

Ref:	NR/L3/SIG/30082/003
Issue:	1
Date:	04 December 2010
Compliance date:	05 March 2011

Module

Axle Counter Software/Data rules

Endorsement and Authorisation

For endorsement and authorisation
please refer to NR/L3/SIG/30082

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Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 05 March 2011.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 4 to continue to comply with the Issue of any relevant Network Rail Standards current when GRIP Stage 4 was reached and not to comply with requirements contained herein, unless the designated Standard Owner has stipulated otherwise in the accompanying Briefing Note.

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1 Purpose

This standard defines requirements and provides guidance to those involved in data preparation for axle counter systems used on Network Rail managed infrastructure that are configured by geographic data. This includes the requirements to make sure data design is verified and that evaluator software configuration is suitably managed.

2 Generic Requirements for Geographic Data Preparation

2.1 Data Management

A strategy shall be prepared for the 'whole life' management of any geographic data that may be required within the system. This strategy shall be endorsed by Network Rail before use and shall allow the preparation and modification of geographic data by any competent third party.

Only system software versions accepted by Network Rail shall be used in axle counter systems operating on Network Rail managed infrastructure.

Any commercial operating system or supporting software used to prepare the data shall be a proven industrial standard and subject to Network Rail acceptance.

A data preparation guide and related user information shall be supplied with data preparation tools.

The data preparation methods shall be consistent with the achievement of the defined Safety Integrity Level for the system.

It shall be impossible to alter the system functional software during preparation and loading of any geographical data that may be required within the system.

The method of software / data supply and loading shall be agreed with Network Rail and shall meet the requirements in this standard.

All evaluator geographical and configuration data shall be validated off site and a certificate of conformance provided in accordance with NR-L3-SIG-30082 Module 002 prior to the data being incorporated into the axle counter equipment.

Where this data validation is audited, the results shall be shared with the nominated Network Rail representative.

2.2 Competence

Only competent persons, who have attended and passed training (accepted by Network Rail and the manufacturer) in data design for the type of axle counter system concerned shall be permitted to carry out design duties for systems operating on Network Rail managed infrastructure.

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2.3 Arrangements for Provision of New Evaluators

The quantity of detection points and provisional evaluator identities shall be determined by the designer for each new evaluator.

NOTE This may include a nominal allowance for spare detection point allocation.

Network Rail National Records Group shall be provided with formal notification detailing the proposed evaluator design in the form of a proposed Status Record Index Sheet (SRIS) and Installed Software Status Record (ISSR) identity allocation, the quantity of detection points required and the proposed evaluator names.

Data design shall only commence once Network Rail National Records Group confirms the following information, having checked that the identities are unique within a control centre area:

- The allocated SRIS / ISSR identities;
- The allocated evaluator names;
- The allocated detection point addresses;

NOTE Network Rail should confirm any data management tool software to be used.

In conjunction with Network Rail IM, the following information shall be determined in order to identify any IP address structure and allocation required:

- Identity of each REB;
- The number of evaluators, and identity of each, in each REB.

NOTE An example of IP address structure for a Thales AzLM Pentium evaluator arrangement is shown in Figure 1.

Stoke SCC: IP Network Address: 10.182.222.0 (first address to be used: 10.182.222.7)

No.	Evaluator Name	REB ID	Evaluator Type	IP Address	Subnet Mask	Default Gateway
1.	MC_U	Mow Cop	ACE-2-26	10.182.2 22.7	255.255. 255.0	10.182.2 22.1
2.	MC_D	Mow Cop	ACE-2-26	10.182.2 22.8	255.255. 255.0	10.182.2 22.1
3.	KE_U	Kidsgrove	ACE-2-42	10.182.2 22.9	255.255. 255.0	10.182.2 22.1
4.	KE_D	Kidsgrove	ACE-2-26	10.182.2 22.10	255.255. 255.0	10.182.2 22.1

Figure 1 - Example IP Address Structure for Thales AzLM Pentium Evaluator Arrangement

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2.4 Arrangements for Alterations to Existing Evaluators

The designer shall request copies of the following existing information for each affected evaluator in accordance with the requirements for handover of data and source records in NR/L2/SIG/11201:

- Status Record Index Sheet (SRIS);
- Installed Software Status Record (ISSR);
- Project Software Release Form (PSRF);
- Data listings;
- Record Master Data CD 1;
- Data Management Tool Software;
- Location Plan;
- Evaluator Schematic;
- Evaluator Card Allocation Sheet.

The designer shall provide Network Rail with formal notification requesting:

- New SRIS / ISSR identities;
- The quantity of detection point addresses required or to be recovered;
- Any IP addresses for remote diagnostics;
- Any renaming of specific evaluators within a control centre area or transfer of evaluators to a different control centre area.

Data design shall only commence once Network Rail have approved the requests, forwarded information to Network Rail's National Records Group and records are released in accordance with NR/L2/INF/02018 (including any detection point addresses and IP address information required).

The designer shall verify the Record Master Data against the data listing using the specified data management tool and, if successful, retain a working copy. The Record Master Data CD1 shall be returned to Network Rail's National Records Group and Record Master Data CD2 requested which shall be similarly verified and returned. Any discrepancies shall be resolved with Network Rail's National Records Group.

The designer shall confirm that the on site Installed Software Status Record (ISSR) corresponds with the issued record. Any discrepancies shall be resolved with Network Rail's National Records Group and the maintainer to establish the true status of the on site data.