RSM to WZDX Translator Field Mappings and Unused Fields

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# RSM to WZDx Translator Mappings

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table | Field | Source | Value(s) | Notes |
| Road Event Feed Info | **feed\_info\_id** | - | Generated GUID | Primary Key |
| **feed\_update\_date** | current time | [YYYY-MM-DDTHH:MM:SSZ] | - |
| metadata | - | - | Not available in RSM |
| version | - | 2.0 | - |
| Road Events | **road\_event\_id** | - | Generated GUID | Primary Key |
| **feed\_info\_id** | RoadEventsFeedInfo.feed\_info\_id | GUID | Foreign Key |
| subidentifier | - | - | Not available in RSM |
| **geometry\_type** | - | ‘LineString’ | Chosen value |
| **geometry** | rszContainer..rsmLanes..nodePoint..node-3Dabsolute.. [lat, long] | [lat, long] in degrees | Converted from 1/10 micro degrees |
| **road\_name** | - | - | Not available in RSM |
| road\_number | - | - | Not available in RSM |
| **direction** | rszContainer..rsmLanes..nodePoint..node-3Dabsolute.. [lat, long] for first and last nodePoints | Enum [‘northbound’, ‘eastbound’, ‘southbound’, ‘westbound’] | Calculated as direction between first and last points |
| beginning\_cross\_street | - | - | Not available in RSM |
| ending\_cross\_street | - | - | Not available in RSM |
| beginning\_milepost | - | - | Not available in RSM |
| ending\_milepost | - | - | Not available in RSM |
| **beginning\_accuracy** | - | ‘Estimated’ | Not available in RSM |
| **ending\_accuracy** | - | ‘Estimated’ | Not available in RSM |
| **start\_date** | startDateTime | [YYYY-MM-DDTHH:MM:SSZ] | - |
| **end\_date** | endDateTime | [YYYY-MM-DDTHH:MM:SSZ] | - |
| **start\_date\_accuracy** | - | ‘Estimated’ | Not available in RSM |
| **end\_date\_accuracy** | - | ‘Estimated’ | Not available in RSM |
| event\_status | - | - | Not available in RSM |
| total\_num\_lanes | length of list of rsmLanes | Int | - |
| **vehicle\_impact** | rszContainer..rsmLanes..nodePoint..nodeAttributes..laneClosed | Enum [‘all-lanes-open’, ‘some-lanes-closed’, ‘all-lanes-closed’] | - |
| workers\_present | rszContainer..roadwayGeometry..nodePoint..nodeAttributes..peoplePresent | Bool [true, false] | - |
| reduced\_speed\_limit | rszContainer..roadwayGeometry..nodePoint..nodeAttributes..speedLimit.speed | Bool [true, false] | - |
| restrictions | - | - | Not available in RSM |
| description | - | - | Not available in RSM |
| issuing\_organization | - | - | Not available in RSM |
| creation\_date | - | - | Not available in RSM |
| update\_date | - | - | Not available in RSM |
| Types of Work | **types\_of\_work\_id** | - | Generated GUID | Private Key |
| road\_event\_id | RoadEvents.road\_event\_id | GUID | Foreign Key |
| type\_name | - | ‘roadside-work’ | CauseCodes do not give further information |
| is\_architectural\_change | - | ‘false’ | Not available in RSM |
| Lanes | **lane\_id** | - | Generated GUID | Primary Key |
| road\_event\_id | RoadEvents.road\_event\_id | GUID | Foreign Key |
| **lane\_edge\_reference** | - | ‘left’ | Not available in RSM |
| lane\_number | rszContainer..roadwayGeometry..rsmLanes..lanePosition | Int | - |
| **lane\_status** | rszContainer..rsmLanes..nodePoint..nodeAttributes..[taperLeft, taperRight, laneClosed] | Enum [‘open’, ‘closed’, ‘merge-left’, ‘merge-right’] | Closed takes priority over merge-left and merge-right |
| **lane\_type** | rszContainer..roadwayGeometry..rsmLanes..lanePosition and Lanes.lane\_edge\_reference | Enum [‘right-lane’, ‘middle-lane’, left-lane’] | Evaluated from lane\_edge\_reference and lane\_number |
| Lane Restrictions | **lane\_restriction\_id** | - | Generated GUID | Primary Key |
| **Lane\_id** | Lanes.lane\_id | GUID | Foreign Key |
| **Restriction\_type** | - | - | Not available in RSM |
| Restriction\_value | - | - | Not available in RSM |
| Restriction\_units | - | - | Not available in RSM |

**Bold field** = required

Unbolded field = optional

# RSM to WZDx Translator Unused Information From RSM

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field Name | Values | Importance | Potential Uses | Notes |
| version | Int | LOW |  |  |
| eventInfo.eventRecurrence | Start and end date/time, days of week | MEDIUM | Inform when work zone is active | Describes schedule in which work zone is active |
| eventInfo.subCauseCode | Int | LOW | Could distinguish between workzone types | Not given from CAMP tool |
| regionInfo.applicableHeading.heading | Heading | LOW | unknown | - |
| regionInfo.referencePoint | lat, long, elevation | LOW | unknown | - |
| regionInfo.speedLimit | Speed limit before work zone | LOW | Capture speed limits before work zone begins | - |
| regionInfo.approachRegion..scale |  | LOW | unknown | Scale factor |
| regionInfo.approachRegion..nodePoint | lat, long, elevation | MEDIUM | Increase knowledge of approach region | - |
| rszContainer..rsmLanes..nodePoint | elevation | HIGH | Distinguish between vertical interchanges | - |
| rszContainer..rsmLanes..nodeAttributes.speedlimit | Minimum speed limits | LOW | Minimum speed limit values | - |
| rszContainer..rsmLanes..connectsTo | Lane IDs | MEDIUM | Determine if lanes are disconnected | - |
| rszContainer..rsmLanes.laneWidth | Width in cm | MEDIUM | Show decreased lane widths | This could be included as reduced-width |

# Fields Missing in CAMP Tool Generated RSM Messages

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Importance | Notes | Collected in CAMP Tool? |
| rszContainer.laneStatus | LOW | This is only useful if a lane is closed/open for the entire work zone | Yes |
| rszContainer.roadClosureDescription | LOW | - | No |
| rszContainer.roadWorkDescription | LOW | - | No |
| rszContainer.flagman | MEDIUM | - | No |
| rszContainer.trucksEnteringLeaving | LOW | - | No |
| curveContainer | HIGH | There is a massive amount of information here | No |

These fields were found in the Connected Vehicle Message Builder Document located here: <https://github.com/TonyEnglish/V2X-manual-data-collection/blob/master/CAMP%20Tools/CVMsgBuilder%20v1.4%20distribution/ConnectedVehicleMessageBuilder%20User%20Guide%20v1.4%20June%202018%20Final.pdf>