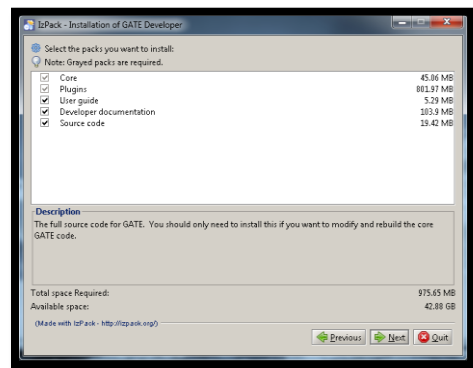
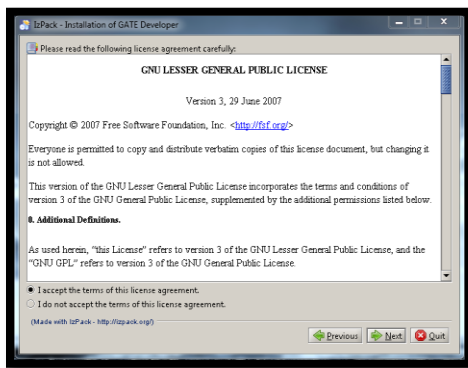
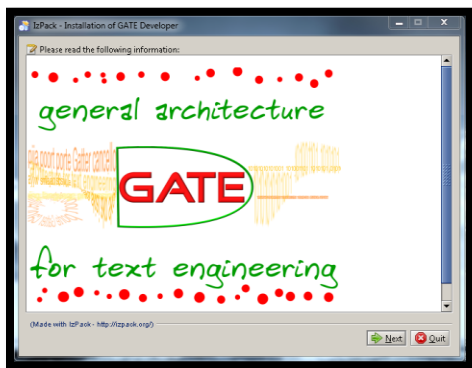
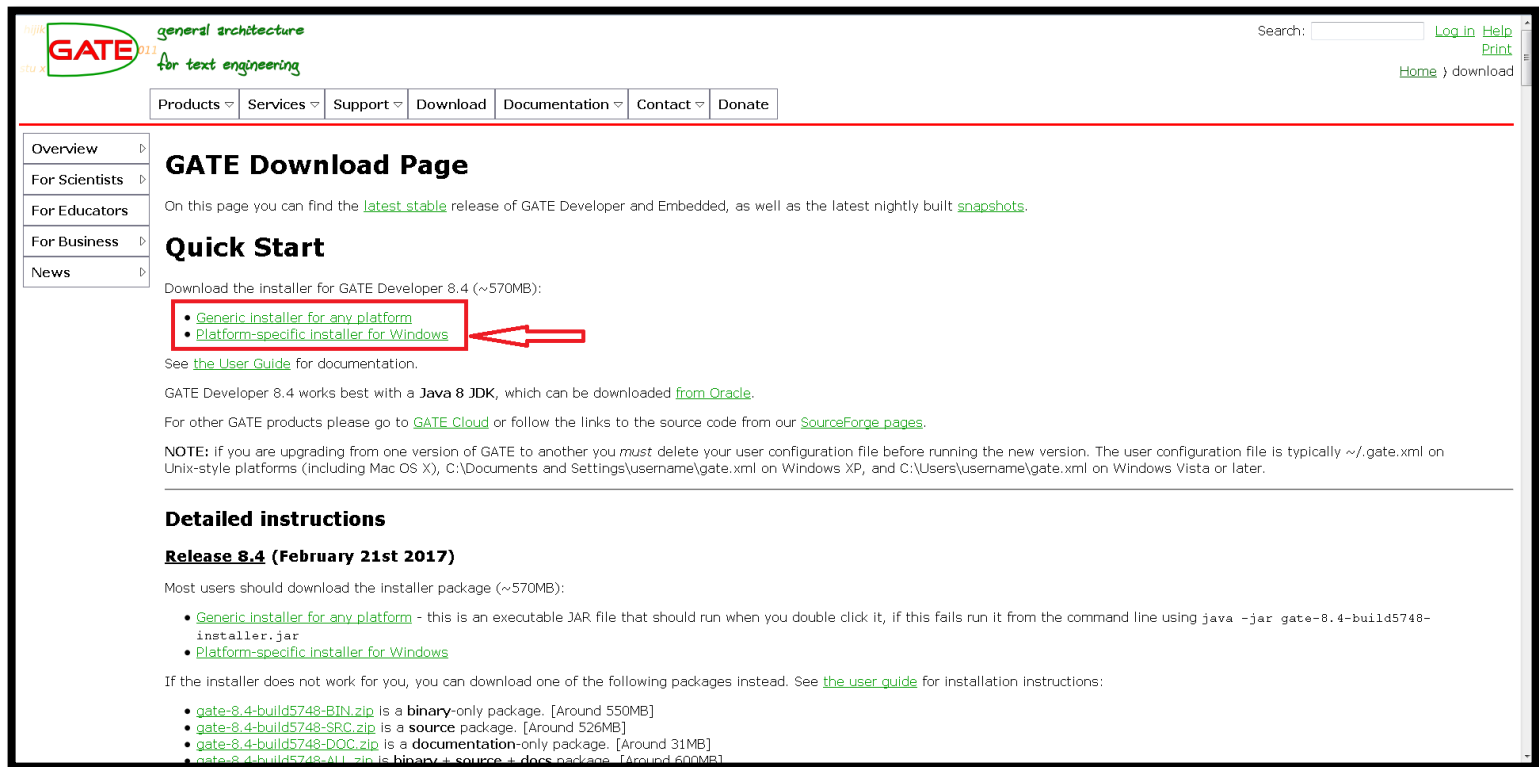
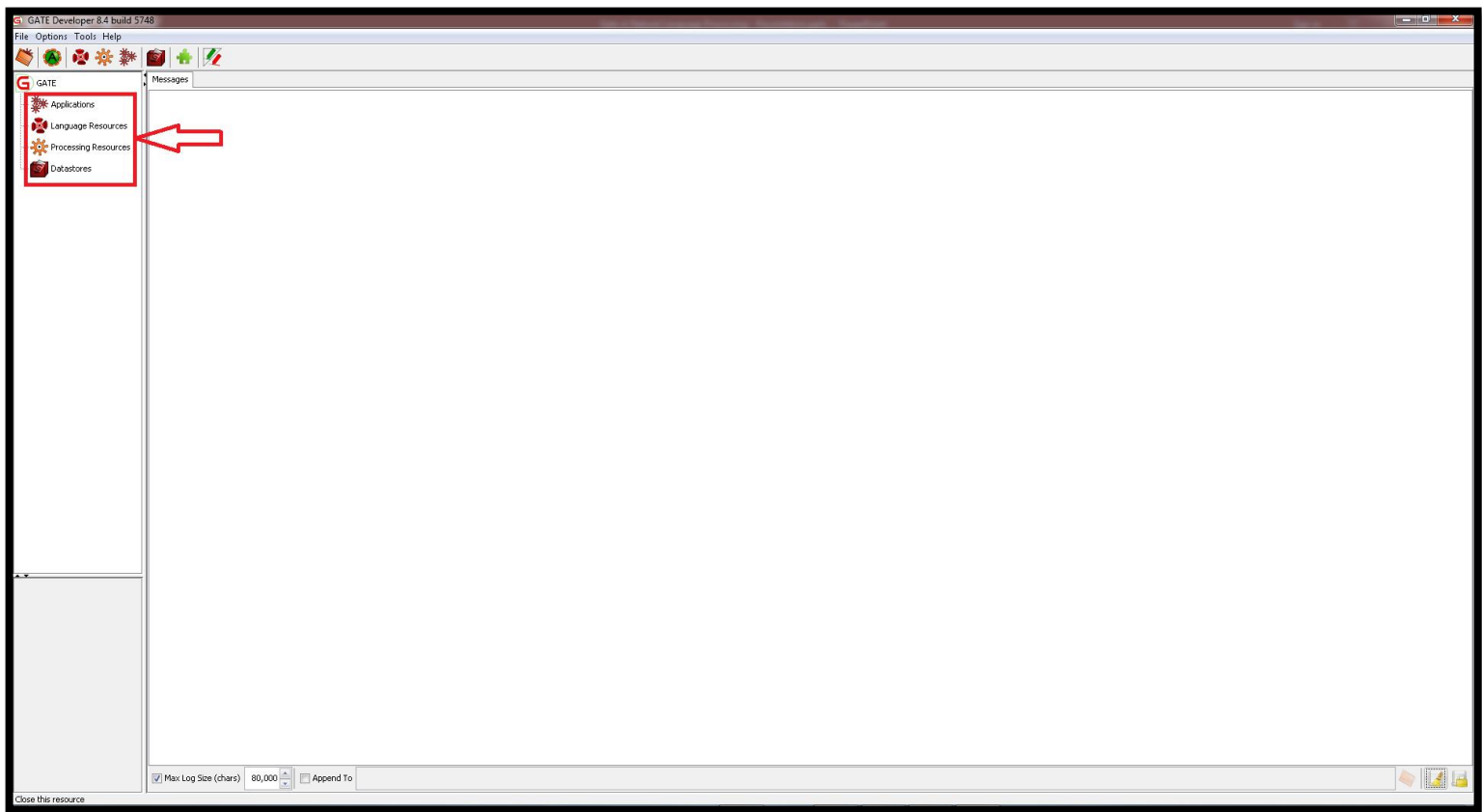


## Report on how to install and use Gate Developer

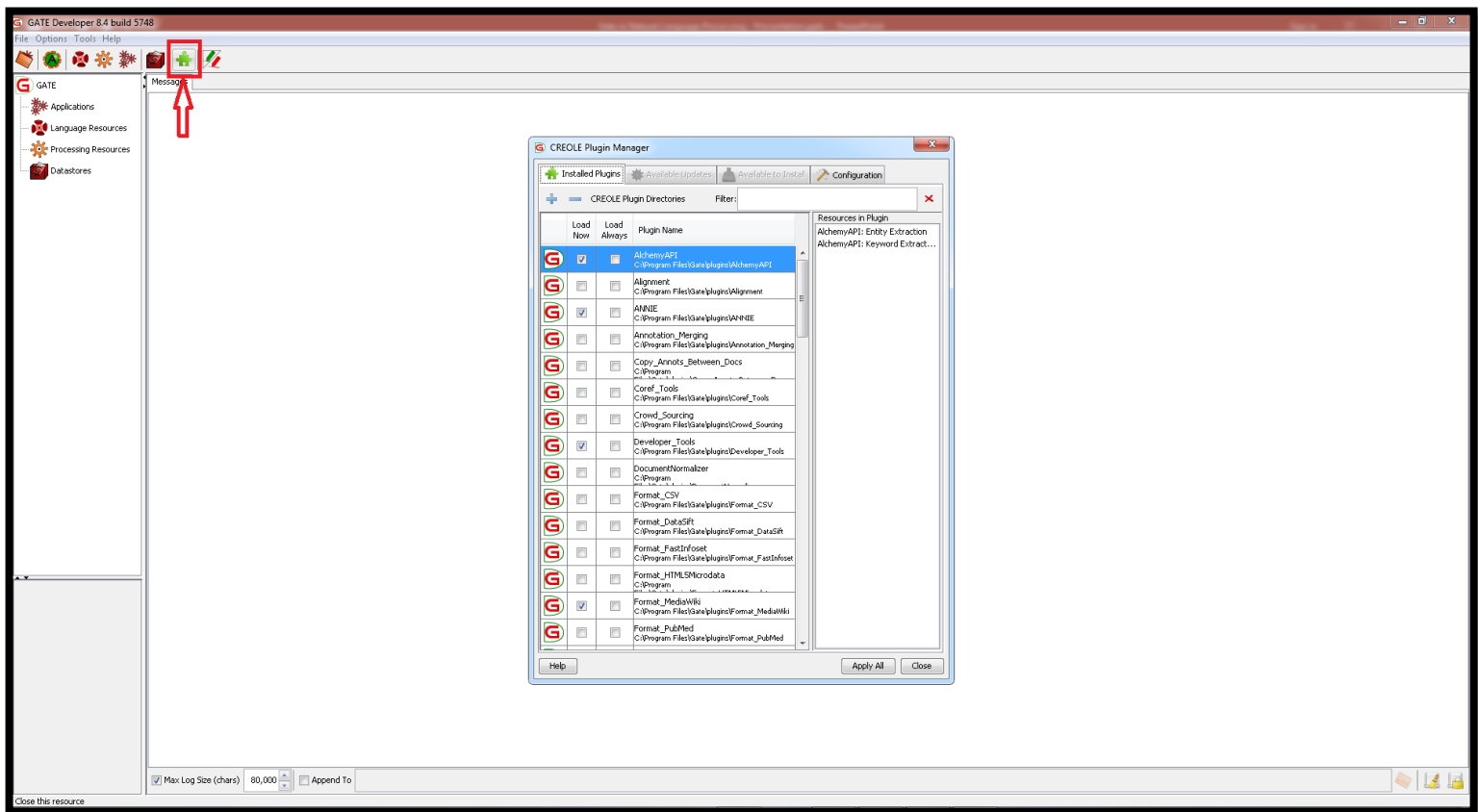
Gate Developer is an open source Information Extraction tool that allows to analyze text in order to extract named entities and relationships between words. Gate developer will allow you to analyze text in various document formats like pdf , txt , html , xml , etc. To install it you proceed to <https://gate.ac.uk/download/>



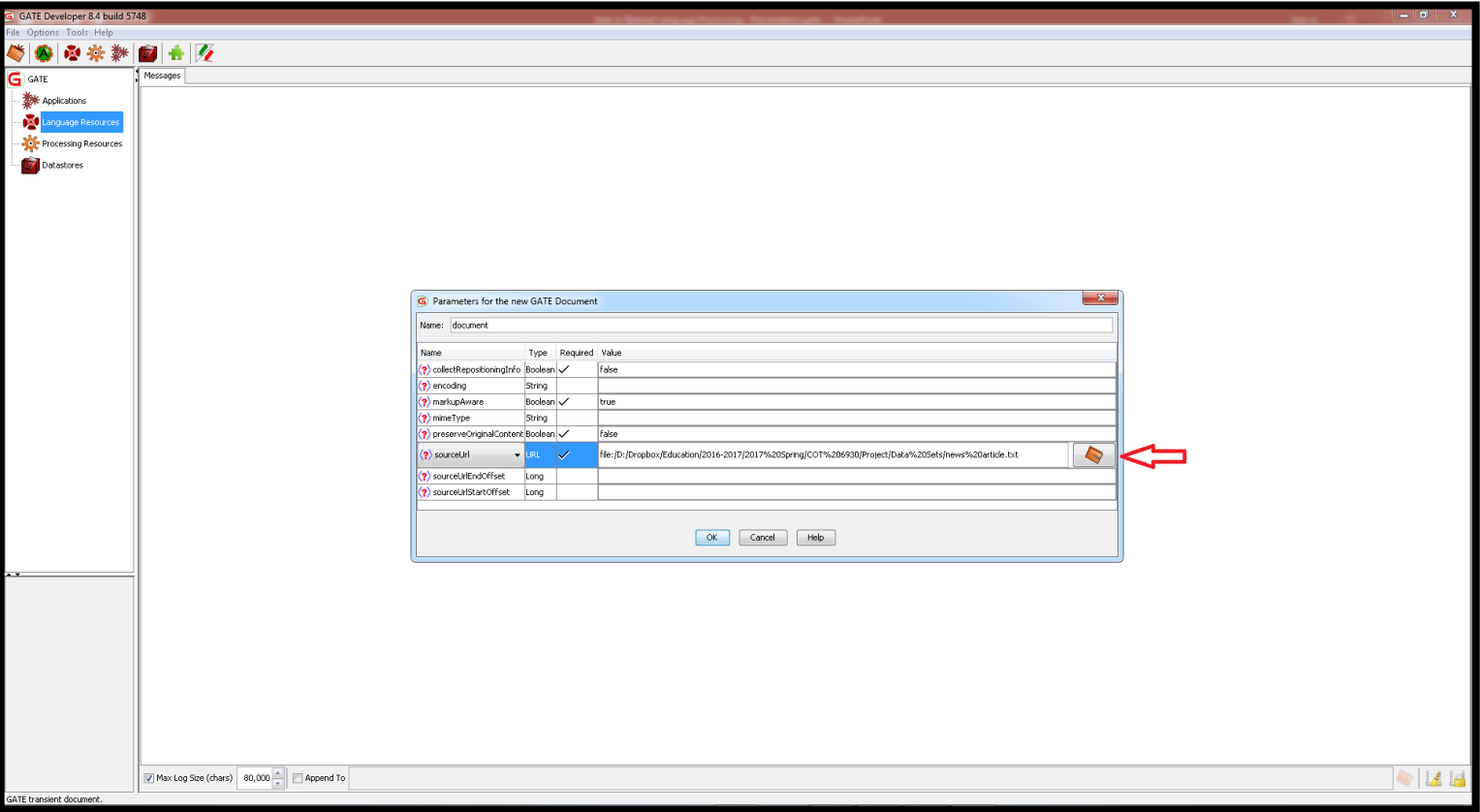
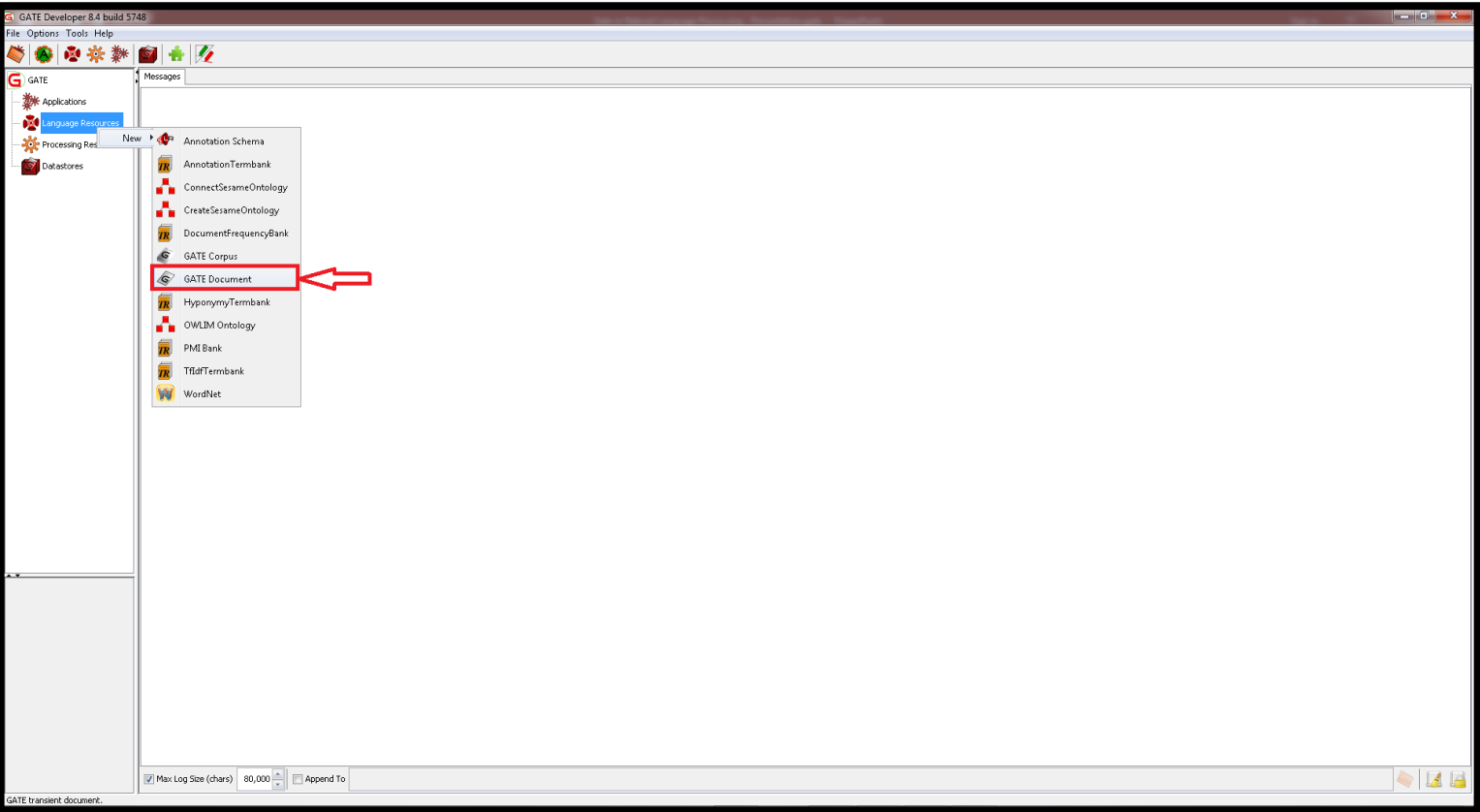
Once you install the software you will be able to access the software interface. Once loaded, the interface will be divided into left tool panel and main window. On the left tool panel, there are four categories: Applications, Language Resources, Processing Resources, and Datastores. In Applications, there is ability to create your new application or use ready made applications. There are three applications loaded by default (Annie, LingPipe, and OpenNLP) and many more available through Creole Plugin Manager. In Language Resources, there is ability to add documents from plain text, pdf documents, html, xml, csv, owl, and directly from urls. Processing Resources show what resources will be used to analyze text and Datastores offer a persistence service to the documents.



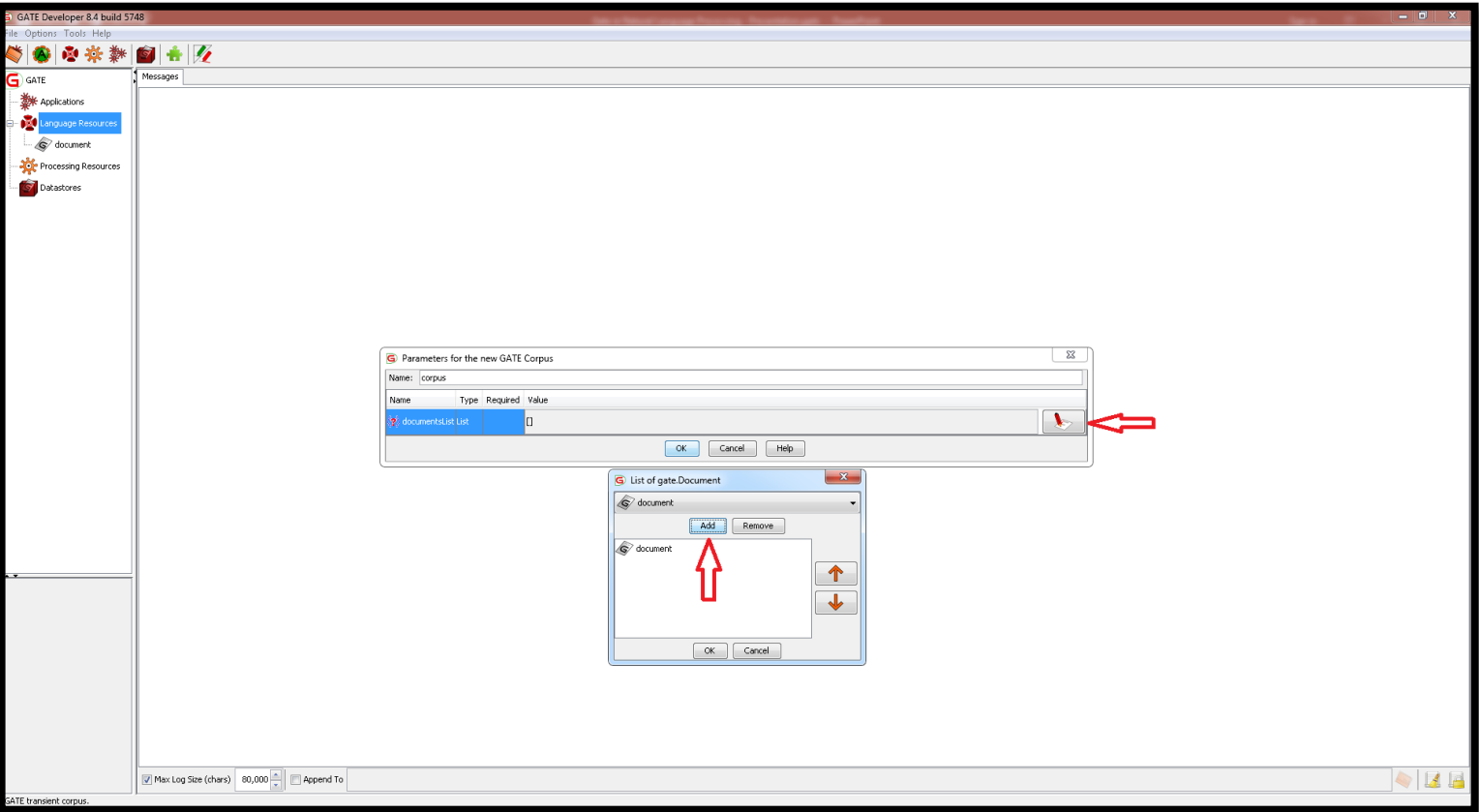
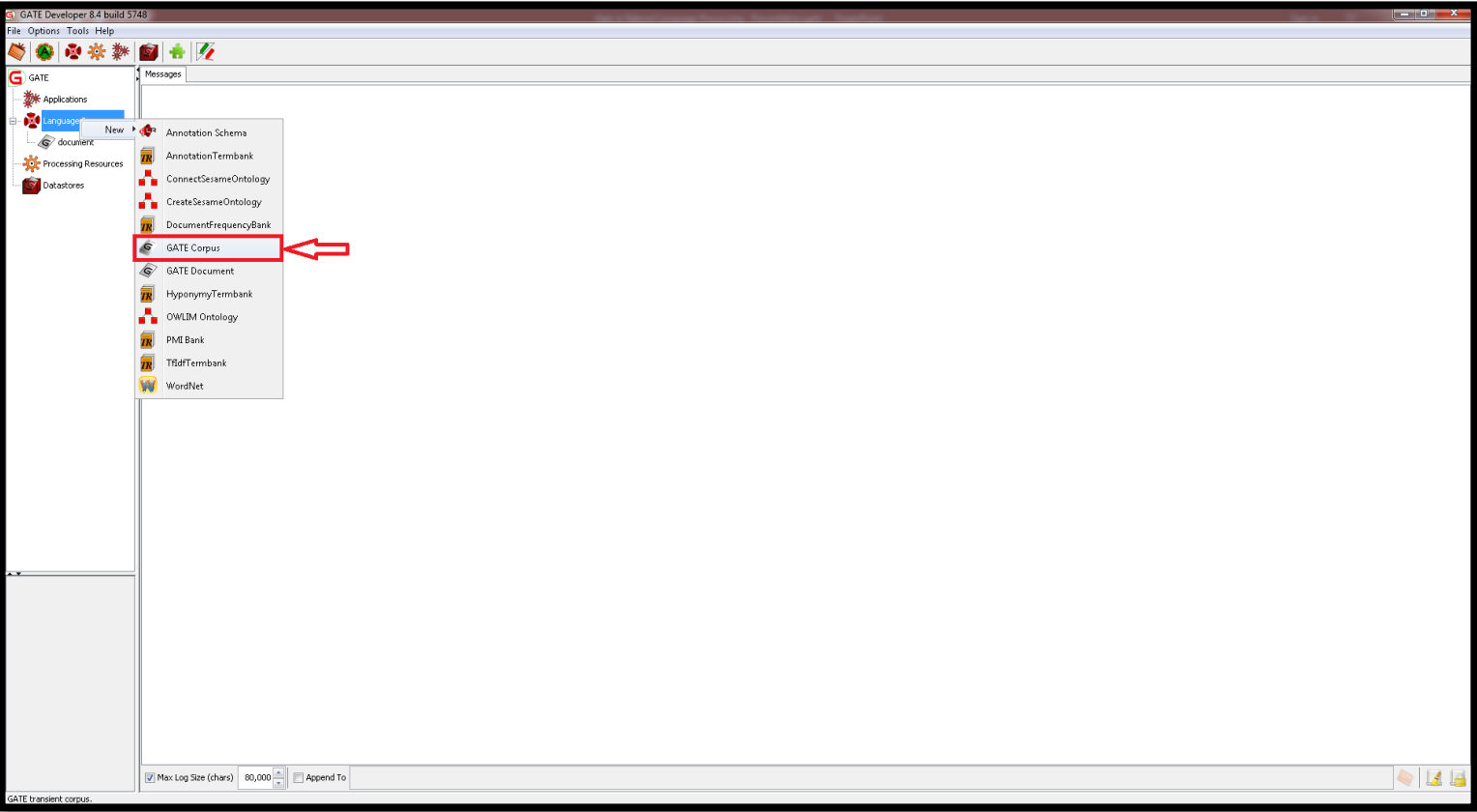
Here you can select Creole Plugin Manager that will allow to download more specialized made ready applications.



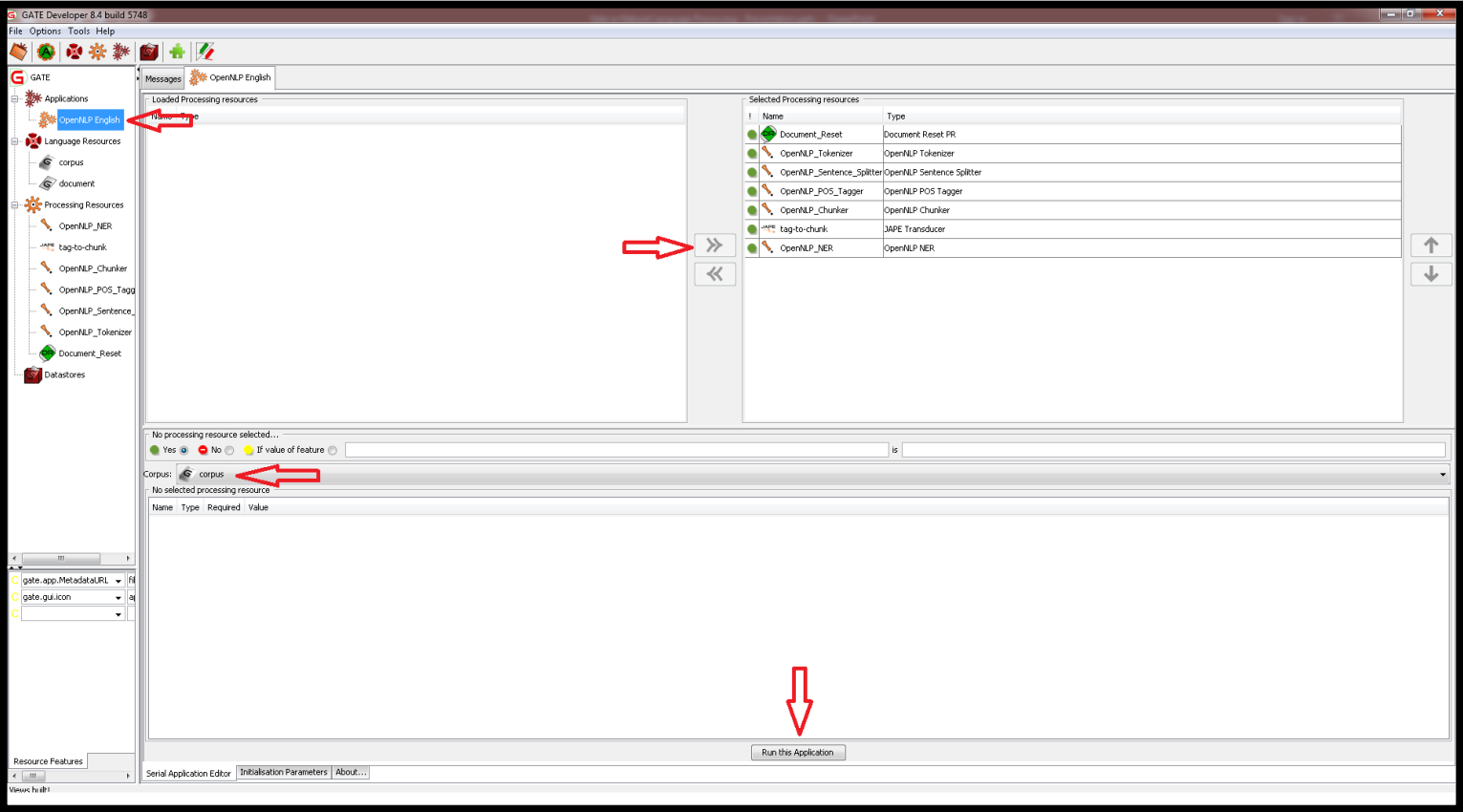
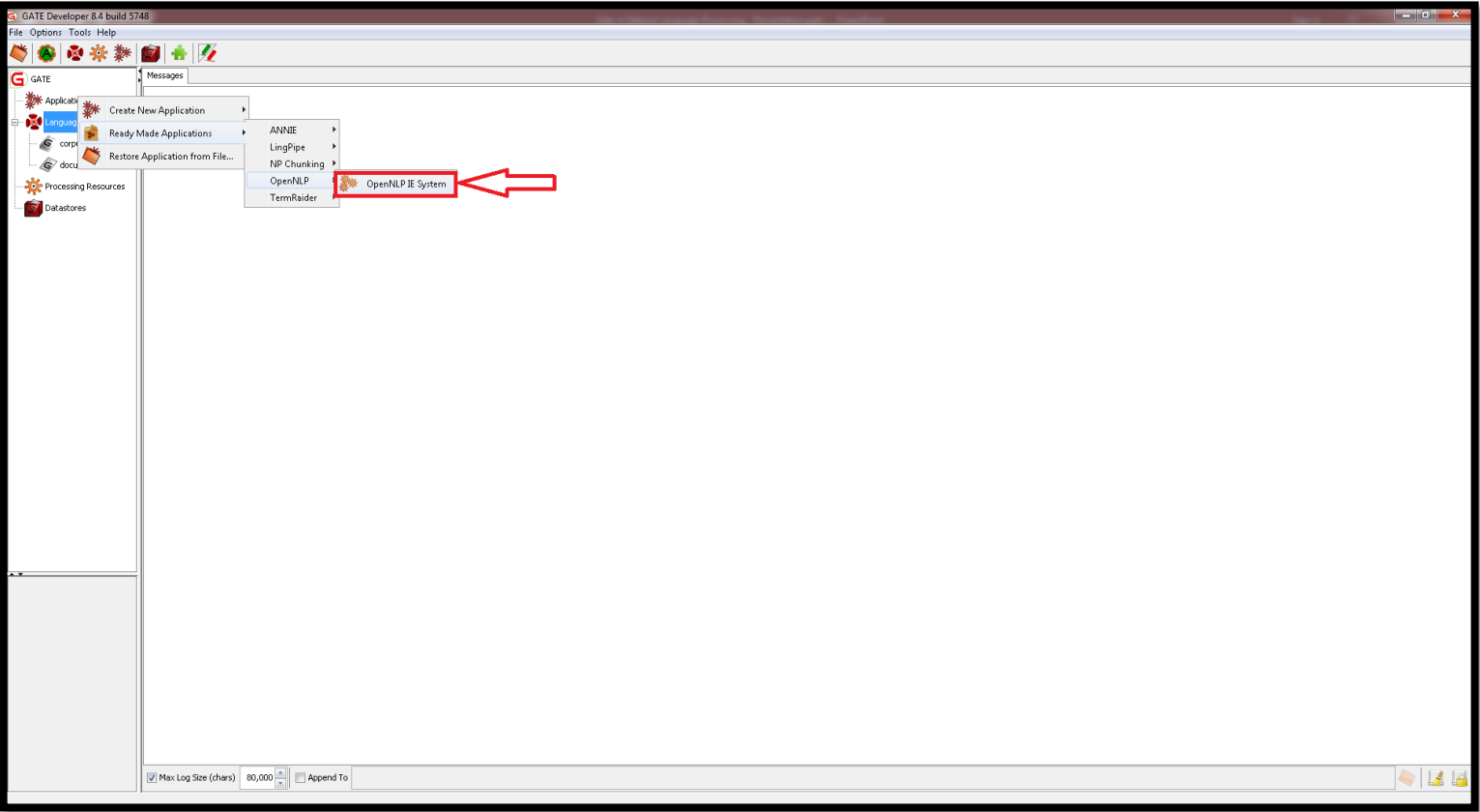
Here is how you load a text document into the program.



Afterwards, you have to create a corpus that will contain the document or set of documents.



At this moment, you are ready to create an application. We will select OpenNLP



Once application process is run, you can go over the results for each text document by clicking on Annotation Sets and Lists.

Annotation Sets

Annotation Lists

Annotations Stack

Co-reference Editor

OAT

RAT-C

RAT-I

Text

Anglo-French Channel Tunnel operator Eurotunnel Monday announced a deal giving its creditor banks 45.5 percent of the company in return for wiping out one billion pounds (\$1.56 billion) of its debt. The long-awaited restructuring brings to an end months of wrangling between Eurotunnel and the 225 banks to which it owes nearly nine billion pounds (\$14.1 billion). The deal, announced simultaneously in Paris and London, brings the company back from the brink of insolvency but leaves shareholders owning only 54.5 percent of the company. "The restructuring plan provides Eurotunnel with the medium-term financial stability to allow it to consolidate its substantial commercial achievements to date and to develop its operations," Eurotunnel co-chairman **Alastair Morton** said. The firm was now making a profit before interest, he added. Although shareholders will see their interests diluted, they were offered the prospect of a brighter future after months of uncertainty while Eurotunnel wrestled to reduce crippling interest payments negotiated during the tunnel's construction. Eurotunnel, which has taken around half the cross-channel market from the European ferry companies, said a strong operating performance could allow it to pay its first dividend within the next 10 years. French co-chairman **Patrick Ponsolle** said shareholders would have to be patient before they could reap the benefits of the company's success. He called the debt restructuring plan "an acceptable compromise" for holders of Eurotunnel shares. The company said there was still considerable work to be done to finalise and agree on the details of the plan before it can be submitted to shareholders and the full 225 bank syndicate for approval, probably early in 1997. Monday's announcement followed two weeks of highly secretive negotiations between Eurotunnel and its six leading banks. This was extended to the 24 "instructing banks" at a meeting late last week in London. Eurotunnel said the debt-for-equity swap would be at 130 pence, or 10.40 francs, per share. That is considerably below the level of around 160 pence widely reported before announcement of the deal, and will reduce outstanding debt of 8.7 billion pounds (\$13.6 billion) by 1.0 billion (\$1.56 billion). The company said a further 3.7 billion pounds (\$5.8 billion) of debt would be converted into new financial instruments and existing shareholders would be able to participate in this issue. If they choose not to take up free warrants entitling them to subscribe to this, Eurotunnel said shareholders' interests may be reduced further to just over 39 percent of the company by the end of December 2003. Eurotunnel's shares, which were suspended last week at 113.5 pence ahead of Monday's announcement, should resume trading on Tuesday, the company said.

Annotation Sets

Annotation Lists

Annotations Stack

Co-reference Editor

OAT

RAT-C

RAT-I

Text

ADJP

ADVP

Date

Location

Money

NP

PP

PRT

Percentage

Person

SBAR

Sentence

SpaceToken

Split

Token

VP

Original markings

2 Annotations (0 selected) Select:

Document Editor

Initialisation Parameters

Relation Viewer

News built

Once annotated and classified, the tag will become part of the text.

Annotation Sets

Annotation Lists

Annotations Stack

Co-reference Editor

OAT

RAT-C

RAT-I

Text

Anglo-French Channel Tunnel operator Eurotunnel Monday announced a deal giving its creditor banks 45.5 percent of the company in return for wiping out one billion pounds (\$1.56 billion) of its debt. The long-awaited restructuring brings to an end months of wrangling between Eurotunnel and the 225 banks to which it owes nearly nine billion pounds (\$14.1 billion). The deal, announced simultaneously in Paris and London, brings the company back from the brink of insolvency but leaves shareholders owning only 54.5 percent of the company. "The restructuring plan provides Eurotunnel with the medium-term financial stability to allow it to consolidate its substantial commercial achievements to date and to develop its operations," Eurotunnel co-chairman **Alastair Morton** said. The firm was now making a profit before interest, he added. Although shareholders will see their interests diluted, they were offered the prospect of a brighter future after months of uncertainty while Eurotunnel wrestled to reduce crippling interest payments negotiated during the tunnel's construction. Eurotunnel, which has taken around half the cross-channel market from the European ferry companies, said a strong operating performance could allow it to pay its first dividend within the next 10 years. French co-chairman **Patrick Ponsolle** said shareholders would have to be patient before they could reap the benefits of the company's success. He called the debt restructuring plan "an acceptable compromise" for holders of Eurotunnel shares. The company said there was still considerable work to be done to finalise and agree on the details of the plan before it can be submitted to shareholders and the full 225 bank syndicate for approval, probably early in 1997. Monday's announcement followed two weeks of highly secretive negotiations between Eurotunnel and its six leading banks. This was extended to the 24 "instructing banks" at a meeting late last week in London. Eurotunnel said the debt-for-equity swap would be at 130 pence, or 10.40 francs, per share. That is considerably below the level of around 160 pence widely reported before announcement of the deal, and will reduce outstanding debt of 8.7 billion pounds (\$13.6 billion) by 1.0 billion (\$1.56 billion). The company said a further 3.7 billion pounds (\$5.8 billion) of debt would be converted into new financial instruments and existing shareholders would be able to participate in this issue. If they choose not to take up free warrants entitling them to subscribe to this, Eurotunnel said shareholders' interests may be reduced further to just over 39 percent of the company by the end of December 2003. Eurotunnel's shares, which were suspended last week at 113.5 pence ahead of Monday's announcement, should resume trading on Tuesday, the company said.

Annotation Sets

Annotation Lists

Annotations Stack

Co-reference Editor

OAT

RAT-C

RAT-I

Text

ADJP

ADVP

Date

Location

Money

NP

PP

PRT

Percentage

Person

SBAR

Sentence

SpaceToken

Split

Token

VP

Original markings

26 Annotations (0 selected) Select:

Document Editor

Initialisation Parameters

Relation Viewer

OpenNLP English run in 0.359 seconds

Now you are ready to save your output to the XML or JSON file.

The screenshot shows the GATE Developer 8.4 build 5748 interface. The 'Save As...' dialog box is open, and the 'GATE JSON (.json)' option is selected. The main text area displays a news article about Eurotunnel's financial restructuring. The right sidebar shows a list of original markups.

Anglo-French Channel Tunnel operator Eurotunnel Monday announced a deal giving its creditor banks 45.5 percent of the company in return for wiping out one billion pounds (\$1.56 billion) of its debt. The long-awaited restructuring brings the company back from the brink of insolvency but leaves shareholders owning only 54.5 percent of the company. The deal, announced simultaneously in Paris and London, brings the company back from the brink of insolvency but leaves shareholders owning only 54.5 percent of the company. "The restructuring plan provides Eurotunnel with the medium-term financial stability to allow it to consolidate its substantial commercial achievements to date and to develop its operations," Eurotunnel co-chairman **Alain Merle** said. The firm was now making a profit before interest, he added. Although shareholders will see their interests diluted, they were offered the prospect of a brighter future after months of uncertainty while Eurotunnel wrestled to reduce crippling interest payments negotiated during the tunnel's construction. Eurotunnel, which has taken around half the cross-channel market from the European ferry companies, said a strong operating performance could allow it to pay its first dividend within the next 10 years. French co-chairman **Patrick Porcile** said shareholders would have to be patient before they could reap the benefits of the company's success. He called the debt restructuring plan "an acceptable compromise" for holders of Eurotunnel shares. The company said there was still considerable work to be done to finalise and agree on the details of the plan before it can be submitted to shareholders and the full 225 bank syndicate for approval, probably early in 1997. Monday's announcement followed two weeks of highly secretive negotiations between Eurotunnel and its six leading banks. This was extended to the 24 "instructing banks" at a meeting late last week in London. Eurotunnel said the debt-for-equity swap would be at 130 pence, or \$0.40 francs, per share. That is considerably below the level of around 160 pence widely reported before announcement of the deal, and will reduce outstanding debt of 8.7 billion pounds (\$13.6 billion) by 1.0 billion (\$1.56 billion). The company said a further 3.7 billion pounds (\$5.8 billion) of debt would be converted into new financial instruments and existing shareholders would be able to participate in this issue. If they choose not to take up free warrants entitling them to subscribe to this, Eurotunnel said shareholders' interests may be reduced further to just over 39 percent of the company by the end of December 2003. Eurotunnel's shares, which were suspended last week at 113.5 pence ahead of Monday's announcement, should resume trading on Tuesday, the company said.

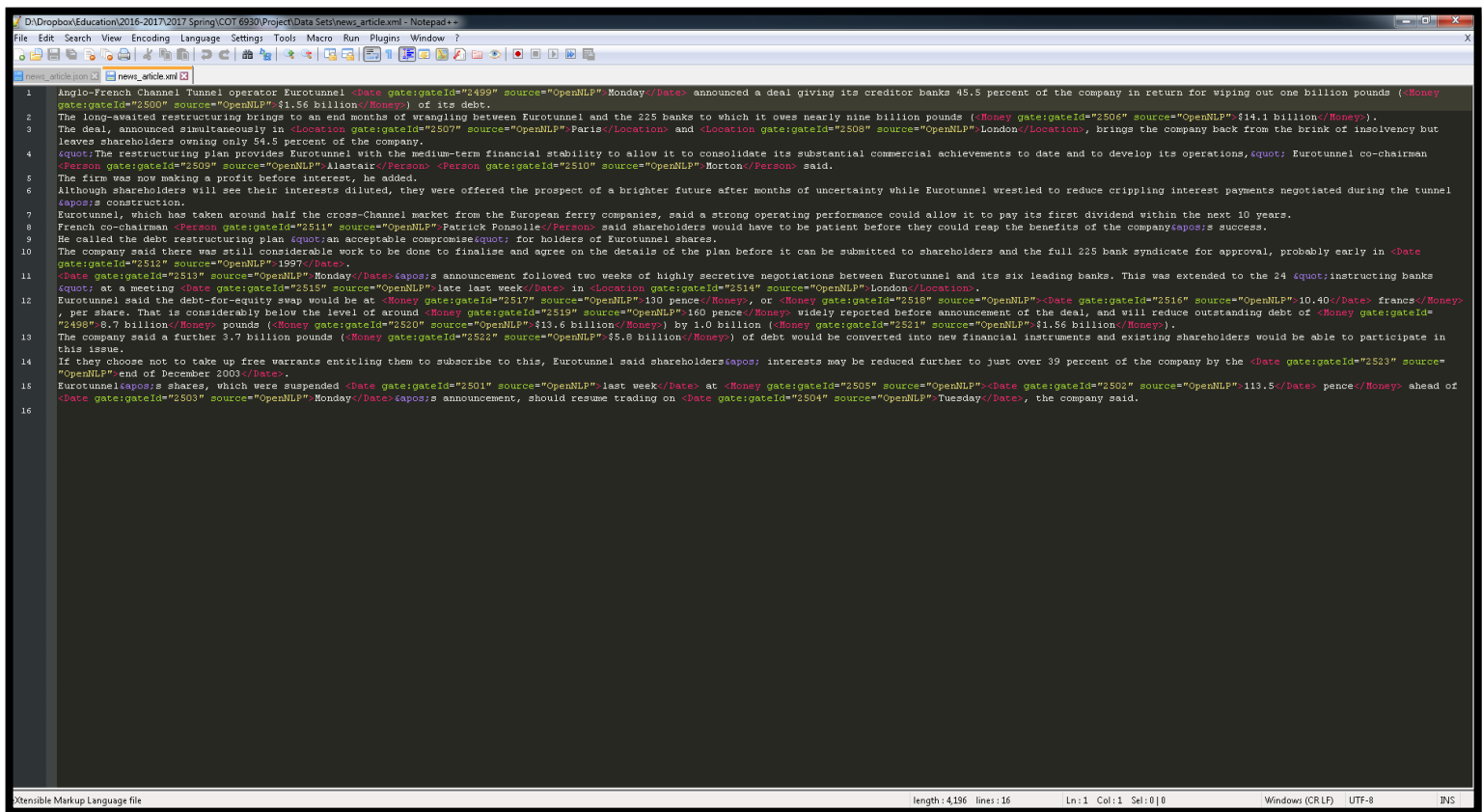
Type	Set	Start	End	Id	Features
Date	48	54	2469	(source=OpenNLP)	
Money	171	184	2470	(source=OpenNLP)	
Money	350	363	2477	(source=OpenNLP)	
Location	405	410	2478	(source=OpenNLP)	
Location	415	421	2479	(source=OpenNLP)	
Person	757	765	2481	(source=OpenNLP)	
Person	766	772	2482	(source=OpenNLP)	
Person	1310	1326	2483	(source=OpenNLP)	
Date	1751	1755	2484	(source=OpenNLP)	
Date	1758	1764	2485	(source=OpenNLP)	
Date	1939	1953	2487	(source=OpenNLP)	

Here is how you save your output as XML file and how the output looks like in file.

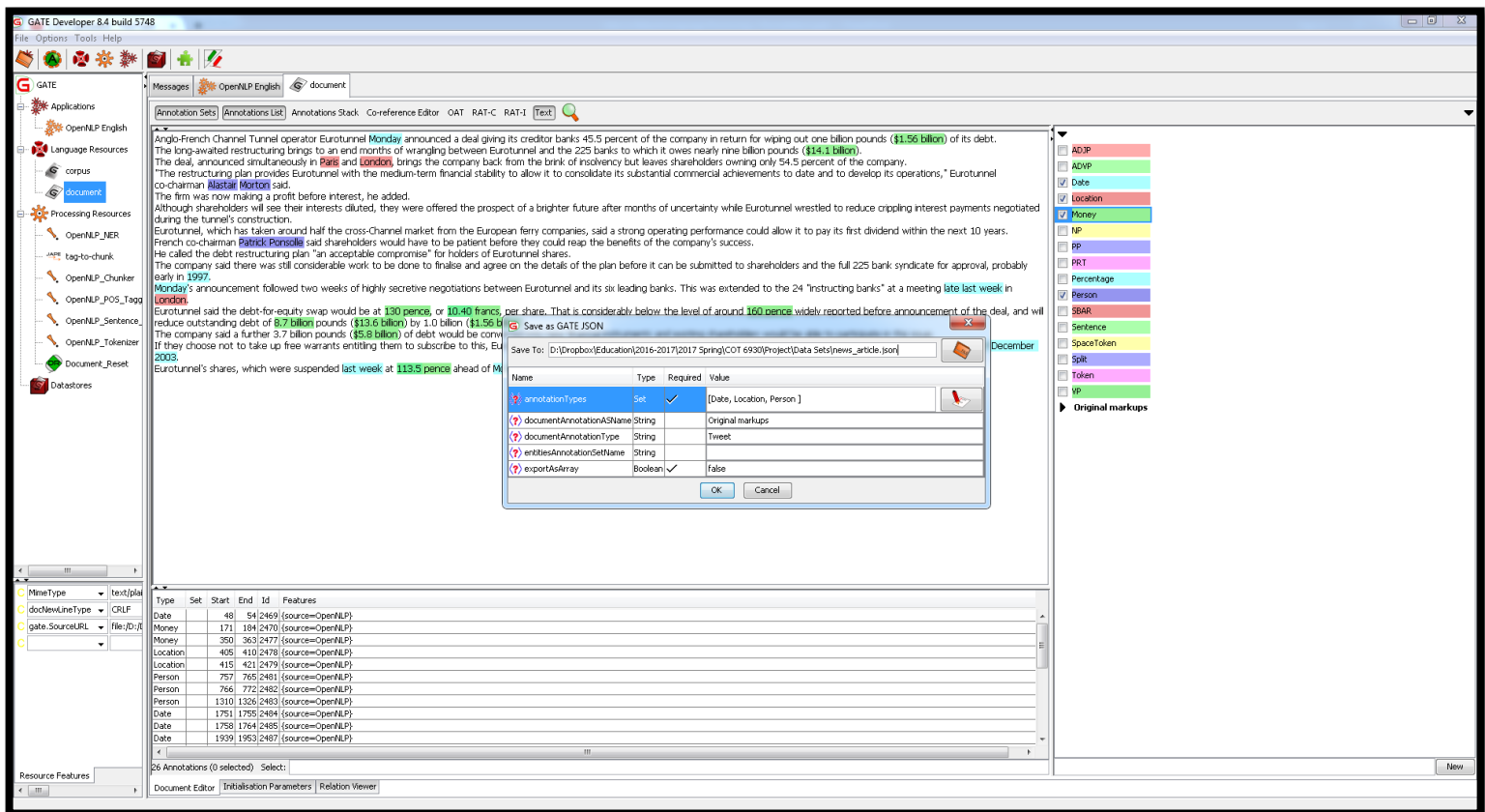
The screenshot shows the GATE Developer 8.4 build 5748 interface. The 'Save as Inline XML' dialog box is open, and the 'Save To' field is set to 'D:\Dropbox\Education\2016-2017\Spring\COT 6900\Project\Data Sets\news\_article.xml'. The main text area displays the same news article about Eurotunnel's financial restructuring. The right sidebar shows a list of original markups.

Anglo-French Channel Tunnel operator Eurotunnel Monday announced a deal giving its creditor banks 45.5 percent of the company in return for wiping out one billion pounds (\$1.56 billion) of its debt. The long-awaited restructuring brings the company back from the brink of insolvency but leaves shareholders owning only 54.5 percent of the company. The deal, announced simultaneously in Paris and London, brings the company back from the brink of insolvency but leaves shareholders owning only 54.5 percent of the company. "The restructuring plan provides Eurotunnel with the medium-term financial stability to allow it to consolidate its substantial commercial achievements to date and to develop its operations," Eurotunnel co-chairman **Alain Merle** said. The firm was now making a profit before interest, he added. Although shareholders will see their interests diluted, they were offered the prospect of a brighter future after months of uncertainty while Eurotunnel wrestled to reduce crippling interest payments negotiated during the tunnel's construction. Eurotunnel, which has taken around half the cross-channel market from the European ferry companies, said a strong operating performance could allow it to pay its first dividend within the next 10 years. French co-chairman **Patrick Porcile** said shareholders would have to be patient before they could reap the benefits of the company's success. He called the debt restructuring plan "an acceptable compromise" for holders of Eurotunnel shares. The company said there was still considerable work to be done to finalise and agree on the details of the plan before it can be submitted to shareholders and the full 225 bank syndicate for approval, probably early in 1997. Monday's announcement followed two weeks of highly secretive negotiations between Eurotunnel and its six leading banks. This was extended to the 24 "instructing banks" at a meeting late last week in London. Eurotunnel said the debt-for-equity swap would be at 130 pence, or \$0.40 francs, per share. That is considerably below the level of around 160 pence widely reported before announcement of the deal, and will reduce outstanding debt of 8.7 billion pounds (\$13.6 billion) by 1.0 billion (\$1.56 billion). The company said a further 3.7 billion pounds (\$5.8 billion) of debt would be converted into new financial instruments and existing shareholders would be able to participate in this issue. If they choose not to take up free warrants entitling them to subscribe to this, Eurotunnel said shareholders' interests may be reduced further to just over 39 percent of the company by the end of December 2003. Eurotunnel's shares, which were suspended last week at 113.5 pence ahead of Monday's announcement, should resume trading on Tuesday, the company said.

Name	Type	Required	Value
annotationSetName	String		
annotationTypes	List	✓	{Person, Location, Date, Money}
encoding	String	✓	UTF-8
includeFeatures	Boolean	✓	true
includeOriginalMarkups	Boolean	✓	false
rootElement	String		



Here is how you save your output as JSON file and how the output looks like in file.



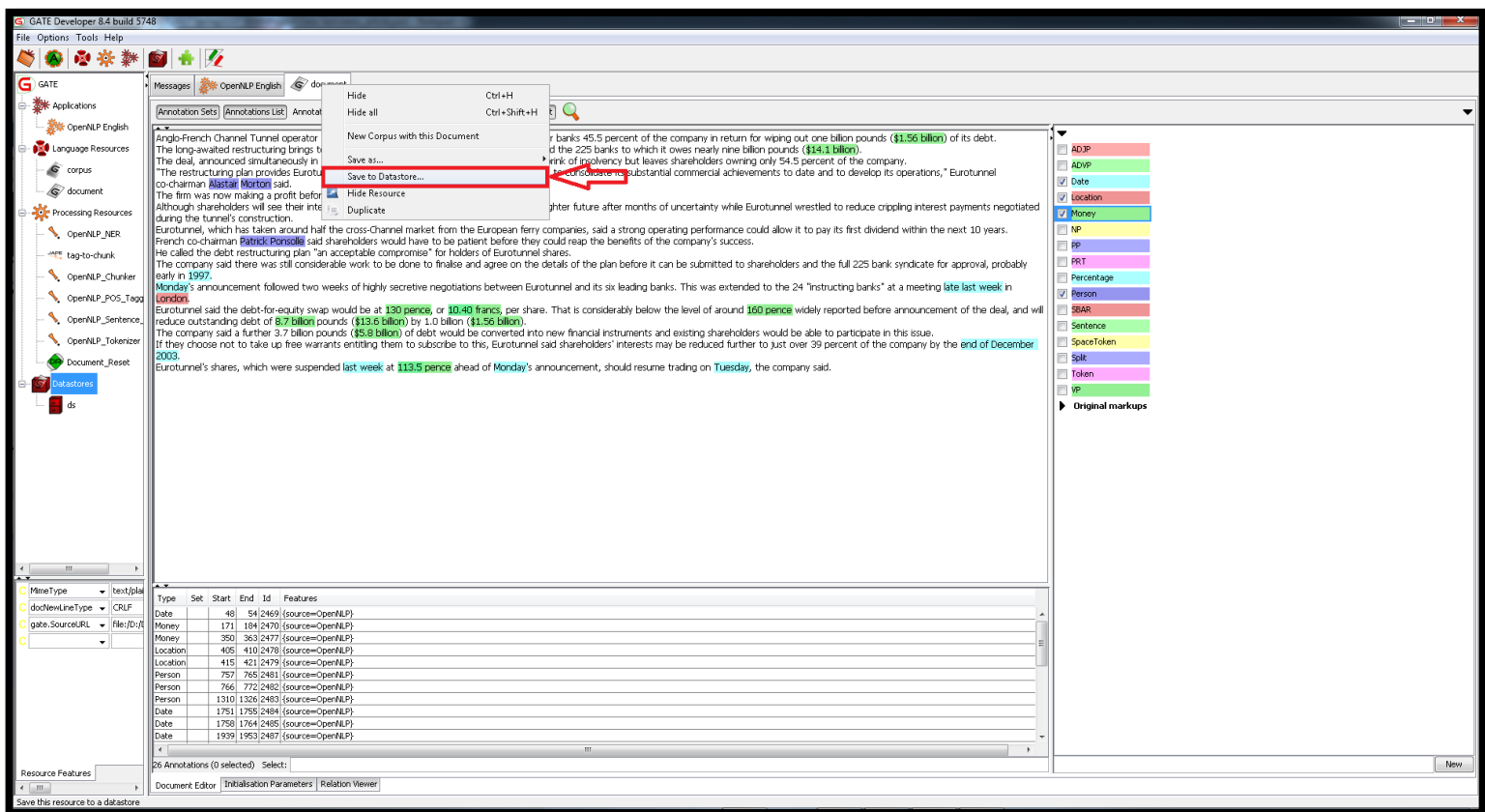
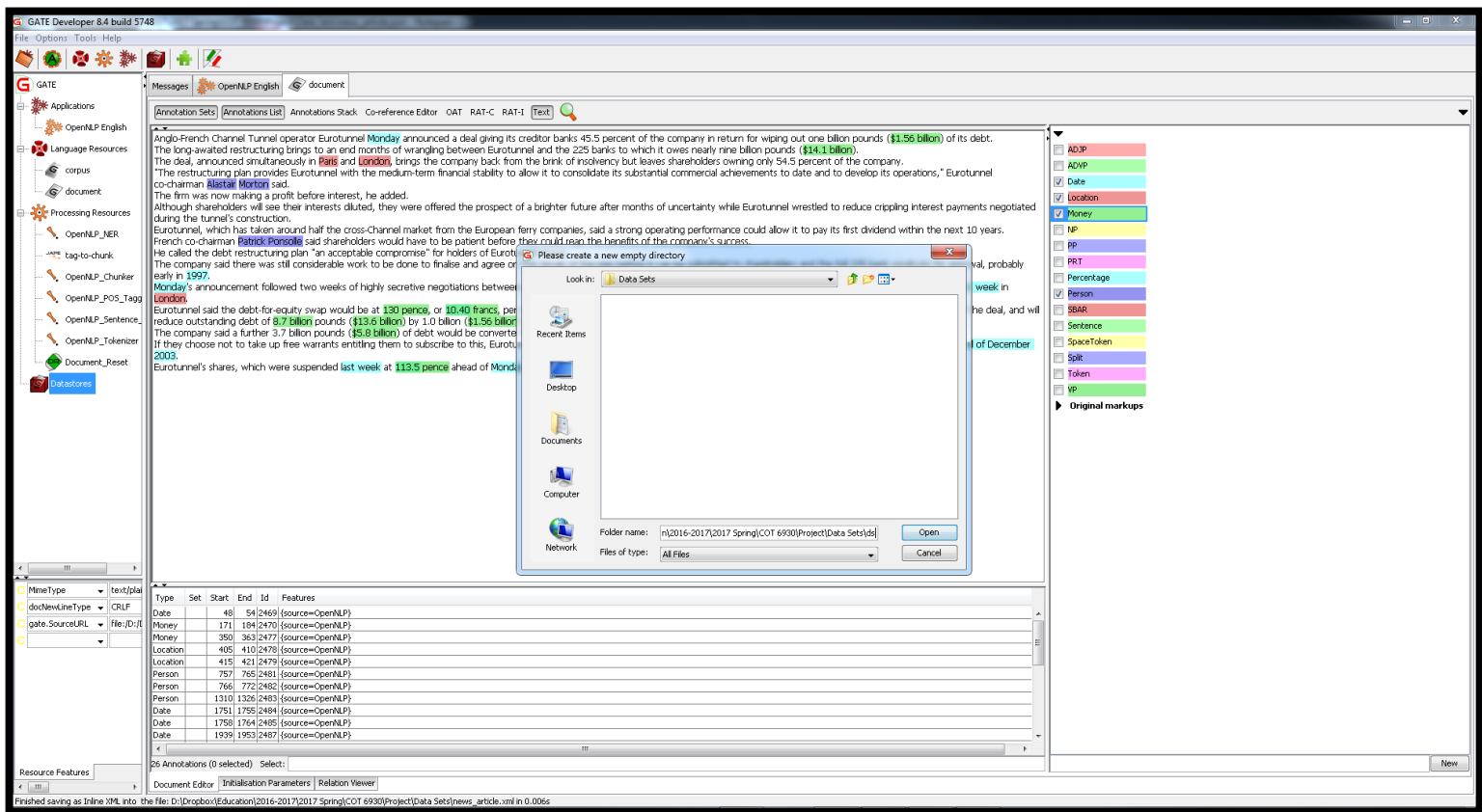


```
1 {
2   "text": "Anglo-French Channel Tunnel operator Eurotunnel Monday announced a deal giving its creditor banks 45.5 percent of the company in return for wiping out one billion pounds ($1.56 billion) of its debt.\r\nThe long-awaited restructuring brings to an end months of wrangling between Eurotunnel and the 225 banks to which it owes nearly nine billion pounds ($14.1 billion).\r\nThe deal, announced simultaneously in Paris and London, brings the company back from the brink of insolvency but leaves shareholders owning only 54.5 percent of the company.\r\n\r\nThe restructuring plan provides Eurotunnel with the medium-term financial stability to allow it to consolidate its substantial commercial achievements to date and to develop its operations," Eurotunnel co-chairman Alastair Norton said.\r\n\r\nThe firm was now making a profit before interest, he added.\r\n\r\nAlthough shareholders will see their interests diluted, they were offered the prospect of a brighter future after months of uncertainty while Eurotunnel wrestled to reduce crippling interest payments negotiated during the tunnel's construction.\r\n\r\nEurotunnel, which has taken around half the cross-Channel market from the European ferry companies, said a strong operating performance could allow it to pay its first dividend within the next 10 years.\r\n\r\nFrench co-chairman Patrick Fonsolle said shareholders would have to be patient before they could reap the benefits of the company's success.\r\n\r\nHe called the debt restructuring plan "an acceptable compromise" for holders of Eurotunnel shares.\r\n\r\nThe company said there was still considerable work to be done to finalise and agree on the details of the plan before it can be submitted to shareholders and the full 225 bank syndicate for approval, probably early in 1997.\r\n\r\nMonday's announcement followed two weeks of highly secretive negotiations between Eurotunnel and its six leading banks. This was extended to the 24 "instructing banks" at a meeting late last week in London.\r\n\r\nEurotunnel said the debt-for-equity swap would be at 130 pence, or 10.40 francs, per share. That is considerably below the level of around 160 pence widely reported before announcement of the deal, and will reduce outstanding debt of 8.7 billion pounds ($13.6 billion) by 1.0 billion ($1.56 billion).\r\n\r\nThe company said a further 3.7 billion pounds ($5.6 billion) of debt would be converted into new financial instruments and existing shareholders would be able to participate in this issue.\r\n\r\nIf they choose not to take up free warrants entitling them to subscribe to this, Eurotunnel said shareholders' interests may be reduced further to just over 39 percent of the company by the end of December 2003.\r\n\r\nEurotunnel's shares, which were suspended last week at 113.5 pence ahead of Monday's announcement, should resume trading on Tuesday, the company said.\r\n",
3   "entities": {
4     "Date": [
5       {
6         "indices": [49, 54],
7         "source": "OpenNLP"
8       },
9       {
10        "indices": [1751, 1755],
11        "source": "OpenNLP"
12      },
13      {
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15        "source": "OpenNLP"
16      },
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20      },
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22        "indices": [2003, 2038],
23        "source": "OpenNLP"
24      },
25      {
26        "indices": [2648, 2668],
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29      {
30        "indices": [2713, 2722],
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32      },
33      {
34        "indices": [2726, 2731],
35        "source": "OpenNLP"
36      },
37      {
38        "indices": [2747, 2753],
39        "source": "OpenNLP"
40      },
41      {
42        "indices": [2795, 2802],
43        "source": "OpenNLP"
44      }
45    ],
46     "Location": [
47       {
48         "indices": [405, 410],
49         "source": "OpenNLP"
50       },
51       {
52         "indices": [415, 421],
53         "source": "OpenNLP"
54       },
55       {
56         "indices": [1957, 1963],
57         "source": "OpenNLP"
58       }
59     ]
60   }
61 }
```

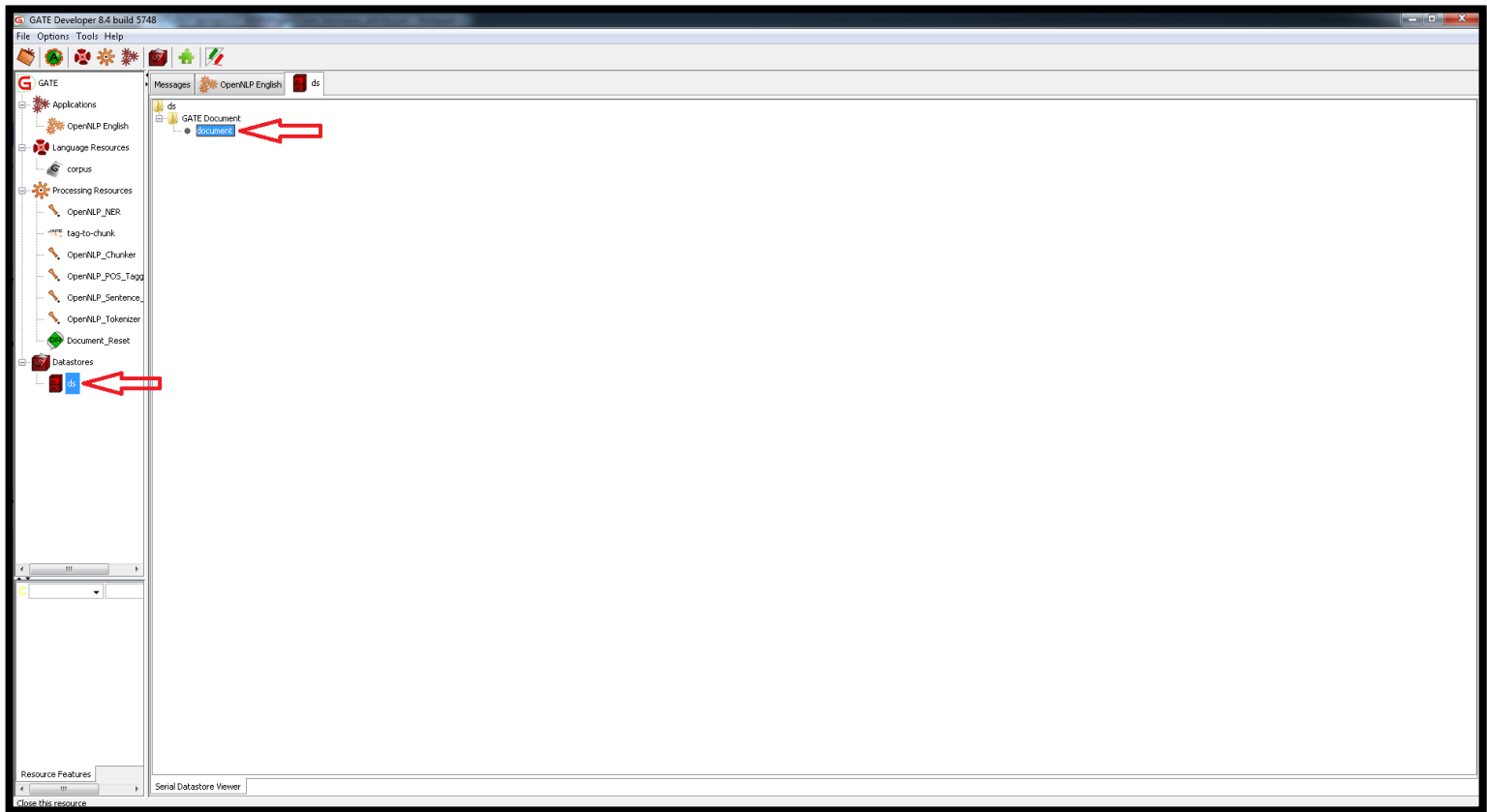
You can also persist your work in Datastore for later use with all the annotations that application and you made.

The screenshot shows the GATE Developer 8.4 build 5748 interface. The main window displays the OpenNLP English corpus loaded with annotations. The text area shows a news article about Eurotunnel's debt restructuring. The right sidebar shows the 'Annotations List' with various entity types like ADJP, ADVP, Date, Location, Money, NP, PP, PRT, Percentage, Person, SEAR, Sentence, SpaceToken, SSK, Token, and VP. The bottom panel shows the 'Annotations Stack' with a table of annotations.

Type	Set	Start	End	Id	Features
Date	40	54	2469	(source=OpenNLP)	
Money	171	184	2470	(source=OpenNLP)	
Money	350	363	2477	(source=OpenNLP)	
Location	405	410	2478	(source=OpenNLP)	
Location	415	421	2479	(source=OpenNLP)	
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Date	1758	1764	2485	(source=OpenNLP)	
Date	1939	1953	2487	(source=OpenNLP)	



To restore your source document with all annotations you do click on Datastore and choose which file to restore



Now you can see restored document under Language Resources

