**Parking Publication light**

**Data Dictionary**

* 1. Data Dictionary for "ParkingLight"
     1. "ParkingPublicationLight" package
        1. Location of "ParkingPublicationLight" package

The location of "ParkingPublicationLight" package is:

— D2Payload/PayloadPublication/ParkingPublicationLight

* + - 1. Classes of the "ParkingPublicationLight" package

Table A.1— Classes of the "ParkingPublicationLight" package

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| Assignment | Assignment | An assignment for a parking site or a parking space. Might be including or excluding, depending on typeOfAssignment. | D2Class | no |
| Coordinate | Coordinate | A pair of planar coordinates defining the geodetic position of a single point using the European Terrestrial Reference System 1989 (ETRS89). | D2Class | no |
| Dimension | Dimension | A component that provides dimension information. The product of width and height must not be necessarily be the square footage (e.g. in multi-storey buildings or when some zones are not part of the square footage). | D2Class | no |
| LocationAndDimension | Location and dimension | Location | D2Class | no |
| ParkingPublicationLight | Parking publication light | A simplified publication to transfer parking information. | D2Class | no |
| ParkingSite | Parking site | A collection of parking spaces within a building, an open ground or some on street area. Usually seen as one entity and manged as such. | D2Class | no |
| ParkingSpace | Parking space | A parking space, i.e. a single slot for one vehicle. Includes dynamic information if it is available or not. | D2Class | no |

* + - 1. Associations of the "ParkingPublicationLight" package

Table A.2— Associations of the "ParkingPublicationLight" package

| **Class name** | **Association end** | **Designation** | **Definition** | **Multiplicity** | **Target** |
| --- | --- | --- | --- | --- | --- |
| LocationAndDimension | gmlLinearRing | Gml linear ring |  | 0..1 | GmlLinearRing |
|  | dimension | Dimension |  | 0..1 | Dimension |
|  | coordinatesForDisplay | Coordinates for display | Coordinates that may be used by clients for visual display on user interfaces. | 1..1 | Coordinate |
| ParkingPublicationLight | parkingSite | Parking site |  | 0..\* | ParkingSite |
|  | parkingSpace | Parking space |  | 0..\* | ParkingSpace |
| ParkingSite | assignedFor | Assigned for |  | 0..\* | Assignment |
|  | locationAndDimension | Location and dimension |  | 1..1 | LocationAndDimension |
| ParkingSpace | assignedFor | Assigned for |  | 0..\* | Assignment |
|  | locationAndDimension | Location and dimension |  | 1..1 | LocationAndDimension |

* + - 1. Attributes of the "ParkingPublicationLight" package

Table A.3— Attributes of the "ParkingPublicationLight" package

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| Assignment | additionalAssignment | Additional assignment | An additional assignment in natural language. | 0..1 | String |
|  | availableSpaces | Available spaces | The total number of currently vacant parking spaces within this site for the given assignment. (e.g. for lorries). Use only with type of assignment = 'optimised' or 'allowed'. Do not use when describing a single parking space. | 0..1 | NonNegativeInteger |
|  | fuelType | Fuel type | The type of fuel this assignment refers to. | 0..1 | FuelTypeEnum |
|  | typeOfAssignment | Type of assignment | Defines, if this assignment is of including or excluding nature. | 1..1 | AssignmentTypeEnum |
|  | user | User | A user this assignment refers to. | 0..1 | UserTypeEnum |
|  | vehicleType | Vehicle type | The vehicle type this assignment refers to. | 0..1 | VehicleTypeEnum |
| Coordinate | latitude | Latitude | Latitude in decimal degrees using the European Terrestrial Reference System 1989 (ETRS89). | 1..1 | Float |
|  | longitude | Longitude | Longitude in decimal degrees using the European Terrestrial Reference System 1989 (ETRS89). | 1..1 | Float |
| Dimension | height | Height | Height. | 0..1 | MetresAsFloat |
|  | length | Length | Length. | 0..1 | MetresAsFloat |
|  | orientationOfLengthAxis | Orientation of length axis | The orientation of the length axis in degree. In the case of a parking space, this corresponds to the direction, in which a vehicle is parked. | 0..1 | AngleInDegrees |
|  | usableArea | Usable area | The area measured in square metres, that is available for some specific purpose. | 0..1 | SquareMetres |
|  | width | Width | Width. | 0..1 | MetresAsFloat |
| LocationAndDimension | level | Level | The level of the parking space (0 = ground etc.), or the first level of the entire parking site (for example, if a parking site is located on the roof of a building). | 0..1 | Integer |
|  | locationDescriptor | Location descriptor | Supplementary human-readable description of the location | 0..1 | String |
|  | roadName | Road name | Information on a road | 0..1 | String |
|  | roadNumber | Road number | The road number designated by the road authority | 0..1 | String |
|  | specificAccessInformation | Specific access information | Information on one specific access (entrance or exit) in human readable text, for example the corresponding road where it is located. | 0..\* | String |
| ParkingPublicationLight | description | Description | A description for the parking light publication. | 0..1 | String |
|  | name | Name | The name of the parking light publication. | 0..1 | String |
| ParkingSite | availableSpaces | Available spaces | The total number of currently vacant parking spaces available in the specified parking site. | 0..1 | NonNegativeInteger |
|  | description | Description | A description for this parking site. | 0..1 | String |
|  | equipmentAndServices | Equipment and services | Equipment and services available at this parking site, described in natural language. | 0..\* | String |
|  | freeParking | Free parking | If true, parking is free at this site. | 0..1 | Boolean |
|  | isOpenNow | Is open now | True, if the parking site is open right now. | 0..1 | Boolean |
|  | lastUpdate | Last update | Last update time of this parking site information. | 0..1 | DateTime |
|  | maximumParkingDuration | Maximum parking duration | The maximum parking duration for this parking site. | 0..1 | Seconds |
|  | name | Name | Name for this parking site. | 0..1 | String |
|  | numberOfSpaces | Number of spaces | The total number of parking spaces at this site, not including closed spaces (due to maintenance, for example). | 0..1 | NonNegativeInteger |
|  | occupancyTrend | Occupancy trend | The trend of the occupancy of the parking spaces in the specified parking site. | 0..1 | ParkingOccupancyTrendEnum |
|  | openingTimesDescription | Opening times description | Opening times of this parking site, described in natural language. | 0..\* | String |
|  | operatorInformation | Operator information | Information about the operator of this parking site. | 0..\* | String |
|  | security | Security | Security aspects at this parking site, described in natural language. | 0..\* | String |
|  | tariffDescription | Tariff description | Information about the parking-tariffs in natural language. | 0..\* | String |
|  | temporaryClosed | Temporary closed | True, if the parking site is closed ignoring its regular opening times, for example due to maintenance or constructions. | 0..1 | Boolean |
|  | type | Type | Type of this parking site. | 1..1 | ParkingSiteTypeEnum |
|  | urlLinkAddress | URL link address | A Uniform Resource Locator (URL) address pointing to a resource available on the Internet from where further relevant information may be obtained. | 0..1 | Url |
|  | zoneDescription | Zone description | A description of some specific zone this parking site might belong to, | 0..\* | String |
| ParkingSpace | accessibility | Accessibility | Information on accessibility, easements and marking for handicapped people. | 0..\* | AccessibilityEnum |
|  | availability | Availability | Information if this space is closed, available or occupied. | 1..1 | AvailabilityEnum |
|  | externalIdentifier | External identifier | An external identfier for this parking space, e.g. "R145" | 0..1 | String |
|  | lastUpdate | Last update | Point of time of the latest update of this information. | 0..1 | DateTime |
|  | maximumParkingDuration | Maximum parking duration | The maximum parking duration for this parking space. | 0..1 | Seconds |
|  | nextAvailableTimeSlot | Next available time slot | In case there is a reservation or time management: Point of time this space will be available for usage. | 0..\* | DateTime |
|  | parkingSiteReference | Parking site reference | A reference to a parking site this parking space belongs to. | 0..1 | Reference |

* 1. Data Dictionary of <<D2Datatype>> for "ParkingLight"
     1. Introduction

This clause contains the definitions of all data types which are used in the "ParkingLight".

* + 1. The <<D2Datatype>> "SquareMetres"

Square metres.

* 1. Data Dictionary of <<D2Enumeration>> for "ParkingLight"
     1. Introduction

This clause contains the definitions of all enumerations which are used in the "ParkingLight".

* + 1. The <<D2Enumeration>> "AccessibilityEnum"

Special forms of accessibility,easements and marking for handicapped people.

Table A.4— Values contained in the enumeration "AccessibilityEnum"

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| barrierFreeAccessible | Barrier free accessible | Accessible without any steps or other barriers. This is not as strong as handicappedAccessible. |
| handicappedAccessible | Handicapped accessible | Accessible for handicapped people. Wheelchair accessible is a special form of it. |
| handicappedEasements | Handicapped easements | There are special easements for handicapped people, like handrails or handicapped-friendly furniture. |
| handicappedMarked | Handicapped marked | There is a visible mark for the privilege of handicapped or disabled people (e.g. a wheelchair symbol). |
| none | None | No form of special accessibility, i.e. usually not convenient for handicapped people, e.g. because of steps or barriers. |
| orientationSystemForBlindPeople | Orientation system for blind people | There is some orientation system, which helps blind or visually impaired people. Examples might be some acoustic system or tactile paving. |
| other | Other | Other. |
| unknown | Unknown | It is unknown, whether there is a special form of accessibility. |
| wheelChairAccessible | Wheel chair accessible | Accessible by people in a wheelchair. |

* + 1. The <<D2Enumeration>> "AssignmentTypeEnum"

Including or excluding parameters for assignments.

Table A.5— Values contained in the enumeration "AssignmentTypeEnum"

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| allowedFor | Allowed for | Specified types of vehicles or users are allowed. |
| onlyFor | Only for | All assignments specified with 'onlyFor' are allowed, others are not. Note that this is group-specific! Specifying users for example does not restrict vehicles or vice versa! |
| optimisedFor | Optimised for | The space or site is optimised for this assignment. This does not automatically prohibit other assignments. |
| prohibitedFor | Prohibited for | This assignment is prohibited on the site or space. |

* + 1. The <<D2Enumeration>> "AvailabilityEnum"

Information if a parking space is closed, available or occupied.

Table A.6— Values contained in the enumeration "AvailabilityEnum"

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| available | Available | The parking space is available / free for use. |
| closed | Closed | The parking space is closed / not usable. |
| occupied | Occupied | The parking space is occupied / not free for use. |
| unknown | Unknown | There is no information about the status of this parking space. |

* + 1. The <<D2Enumeration>> "FuelTypeEnum"

Type of fuel used by a vehicle.

Table A.7— Values contained in the enumeration "FuelTypeEnum"

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| all | All | All sort of fuel is accepted. |
| battery | Battery | Battery. |
| biodiesel | Biodiesel | Biodiesel. |
| diesel | Diesel | Fuel used for compression-ignition (CI) engines. |
| dieselBatteryHybrid | Diesel battery hybrid | Diesel and battery hybrid. |
| ethanol | Ethanol | Ethanol. |
| hydrogen | Hydrogen | Hydrogen. |
| liquidGas | Liquid gas | Liquid gas of any type including LPG. |
| lpg | LPG | Liquid petroleum gas. |
| methane | Methane | Methane gas. |
| other | Other | Other. |
| petrol | Petrol | Fuel used for positive-ignition (PI) engines. |
| petrol95Octane | Petrol95 octane | Petrol with 95 octane. |
| petrol98Octane | Petrol98 octane | Petrol with 98 octane. |
| petrolBatteryHybrid | Petrol battery hybrid | Petrol and battery hybrid. |
| petrolLeaded | Petrol leaded | Leaded petrol. |
| petrolUnleaded | Petrol unleaded | Unleaded petrol. |
| unknown | Unknown | The sort of fuel is not known. |

* + 1. The <<D2Enumeration>> "ParkingOccupancyTrendEnum"

List of terms used to describe the trend in parking space occupancy.

Table A.8— Values contained in the enumeration "ParkingOccupancyTrendEnum"

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| decreasing | Decreasing | Parking space occupancy is decreasing. |
| decreasingQuickly | Decreasing quickly | Parking space occupancy is decreasing quickly. |
| decreasingSlowly | Decreasing slowly | Parking space occupancy is decreasing slowly. |
| increasing | Increasing | Parking space occupancy is increasing. |
| increasingQuickly | Increasing quickly | Parking space occupancy is increasing quickly. |
| increasingSlowly | Increasing slowly | Parking space occupancy is increasing slowly. |
| other | Other | Other. |
| stable | Stable | Parking space occupancy is stable. |
| unknown | Unknown | Unknown. |

* + 1. The <<D2Enumeration>> "ParkingSiteTypeEnum"

Type of the parking site.

Table A.9— Values contained in the enumeration "ParkingSiteTypeEnum"

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| carPark | Car park | A car park, usually in the form of a building. |
| motorwayParking | Motorway parking | A motorway parking area. Usually also including lorry parking and some facilities/services for drivers. |
| offStreetParkingGround | Off street parking ground | A parking ground, usually only one level. |
| onStreet | On street | Parking along the street. |
| other | Other | Other. |
| restArea | Rest area | A rest area. Lorry parking might be possible, but focus is on cars. |
| specialLocationParking | Special location parking | A parking site belonging to some specific facility, e.g. station, airport, shopping centre... |
| temporaryParking | Temporary parking | A parking site designed on a temporary basis. For example, some ground which is foreseen for construction works at a later point of time. Might be provisional in terms of quality and services. |

* + 1. The <<D2Enumeration>> "UserTypeEnum"

Types of users; used for parking but also for usage of equipment and services.

Table A.10— Values contained in the enumeration "UserTypeEnum"

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| allUsers | All users | All users. |
| commuters | Commuters | Commuters. |
| customers | Customers | Customers. |
| disabled | Disabled | Physically impaired people. |
| elderlyUsers | Elderly users | Elderly users. |
| employees | Employees | Employees. |
| families | Families | Families. |
| handicapped | Handicapped | Persons with deficiencies in their daily life. |
| hearingImpaired | Hearing impaired | People with difficulties to hear. |
| hotelGuests | Hotel guests | Hotel guests. |
| longTermParker | Long term parker | Long-term parker. |
| members | Members | Members. |
| men | Men | Men. |
| other | Other | Other. |
| overnightParker | Overnight parker | Overnight parker. |
| parkAndCycleUser | Park and cycle user | Park and cycle user. |
| parkAndRideUsers | Park and ride users | Users that are changing into public transport at this parking. |
| parkAndWalkUser | Park and walk user | Park and walk user. |
| pensioners | Pensioners | Pensioners. |
| pregnantWomen | Pregnant women | Pregnant women. |
| registeredDisabledUsers | Registered disabled users | Registered disabled persons. |
| reservationHolders | Reservation holders | Those who have a valid reservation for the duration of parking. |
| residents | Residents | Local residents. |
| seasonTicketHolders | Season ticket holders | Season ticket holders. |
| shoppers | Shoppers | Shoppers. |
| shortTermParker | Short term parker | Short-term parker. |
| sportEventAwaySupporters | Sport event away supporters | Sport event away supporters. |
| sportEventHomeSupporters | Sport event home supporters | Sport event home supporters. |
| staff | Staff | Staff. |
| students | Students | Students. |
| subscribers | Subscribers | Subscribers. |
| unknown | Unknown | Unknown. |
| visitors | Visitors | Visitors. |
| visuallyImpaired | Visually impaired | People with difficulties to see. |
| wheelchairUsers | Wheelchair users | Wheelchair users. |
| women | Women | Women. |

* + 1. The <<D2Enumeration>> "VehicleTypeEnum"

Types of vehicle.

Table A.11— Values contained in the enumeration "VehicleTypeEnum"

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| agriculturalVehicle | Agricultural vehicle | Vehicle normally used for agricultural purposes, e.g. tractor, combined harvester etc. |
| anyVehicle | Any vehicle | Vehicle of any type. |
| articulatedBus | Articulated bus | Articulated bus |
| articulatedTrolleyBus | Articulated trolley bus | Articulated trolley bus |
| articulatedVehicle | Articulated vehicle | Articulated vehicle. |
| bicycle | Bicycle | Bicycle. |
| bus | Bus | Bus. |
| car | Car | Vehicles designed and constructed for the carriage of passengers and comprising no more than eight seats in addition to the driver’s seat, and having a maximum mass (“technically permissible maximum laden mass”) not exceeding 3.5 tons (M1). |
| caravan | Caravan | Caravan. |
| carOrLightVehicle | Car or light vehicle | Car or light vehicle. |
| carWithCaravan | Car with caravan | Car towing a caravan. |
| carWithTrailer | Car with trailer | Car towing a trailer. |
| constructionOrMaintenanceVehicle | Construction or maintenance vehicle | Vehicle normally used for construction or maintenance purposes, e.g. digger, excavator, bulldozer, lorry mounted crane etc. |
| fourWheelDrive | Four wheel drive | Four wheel drive vehicle. |
| heavyDutyTransporter | Heavy duty transporter | A transporter for heavy duty (usually with abnormal dimensions). |
| heavyGoodsVehicle | Heavy goods vehicle | Vehicles with a total weight above 3,500 kg (vehicle and load). |
| heavyGoodsVehicleWithTrailer | Heavy goods vehicle with trailer | Heavy goods vehicle with trailer |
| heavyVehicle | Heavy vehicle | Vehicle whose weight means it should be classed as a heavy vehicle |
| highSidedVehicle | High sided vehicle | High sided vehicle. |
| largeCar | Large car | Large car |
| largeGoodsVehicle | Large goods vehicle | Vehicles for the carriage of goods and having a maximum mass exceeding 3.5 tonnes (belonging to class N2 when not exceeding 12 tonnes, otherwise class N3). |
| lightCommercialVehicle | Light commercial vehicle | Vehicles for the carriage of goods and having a maximum mass not exceeding 3.5 tonnes (class N1). |
| lightCommercialVehicleWithTrailer | Light commercial vehicle with trailer | Light goods vehicle with trailer |
| lorry | Lorry | Lorry of any type. |
| metro | Metro | Metro |
| minibus | Minibus | Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver’s seat, and having a maximum mass not exceeding 5 tonnes (class M2). |
| moped | Moped | Moped (a two wheeled motor vehicle characterized by a small engine typically less than 50cc and by normally having pedals). |
| motorcycle | Motorcycle | Motorcycle. |
| motorcycleWithSideCar | Motorcycle with side car | Three wheeled vehicle comprising a motorcycle with an attached side car. |
| motorhome | Motorhome | Motorhome |
| motorscooter | Motorscooter | Motorscooter (a two wheeled motor vehicle characterized by a step-through frame and small diameter wheels). |
| other | Other | Other than as defined in this enumeration. |
| passengerCar | Passenger car | Passenger car |
| smallCar | Small car | Small car |
| tanker | Tanker | Vehicle with large tank for carrying bulk liquids. |
| threeWheeledVehicle | Three wheeled vehicle | Three wheeled vehicle of unspecified type. |
| trailer | Trailer | Trailer. |
| tram | Tram | Tram. |
| trolleyBus | Trolley bus | Trolley bus |
| twoWheeledVehicle | Two wheeled vehicle | Two wheeled vehicle of unspecified type. |
| unknown | Unknown | Unknown. |
| van | Van | Van. |
| vehicleWithCaravan | Vehicle with caravan | Vehicle (of unspecified type) towing a caravan. |
| vehicleWithCatalyticConverter | Vehicle with catalytic converter | Vehicle with catalytic converter. |
| vehicleWithoutCatalyticConverter | Vehicle without catalytic converter | Vehicle without catalytic converter. |
| vehicleWithTrailer | Vehicle with trailer | Vehicle (of unspecified type) towing a trailer. |
| withEvenNumberedRegistrationPlates | With even numbered registration plates | Vehicle with even numbered registration plate. |
| withOddNumberedRegistrationPlates | With odd numbered registration plates | Vehicle with odd numbered registration plate. |