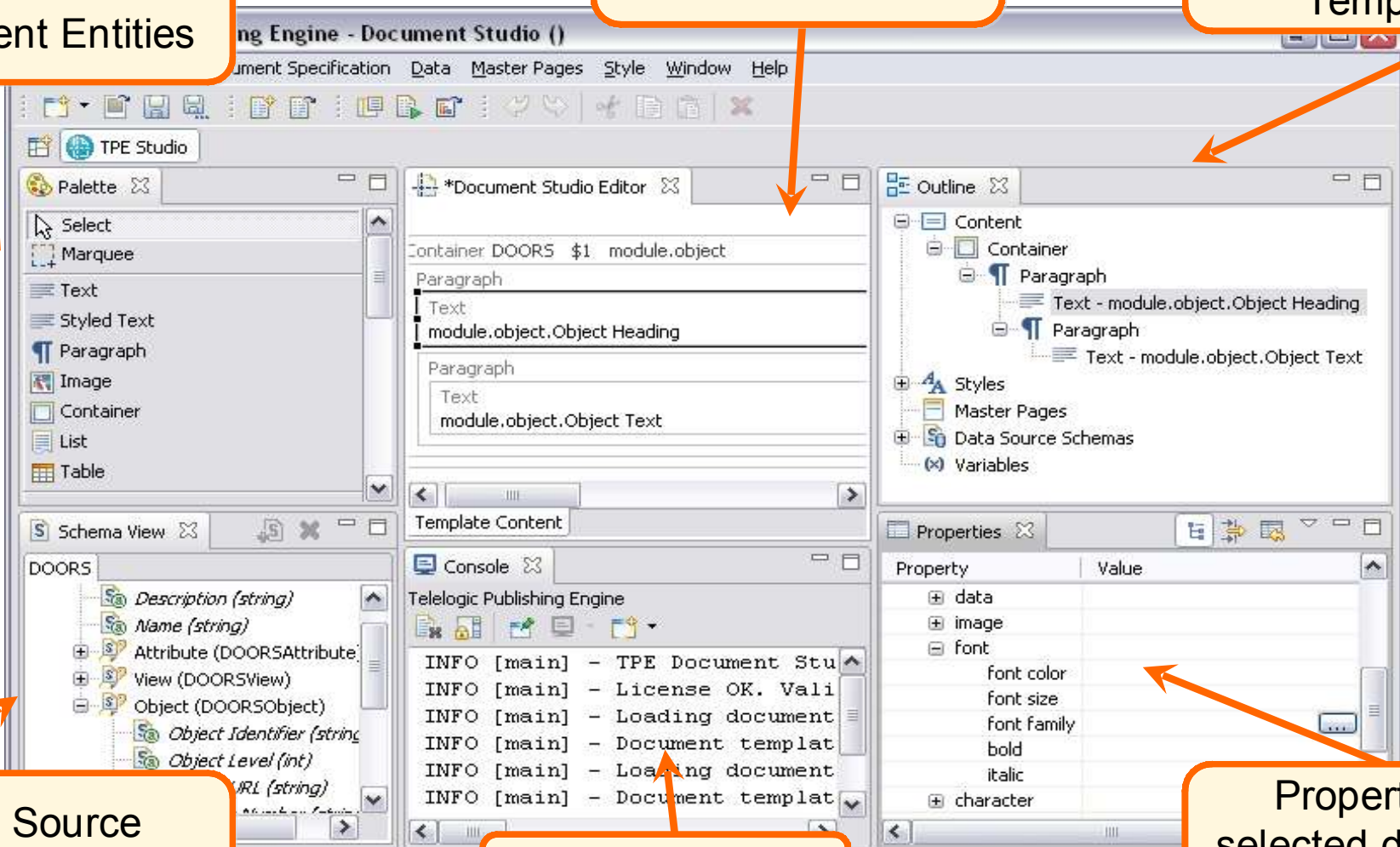
Controlling complexity.

RPE Document Studio

Palette with Document Entities

Output Document Structure

Overall Structure of Document Template



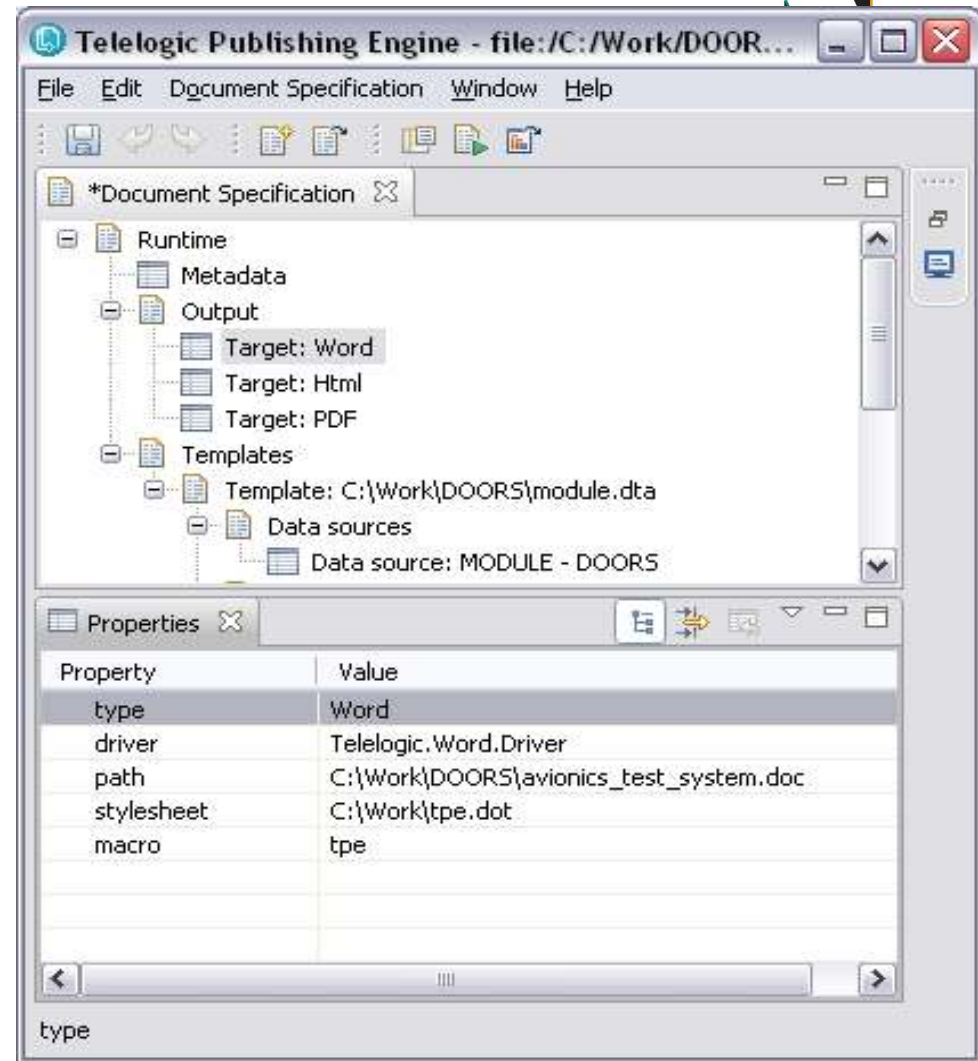
Data Source Schema View

Logging Output

Properties of selected document entity

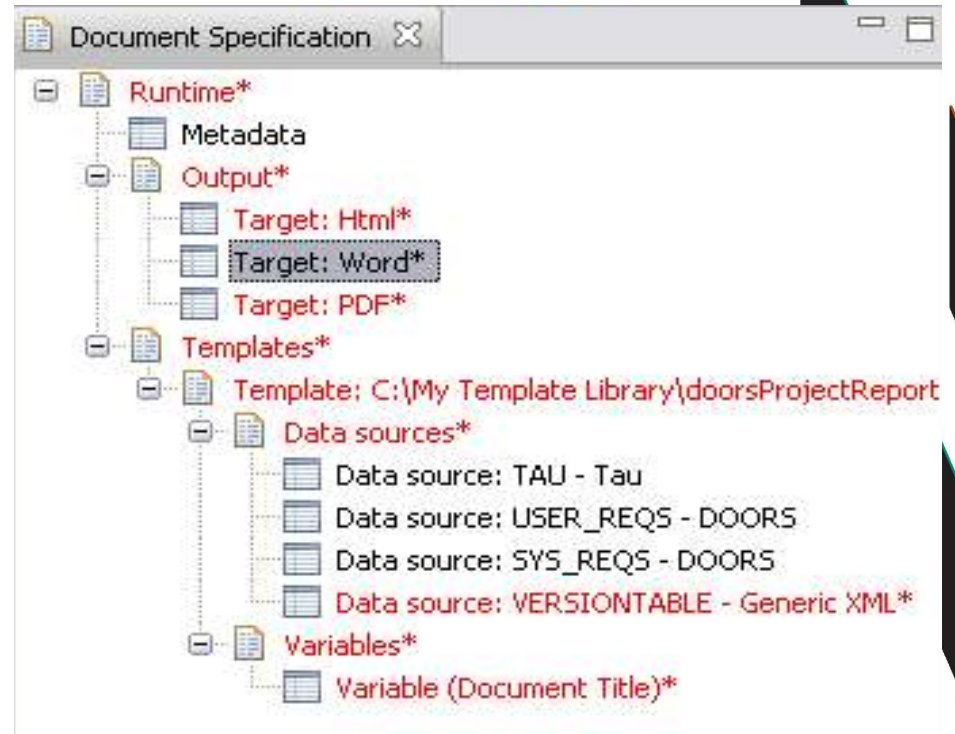
RPE Launcher and Document Specifications

- Document specifications created with RPE launcher
- Document specifications refer to one (or more) document templates
- Document specifications store property settings for document generation:
 - Output formatters store pathnames of generated files, style sheet names, ...
 - Document Templates can use one or more data sources
 - Data sources contain tool-dependant information for real instance of data



Document Specification structure

- Document Specification contains
 - Metadata
 - One or more output target specifications
 - One or more templates
- For each document template
 - Data Source Specifications
 - Values for the defined template variables
- Editing Operations
 - To delete nodes select them, and press the “Delete” key
 - Create new nodes via the context menu of the parent node



Server-based document generation with RPE

- No longer monopolise the resources of the machine generating reports.
- Deployed using Apache Tomcat.
- Allows for flexibility on the deployment of the tool, for different needs and different environments.

