**Store Configuration Data**

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**Reviewers:**

Reviewers of this document

**Date and version:**

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01/11/2013 – v2 – add operator view

**Input documents:**

Subset 26

**Description**

Operator View (Baseliyos Jacob, Deutsche Bahn) :

**According to Annex 3 A3.2 List of national (Germany)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | **DB (Germany)** | | |
|  | | | **NID\_C =** | **NID\_C =** | **NID\_C =** |
| **National / Default Data** | **SRS Name (Reference only)** | **Default values** | **BL2: Exit to  PZB Lines** | **Baseline 2** | **Baseline 3 (planned)** |
| Modification of adhesion factor by driver | Q\_NVDRIVER\_ADHES | not allowed | Not allowed | Not allowed | Not allowed |
| Shunting mode speed limit | V\_NVSHUNT | 30km/h | 40km/h | 40km/h | 40km/h |
| Staff Responsible mode speed limit | V\_NVSTFF | 40km/h | 40km/h | 40km/h | 40km/h (in stations) 160 km/h (outside stations) |
| On Sight mode speed limit | V\_NVONSIGHT | 30km/h | 40km/h | 40km/h | 40km/h |
| Limited Supervision mode speed limit (Baseline 3) | V\_NVLIMSUPERV | 100 km/h |  |  | 160 km/h |
| Unfitted mode speed limit | V\_NVUNFIT | 100km/h | 100km/h will be changed to 50 km/h by law soon. | 100km/h will be changed to 50 km/h by law soon. | 100km/h will be changed to 50 km/h by law soon. |
| Release Speed | V\_NVREL | 40km/h | 40km/h | 40km/h | 40km/h |
| Distance to be used in Roll Away protection, Reverse movement protection and Standstill supervision | D\_NVROLL | 2m | 5m | 5m | 5m |
| Use service brake when braking to a target (Baseline 2 only) | Q\_NVSRBKTRG | Yes | No | No | No |
| Permission to use service brake in target speed monitoring (Baseline 3) | Q\_NVSBTSMPERM | Yes |  |  | No |
| Permission to release emergency brake | Q\_NVEMRRLS | Only at standstill | Immediate release | Immediate release | Immediate release |
| Permission to use guidance curves (Baseline 3) | Q\_NVGUIPERM | No | - | with CR595 see Baseline 3 | Yes |
| Permission to use the service brake feedback (Baseline 3) | Q\_NVSBFBPERM | No | - | with CR595 see Baseline 3 | No |
| Permission to inhibit the compensation of the speed measurement inaccuracy (Baseline 3) | Q\_NVINHSMICPERM | No | - | with CR595 see Baseline 3 | Yes |
| Speed limit for triggering the override function | V\_NVALLOWOVTRP | 0km/h | 40km/h | 40km/h | 40km/h |
| Override speed limit to be supervised when the “override” function is active | V\_NVSUPOVTRP | 30 km/h | 40 km/h | 40 km/h | 40 km/h |
| Distance for train trip suppression when override function is triggered | D\_NVOVTRP | 200m | 5 m | 400m | 400m |
| Max. time for train trip suppression when override function is triggered | T\_NVOVTRP | 60 s | 5 s | 60 s new projects: 255 s | 255 s |
| Change of driver ID permitted while running | M\_NVDERUN | Yes | No | No | No |
| System reaction if radio channel monitoring time limit expires (T-Contact) | M\_NVCONTACT | No reaction | Service brake | Service brake | Service brake |
| Maximum time since creation in the RBC of last received telegram. | T\_NVCONTACT | ∞ | 40 s | 40 s | 40 s |
| Distance to be allowed for reversing in Post Trip mode | D\_NVPOTRP | 200 m | 5 m | 5 m | 5 m |
| Max permitted distance to run in Staff Responsible mode | D\_NVSTFF | ∞ | ∞ | ∞ | ∞ |
| Default location accuracy of a balise group (Baseline 3) | Q\_NVLOCACC | 12 m | - | - | 20 m |
| Weighting factor for available wheel/rail adhesion (Baseline 3) | M\_NVAVADH | 0 | - | with CR595 see Baseline 3 | 1.00 |
| Confidence level for emergency brake safe deceleration on dry rails (Baseline 3) | M\_NVEBCL | 9999999,99 | - | with CR595 see Baseline 3 | 3 (equals 99.9%) (PRELIMINARY) |
| Train length step used for the integrated correction factor Kr\_int (Baseline 3) | L\_NVKRINT | N/A | - | with CR595 see Baseline 3 | No Values |
| Train length dependent integrated correction factor Kr\_int (Baseline 3) | M\_NVKRINT\* | 0.9 | - | with CR595 see Baseline 3 | Kr\_int\_0 (M\_NVKRINT)= 1.00 Kr\_int\_1 (M\_NVKRINT(1)) (no value) Kr\_int\_2 (M\_NVKRINT(2)) (no value) Kr\_int\_3 (M\_NVKRINT(3)) (no value) Kr\_int\_4 (M\_NVKRINT(4)) (no value) |
| Speed step used for the integrated correction factor Kv\_int (Baseline 3) | V\_NVKVINT | N/A | - | with CR595 see Baseline 3 | V\_NVKVINT(1) = 155 km/h V\_NVKVINT(2) = 200 km/h V\_NVKVINT(3) = 250 km/h V\_NVKVINT(4) = 300 km/h |
| Speed dependent integrated correction factor Kv\_int (Baseline 3) | M\_NVKVINT\* | 0.7 | - | with CR595 see Baseline 3 | Kv\_int\_0 (M\_NVKVINT) = 0.89 Kv\_int\_1 (M\_NVKVINT(1)) = 0,77 Kv\_int\_2 (M\_NVKVINT(2)) = 0,72 Kv\_int\_3 (M\_NVKVINT(3)) = 0,64 Kv\_int\_4 (M\_NVKVINT(4)) = 0,59 |
| Integrated correction factor for brake build up time (Baseline 3) | M\_NVKTINT | 1.1 | - | with CR595 see Baseline 3 | 1,15 |
| Maximum deceleration value under reduced adhesion conditions (1) (Baseline 3) | A\_NVMAXREDADH1 | 1.0 m/s2 | - | with CR595 see Baseline 3 | 2,5 m/s² |
| Maximum deceleration value under reduced adhesion conditions (2) (Baseline 3) | A\_NVMAXREDADH2 | 0.7 m/s2 | - | with CR595 see Baseline 3 | 2,5 m/s² |
| Maximum deceleration value under reduced adhesion conditions (3) (Baseline 3) | A\_NVMAXREDADH3 | 0.7 m/s2 | - | with CR595 see Baseline 3 | 2,5 m/s² |
| Lower deceleration limit to determine the set of Kv\_int to be used (Baseline 3) | A\_NVP12 | N/A | - | with CR595 see Baseline 3 | N/A (Q\_NVKVINTSET <> 1) |
| Upper deceleration limit to determine the set of Kv\_int to be used (Baseline 3) | A\_NVP23 | N/A | - | with CR595 see Baseline 3 | N/A (Q\_NVKVINTSET <> 1) |

This function manages configuration data, which are fixed data such as train, on-board, or maintenance configuration data.

add schema here

Issues :

* There is no specific requirement for this function, we will use the list of configuration data and parameters described in Alstom API proposal, and try to link them to subset-26 document. For now, the list of configuration data and parameters collected so far are stored in file StoreConfigurationData.txt.
* From which equipment(s) configuration data are they loaded ?
* For example, should we consider MA Request Parameters and Position Report Parameters from packets 57 and 58 sent by the RBC as configuration data ?
* How should configuration data be stored on-board ? In what kind of data structure(s) ?

**Functions**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Occurrence** | **Type** | **Description** |
| Name | 1 | T\_Text | **StoreConfigurationData** |
| Definition | 1 | T\_Definition | Stores configuration data |
| *Input* | *0..n* | *T\_Variable* | *TrainConfigurationData, OnboardConfigurationData, MaintenanceConfigurationData* |
| *Output* | *0..n* | *T\_Variable* |  |
| *Local* | *0..n* | *T\_Variable* |  |
| *Parameter* | *0..n* | *T\_Constant* |  |
| *Requirement* | *0..n* | *T\_Requirement* |  |
| *Block* | *1 (optional)* | *T\_FunctionalBlock* |  |
| *Parent* | *0..1* | *T\_Function* |  |
| *Allocation* | *1* | *T\_System* | Kernel |
| Safety | 1 | Boolean |  |

**Variables**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Occurrence** | **Type** | **Description** |
| Name | 1 | T\_Text | TrainConfigurationData |
| Definition | 1 | T\_Definition | Train configuration data |
| Source | 1 | T\_SourceDocument | Subset-26 |
| Nature | 1 | T\_VariableNature |  |
| MinimalValue | 0..1 | T\_Text |  |
| MaximalValue | 0..1 | T\_Text |  |
| SpecialValue | 0..n | T\_Text |  |
| Allocation | 1 | * Interface * Packet * Internal |  |
| *Requirement* | *1..n* | *T\_Requirement* |  |
| Store | 0..1 | T\_Variable |  |
| Resolution | 0..1 | T\_VariableNature |  |
| Safety | 1 | Boolean |  |

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| **Name** | **Occurrence** | **Type** | **Description** |
| Name | 1 | T\_Text | AdhesionIndependentBrakeConfig |
| Definition | 1 | T\_Definition |  |
| Source | 1 | T\_SourceDocument | Subset-26 |
| Nature | 1 | T\_VariableNature |  |
| MinimalValue | 0..1 | T\_Text |  |
| MaximalValue | 0..1 | T\_Text |  |
| SpecialValue | 0..n | T\_Text |  |
| Allocation | 1 | * Interface * Packet * Internal |  |
| *Requirement* | *1..n* | *T\_Requirement* | *SA-1,* |
| Store | 0..1 | T\_Variable |  |
| Resolution | 0..1 | T\_VariableNature |  |
| Safety | 1 | Boolean |  |

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| --- | --- | --- | --- |
| **Name** | **Occurrence** | **Type** | **Description** |
| Name | 1 | T\_Text | OnboardConfigurationData |
| Definition | 1 | T\_Definition | On-board configuration data |
| Source | 1 | T\_SourceDocument | Subset-26 |
| Nature | 1 | T\_VariableNature |  |
| MinimalValue | 0..1 | T\_Text |  |
| MaximalValue | 0..1 | T\_Text |  |
| SpecialValue | 0..n | T\_Text |  |
| Allocation | 1 | * Interface * Packet * Internal |  |
| *Requirement* | *1..n* | *T\_Requirement* |  |
| Store | 0..1 | T\_Variable |  |
| Resolution | 0..1 | T\_VariableNature |  |
| Safety | 1 | Boolean |  |

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| --- | --- | --- | --- |
| **Name** | **Occurrence** | **Type** | **Description** |
| Name | 1 | T\_Text | SpecialBrakesInterface |
| Definition | 1 | T\_Definition | Interfaces to a special/additional brake. |
| Source | 1 | T\_SourceDocument | Subset-26 |
| Nature | 1 | T\_VariableNature |  |
| MinimalValue | 0..1 | T\_Text |  |
| MaximalValue | 0..1 | T\_Text |  |
| SpecialValue | 0..n | T\_Text |  |
| Allocation | 1 | * Interface * Packet * Internal |  |
| *Requirement* | *1..n* | *T\_Requirement* | *SRS-3.13.2.2.2.9,* |
| Store | 0..1 | T\_Variable |  |
| Resolution | 0..1 | T\_VariableNature |  |
| Safety | 1 | Boolean |  |

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| --- | --- | --- | --- |
| **Name** | **Occurrence** | **Type** | **Description** |
| Name | 1 | T\_Text | RadioMsgRepetitionDelay |
| Definition | 1 | T\_Definition | Waiting time before radio message repetition. |
| Source | 1 | T\_SourceDocument | Subset-26-3 |
| Nature | 1 | T\_VariableNature |  |
| MinimalValue | 0..1 | T\_Text |  |
| MaximalValue | 0..1 | T\_Text |  |
| SpecialValue | 0..n | T\_Text | 15 sec |
| Allocation | 1 | * Interface * Packet * Internal |  |
| *Requirement* | *1..n* | *T\_Requirement* | *SRS-3-A.3.1* |
| Store | 0..1 | T\_Variable |  |
| Resolution | 0..1 | T\_VariableNature |  |
| Safety | 1 | Boolean |  |

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| --- | --- | --- | --- |
| **Name** | **Occurrence** | **Type** | **Description** |
| Name | 1 | T\_Text | MaintenanceConfigurationData |
| Definition | 1 | T\_Definition | Maintenance configuration data |
| Source | 1 | T\_SourceDocument | Subset-26 |
| Nature | 1 | T\_VariableNature |  |
| MinimalValue | 0..1 | T\_Text |  |
| MaximalValue | 0..1 | T\_Text |  |
| SpecialValue | 0..n | T\_Text |  |
| Allocation | 1 | * Interface * Packet * Internal |  |
| *Requirement* | *1..n* | *T\_Requirement* |  |
| Store | 0..1 | T\_Variable |  |
| Resolution | 0..1 | T\_VariableNature |  |
| Safety | 1 | Boolean |  |

**Requirements**

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| --- | --- | --- | --- |
| **Name** | **Occurrence** | **Type** | **Description** |
| Name | 1 | T\_Text | SA-1 |
| Definition | 1 | T\_Definition | * + - 1. The kernel shall store brake characteristics (coming from driver through DMI, or automatically loaded (from which equipment?)) |
| Nature | 1 | * Structural * Functional * Definition |  |
| Source | 1 | T\_SourceDocument | Subset-26-3 |
| Discussion | 1 (Optional) | T\_Text |  |
| Parent | 0..1 | T\_Requirement | 3.13.1.1.1 |
| Allocation | 0..1 | T\_System | Kernel |
| Safety | 1 | Boolean |  |

**Exported Requirements :**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Occurrence** | **Type** | **Description** |
| Name | 1 | T\_Text |  |
| Definition | 1 | T\_Definition |  |
| Source | 1 | T\_SourceDocument |  |
| Allocation | 0..1 | T\_System |  |
| Safety | 1 | Boolean |  |