

Sunapi Dynamic Event Schema Enhancement

SUNAPI

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1. Introduction

At present we can get all the supported events and its schema including the app supported events using below command

REQUEST

```
http://<Device IP>/stw-cgi/eventstatus.cgi?msubmenu=eventstatusschema&action=view
```

Schema Of Sample Event

```
....
{
  "type": "object",
  "properties": {
    "Time": {
      "type": "string"
    },
    "EventName": {
      "enum": [
        "OpenSDK.WiseAI.ObjectDetection"
      ]
    },
    "Source": {
      "type": "object",
      "properties": {
        "Channel": {
          "type": "number"
        },
        "AppName": {
          "type": "string"
        },
        "AppEvent": {
          "type": "string"
        },
        "AppID": {
          "type": "string"
        },
        "Type": {
          "enum": [
            "Event"
          ]
        },
        "VideoSourceToken": {
          "type": "string"
        },
        "RuleName": {
          "type": "string"
        }
      }
    }
  }
}
```

```

    }
  },
  "Data": {
    "type": "object",
    "properties": {
      "State": {
        "type": "boolean"
      },
      "ClassTypes": {
        "type": "string"
      }
    }
  }
}
....
....

```

1.1. Issue

In above example schema we can see that, though client can know what event and what fields are supported from the schema, it cannot know what values are supported in some of the key fields eg., **ClassTypes**

2. Enhancement To Schema

To address the above issue we plan to provide the supported values in the schema following below rule.

- If the value takes only one enum value **enum** field (Custom Enum) is added to notify expected values.
- If the value takes list of enum values space separated or command separated **pattern** field is added.
 - For Comma separated values pattern can be "[^,]+"
 - For Space separated values pattern can be "[^]+"

Therefore above sample event schema would look like,

Schema Of Sample Events [After Enhancement] - Only partial response is captured here

```

...
{
  "type": "object",
  "properties": {
    "Time": {
      "type": "string"
    },
    "EventName": {
      "enum": [
        "OpenSDK.WiseAI.AppSettingChanged"
      ]
    }
  }
}

```

```

    ],
    "Source": {
      "type": "object",
      "properties": {
        "Channel": {
          "type": "number"
        },
        "AppName": {
          "type": "string"
        },
        "AppEvent": {
          "type": "string"
        },
        "AppID": {
          "type": "string"
        },
        "Type": {
          "enum": [
            "Event"
          ]
        },
        "RuleIndex": {
          "type": "number"
        },
        "VideoSourceToken": {
          "type": "string"
        }
      }
    },
    "Data": {
      "type": "object",
      "properties": {
        "Path": {
          "type": "string"
        }
      }
    }
  },
  {
    "type": "object",
    "properties": {
      "Time": {
        "type": "string"
      },
      "EventName": {
        "enum": [
          "OpenSDK.WiseAI.LineCrossing"
        ]
      }
    }
  }
]

```

```

    },
    "Source": {
      "type": "object",
      "properties": {
        "Channel": {
          "type": "number"
        },
        "AppName": {
          "type": "string"
        },
        "AppEvent": {
          "type": "string"
        },
        "AppID": {
          "type": "string"
        },
        "Type": {
          "enum": [
            "Event"
          ]
        },
        "RuleIndex": {
          "type": "number"
        },
        "VideoSourceToken": {
          "type": "string"
        },
        "RuleName": {
          "type": "string"
        }
      }
    },
    "Data": {
      "type": "object",
      "properties": {
        "State": {
          "type": "boolean"
        },
        "ObjectId": {
          "type": "string"
        },
        "Action": {
          "type": "string",
          "pattern": "[^,]+",
          "enum": [
            "Left",
            "Right"
          ]
        }
      }
    }
  }
}

```

```

    }
  },
  {
    "type": "object",
    "properties": {
      "Time": {
        "type": "string"
      },
      "EventName": {
        "enum": [
          "OpenSDK.WiseAI.IvaArea"
        ]
      },
      "Source": {
        "type": "object",
        "properties": {
          "Channel": {
            "type": "number"
          },
          "AppName": {
            "type": "string"
          },
          "AppEvent": {
            "type": "string"
          },
          "AppID": {
            "type": "string"
          },
          "Type": {
            "enum": [
              "Event"
            ]
          },
          "RuleIndex": {
            "type": "number"
          },
          "VideoSourceToken": {
            "type": "string"
          },
          "RuleName": {
            "type": "string"
          }
        }
      },
      "Data": {
        "type": "object",
        "properties": {
          "State": {
            "type": "boolean"
          }
        }
      }
    }
  }
}

```

```

    },
    "ObjectId": {
      "type": "string"
    },
    "Action": {
      "type": "string",
      "pattern": "^[^,]+",
      "enum": [
        "Enter",
        "Exit",
        "Appear/Disappear",
        "Loitering",
        "Intrusion"
      ]
    }
  }
}
},
{
  "type": "object",
  "properties": {
    "Time": {
      "type": "string"
    },
    "EventName": {
      "enum": [
        "OpenSDK.WiseAI.ObjectDetection"
      ]
    },
    "Source": {
      "type": "object",
      "properties": {
        "Channel": {
          "type": "number"
        },
        "AppName": {
          "type": "string"
        },
        "AppEvent": {
          "type": "string"
        },
        "AppID": {
          "type": "string"
        },
        "Type": {
          "enum": [
            "Event"
          ]
        }
      }
    }
  },

```



```

        "RuleIndex": {
            "type": "number"
        },
        "VideoSourceToken": {
            "type": "string"
        },
        "RuleName": {
            "type": "string"
        }
    },
    "Data": {
        "type": "object",
        "properties": {
            "State": {
                "type": "boolean"
            },
            "ClassTypes": {
                "type": "string",
                "pattern": "[^,]+",
                "enum": [
                    "Person",
                    "Vehicle",
                    "Face",
                    "LicensePlate",
                    "Vehicle.Bicycle",
                    "Vehicle.Car",
                    "Vehicle.Motorcycle",
                    "Vehicle.Bus",
                    "Vehicle.Truck"
                ]
            }
        }
    }
},
{
    "type": "object",
    "properties": {
        "Time": {
            "type": "string"
        },
        "EventName": {
            "enum": [
                "OpenSDK.WiseAI.ObjectCounting"
            ]
        },
        "Source": {
            "type": "object",
            "properties": {

```

```

        "Channel": {
            "type": "number"
        },
        "AppName": {
            "type": "string"
        },
        "AppEvent": {
            "type": "string"
        },
        "AppID": {
            "type": "string"
        },
        "Type": {
            "enum": [
                "Event"
            ]
        },
        "RuleIndex": {
            "type": "number"
        },
        "VideoSourceToken": {
            "type": "string"
        },
        "RuleName": {
            "type": "string"
        }
    },
    "Data": {
        "type": "object",
        "properties": {
            "ReportType": {
                "type": "string",
                "enum": [
                    "Punctual",
                    "Summary"
                ]
            },
            "ObjectType": {
                "type": "string",
                "enum": [
                    "Person",
                    "Vehicle"
                ]
            },
            "Direction": {
                "type": "string",
                "enum": [
                    "IN",
                    "OUT"
                ]
            }
        }
    }
}

```

```

    ],
    },
    "Count": {
      "type": "number"
    }
  }
}
},
{
  "type": "object",
  "properties": {
    "Time": {
      "type": "string"
    },
    "EventName": {
      "enum": [
        "OpenSDK.WiseAI.StoppedVehicleDetection"
      ]
    },
    "Source": {
      "type": "object",
      "properties": {
        "Channel": {
          "type": "number"
        },
        "AppName": {
          "type": "string"
        },
        "AppEvent": {
          "type": "string"
        },
        "AppID": {
          "type": "string"
        },
        "Type": {
          "enum": [
            "Event"
          ]
        },
        "RuleIndex": {
          "type": "number"
        },
        "VideoSourceToken": {
          "type": "string"
        },
        "RuleName": {
          "type": "string"
        }
      }
    }
  }
}

```

```

    },
    "Data": {
      "type": "object",
      "properties": {
        "State": {
          "type": "boolean"
        },
        "VehicleTypes": {
          "type": "string",
          "pattern": "^[^,]+",
          "enum": [
            "Unknown",
            "Bicycle",
            "Car",
            "Motorcycle",
            "Bus",
            "Truck"
          ]
        },
        "ObjectIDs": {
          "type": "string"
        }
      }
    }
  },
  {
    "type": "object",
    "properties": {
      "Time": {
        "type": "string"
      },
      "EventName": {
        "enum": [
          "OpenSDK.WiseAI.TrafficJamDetection"
        ]
      },
      "Source": {
        "type": "object",
        "properties": {
          "Channel": {
            "type": "number"
          },
          "AppName": {
            "type": "string"
          },
          "AppEvent": {
            "type": "string"
          },
          "AppID": {

```

```

        "type": "string"
    },
    "Type": {
        "enum": [
            "Event"
        ]
    },
    "RuleIndex": {
        "type": "number"
    },
    "VideoSourceToken": {
        "type": "string"
    },
    "RuleName": {
        "type": "string"
    }
}
},
"Data": {
    "type": "object",
    "properties": {
        "State": {
            "type": "boolean"
        }
    }
}
}
}
}
...
...

```