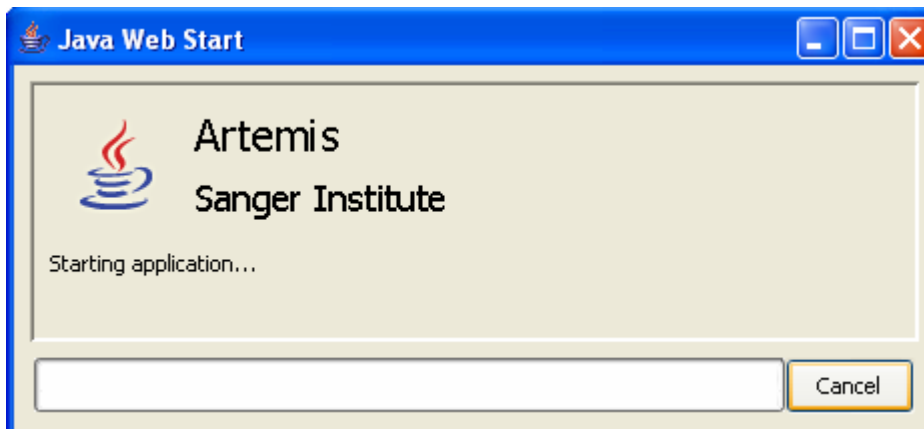


How to use the Artemis on Roseobase.org

Feng Sun, May 6, 2005

1. Go to Artemis page: <http://www.roseobase.org/artemis/>
2. Download the data you want to view by right click the link and save the target as a file.
3. Click “LAUNCH ARTEMIS” to launch it.

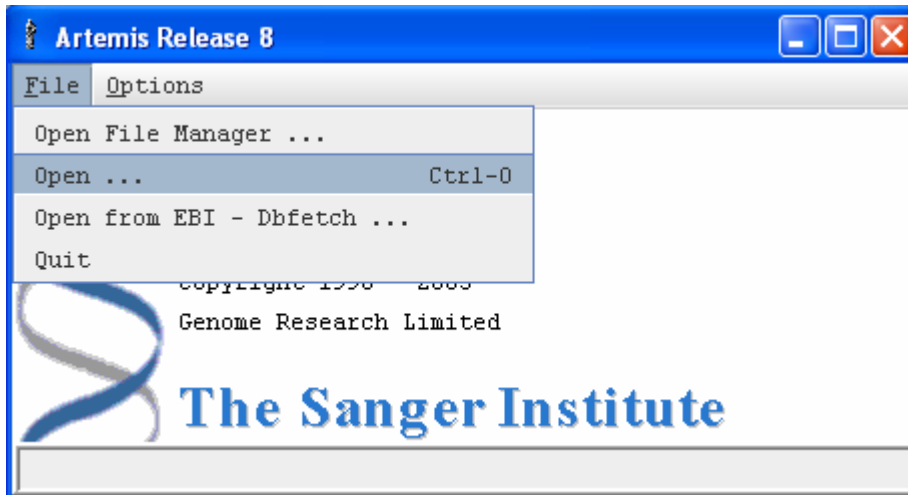
Depending on your network speed, it takes a few second to a few minutes to download the program.



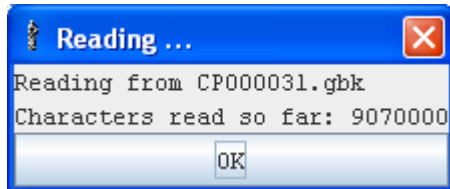
Click Yes when you see next page:



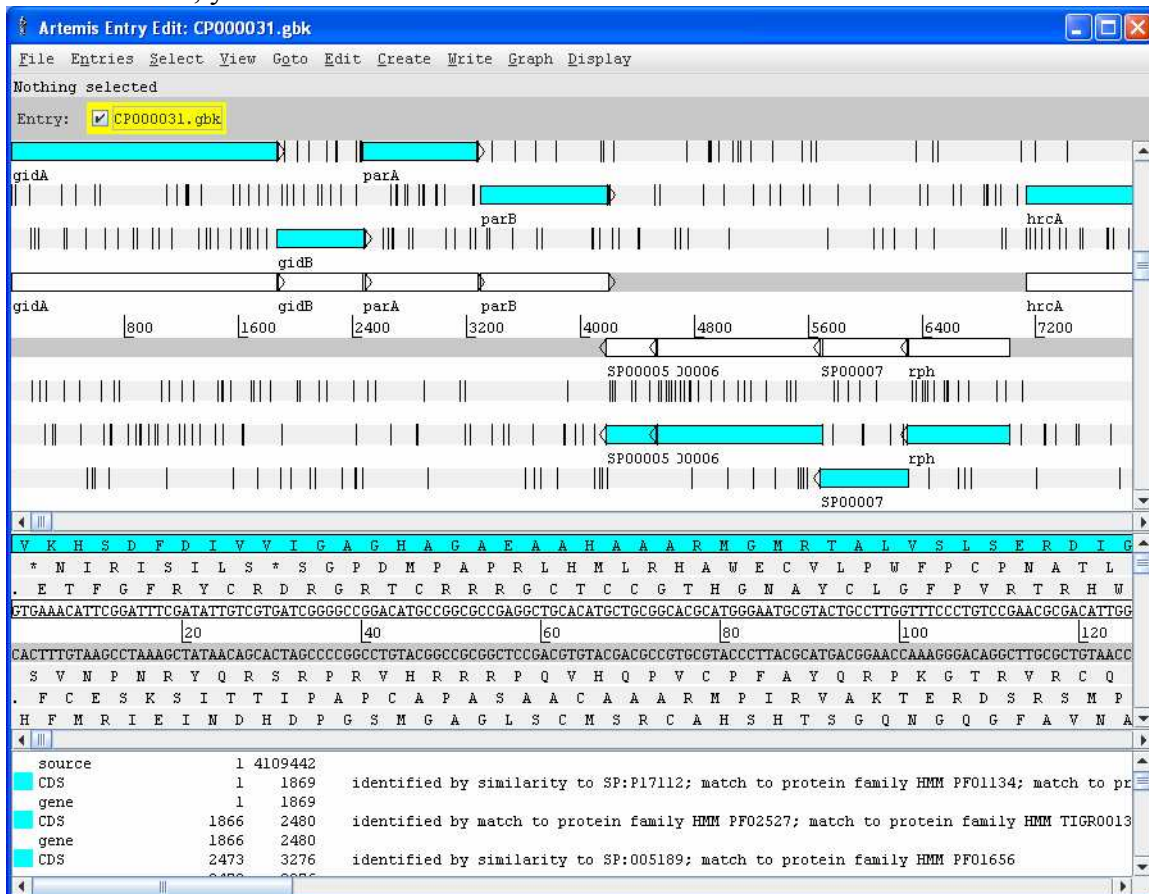
The program will be launched. Then click “File -> Open”, find the file you just downloaded and click open.



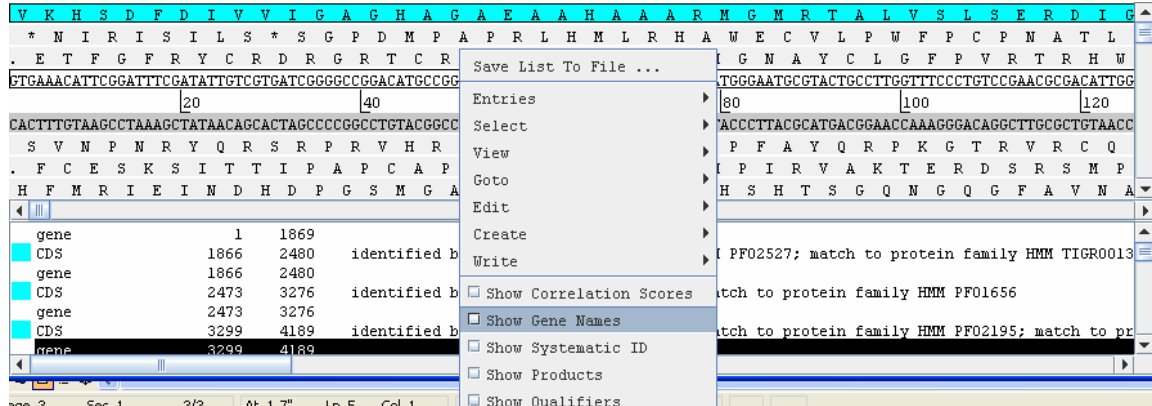
The next window shows the data loading process:



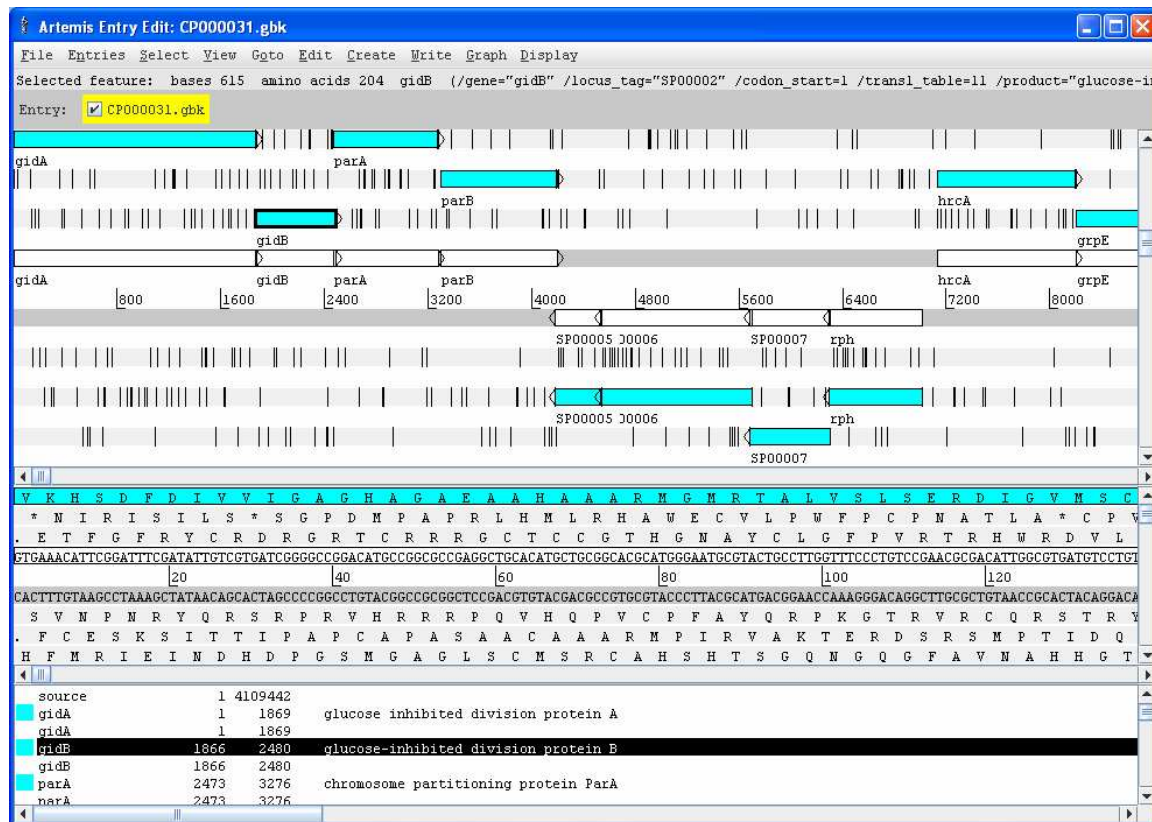
After it's done, you'll see the next window.



At the bottom, the panel shows annotation information. However, the default is not convenient because it tell us neither the protein products nor the gene name. So first we need to turn those two on. Right click the panel and then click “Show Gene Names”. Repeat and click “Show Products”.

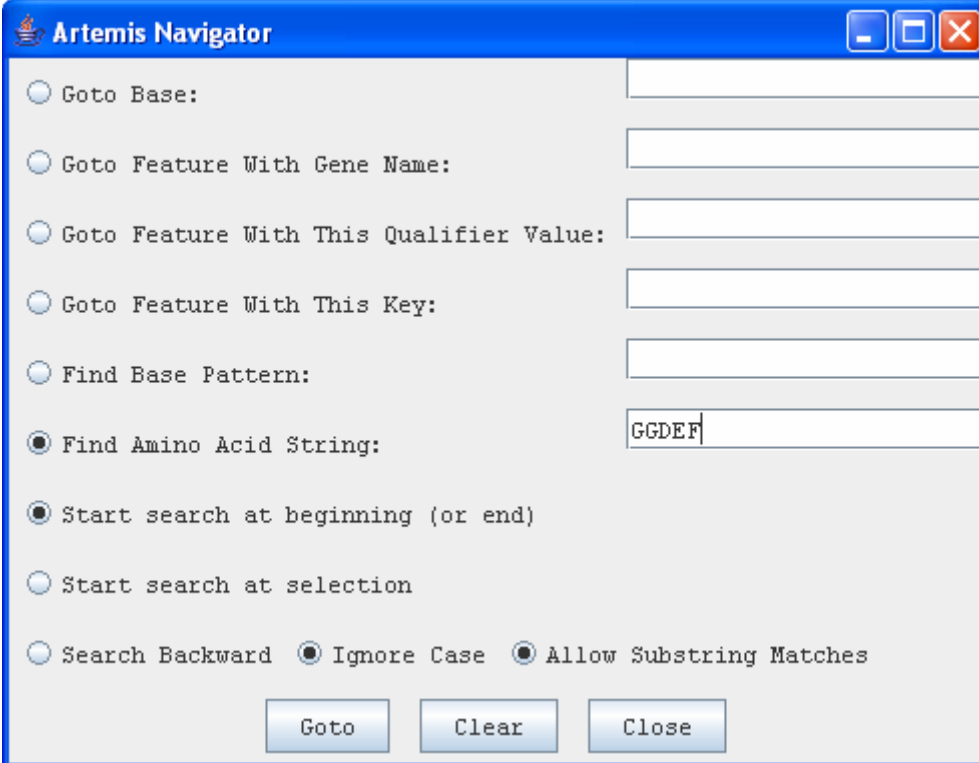


Now it looks like:



4. In this part, we show how to find a short sequence in the genome. For example, we want to locate “GGDEF”.

In the previous window, click menu “Goto -> Navigator”. In the window opened, check “Find Amino Acid String:” and then type GGDEF in the field after it. Then click “Goto”.



The image shows a window titled "Artemis Navigator" with a blue title bar and standard window controls (minimize, maximize, close). The window contains a search interface with the following elements:

- Radio buttons for search criteria:
 - Goto Base:
 - Goto Feature With Gene Name:
 - Goto Feature With This Qualifier Value:
 - Goto Feature With This Key:
 - Find Base Pattern:
 - Find Amino Acid String:
 - Start search at beginning (or end)
 - Start search at selection
 - Search Backward
 - Ignore Case
 - Allow Substring Matches
- Text input fields for each search criterion, with the "Find Amino Acid String:" field containing the text "GGDEF".
- Buttons at the bottom: "Goto", "Clear", and "Close".

The program will jump to the first “GGDEF” it finds:

Artemis Entry Edit: CP000031.gbk

File Entries Select View Goto Edit Create Write Graph Display

15 selected bases on forward strand: 1348933..1348947

Artemis Navigator

- Goto Base:
- Goto Feature With Gene Name:
- Goto Feature With This Qualifier Value:
- Goto Feature With This Key:
- Find Base Pattern:
- Find Amino Acid String: GGDEF
- Start search at beginning (or end)
- Start search at selection
- Search Backward Ignore Case Allow Substring Matches

Goto Clear Close

Genomic track showing features SP01284, SP01285, SP01286, SP01287, SP01288, SP01289. Amino acid sequence: G G G D E F D R L A G R D L A L H L V A E E V I P A G V M N S T V S P G E T L P C T S L Q R K * R R G * + I R P S R R A R P C P A P R C R G S D

Feature ID	Start	End	Strand	Description
SP01284	1348663	1349406	c	transcriptional regulator, ArsR family
SP01284	1348663	1349406	c	
SP01285	1349522	1350265	c	conserved hypothetical protein
SP01285	1349522	1350265	c	
SP01286	1350265	1351257	c	conserved hypothetical protein
SP01286	1350265	1351257	c	
SP01287	1351257	1351685	c	glyoxalase family protein

Please be aware that Artemis will search in all six frames. So it will find more instances than just do a scan of the coding sequences in the genome.