

# MEDIA TYPES DESIGN



MEDIA TYPES DESIGN

# APPLICATION-SPECIFIC MEDIA TYPES SHOULD BE USED

<http://api.soccer.restapi.org/players/2113>

application/wrml; (MEDIA TYPE)

format="http://api.formats.wrml.org/application/json"; (REQUIRED FORMAT PARAMETER)

schema="http://api.schemas.wrml.org/soccer/Player" (REQUIRED SCHEMA PARAMETER)

## MEDIA TYPE FORMAT DESIGN

# A CONSISTENT FORM SHOULD BE USED TO REPRESENT MEDIA TYPE FORMATS

application/wrml; (MEDIA TYPE)

format="http://api.formats.wrml.org/application/json"; (REQUIRED FORMAT PARAMETER)

schema="http://api.schemas.wrml.org/common/Format" (FORMAT RESOURCE TYPE'S SCHEMA)

MEDIA TYPE FORMAT DESIGN

# REPRESENTED USING JSON

```
{  
  "mediaType" : Text <constrained by media type syntax>,  
  "links" : {  
    "home" : Link <form constrained by the Link schema>  
    ,  
    "rfc" : Link <form constrained by the Link schema>  
  },  
  "serialize" : {  
    "links" : {  
      <Set of Link schema-constrained forms>  
    }  
  },  
  "deserialize" : {  
    "links" : {  
      <Set of Link schema-constrained forms>  
    }  
  }  
}
```

MEDIA TYPE SCHEMA DESIGN

# STANDARD PRIMITIVE TYPES

BOOLEAN

CHOICE

DATETIME

DOUBLE

INTEGER

LIST

SCHEMA

TEXT

NULL

## MEDIA TYPE SCHEMA DESIGN

# A CONSISTENT FORM SHOULD BE USED TO REPRESENT MEDIA TYPE SCHEMAS

application/wrml; (MEDIA TYPE)

format="http://api.formats.wrml.org/application/json"; (REQUIRED FORMAT PARAMETER)

schema="http://api.schemas.wrml.org/common/Schema" (VERSION RESOURCE TYPE'S SCHEMA)

MEDIA TYPE SCHEMA DESIGN

# REPRESENTED USING JSON

```
{  
  "name" : Text <constrained to be mixed uppercase> ,  
  "version" : Integer,  
  "extends" : Array <constrained to contain (schema) URI text elements>,  
  "fields" : {  
    <Set of Field schema-constrained forms>  
  },  
  "stateFacts" : Array <constrained to contain mixed uppercase text elements> ,  
  "linkFormulas" : {  
    <Set of LinkFormula schema-constrained forms>  
  },  
  "description" : Text  
}
```

MEDIA TYPE SCHEMA VERSIONING

THE DIFFERENT VERSIONS OF A GIVEN  
SCHEMA SHOULD BE ORGANIZED AS  
DIFFERENT SCHEMA DOCUMENTS

<http://api.schemas.wrml.org/soccer/Player-2> (VERSION NUMBER OF PLAYER RESOURCE SCHEMA)

<http://api.schemas.wrml.org/soccer/Player> (CURRENT VERSION OF PLAYER RESOURCE SCHEMA)

## MEDIA TYPES DESIGN

MEDIA TYPE NEGOTIATION SHOULD BE  
SUPPORTED WHEN MULTIPLE  
REPRESENTATIONS ARE AVAILABLE

application/wrml;

format="http://api.formats.wrml.org/text/html"; (CLIENTS CAN SELECT A FORMAT)

schema="http://api.schemas.wrml.org/soccer/Team" (CLIENTS CAN SELECT A SCHEMA)

MEDIA TYPES DESIGN

# MEDIA TYPE SELECTION USING A QUERY PARAMETER MAY BE SUPPORTED

GET /bookmarks/mikemassedotcom?accept=application/xml

MEDIA TYPES

# MEDIA TYPE SELECTION

Media Types (iana.org)

MEDIA TYPES

# MEDIA TYPE CREATION

Media Types (iana.org)

## MEDIA TYPES IN THE ISSUE TRACKING DOMAIN

# LIST RESOURCES

collection+json

```
{  
  "collection": {  
    "href": "http://localhost:8080/Issue",  
    "links": [],  
    "items": [  
      {  
        "href": "http://localhost:8080/issue/1",  
        "data": [  
          {  
            "name": "Description",  
            "value": "This is an issue"  
          },  
          {  
            "name": "Status",  
            "value": "Open"  
          },  
          {  
            "name": "Title",  
            "value": "An issue"  
          }  
        ],  
        "links": [  
          {  
            "rel": "http://webapibook.net/rels#issue-processor",  
            "href": "http://localhost:8080/issueprocessor/1?action=transition"  
          },  
          {  
            "rel": "http://webapibook.net/rels#issue-processor",  
            "href": "http://localhost:8080/issueprocessor/1?action=close"  
          }  
        ]  
      },  
      {  
        "href": "http://localhost:8080/issue/2",  
        "data": [  
          {  
            "name": "Description",  
            "value": "This is a another issue"  
          },  
          {  
            "name": "Status",  
            "value": "Closed"  
          },  
          {  
            "name": "Title",  
            "value": "Another Issue"  
          }  
        ],  
        "links": [  
          {  
            "rel": "http://webapibook.net/rels#issue-processor",  
            "href": "http://localhost:8080/issueprocessor/2?action=transition"  
          },  
          {  
            "rel": "http://webapibook.net/rels#issue-processor",  
            "href": "http://localhost:8080/issueprocessor/2?action=open"  
          }  
        ],  
        "queries": [  
          {  
            "rel": "http://webapibook.net/rels#search",  
            "href": "/issue",  
            "prompt": "Issue search",  
            "data": [  
              {  
                "name": "SearchText",  
                "prompt": "Text to match against Title and Description"  
              }  
            ]  
          },  
          {"template": {  
            "data": []  
          }  
        ]  
      }  
    ]  
  },  
  "links": [  
    {  
      "rel": "http://webapibook.net/rels#issue-processor",  
      "href": "http://localhost:8080/issueprocessor/2?action=transition"  
    },  
    {  
      "rel": "http://webapibook.net/rels#issue-processor",  
      "href": "http://localhost:8080/issueprocessor/2?action=open"  
    }  
  ]  
},  
"queries": [  
  {  
    "rel": "http://webapibook.net/rels#search",  
    "href": "/issue",  
    "prompt": "Issue search",  
    "data": [  
      {  
        "name": "SearchText",  
        "prompt": "Text to match against Title and Description"  
      }  
    ]  
  },  
  {"template": {  
    "data": []  
  }  
}]
```

## MEDIA TYPES IN THE ISSUE TRACKING DOMAIN

# ITEM RESOURCES

json

```
{
  "id": "1",
  "title": "An issue",
  "description": "This is an issue",
  "status": "Open",
  "Links": [
    {
      "rel": "self",
      "href": "http://localhost:8080/issue/1"
    },
    {
      "rel": "http://webapibook.net/rels#issue-processor",
      "href": "http://localhost:8080/issueprocessor/1?action=transition",
      "action": "transition"
    },
    {
      "rel": "http://webapibook.net/rels#issue-processor",
      "href": "http://localhost:8080/issueprocessor/1?action=close",
      "action": "close"
    }
  ]
}
```

# DISCOVERY RESOURCE

json-home

```
{  
  "resources": {  
    "http://webapibook.net/rels#issue": {  
      "href": "/issue/{id}",  
      "hints": {  
        "allow": [  
          "GET"  
        ],  
        "formats": {  
          "application/json": {},  
          "application/vnd.issue+json": {}  
        }  
      }  
    },  
    "http://webapibook.net/rels#issues": {  
      "href": "/issue",  
      "hints": {  
        "allow": [  
          "GET"  
        ],  
        "formats": {  
          "application/json": {},  
          "application/vnd.collection+json": {}  
        }  
      }  
    },  
    "http://webapibook.net/rels#issue-processor": {  
      "href": "/issueprocessor/{id}{?action}",  
      "hints": {  
        "allow": [  
          "POST"  
        ]  
      }  
    }  
  }  
}
```



# MEDIA TYPES DESIGN

THANK YOU!!