```xml
<?xml version="1.0" encoding="UTF-8" ?>
<!--

    ***********************************************************************
                                    Schema templates for XML Mast Results Fil



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    ***********************************************************************
-->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
    xmlns:mast_res="http://mast.unican.es/xmlmast/result"
    targetNamespace="http://mast.unican.es/xmlmast/result"
    elementFormDefault="qualified" attributeFormDefault="unqualified">
    <!-- SIMPLE TYPES  -->
    <xs:simpleType name="Preemption_Level_Type">
        <xs:restriction base="xs:nonNegativeInteger" />
    </xs:simpleType>
    <xs:simpleType name="Percentage">
        <xs:restriction base="xs:float">
            <xs:minInclusive value="0.0" />
            <xs:maxInclusive value="100.0" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="Signed_Percentage">
        <xs:restriction base="xs:float">
            <xs:minInclusive value="-100.0" />
            <xs:maxInclusive value="100.0" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="Time">
        <xs:restriction base="xs:float">
            <xs:minInclusive value="0.0" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="Normalized_Execution_Time">
        <xs:restriction base="xs:float">
            <xs:minInclusive value="0.0" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="Priority">
        <xs:restriction base="xs:int">
            <xs:minInclusive value="0" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="Assertion">
        <xs:restriction base="xs:string">
            <xs:enumeration value="Yes" />
            <xs:enumeration value="No" />
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          </xs:restriction>
        </xs:simpleType>
  - <xs:simpleType name="Affirmative_Assertion">
    - <xs:restriction base="mast_res:Assertion">
          <xs:enumeration value="Yes" />
        </xs:restriction>
      </xs:simpleType>
  - <xs:simpleType name="Identifier">
    - <xs:restriction base="xs:ID">
          <xs:pattern value="([a-z]|[A-Z])([a-z]|[A-Z]|[0-9]|.|_)*" />
        </xs:restriction>
      </xs:simpleType>
  - <xs:simpleType name="External_Reference">
    - <xs:restriction base="xs:NCName">
          <xs:pattern value="([a-z]|[A-Z])([a-z]|[A-Z]|[0-9]|.|_)*" />
        </xs:restriction>
      </xs:simpleType>
  - <xs:simpleType name="Factor">
    - <xs:restriction base="xs:float">
          <xs:minExclusive value="0" />
        </xs:restriction>
      </xs:simpleType>
  - <xs:simpleType name="Date_Time">
        <xs:restriction base="xs:dateTime" />
      </xs:simpleType>
  - <xs:simpleType name="Natural">
        <xs:restriction base="xs:nonNegativeInteger" />
      </xs:simpleType>
  - <xs:simpleType name="Positive">
        <xs:restriction base="xs:positiveInteger" />
      </xs:simpleType>
    <!-- REAL_TIME_SITUATION RESULTS -->
  - <xs:complexType name="Trace">
        <xs:attribute name="Pathname" type="xs:string" />
      </xs:complexType>
    <!-- TRANSACTION RESULTS -->
  - <xs:complexType name="Slack">
        <xs:attribute name="Value" type="mast_res:Signed_Percentage" />
      </xs:complexType>
  - <xs:complexType name="Miss_Ratio">
        <xs:attribute name="Deadline" type="mast_res:Time" />
        <xs:attribute name="Ratio" type="mast_res:Percentage" />
      </xs:complexType>
  - <xs:complexType name="Miss_Ratio_List">
    - <xs:sequence>
          <xs:element name="Miss_Ratio" type="mast_res:Miss_Ratio"
            maxOccurs="unbounded" />
        </xs:sequence>
      </xs:complexType>
  - <xs:complexType name="Global_Miss_Ratio">
    - <xs:sequence>
          <xs:element name="Miss_Ratios" type="mast_res:Miss_Ratio"
            maxOccurs="unbounded" />
        </xs:sequence>
        <xs:attribute name="Referenced_Event"
          type="mast_res:External_Reference" />
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      </xs:complexType>
    - <xs:complexType name="Global_Miss_Ratio_List">
      - <xs:sequence>
          <xs:element name="Global_Miss_Ratio"
            type="mast_res:Global_Miss_Ratio" maxOccurs="unbounded" />
        </xs:sequence>
      </xs:complexType>
    - <xs:complexType name="Global_Response_Time">
        <xs:attribute name="Referenced_Event"
          type="mast_res:External_Reference" />
        <xs:attribute name="Time_Value" type="mast_res:Time" />
      </xs:complexType>
    - <xs:complexType name="Global_Response_Time_List">
      - <xs:sequence>
          <xs:element name="Global_Response_Time"
            type="mast_res:Global_Response_Time"
            maxOccurs="unbounded" />
        </xs:sequence>
      </xs:complexType>
    - <xs:complexType name="Simulation_Timing_Result">
      - <xs:sequence>
          <xs:element name="Worst_Global_Response_Times"
            type="mast_res:Global_Response_Time_List" minOccurs="0" />
          <xs:element name="Avg_Global_Response_Times"
            type="mast_res:Global_Response_Time_List" minOccurs="0" />
          <xs:element name="Best_Global_Response_Times"
            type="mast_res:Global_Response_Time_List" minOccurs="0" />
          <xs:element name="Jitters"
            type="mast_res:Global_Response_Time_List" minOccurs="0" />
          <xs:element name="Local_Miss_Ratios"
            type="mast_res:Miss_Ratio_List" minOccurs="0" />
          <xs:element name="Global_Miss_Ratios"
            type="mast_res:Global_Miss_Ratio_List" minOccurs="0" />
        </xs:sequence>
        <xs:attribute name="Event_Name" type="mast_res:Identifier"
          use="required" />
        <xs:attribute name="Worst_Local_Response_Time" type="mast_res:Time"
          use="optional" />
        <xs:attribute name="Avg_Local_Response_Time" type="mast_res:Time"
          use="optional" />
        <xs:attribute name="Best_Local_Response_Time" type="mast_res:Time"
          use="optional" />
        <xs:attribute name="Worst_Blocking_Time" type="mast_res:Time"
          use="optional" />
        <xs:attribute name="Avg_Blocking_Time" type="mast_res:Time"
          use="optional" />
        <xs:attribute name="Max_Preemption_Time" type="mast_res:Time"
          use="optional" />
        <xs:attribute name="Suspension_Time" type="mast_res:Time"
          use="optional" />
        <xs:attribute name="Num_Of_Suspensions" type="mast_res:Natural"
          use="optional" />
        <xs:attribute name="Num_Of_Queued_Activations"
          type="mast_res:Natural" use="optional" />
      </xs:complexType>
    - <xs:complexType name="Timing_Result">
      - <xs:sequence>
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        <xs:element name="Worst_Global_Response_Times"
          type="mast_res:Global_Response_Time_List" minOccurs="0" />
        <xs:element name="Best_Global_Response_Times"
          type="mast_res:Global_Response_Time_List" minOccurs="0" />
        <xs:element name="Jitters"
          type="mast_res:Global_Response_Time_List" minOccurs="0" />
      </xs:sequence>
      <xs:attribute name="Event_Name" type="mast_res:Identifier"
        use="required" />
      <xs:attribute name="Worst_Local_Response_Time" type="mast_res:Time"
        use="optional" />
      <xs:attribute name="Best_Local_Response_Time" type="mast_res:Time"
        use="optional" />
      <xs:attribute name="Worst_Blocking_Time" type="mast_res:Time"
        use="optional" />
      <xs:attribute name="Num_Of_Suspensions" type="mast_res:Natural"
        use="optional" />
    </xs:complexType>
  - <xs:complexType name="Transaction_Results">
    - <xs:sequence maxOccurs="unbounded">
      - <xs:choice>
          <xs:element name="Slack" type="mast_res:Slack" />
          <xs:element name="Timing_Result"
            type="mast_res:Timing_Result" />
          <xs:element name="Simulation_Timing_Result"
            type="mast_res:Simulation_Timing_Result" />
        </xs:choice>
      </xs:sequence>
      <xs:attribute name="Name" type="mast_res:Identifier" use="required" />
    </xs:complexType>
    <!-- PROCESSING RESOURCE RESULTS -->
  - <xs:complexType name="Ready_Queue_Size">
      <xs:attribute name="Max_Num" type="mast_res:Natural"
        use="optional" />
    </xs:complexType>
  - <xs:complexType name="Detailed_Utilization">
      <xs:attribute name="Total" type="mast_res:Percentage" use="optional" />
      <xs:attribute name="Application" type="mast_res:Percentage"
        use="optional" />
      <xs:attribute name="Context_Switch" type="mast_res:Percentage"
        use="optional" />
      <xs:attribute name="Timer" type="mast_res:Percentage" use="optional" />
      <xs:attribute name="Driver" type="mast_res:Percentage"
        use="optional" />
    </xs:complexType>
  - <xs:complexType name="Processing_Resource_Results">
    - <xs:all>
        <xs:element name="Slack" type="mast_res:Slack" minOccurs="0" />
        <xs:element name="Detailed_Utilization"
          type="mast_res:Detailed_Utilization" minOccurs="0" />
        <xs:element name="Ready_Queue_Size"
          type="mast_res:Ready_Queue_Size" minOccurs="0" />
      </xs:all>
      <xs:attribute name="Name" type="mast_res:Identifier" use="required" />
    </xs:complexType>
    <!-- OPERATION RESULTS -->
  - <xs:complexType name="Operation_Results">
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    - <xs:sequence>
        <xs:element name="Slack" type="mast_res:Slack" />
      </xs:sequence>
      <xs:attribute name="Name" type="mast_res:Identifier" use="required" />
    </xs:complexType>
    <!-- SCHEDULING SERVER RESULTS -->
    <!-- Scheduling Parameters -->
  - <xs:complexType name="Non_Preemptible_FP_Policy">
      <xs:attribute name="The_Priority" type="mast_res:Priority"
        use="optional" />
      <xs:attribute name="Preassigned" type="mast_res:Assertion"
        use="optional" />
    </xs:complexType>
  - <xs:complexType name="Fixed_Priority_Policy">
      <xs:attribute name="The_Priority" type="mast_res:Priority"
        use="optional" />
      <xs:attribute name="Preassigned" type="mast_res:Assertion"
        use="optional" />
    </xs:complexType>
  - <xs:complexType name="Interrupt_FP_Policy">
      <xs:attribute name="The_Priority" type="mast_res:Priority"
        use="optional" />
      <xs:attribute name="Preassigned" type="mast_res:Affirmative_Assertion"
        use="optional" />
    </xs:complexType>
  - <xs:complexType name="Polling_Policy">
      <xs:attribute name="The_Priority" type="mast_res:Priority"
        use="optional" />
      <xs:attribute name="Preassigned" type="mast_res:Assertion"
        use="optional" />
      <xs:attribute name="Polling_Period" type="mast_res:Time"
        use="optional" />
      <xs:attribute name="Polling_Worst_Overhead"
        type="mast_res:Normalized_Execution_Time" use="optional" />
      <xs:attribute name="Polling_Avg_Overhead"
        type="mast_res:Normalized_Execution_Time" use="optional" />
      <xs:attribute name="Polling_Best_Overhead"
        type="mast_res:Normalized_Execution_Time" use="optional" />
    </xs:complexType>
  - <xs:complexType name="Sporadic_Server_Policy">
      <xs:attribute name="Normal_Priority" type="mast_res:Priority"
        use="optional" />
      <xs:attribute name="Preassigned" type="mast_res:Assertion"
        use="optional" />
      <xs:attribute name="Background_Priority" type="mast_res:Priority"
        use="optional" />
      <xs:attribute name="Initial_Capacity" type="mast_res:Time"
        use="optional" />
      <xs:attribute name="Replenishment_Period" type="mast_res:Time"
        use="optional" />
      <xs:attribute name="Max_Pending_Replenishments"
        type="mast_res:Positive" use="optional" />
    </xs:complexType>
  - <xs:complexType name="SRP_Parameters">
      <xs:attribute name="Preemption_Level"
        type="mast_res:Preemption_Level_Type" use="required" />
      <xs:attribute name="Preassigned" type="mast_res:Assertion"
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        use="optional" />
    </xs:complexType>
- <xs:complexType name="Scheduling_Server_Results">
  - <xs:sequence>
    - <xs:choice>
        <xs:element name="Non_Preemptible_FP_Policy"
          type="mast_res:Non_Preemptible_FP_Policy" />
        <xs:element name="Fixed_Priority_Policy"
          type="mast_res:Fixed_Priority_Policy" />
        <xs:element name="Interrupt_FP_Policy"
          type="mast_res:Interrupt_FP_Policy" />
        <xs:element name="Polling_Policy"
          type="mast_res:Polling_Policy" />
        <xs:element name="Sporadic_Server_Policy"
          type="mast_res:Sporadic_Server_Policy" />
      </xs:choice>
      <xs:element name="SRP_Parameters"
        type="mast_res:SRP_Parameters" minOccurs="0" />
    </xs:sequence>
    <xs:attribute name="Name" type="mast_res:Identifier" use="required" />
  </xs:complexType>
  <!--  SHARED RESOURCE RESULTS   -->
- <xs:complexType name="Priority_Ceiling">
    <xs:attribute name="Ceiling" type="mast_res:Priority" use="optional" />
  </xs:complexType>
- <xs:complexType name="Queue_Size">
    <xs:attribute name="Max_Num" type="mast_res:Natural"
      use="optional" />
  </xs:complexType>
- <xs:complexType name="Utilization">
    <xs:attribute name="Total" type="mast_res:Percentage" use="optional" />
  </xs:complexType>
- <xs:complexType name="Preemption_Level">
    <xs:attribute name="Level" type="mast_res:Preemption_Level_Type"
      use="optional" />
  </xs:complexType>
- <xs:complexType name="Shared_Resource_Results">
  - <xs:all>
      <xs:element name="Priority_Ceiling" type="mast_res:Priority_Ceiling"
        minOccurs="0" />
      <xs:element name="Utilization" type="mast_res:Utilization"
        minOccurs="0" />
      <xs:element name="Queue_Size" type="mast_res:Queue_Size"
        minOccurs="0" />
      <xs:element name="Preemption_Level"
        type="mast_res:Preemption_Level" minOccurs="0" />
    </xs:all>
    <xs:attribute name="Name" type="mast_res:Identifier" use="required" />
  </xs:complexType>
  <!-- REAL_TIME_SITUATION (root element)   -->
- <xs:element name="REAL_TIME_SITUATION">
  - <xs:complexType>
    - <xs:sequence maxOccurs="unbounded">
      - <xs:choice>
          <xs:element name="System_Slack" type="mast_res:Slack" />
          <xs:element name="Trace" type="mast_res:Trace" />
          <xs:element name="Transaction"
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              type="mast_res:Transaction_Results" />
            <xs:element name="Processing_Resource"
              type="mast_res:Processing_Resource_Results" />
            <xs:element name="Operation"
              type="mast_res:Operation_Results" />
          – <xs:element name="Scheduling_Server">
            – <xs:complexType>
              – <xs:complexContent>
                – <xs:extension
                    base="mast_res:Scheduling_Server_Results">
                    <xs:sequence />
                  </xs:extension>
                </xs:complexContent>
              </xs:complexType>
            </xs:element>
            <xs:element name="Shared_Resource"
              type="mast_res:Shared_Resource_Results" />
          </xs:choice>
        </xs:sequence>
        <xs:attribute name="Model_Name" type="mast_res:Identifier"
          use="required" />
        <xs:attribute name="Model_Date" type="mast_res:Date_Time"
          use="required" />
        <xs:attribute name="Generation_Tool" type="xs:string"
          use="required" />
        <xs:attribute name="Generation_Profile" type="xs:string"
          use="optional" />
        <xs:attribute name="Generation_Date" type="mast_res:Date_Time"
          use="required" />
        <!--  The blocks of results is not ordered by element type  -->
      </xs:complexType>
    </xs:element>
  </xs:schema>
```