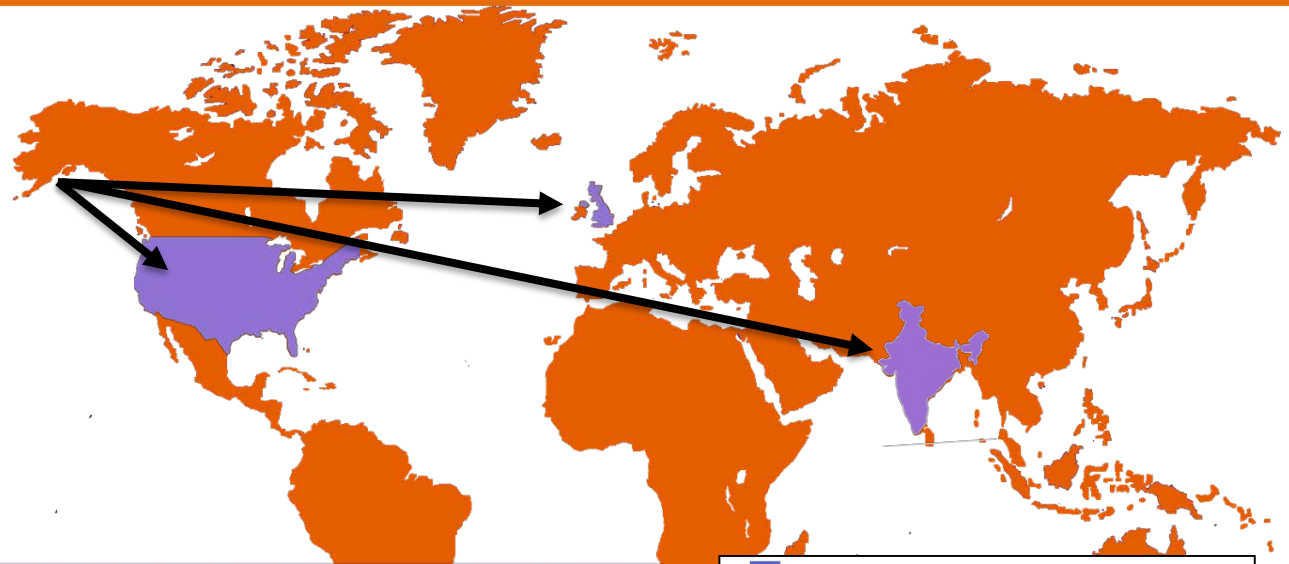


# LDRA



Provider of Software Quality, Compliance Management & Testing Solutions

Established 1975

ISO 9001 certified company

Certified for use in safety related software development according to IEC 61508, EN 50128 & ISO 26262

Active participants in standards e.g. DO-178C, MISRA C/C++, CERT

**CERTIFICATE**  
No. Z10 13 08 84753 001

**Holder of Certificate:** LDRA Ltd.  
Portside, Monks Ferry  
Wirral  
Merseyside CH41 5LH  
UNITED KINGDOM

**Factory(ies):** 84753

**Certification Mark:** 

**Product:** Software Tool for Safety Related Development

**Model(s):** LDRA Tool Suite  
LDRArules  
LDRAcover  
LDRAunit

**Parameters:** The certified tools, classified T2, fulfil the requirements for support tools according to IEC 61508-3 and EN 50128. The tools are qualified to be used in safety-related software development according to IEC 61508, EN 50128 and ISO 26262.  
The test report is a mandatory part of this certificate.

**Tested according to:** IEC 61508-3:2010  
ISO 26262-6:2011  
EN 50128:2011

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

**Test report no.:** LW85043C

**Date:** 2013-08-28  
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*Guido Neumann*  
(Guido Neumann)



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ZERTIFIKAT ♦ CERTIFICATE ♦ 證書註冊 ♦ CERTIFICADO ♦ CERTIFICAT

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TÜV®

# Save Time Performing Verification Activities

- Link requirements to the implemented software
- Verify traceability with both functional and automated unit tests
- Automate software analysis with coding standards adherence, code coverage, quality metrics and data/control flow analysis
- Meet safety, security, and coding standards compliance such as MISRA, CERT C, DO-178B/C, ISO 26262, IEC 62304 and IEC 61508



# Linking Your Requirements

The screenshot displays the LDRA TBmanager 9.5.1 interface. On the left, a sidebar shows the project structure for 'Tunnel\_Lighting\_System'. The main window shows a list of requirements, with 'TLS-105 - Cleanliness Factor' selected. A detailed view of this requirement is shown below, including its description: 'A percentage cleanliness factor shall be calculated depending on the build up of grime; 100% shall represent complete cleanliness. The rate of grime accumulation has been calculated by Waveworks Research Labs, their figures indicate a reduction to 50% over a period of 182 days'. A purple arrow points from this description to the 'Map Source' window. The 'Map Source' window shows a list of source code files, with 'TunnelData: SystemData: GetSoilingFactor' selected. The 'TCI Grid' window shows a table of test cases, including 'TCI\_0020: Generated lamp output data will indicate that the tunnel lighting software has accepted the photometer input value as one in the acceptable range (4-20 mA)...'. The 'Relationships' window shows the mapping between requirements and test cases.

Reduce time and effort by mapping requirements to the source code for automatic verification

# For Further Information:

[www.ldra.com](http://www.ldra.com)

[info@ldra.com](mailto:info@ldra.com)



@ldra\_technology



LDRA Software Technology



LDRA Limited



Delivering Software Quality and Security through  
Test, Analysis & Requirements Traceability