

LANDIS-II

Getting Started

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LANDIS-II

The purpose of this slide show is to enable new users to quickly start using the model.

More advanced topics are covered elsewhere as slide shows, wikis, user guides (PDF), and in the published literature.

LANDIS-II

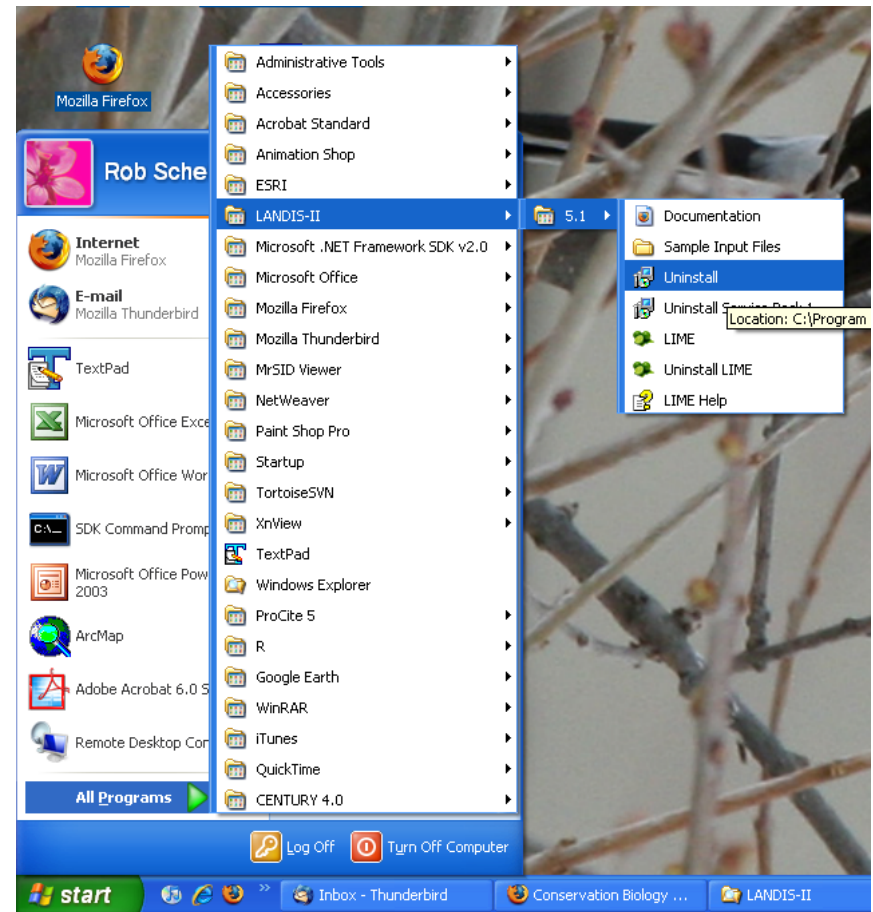
There is currently only a single supported interface for LANDIS-II:

Console and Text Files

Using the Console and Text Files

Inputs to LANDIS-II are stored in text files. These can be edited with any text editor (e.g., NotePad).

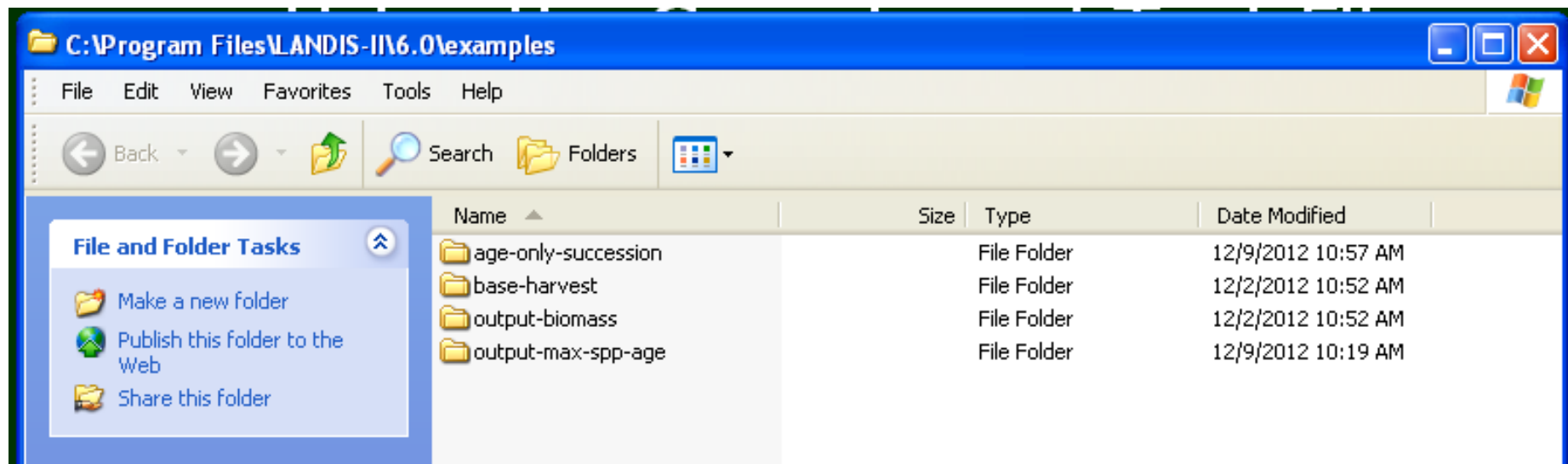
After you have installed LANDIS-II, example files are provided:



Using the Console and Text Files

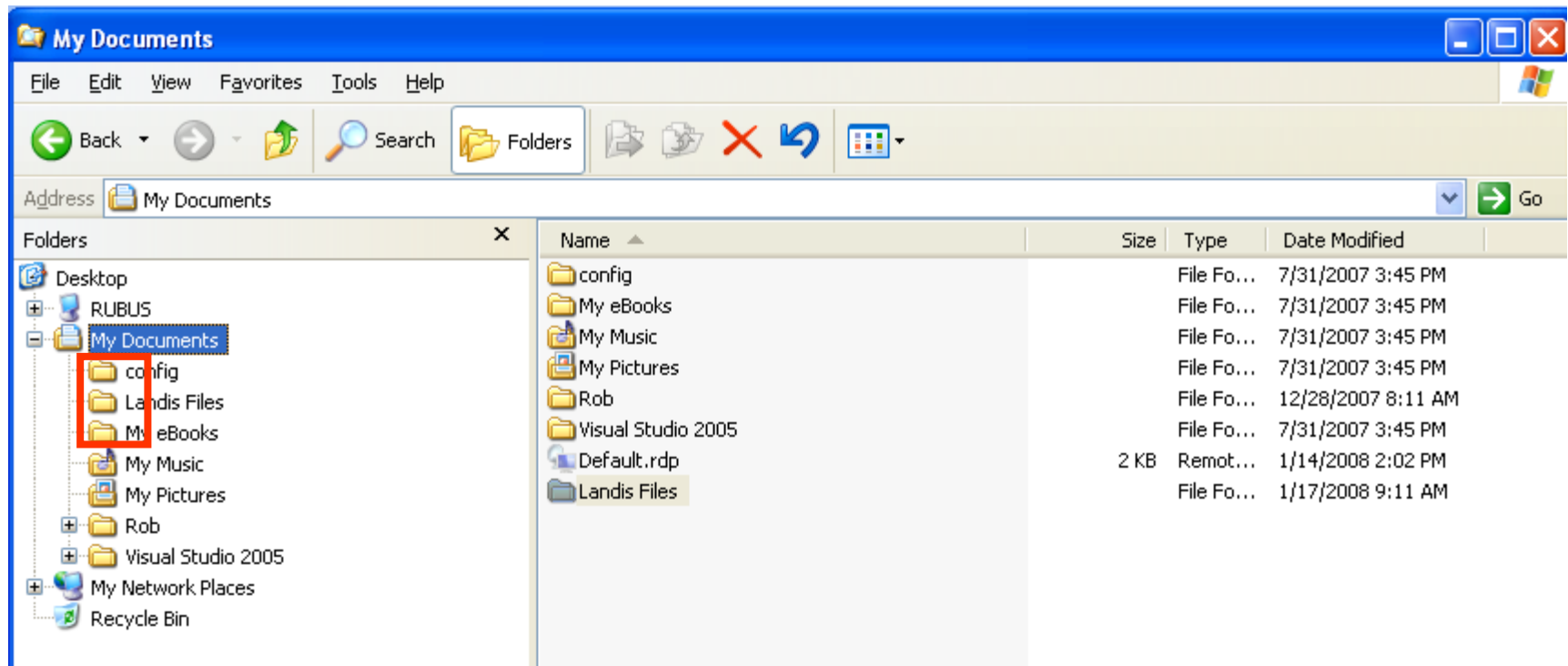
Inputs to LANDIS-II are stored in text files. These can be edited with any text editor (e.g., NotePad).

After you have installed *extensions* for LANDIS-II, example files are provided for each extension:



Using the Console and Text Files

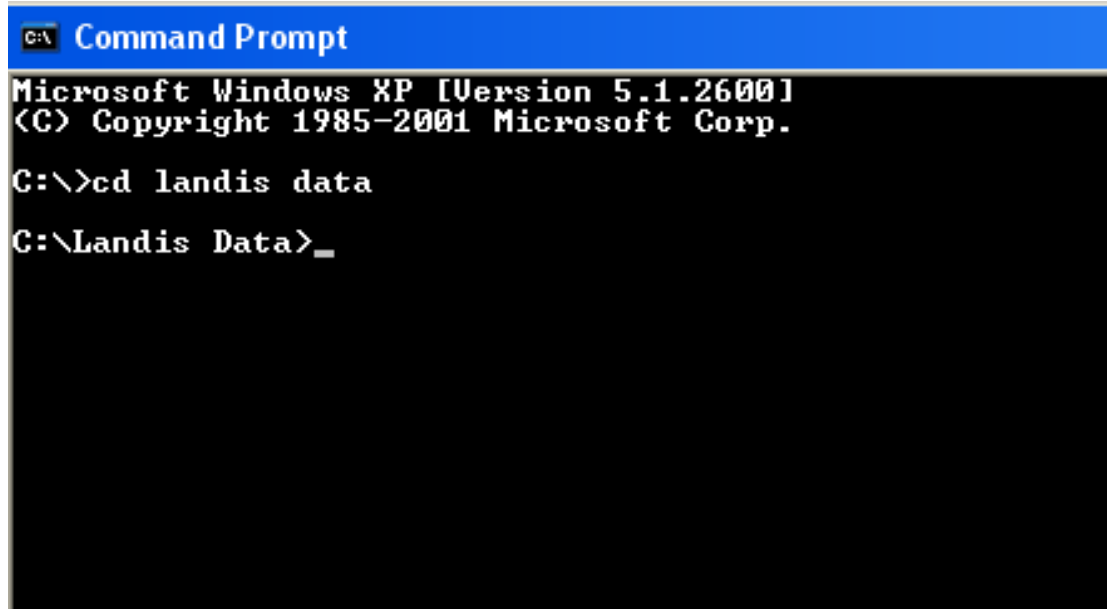
We recommend copying these files into a working directory.



Using the Console and Text Files

To run a scenario file,
open a DOS
(‘Command’) prompt.

Navigate to the
folder containing
your example files.

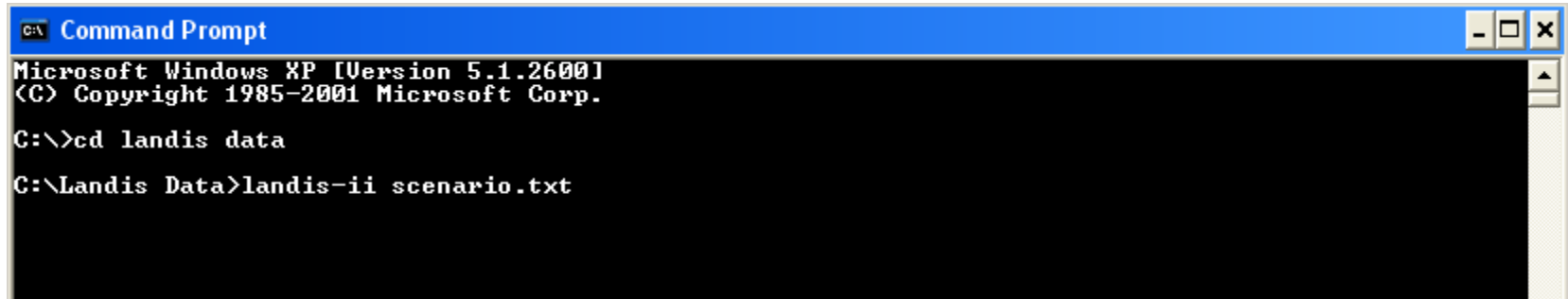
A screenshot of a Windows XP Command Prompt window. The title bar is blue and says "C:\ Command Prompt". The window content is black with white text. It shows the Microsoft Windows XP version (5.1.2600) and copyright information (1985-2001 Microsoft Corp.). The command prompt shows the user at the C:\ root directory, typing "cd landis data" and pressing enter, which results in the prompt moving to "C:\Landis Data>".

```
C:\ Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\>cd landis data
C:\Landis Data>_
```

Using the Console and Text Files

Type 'landis-ii scenario.txt'



```
C:\> Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\>cd landis data
C:\Landis Data>landis-ii scenario.txt
```


Using the Console and Text Files

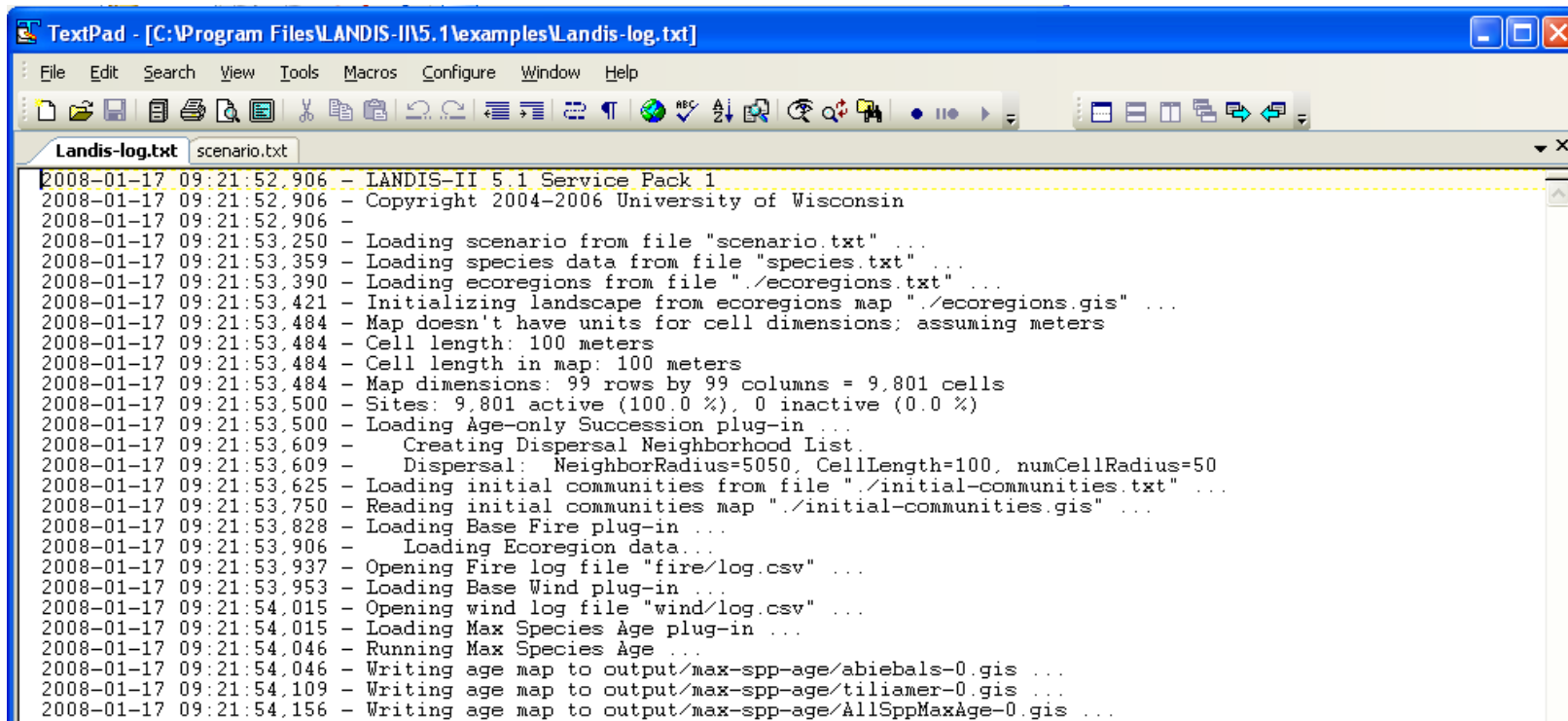
The model will run within the command window.

```
CA Command Prompt - landis-ii scenario.txt
C:\Program Files\LANDIS-II\5.1\examples>landis-ii scenario.txt
LANDIS-II 5.1 Service Pack 1
Copyright 2004-2006 University of Wisconsin

Loading scenario from file "scenario.txt" ...
Loading species data from file "species.txt" ...
Loading ecoregions from file ".\ecoregions.txt" ...
Initializing landscape from ecoregions map ".\ecoregions.gis" ...
Map doesn't have units for cell dimensions; assuming meters
Cell length: 100 meters
Cell length in map: 100 meters
Map dimensions: 99 rows by 99 columns = 9,801 cells
Sites: 9,801 active (100.0 %), 0 inactive (0.0 %)
Loading Age-only Succession plug-in ...
  Creating Dispersal Neighborhood List.
  Dispersal: NeighborRadius=5050, CellLength=100, numCellRadius=50
Loading initial communities from file ".\initial-communities.txt" ...
Reading initial communities map ".\initial-communities.gis" ...
Loading Base Fire plug-in ...
  Loading Ecoregion data...
Opening Fire log file "fire/log.csv" ...
Loading Base Wind plug-in ...
Opening wind log file "wind/log.csv" ...
Loading Max Species Age plug-in ...
Running Max Species Age ...
Writing age map to output/max-spp-age/abiebals-0.gis ...
Writing age map to output/max-spp-age/tiliamer-0.gis ...
Writing age map to output/max-spp-age/AllSppMaxAge-0.gis ...
Current time: 5
Running Base Wind ...
Processing landscape for wind events ...
  Wind events: 4
Writing wind severity map to wind/severity-5.gis ...
Running Age-only Succession ...
Current time: 10
Running Base Wind ...
Processing landscape for wind events ...
  Wind events: 4
Writing wind severity map to wind/severity-10.gis ...
Running Base Fire ...
Processing landscape for Fire events ...
Writing Fire severity map to fire/severity-10.gis ...
Running Age-only Succession ...
Ageing cohorts ...
% done: 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Progress: ++++++
Computing shade ...
% done: 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Progress: ++++++
Cohort reproduction ...
% done: 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Progress: ++++++
Current time: 15
Running Base Wind ...
Processing landscape for wind events ...
  Wind events: 4
Writing wind severity map to wind/severity-15.gis ...
Running Age-only Succession ...
```

Using the Console and Text Files

The model always generates a log file: LandisLog.txt.

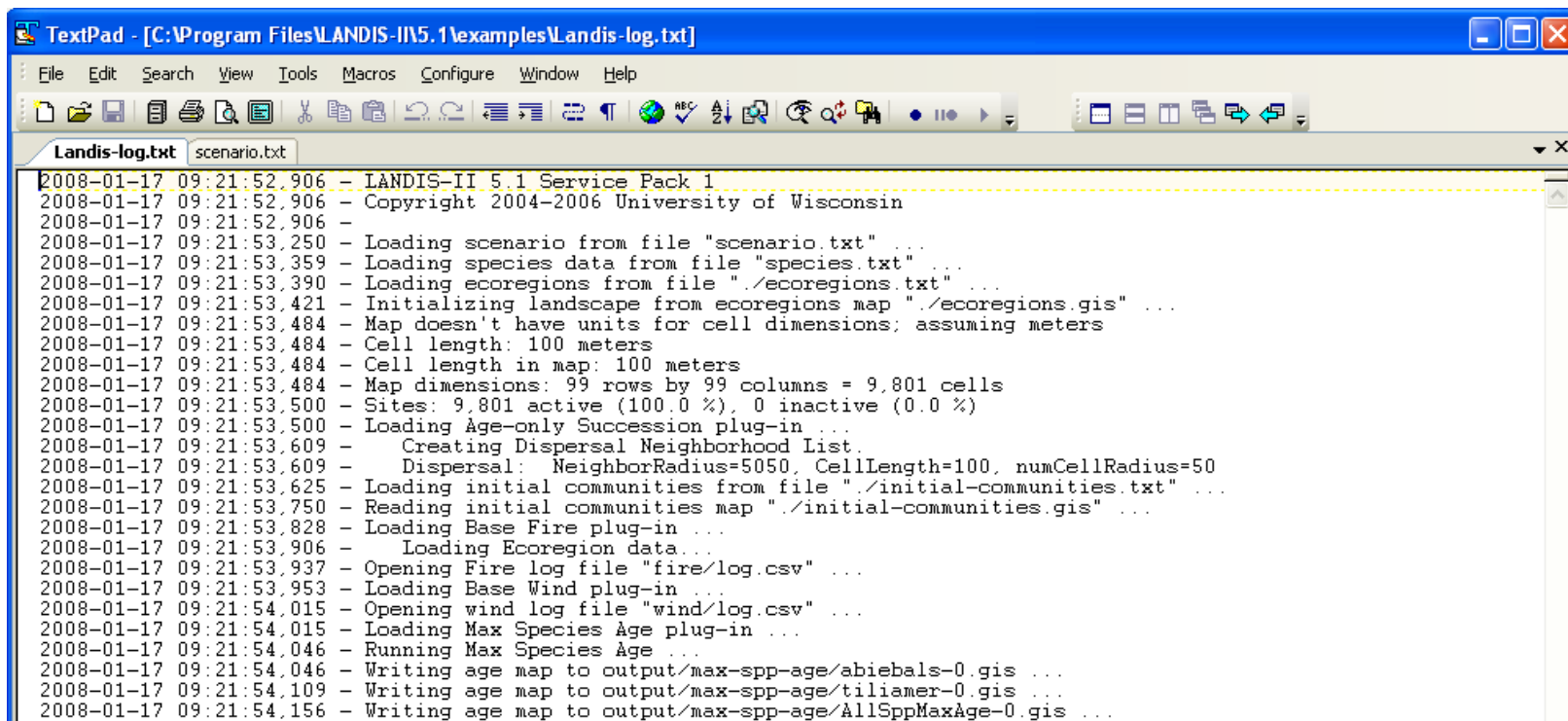


```
TextPad - [C:\Program Files\LANDIS-II\5.1\examples\Landis-log.txt]
File Edit Search View Tools Macros Configure Window Help
Landis-log.txt scenario.txt
2008-01-17 09:21:52.906 - LANDIS-II 5.1 Service Pack 1
2008-01-17 09:21:52.906 - Copyright 2004-2006 University of Wisconsin
2008-01-17 09:21:52.906 -
2008-01-17 09:21:53.250 - Loading scenario from file "scenario.txt" ...
2008-01-17 09:21:53.359 - Loading species data from file "species.txt" ...
2008-01-17 09:21:53.390 - Loading ecoregions from file "../ecoregions.txt" ...
2008-01-17 09:21:53.421 - Initializing landscape from ecoregions map "../ecoregions.gis" ...
2008-01-17 09:21:53.484 - Map doesn't have units for cell dimensions; assuming meters
2008-01-17 09:21:53.484 - Cell length: 100 meters
2008-01-17 09:21:53.484 - Cell length in map: 100 meters
2008-01-17 09:21:53.484 - Map dimensions: 99 rows by 99 columns = 9.801 cells
2008-01-17 09:21:53.500 - Sites: 9.801 active (100.0 %), 0 inactive (0.0 %)
2008-01-17 09:21:53.500 - Loading Age-only Succession plug-in ...
2008-01-17 09:21:53.609 - Creating Dispersal Neighborhood List.
2008-01-17 09:21:53.609 - Dispersal: NeighborRadius=5050, CellLength=100, numCellRadius=50
2008-01-17 09:21:53.625 - Loading initial communities from file "../initial-communities.txt" ...
2008-01-17 09:21:53.750 - Reading initial communities map "../initial-communities.gis" ...
2008-01-17 09:21:53.828 - Loading Base Fire plug-in ...
2008-01-17 09:21:53.906 - Loading Ecoregion data...
2008-01-17 09:21:53.937 - Opening Fire log file "fire/log.csv" ...
2008-01-17 09:21:53.953 - Loading Base Wind plug-in ...
2008-01-17 09:21:54.015 - Opening wind log file "wind/log.csv" ...
2008-01-17 09:21:54.015 - Loading Max Species Age plug-in ...
2008-01-17 09:21:54.046 - Running Max Species Age ...
2008-01-17 09:21:54.046 - Writing age map to output/max-spp-age/abiebals-0.gis ...
2008-01-17 09:21:54.109 - Writing age map to output/max-spp-age/tiliamer-0.gis ...
2008-01-17 09:21:54.156 - Writing age map to output/max-spp-age/AllSppMaxAge-0.gis ...
```

Using the Console and Text Files

If the model stops running for any reason, check the log file first.

Also, when reporting problems, always send the log file.

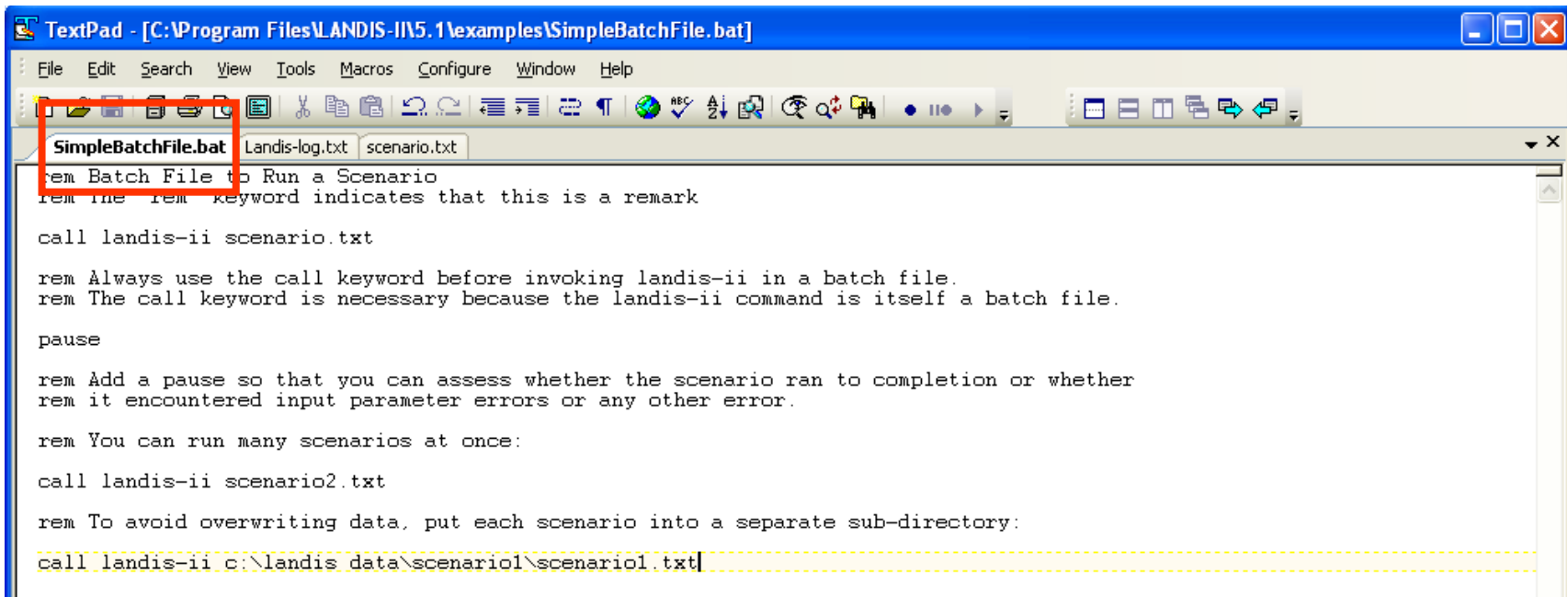


The screenshot shows a TextPad window titled "TextPad - [C:\Program Files\LANDIS-II\5.1\examples\Landis-log.txt]". The window contains a log file with the following content:

```
Landis-log.txt scenario.txt
2008-01-17 09:21:52.906 - LANDIS-II 5.1 Service Pack 1
2008-01-17 09:21:52.906 - Copyright 2004-2006 University of Wisconsin
2008-01-17 09:21:52.906 -
2008-01-17 09:21:53.250 - Loading scenario from file "scenario.txt" ...
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2008-01-17 09:21:53.609 - Creating Dispersal Neighborhood List.
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2008-01-17 09:21:54.046 - Running Max Species Age ...
2008-01-17 09:21:54.046 - Writing age map to output/max-spp-age/abiebals-0.gis ...
2008-01-17 09:21:54.109 - Writing age map to output/max-spp-age/tiliamer-0.gis ...
2008-01-17 09:21:54.156 - Writing age map to output/max-spp-age/AllSppMaxAge-0.gis ...
```

Using Text Files with Batch Files

Alternatively, you can run a scenario with a batch file – a small DOS program.



```
TextPad - [C:\Program Files\LANDIS-II\5.1\examples\SimpleBatchFile.bat]
File Edit Search View Tools Macros Configure Window Help
SimpleBatchFile.bat Landis-log.txt scenario.txt
rem Batch File to Run a Scenario
rem The rem keyword indicates that this is a remark

call landis-ii scenario.txt

rem Always use the call keyword before invoking landis-ii in a batch file.
rem The call keyword is necessary because the landis-ii command is itself a batch file.

pause

rem Add a pause so that you can assess whether the scenario ran to completion or whether
rem it encountered input parameter errors or any other error.

rem You can run many scenarios at once:

call landis-ii scenario2.txt

rem To avoid overwriting data, put each scenario into a separate sub-directory:
call landis-ii c:\landis_data\scenario1\scenario1.txt|
```

A batch file is a text file saved with the .bat extension.

Using Text Files with Batch Files

After your batch file is created, you can run it by double-clicking on it from a file browser.

A command prompt will automatically open and begin running the model.