Technical Manual

**Team Puzzle**

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Entrega Trabajo Profesional 2008

Team Puzzle



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# Team Puzzle Technical Manual

## Introduction

Team Puzzle is a tool which provides integration to software development teams. Team Puzzle allows project managers to define different methodologies templates that can be used to track different artifacts, manage different roles permissions, define measures and metrics to be used, etc, view status reports, have a dashboard for a quick view of all project status, etc.

Each Team Puzzle Methodology template provides a set of:

* Element Types Definitions
* Element Types Workflows
* Roles and permissions for each role
* Metrics Definitions
* On line help manuals for the methodology.

## Creating Methodologies

As Team Puzzle is a high easily configurable tool, it allows either to use an already defined methodology template or to create a new methodology. Each methodology template is a set of xml files which follows the following structure:

* Methodology Name
	+ /element-types
	+ /workflows
	+ /process-guidance
	+ /reports
	+ methodologyDefinition.xml

**ElementTypes:** Inside this folder there must be all element definitions. (See Anexo I in order to find how to create Element Types.

**Workflows:** Inside this folder there must be all workflows definitions for the elements. The workflows must follow jbpm specification

**ProcessGuidance:** The process guidance should be a set of htm files that will guide into the usage of the installed methodology. It should include guidance regarding roles and artifacts.

**Reports:** All report definitions must be inside this folder. The reports must follow jReports standard.

**MethodologyDefinition.xml**: This file includes all information regarding roles, the element types those roles can create, the element types defined for the methodology and its workflows, also reports and metrics. In order to find out how to create this MethodologyDefinition see Anexo II.

## Application Requirements

The application requires the following applications to be installed previously:

* Apache Tomcat or Jetty Web Servers
* MySql
* Java Virtual Machine
* Ldap Server

## Anexo I: Element Type Definition Schema

<xs:schema xmlns="http://tempuri.org/XMLSchema.xsd" xmlns:mstns="http://tempuri.org/XMLSchema.xsd" xmlns:xs="http://www.w3.org/2001/XMLSchema" targetNamespace="http://tempuri.org/XMLSchema.xsd" elementFormDefault="qualified">

<xs:element name="ElementTypeDefinition">

<xs:complexType>

 <xs:sequence>

 <xs:element name="description" type="xs:string"/>

 <xs:element name="fields">

 <xs:complexType>

 <xs:sequence>

 <xs:element name="field" maxOccurs="unbounded">

 <xs:complexType>

 <xs:sequence>

<xs:element name="HelpText type="xs:string"

minOccurs="0"/>

 <xs:element name="FieldType"> <xs:simpleType> <xs:restriction base="xs:string"> <xs:enumeration value="string"/> <xs:enumeration value="integer"/> <xs:enumeration value="float" /> <xs:enumeration value="date" />

 <xs:enumeration value="email" /> <xs:enumeration value="bool" /> <xs:enumeration value="element" />

 <xs:enumeration value="textArea" />

 </xs:restriction> </xs:simpleType>

 </xs:element>

 <xs:element name="Required" type="xs:boolean" minOccurs="0"/>

 <xs:element name="Default" type="xs:string" minOccurs="0" />

 <xs:element name="AllowedValues" minOccurs="0" maxOccurs="1">

<!-- list of allowed values -->

 <xs:complexType>

 <xs:sequence>

 <xs:element name="AllowedValue" type="xs:string" maxOccurs="unbounded" />

 </xs:sequence> </xs:complexType>

 </xs:element>

 <xs:element name="typeRef" minOccurs="0" maxOccurs="1">

 <xs:complexType>

 <!--elementKey is the name of the referenced element-->

 <xs:attribute name="elementKey" type="xs:string" />

 <!-- filter can be an asterisk or a hql query -->

 <xs:attribute name="filter" type="xs:string" />

 </xs:complexType> </xs:element>

<xs:element name="size" type="xs:int" minOccurs="0" maxOccurs="1">

 </xs:element>

 <!-- User can write -->

 <xs:element name="writers" type="xs:string" minOccurs="0"

maxOccurs="1">

 </xs:element>

 <!-- User can read -->

 <xs:element name="readers" type="xs:string" minOccurs="0"

maxOccurs="1">

 </xs:element>

 <xs:element name="repetitions" default="1" type="xs:int">

</xs:element>

 </xs:sequence>

 <xs:attribute name="name" use="required"/>

</xs:complexType>

</xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:sequence>

<xs:attribute name="name" type="xs:string" use="required"/>

</xs:complexType>

</xs:element>

</xs:schema>

## Anexo II: Methodology Definition Schema

<xs:schema xmlns="http://tempuri.org/XMLSchema.xsd"

xmlns:mstns="http://tempuri.org/XMLSchema.xsd"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

targetNamespace="http://tempuri.org/XMLSchema.xsd"

elementFormDefault="qualified">

<xs:element name="MethodologyDefinition">

 <xs:complexType>

 <xs:sequence>

 <xs:element name="description" type="xs:string" />

 <xs:sequence maxOccurs="unbounded">

 <xs:element name="role" minOccurs="1" maxOccurs="unbounded"> <xs:complexType>

 <xs:sequence>

 <xs:element name="elementTypesCanCreate">

 <xs:simpleType>

 <xs:list itemType="xs:string" />

 </xs:simpleType>

 </xs:element>

 </xs:sequence>

 <xs:attribute name="name" use="required" />

 <xs:attribute name="description use="required" />

 </xs:complexType>

</xs:element>

</xs:sequence>

 <xs:sequence maxOccurs="unbounded">

 <xs:element name="workflow" minOccurs="1" maxOccurs="unbounded">

 <xs:complexType>

 <xs:attribute name="name" use="required" />

 </xs:complexType>

</xs:element>

</xs:sequence>

 <xs:sequence maxOccurs="unbounded">

 <xs:element name="elementType" minOccurs="1" maxOccurs="unbounded">

 <xs:complexType>

 <xs:attribute name="name" use="required" />

 <xs:attribute name="workflow" use="required" />

 </xs:complexType>

 </xs:element>

 </xs:sequence>

 <xs:sequence maxOccurs="unbounded">

 <xs:element name="report">

 <xs:complexType>

 <xs:sequence>

 <xs:element minOccurs="1" maxOccurs="20" name="parameter"

type="parameterType" />

 <xs:element name="preRenderActions" type="xs:string"

minOccurs="0" maxOccurs="1" />

 </xs:sequence>

 <xs:attribute name="name" use="required" type="xs:string" />

 <xs:attribute name="file" use="required" type="xs:string"/>

 <xs:attribute name="query" use="required" type="xs:string"/>

 </xs:complexType>

 </xs:element>

</xs:sequence>

<xs:sequence maxOccurs="unbounded">

 <xs:element name="metric">

 <xs:complexType>

 <xs:sequence>

 <xs:element minOccurs="0" maxOccurs="20" name="parameter"

type="parameterType" />

 <xs:element name="preRenderActions" type="xs:string"

minOccurs="0" maxOccurs="1" />

 <xs:element name="type" minOccurs="1" maxOccurs="1">

 <xs:simpleType>

 <xs:restriction base="xs:string">

 <xs:enumeration value="lines" />

 <xs:enumeration value="pie" />

 <xs:enumeration value="bars" />

 <xs:enumeration value="gauge" />

 </xs:restriction>

 </xs:simpleType>

 </xs:element>

 </xs:sequence>

 <xs:attribute name="name" use="required" type="xs:string" />

 <xs:attribute name="title" use="required" type="xs:string" />

 <xs:attribute name="query" use="required" type="xs:string" />

</xs:complexType>

 </xs:element>

 </xs:sequence>

 </xs:sequence>

 <xs:attribute name="name" type="xs:string" use="required" />

 </xs:complexType>

 </xs:element>

 <xs:complexType name="parameterType">

 <xs:sequence>

 <xs:element name="type" minOccurs="1" maxOccurs="1">

 <xs:simpleType>

 <xs:restriction base="xs:string">

 <xs:enumeration value="integer" />

 <xs:enumeration value="date" />

 <xs:enumeration value="string" />

 <xs:enumeration value="list" />

 <xs:enumeration value="bool" />

 </xs:restriction>

 </xs:simpleType>

 </xs:element>

 </xs:sequence>

 <xs:attribute name="name" use="required" type="xs:string" />

 <xs:attribute name="options" type="xs:string" />

 <xs:attribute name="required" type="xs:boolean" use="required"

 </xs:complexType>

</xs:schema>