



## Copyright Disclosure

C Number:  
(TT use only)

C11063

**Instructions:** When completed, submit to the Technology Transfer Division, Copyright Team MS C333,  
Phone 5-6846, Fax 5-3125.

<b>1. Copyright Name :</b> [If software, list name (acronym, If applicable), version no. Ex: Electronic Chemical Database (ECD), Vers.1.0] Walkabout Version 1.0beta			
Is this a beta test version?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Version date: 2/28/2011
<b>2. External Contributions</b>			
<input type="checkbox"/> (a) Incorporated copyrights: Code obtained from the Internet, canned copyright systems, etc. Attach a copy of the copyright notice(s) for each.			
Copyright name: _____		Copyright Owner: _____	How Obtained: _____
Copyright name: _____		Copyright Owner: _____	How Obtained: _____
<input type="checkbox"/> (b) Non-LANS/LANL authors (contractors, industrial partners, certain students). Attach individual's employment agreement.			
Name _____		Employer _____	Name _____
Employer _____		Employer _____	
<b>3. Documentation</b> Is there a user guide or installation instructions with "help" file?			
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Under development		If under development, estimated date of completion: March 31, 2011	
<b>4. Specifics</b> <input checked="" type="checkbox"/> Software <input type="checkbox"/> Firmware <input type="checkbox"/> Artwork <input type="checkbox"/> Schematics			
If software, provide:			
Computer Platform: Various		Programming Language: Fortran 95	Operating System: Mac OS X, Linux
<b>5. Funding</b>			
Copyright Development Program and B&R Codes	Fiscal year	FY2011	
	Program Code(s)	SAAT CODE 0000	
	Corresponding B&R Code(s)		
Major funding source (DOE, DoD, etc.): DOE (ex. ASC, DHS, LDRD, NIH, OASCR)			
Did this invention result from some type of collaborative arrangement (CRADA, FIA, etc.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If yes, please list: Agreement Number: _____		Company Name: _____	
<b>6. Classification and Export Control Reviews (S-7)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, date: _____			
Los Alamos Computer Code (LA-CC) Number: _____			
Export Control Classification Number (ECCN): _____			
<b>7. LANS/LANL Authors:</b> (Staff Member, Post doc, GRA, etc.) Note that the employee Z number and country of citizenship are required. If needed, attach list of additional authors listing the same information.			
(a) Printed Name Scott Painter	Position Scientist 4	Signature 	Date 3/2/2011
Home Address 927 Alto St., Unit C; Santa Fe, NM 87501		Z Number 228109	Division & Group EES-16
			Country of Citizenship USA/Australia
(b) Printed Name	Position	Signature	Date
Home Address		Z Number	Division & Group
			Country of Citizenship
<b>8. Abstract:</b> Attach a brief description of the software and its functionality, such that someone who is not familiar with the code can understand.			
<b>9. Commercial Potential</b>			
Does the software (or document) have commercial potential?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, attach explanation.
<b>10. Certification</b>			
I certify that the information contained in this disclosure is accurate to the best of my knowledge. I understand that I will probably be requested to submit source code and documentation to TT in order for TT to fulfill the DOE order to submit all copyright asserted software to ESTSC.			
Copyright Steward (LANS/LANL employee responsible for managing the code)			
Printed Name Scott Painter	Z Number 228109	Signature 	Date 3-3-2011
Approval/Signature (Steward's Line Manager or Group Leader)			
Printed Name and Title Frank Perry, Acting Group Leader	Signature 		Date 3/3/2011

**ABSTRACT:** Walkabout simulates the movement of flow tracers or passive solutes in the subsurface. The random walk particle-tracking algorithm is used. A unique aspect of the code is the ability to accommodate fully unstructured control volume grids. Two classes of applications are envisioned: assessments of risks associated with migrating contaminants in the subsurface, and establishing flow streamlines for use in petroleum reservoir simulation.

**COMMERCIAL POTENTIAL:** Streamline simulation is increasingly popular strategy for evaluating petroleum reservoir performance. Walkabout can reconstruct flow streamlines using flow solutions obtained on fully unstructured grids. This capability has commercial potential in the petroleum industry.