**CHANGE Model Guide**

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1. **Installation**

Step1: Download and install "Visual C++ Redistributable for Visual Studio 2012" 32 bit from

<http://www.microsoft.com/en-us/download/details.aspx?id=30679>

Step2: Click and install setup.exe.

Step3: Open the command prompt window in DOS environment.

Step4: Trace the installation directory or C:\Program Files (x86)\SDSU\change0.1 (if chose default setup) from command window.

Step5: Type "Lads\_Forsce.exe test" and press Enter. The model should run.

2/12/14 by Zhihua

Description for parameters for Lads\_Forsce.exe

1. GIS files
   1. Buffer.gis: 0-background; 1-core simulation area; 2-buffer
   2. community.gis: community type map
   3. elevation.gis: elevation map
   4. initage.gis: initial age for each community type map
   5. inithni.gis: initial human natural interface map, 0- background; 1-nonhni;2-hni
   6. initstate.gis: initial successional stage map
   7. inittsfire.gis: initial years since last fire map
   8. landtype.gis: land type map
   9. lcc.gis: initial land cover type map
   10. management.gis: forest management map
   11. ownership.gis: land ownership map
   12. regime.gis: fire regime map
2. probability surface GIS file
   1. prob0.gis: probability surface for water
   2. prob1.gis: probability surface for ice\snow
   3. prob2.gis: probability surface for developed
   4. prob3.gis: probability surface for barren
   5. prob4.gis: probability surface for Deciduous Forest
   6. prob5.gis: probability surface for Evergreen Forest
   7. prob6.gis: probability surface for Shrub/Scrub
   8. prob7.gis: probability surface for Grassland/Herbaceous
   9. prob8.gis: probability surface for Pasture/Hay
   10. prob9.gis: probability surface for Cultivated Crops
   11. prob10.gis: probability surface for heberous wetland
   12. prob11.gis: probability surface for woody wetland
   13. prob12.gis: probability surface for hni
3. demand files
   1. demand0.csv to demand8.csv represent 2005-2010 to 2045 to 2050
   2. in each demand table, the sequence for demand is the same for probability surface
   3. row represents FROM class, and column represents END class
4. parameter files
   1. test.ctp: parameters for community types map
   2. test.dmd: demand file description
   3. test.fre: parameters for fire regime map
   4. test.hni: parameters for human natural interface map
   5. test.hrv: harvest prescription
   6. test.in: initial main parameters
   7. test.lcc: parameters for initial land cover class
   8. test.lnd: parameters for land type map
   9. test.own: parameters for land ownership
   10. test.prb: probability threshold for conversion
   11. test.pts: spatial constraints for land cover change and patch shape
5. output files:
   1. test*0-8* : successional stage output
   2. test*50-58* : HNI output
   3. test*91-99* : land cover class output