**Boundary Element Method Open Source Software in Matlab**

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| File / Module(s) | [OkGeometry2lc\_tests.m](http://www.boundary-element-method.com/mfiles/OkGeometry2lc.m)/ OkGeometry2lc.bas |
| Title | A set of tests to verify the geometrical input to codes for computing the discrete operators in the boundary element method. |
| Version(Date) and History | **1.** (September 2015). |
| Description | A test file for [OkGeometry2lc.m](http://www.boundary-element-method.com/mfiles/OkGeometry.m) . |
| Interface | function [passed]=OkGeometry2lc(p, vecp, qa, qb, lponel, tolGeom)  p,qa,qb are 1⨯2 real vectors, vecp is a 2⨯1 real vector, lponel is Boolean, tolGeom is real |
| Web source of code. | <http://www.boundary-element-method.com/mfiles/OkGeometry2lc_tests.m> |
| Web source of this guide | <http://www.boundary-element-method.com/mfiles/OkGeometry2lc_tests_m.pdf> |
| Web source of the algorithm | Not Applicable |
| Dependent routines | Utility routines for 2D geometry: [vecsize.m](http://www.appliedmathematics.info/software/mfiles/vecsize.m), [norm2.m](http://www.appliedmathematics.info/software/mfiles/norm2.m), [dist.m](http://www.appliedmathematics.info/software/mfiles/dist.m), |
| Test problems or modules tested | <http://www.boundary-element-method.com/mfiles/OkGeometry2lc.m> |
| Licence | This is ‘open source’; the software may be used and applied within other systems as long as its provenance is appropriately acknowledged. See the [GNU Licence](http://www.gnu.org/licenses/lgpl.txt) for more information or contact [webmaster@boundary-element-method.com](mailto:webmaster@boundary-element-method.com) . |
| Codes that this may be used alongside this one | Not applicable |
| Similar codes that may be of interest | A similar Fortran code is available:  <http://www.boundary-element-method.com/fortran/VG2LC_TESTS.FOR>  A similar code in Excel VBA is available:  [www.boundary-element-method.com/Excel\_VBA/OkGeometry2lc.xlsm](http://www.boundary-element-method.com/Excel_VBA/OkGeometry2lc.xlsm) |
| Applications | Not applicable |
| Author | [Stephen Kirkup](https://www.researchgate.net/profile/Stephen_Kirkup) |
| References | 1. [Fortran Codes for Computing the Discrete Helmholtz Integral Operators](https://www.researchgate.net/publication/226512392_Fortran_codes_for_computing_the_discrete_Helmholtz_integral_operators)  2. [www.boundary-element-method.com](http://www.boundary-element-method.com)  3. [Vector Arithmetic and Geometry](http://www.appliedmathematics.info/tutorials/Vector%20Geometry.htm)  4. [Introduction to Matlab/Freemat/Octave/Scilab](http://www.freemat.info) |