Paper for Consideration by S101 Project Team

S-101 Validation – a way forward

Submitted by:	S100WG Chair
Executive Summary:	There is a need for a data validation component of S-101, however, due to limited resources there has been very little progress.
Related Documents:	S-58,S101PT1_4.1G
Related Projects:	S-101

Introduction / Background

This is a major component of S-101 that has not had a whole lot of activity. This is due to the much needed update to S-58 edition 5.1.0 (now S-58 Edition 6.0.0) which will form the baseline for the S-101 Validation Checks and a lack of resources to devote to developing the S-101 validation checks.

Analysis/Discussion

This item was discussed at the S101PT1 meeting in March 2016 and a proposed way forward was scoped using the following:

1. Break out each category of check out by severity and concentrate on providing an initial baseline. So in order the checks should be looked at in the following manner:
    a. Critical errors
    b. Errors
    c. Warnings
    d. Assessment of Check 2000
    e. New checks related to S-101

2. Utilize the latest draft of S-58 as the baseline.
3. Develop an organization method. For example, switch the master file to landscape and add an extra column for disposition of the check. See the following example:

	2.1 Checks relating to S-101 Data Structure						
Check description	**Check message**	**Check solution**	**Conformity to:**	**Cat**	**S-101 Disposition/ Comment**	**S-101 Check**	
For each edge which does not have a beginning or end node	VE edge missing beginning or end node.	Add nodes as required.	4.8.1	C	Keep	Same wording as S-58	
For each record where the record identifier NAME (concatenation of the RCNM & RCID subfields) is not unique within the file	Record identifier NAME is not unique.	Amend Record identifier NAME to be unique.	Part 3 (2.2)	C	Wierdly there is no reference to creating a NAME within S-101. Need to track down how this is done and create a new check		
For each RCNM where the value is not in table 2.2 S-101	Invalid value of RCNM	Amend RCNM value	Part 3 (2.2.1)	C	This table no longer exists in S-100 – Delete Check		
For each RCID which is Less than 1 OR Greater than 2^{32} (4294967294).	RCID is out of range.	Amend RCID value.	S-100 Part 10a-3.4	C	Keep	Same wording as S-58	

However, because there was no resource available to do the work, there has been no progress on S-101 validation. In general, the lack of resources to perform some of the fundamental work has slowed the progress of S-101.

Recommendations

In order to progress the work there are potential two paths forward:

1. Establish a sub project team to work on the S-101 validation checks and deliver a draft at the next S-101 Project Team meeting.
2. Establish a Statement of Work and ask a member state to contract out the development of the S-101 validation checks to an interested part – as many times, there may be more funding resources than people resources.

Action Required of S101PT

The S101PT is invited to:

    a. discuss the recommendations provided in this paper:

    b. agree to establishing a sub project team

    c. investigate funding possibilities within their organizations to move this work forward