

Final System Demo

Group number: SE 5

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shareholder AND security (Boolean)

shareholder AND security (Boolean) query completion:

Once the user types in a space in the search field, the search engine will start to find the query completion for the last word in the query, the result will be placed in the dropdown list next to the search field.

The screenshot shows the 'Simple Search Engine' window. The search field contains 'shareholder AND security'. A dropdown menu is open next to the search field, displaying several suggestions: '(security OR guards)', '(security OR guards)', '(security OR adviser)', '(security OR grounds)', '(security OR deposit)', '(security OR interests)', and '(security OR repurchase)'. The first suggestion is highlighted. Below the search field, there are two dropdown menus: 'Type of model' set to 'Boolean Retrieval Model' and 'Type of collection' set to 'Reuters21578'. A 'View Detail' button is visible at the bottom left. A yellow circle highlights the dropdown menu.

shareholder AND security (Boolean) Search result:

The screenshot shows the 'Simple Search Engine' window displaying search results for the query 'shareholder AND security'. The search field contains 'shareholder AND security' and the dropdown menu shows '(security OR guards)'. The 'Type of model' is 'Boolean Retrieval Model' and the 'Type of collection' is 'Reuters21578'. There are three checkboxes: 'Stopword' (checked), 'Stemming' (checked), and 'Normalization' (checked). The 'View Detail' button is set to 'acq'. The search results are displayed in a table with columns: docid, title, desc, and topic. The table contains 16 rows of results.

	docid	title	desc	topic
1	277	INSTINET <INE...	Instinet Corp sai...	acq
2	369	PURULATOR ...	A Purolator ...	acq
3	477	TALKING POINT...	Purolator Couri...	acq
4	546	DOME <DMP> ...	Dome Petroleu...	acq
5	772	CAESARS WOR...	Caesars World I...	acq
6	878	TALKING POINT...	Dome Petroleu...	acq
7	884	PAINT COMPAN...	Metropolitan ...	acq
8	906	MOBIL <MOB> ...	Mobil Corp ma...	crude
9	908	IRISH OIL ...	Bryson Oil and ...	acq
10	1224	INVESTMENT ...	A multinational ...	acq
11	1238	CTC DEALER TO...	CTC Dealer ...	acq
12	1303	FISONS RAISIN...	Fisons Plc ...	earn
13	1445	WESTINGHOUS...	Westinghouse ...	earn
14	1648	BFG PARTIAL ...	Bank fuer ...	earn
15	1676	INVESTOR ...	An investor gro...	acq
16	1715	ROYALE BELGE ...	Non-...	earn

shareholder AND security (Boolean) topic filter:

There is a topic filter dropdown list right next to the View Detail bottom. Topic in the filter list is updated once the document is retrieved. User can select the topic in the list to filter out other documents.

Simple Search Engine

Search

shareholder AND security

(security OR guards)

Query Expansion

Type of model

Boolean Retrieval Model

Stopword

Type of collection

Reuters21578

Stemming

Normalization

View Detail

money-fx

crude

earn

money-fx

copper

interest

alum

lei

nat-gas

trade

remove filter

topic

33	3201	GERMAN ...	German bankin...	money-fx
47	4461	GERMAN BANK...	West German ...	interest
49	4629	ECONOMIC ...	Foreign banks ...	interest
78	7765	S. KOREA ...	South Korea wil...	money-fx
106	9430	EUROTUNNEL T...	Eurotunnel, the ...	money-fx
181	18029	JAPAN TRIES TO...	Government an...	money-fx

Some documents have multiple topics, there is a list in the topic column for each document. Open the topic list will show all the topic for that document

Search

shareholder AND security

(security OR guards)

Query Expansion

Type of model

Boolean Retrieval Model

Stopword

Type of collection

Reuters21578

Stemming

Normalization

View Detail

money-fx

	docid	title	desc	topic
33	3201	GERMAN ...	German bankin...	money-fx
47	4461	GERMAN BANK...	West German ...	interest
49	4629	ECONOMIC ...	Foreign banks ...	interest
78	7765	S. KOREA ...	South Korea wil...	money-fx
106	9430	EUROTUNNEL T...	Eurotunnel, the ...	money-fx
181	18029	JAPAN TRIES TO...	Government an...	money-fx

Description for document 47

Simple Search Engine

Search

shareholder AND security

(security OR guards)

Query Expansion

Type of model

Boolean Retrieval Model

Stopword

Type of collection

Reuters21578

Stemming

GERMAN BANK SUPERVISOR CALLS FOR WIDER REGULATION

West German banking regulations must be expanded to cover off-balance sheet risks arising from new financing forms, Federal Banking Supervisory Office President Wolfgang Kuntze said. Kuntze told bankers at a reception that deals for hedging price risks are not covered by current supervisory rules. Such deals could be used for speculation and do not have to be disclosed. Kuntze also said it must be considered whether banks can continue not to set **shareholders'** equity and reserves against their own holdings of **securities**. Since early 1984, banks have been limited to lending 18 times **shareholders'** equity and reserves on a consolidated basis and Bundesbank officials have said that interest rate and currency swaps and currency options are under scrutiny. Authorities favour reinterpreting the banking law to fit present circumstances in order to avoid the long parliamentary political process of changing it, banking sources said. Kuntze said solutions to the problem of banking supervision can be found without having to change the law again. The risk structure in banking is moving away from the model on which banking supervisory rules are based, Kuntze said. Banking supervisors are still firemen with a safety net but the safety net has become a little too small, he said. Kuntze declined to detail possible changes to banking regulations, as these are still the subject of discussions between the Supervisory Office and the Bundesbank. He said he sees no chance in the foreseeable future for an international harmonisation of supervisory law and the German supervisory office would not wait for such harmonisation. Nor would it get involved in international competition on minimal regulatory standards in order to shield banks from competitive disadvantages, he said. REUTERS

OK

oil AND prof* (Boolean)

search result for oil AND prof*(Boolean):

Simple Search Engine

Search

oil AND prof*

Query Expansion

Type of model

Boolean Retrieval Model

Type of collection

Reuters21578

Stopword

Stemming

Normalization

View Detail

ship

	docid	title	desc	topic
1	49	ECONOMIC ...	International ...	ship
2	67	SAUDI BANKS ...	Saudi Arabia's 1...	earn
3	315	UNION PACIFIC ...	Union Pacific ...	acq
4	338	FN RESULTS HIT...	Fabrique ...	earn
5	365	SOLV-EX <SOLV...	Solv-Ex Corp sa...	crude
6	930	HOLLY CORP ...	Shr loss 45 cts v...	earn
7	1080	BP<BP> OFFER ...	British Petroleu...	crude
8	1272	BP AUSTRALIA ...	The <British ...	earn
9	1291	JARDINE ...	Jardine Mathes...	earn
10	1292	BHP SEES ...	The Broken Hill ...	earn
11	1605	TALKING POINT...	Fueled by an ...	acq
12	1703	BASF <BASF.F> ...	BASF AG said th...	earn
13	1944	DOW <DOW> ...	Dow Chemical ...	earn
14	2007	LOWER REFINE...	U.S. refiners will...	crude
15	2145	DOMES MINES ...	Shr profit 17 cts...	earn
16	2171	WOODSIDE SA...	Woodside ...	earn

Description for document 315

Simple Search Engine

Search

oil AND prof*

Query Expansion

Type of model

Boolean Retrieval Model

Type of collection

Reuters21578

Stopword

Stemming

Normalization

View Detail

ship

	docid	title	desc	topic
1	49	ECONOMIC ...	International ...	ship
2	67	SAUDI BANKS ...	Saudi Arabia's 1...	earn
3	315	UNION PACIFIC ...	Union Pacific ...	acq

UNION PACIFIC <UNP> TO SELL PART OF REFINERY

Union Pacific Corp said it will sign a pact in Caracas on March 17 with Petroleos De Venezuela, PDVSA, to sell the state owned company half of its Corpus Christi, Texas refinery owned by its Union Pacific's Champlin Petroleum Co subsidiary. The sale will also include the related marketing and distribution system for the refinery's products. A spokesman for the company said that a statement may be issued later today giving details of the transaction. There was no immediate comment from PDVSA officials in New York. The Corpus Christi refinery has a capacity of about 160,000 barrels per day; the Union Pacific spokesman said, and is a largely upgraded facility but he would place no value on the transaction. The additional acquisition of refinery and distribution assets by PDVSA has been expected as Venezuela has been moving aggressively to enhance its role in the oil industry from producer to expanding its presence in the downstream sector. Purchase of part of Champlin's operations also fits a profile which PDVSA officials have said previously they looked for in any acquisition. One PDVSA official said the company was looking for independent oil companies with good refinery and distribution network and a strong regional presence. The potential purchase of the interest in Champlin followed its earlier acquisition of a part interest in Southland Corp's <SLC> Citgo Petroleum Corp subsidiary. In that agreement signed September 15, 1986, PDVSA paid Southland 290 mln dlrs for half of Citgo's stock. The potential acquisition of half Champlin's Corpus Christi plant will also give Venezuela an additional outlet for its crude oil production while giving the refiner an assured source of supply, trade sources said. In the earlier deal with Southland, PDVSA agreed to supply Citgo with at least 130,000 bpd of crude oil and other feedstocks. Reuter

Simple Search Engine

Search: oilAND prof*

Type of model: Boolean Retrieval Model ☒ Stopword

Type of collection: Reuters21578 ☒ Stemming ☒ Normalization

View Detail: ship

	docid	title	desc	topic
1	49	ECONOMIC ...	International ...	ship
2	67	SAUDI BANKS ...	Saudi Arabia's 1...	earn
3	315	UNION PACIFIC ...	Union Pacific ...	acq
4	338	FN RESULTS HIT...	Fabrique ...	earn

FN RESULTS HIT BY STRIKES, DOLLAR IN 1986

13	1944	DOW <DOW> ...	Dow Chemical ...	earn	
14	2007	LOWER REFIN...	U.S. refiners will...	crude	

oil AND_NOT profit (Boolean)

search result for oil AND_NOT profit(Boolean):

Simple Search Engine

Search		oil AND_NOT profit		Query Expansion	
Type of model		Boolean Retrieval Model		<input checked="" type="checkbox"/> Stopword	
Type of collection		Reuters21578		<input checked="" type="checkbox"/> Stemming	
				<input checked="" type="checkbox"/> Normalization	
View Detail		interest			
	docid	title	desc	topic	
1	5	U.S. ECONOMIC...	U.S. economic ...	interest	▼
2	16	USX <X> ...	USX Corp said ...	crude	▼
3	17	PHILLIPS<P> ...	Phillips Petroleu...	crude	▼
4	28	VENEZUELA TO ...	venezuela will ...	crude	▼
5	35	BRITISH ...	A British minist...	veg-oil	▼
6	37	ECUADOR SEEK...	Ecuador, stricke...	crude	▼
7	39	ECUADOR TO ...	Ecuador will ask...	crude	▼
8	41	CHINA CLOSES ...	China has close...	crude	▼
9	61	STRIKING BRAZ...	Striking seamen...	ship	▼
10	80	MALAYSIA ...	Malaysia's Centr...	gnp	▼
11	125	CHINA CLOSES ...	China has close...	crude	▼
12	126	ECUADOR SEEK...	Ecuador, stricke...	crude	▼
13	129	ECUADOR TO ...	Ecuador will ask...	crude	▼
14	136	DRESDNER BA...	Deutsch-...	trade	▼
15	138	PAKISTAN COU...	Pakistan is likely...	veg-oil	▼
16	162	DUNE ...	Dune Resources...	crude	▼

Description for document 28

Simple Search Engine

Search		oil AND_NOT profit		Query Expansion	
Type of model		Boolean Retrieval Model		<input checked="" type="checkbox"/> Stopword	
Type of collection		Reuters21578		<input checked="" type="checkbox"/> Stemming	
				<input checked="" type="checkbox"/> Normalization	
View Detail		interest			
	docid	title	desc	topic	
1	5	U.S. ECONOMIC...	U.S. economic ...	interest	▼
2	16	USX <X> ...	USX Corp said ...	crude	▼
3	17	PHILLIPS<P> ...	Phillips Petroleu...	crude	▼
4	28	VENEZUELA TO ...	venezuela will ...	crude	▼

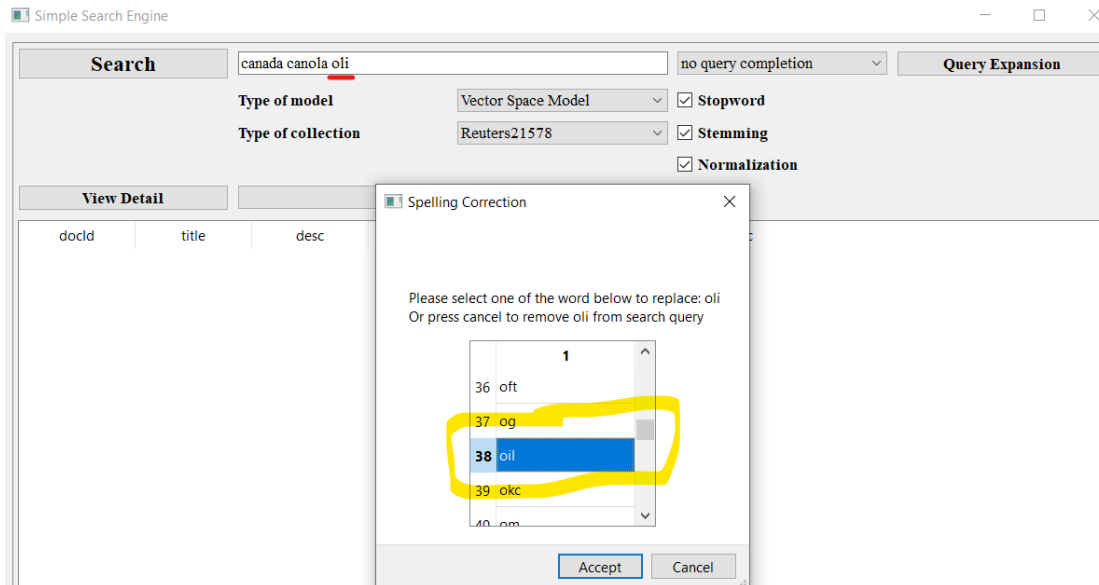
VENEZUELA TO LEND OIL TO ECUADOR FOR EXPORT

venezuela will supply ecuador with an as yet undetermined amount of crude **oil** to help it meet export commitments, seriously affected by last week's earthquake, energy and mines minister arturo hernandez grisanti said. He gave few details about the deal, but said a crude oil loan agreement will be made between state oil companies petroleos de venezuela (pdvsa) and ecuador's cepe. Ecuador was forced to suspend oil exports for an expected four months after an earthquake damaged a pipeline. **Oil** accounts for 60 per cent of its export income. Hernandez was speaking to reporters at miraflores palace on the results of talks with ecuador's deputy energy minister fernando santos alvite, who arrived here last night. "the volume lent to ecuador would be discounted from its opec quota and would not affect venezuela's," he said. "we would from august on produce our own quota and sell the additional amounts that ecuador would be repaying us," he said. He did not elaborate on the quota arrangements but did say ecuador would notify opec by telex that venezuela would be lending it a certain amount over so many days. Venezuela's opec output quota is currently 1.495 million barrels a day, and ecuador's has been set at 210,000 bpd. Reuter

Canada canola oli (VSM - spelling error)

Oli spelling correction:

In VSM settings, the search engine checks each word in the query against all the words in the collection, if there is no match, search engines then calculate the editing distance for each word and return a list for the user to select.



Canada canola oil (VSM)Search result:

The screenshot shows the Simple Search Engine interface with the search query "canada canola oil". The "Type of model" is "Vector Space Model" and the "Type of collection" is "Reuters21578". The "View Detail" dropdown is set to "crude". The search results are displayed in a table with columns: docid, title, desc, topic, and score.

	docid	title	desc	topic	score
1	11405	ENERGY/HEAVY...	The oil price collapse of 1986 put developmen...	crude	43.29886761042335
2	4115	CANADA OIL ...	Firmer crude oil prices, government aid ...	crude	35.31533476914541
3	10798	ENERGY/...	Lured by the weakening dollar and the ...	crude	28.42023580909354
4	6876	DIVISION SEEN ...	The U.S. Congress and the oil industry are deep...	crude	24.86770633295685
5	4080	U.S. SCIENTISTS...	U.S. scientists said some tropical vegetable oils ...	veg-oil	21.315176856820155
6	9775	CRUDE OIL ...	U.S. crude oil prices rose above 18 dlrs a barrel ...	crude	21.315176856820155
7	12616	ENERGY/...	Drilling for oil in California is likely to contin...	crude	21.315176856820155
8	1080	BP<BP> OFFER ...	British Petroleum Plc's plan to pay 7.4 billion dl...	crude	20.131000364774593
9	11329	EXXON <XON> ...	Exxon Corp chairman Lawrence Rawl said total ...	crude	20.131000364774593
10	2490	CANADA'S ...	Canada's airline industry, shaken up by a recent...	earn	19.739634725682063
11	2624	GM <GM> ...	General Motors of Canada Ltd, wholly owned b...	earn	16.7027678448079
12	6722	U.S. ENERGY ...	The U.S. oil and gas industry is in better health ...	crude	16.5784708886379
13	11359	DECLINE IN U.S....	The sliding value of the U.S. dollar may soon ...	crude	16.5784708886379
14	11433	OFFSHORE OIL ...	The depressed offshore oil industry is still waiti...	crude	16.5784708886379
15	12306	OIL PRICES RISE...	Crude oil prices rallied today, moving over 17.0...	crude	16.5784708886379
16	11254	WORLD OIL ...	Oil prices have stabilized in world markets and ...	crude	15.728551344983853

The screenshot shows a web browser window with the Simple Search Engine. The search bar contains the text "canada canola oil". Below the search bar, there are two dropdown menus: "Type of model" set to "Vector Space Model" and "Type of collection" set to "Reuters21578". To the right of these dropdowns are three checked checkboxes: "Stopword", "Stemming", and "Normalization". A "Query Expansion" button is located to the right of the search bar. The results section displays a single result: "WORLD OIL DEMAND LIKELY TO INCREASE, SUBROTO SAYS".

[illegible]

Search

no query completion

Query Expansion

Type of model

Vector Space Model

☒ Stopword

Type of collection

Reuters21578

☒ Stemming

☒ Normalization

View Detail

veg-oil

	docid	title	desc	topic	score
5	4080	U.S. SCIENTISTS...	U.S. scientists said some tropical vegetable oils ...	veg-oil	21.315176856820155
				veg-oil	
				palm-oil	
				coconut-oil	

Canada canola oil (VSM) query expansion:

For each word in the search query, the Search engine tries to find synonyms for that word. If these synonyms are also can be found inside the collection, these synonyms will be returned and allow the user to select preferred query expansion. In the example below, we choose petroleum for word oil, the word petroleum is placed right next to oil in the search query.

Simple Search Engine

Search

canada canola oil

no query completion

Query Expansion

Type of model

Type of collection

View Detail

veg-oil

docid	title	topic	score
5 4080	U.S. SCIENTISTS...	U.S. scie	21.315176856820155

Please select words below to expand: oil
Or press cancel, holding ctrl to select multiple items

1 petroleum

2 crude

Accept

Cancel

Search

canada canola petroleum oil

no query completion

Query Expansion

Type of model

Type of collection

View Detail

veg-oil

Vector Space Model

Reuters21578

☒ Stopword

☒ Stemming

☒ Normalization

docid	title	desc	topic	score
5 4080	U.S. SCIENTISTS...	U.S. scientists said some tropical vegetable oils ...	veg-oil	21.315176856820155

European banks stockholders (VSM)

European banks stockholders (VSM) query completion:

Simple Search Engine

Search

European banks stockholders

Type of modelVector Space Model

Type of collectionReuters21578

View Detailveg-oil

stockholders record

stockholders record

stockholders approved

stockholders equity

stockholders receive

stockholders company

stockholders would

Query Expansion

European banks stockholders (VSM) search result:

Simple Search Engine

Search

European bank stockhold

no query completion

Query Expansion

Type of modelVector Space Model

Type of collectionReuters21578

☒ Stopword

☒ Stemming

☒ Normalization

View Detail

earn

	docId	title	desc	topic	score
1	7730	JAPANESE BANKS EXPAND HONG KO...	At a time when ...	earn	34.22326844746698
2	7837	JAPANESE BANKS EXPAND HONG KO...	At a time when ...	earn	34.22326844746698
3	2123	CANADA BANKS COULD SEE PRESSUR...	Canada's major ...	earn	30.14906982276853
4	12275	BANK OF ENGLAND PROPOSES LIMITS...	The Bank of ...	money-fx	28.519390372889152
5	20835	BRITISH BANKS RESIST SIGNING ...	British banks are...	earn	28.519390372889152
6	67	SAUDI BANKS FACE FURTHER LEAN ...	Saudi Arabia's 1...	earn	26.889710923009773
7	11199	QATAR'S BANKS SET FOR FURTHER ...	Bank profits in t...	crude	25.26003147313039
8	3891	ECONOMIC SPOTLIGHT - U.S. BANKIN...	U.S. banks are ...	acq	25.056414690400086
9	19769	PHILIPPINE CENTRAL BANKER FACES ...	A government-...	money-fx	24.962002766236207
10	4629	ECONOMIC SPOTLIGHT - FOREIGN ...	Foreign banks in...	money-fx	24.4451917481907
11	14853	ECONOMIC SPOTLIGHT - EXCESS ...	Thailand's ...	interest	22.00067257337163
12	19483	ECONOMIC SPOTLIGHT - BRAZIL DEBT ...	Slow progress i...	interest	20.778599282971335
13	2823	TURKISH BANKS ANNOUNCE HIGHER ...	Turkey's banks a...	money-fx	20.37099312349225
14	19633	INDONESIAN BANKS PROFITS RISE ...	Indonesia's ...	earn	20.37099312349225

European banks stockholders (VSM) relevant feedback:

In VSM settings, each document info window will have two bottom, relevant or not relevant. Search engine will keep the query as well as its document feedback in a json file. The relevance feedback file will be reset every time the search engine program is opened

The example below is the description window for document 2123, we select relevant bottom in the bottom right corner.

■ CANADA BANKS COULD SEE PRESSURE ON BRAZIL LOANS

Canada's major banks will likely face stiff pressure to declare their Brazilian loans non-performing if, as expected, major U.S. banks take similar action after the end of their first quarter tomorrow, analysts said. American bankers said last week that slow progress in debt talks with Brazil increased the likelihood that U.S. banks would soon declare their Brazilian loans non-performing. Such action "would put a lot of pressure on the Canadian banks to do the same," Levesque, Beaubien Inc Toronto-based bank analyst Donna Pulcine told Reuters. "They (banks) like to appear to be conservative," said Pulcine, "and if a major bank puts loans on a non-performing basis and the Canadian banks don't, there is going to be a lot of pressure from shareholders as to why one bank is considering the loans non-performing and another bank is not." Wood Gundy Inc bank analyst Patricia Meredith said any willingness by a major Brazilian bank creditor such as Citicorp <CCI> to declare its Brazilian loans non-performing rather than let Brazil dictate settlement terms would provide a compelling example for other creditor banks. "In order to make that strategy work, they (Citicorp) have to have the support of the other banks," said Meredith. Bank analyst Michael Walsh at First Marathon Securities Ltd said at least one Canadian bank, which he declined to identify, "wants to put (the Brazilian loans) on a non-performing basis and is trying to encourage the others to take that position." Canadian banks are owed about seven billion Canadian dls by Brazil, which late last month suspended interest payments on its 68 billion U.S. dlr foreign bank debt. Banks in Canada, although allowed to wait up to 180 days before declaring loans on which they are receiving no interest as non-performing, usually move on such loans within 90 days. They could therefore delay action on the Brazilian loans until late May, which falls in Canadian banks' third quarter ending July 31. <Bank of Montreal> Brazil's largest Canadian bank creditor, said last week it was not currently considering declaring its 1.98 billion dls of Brazilian loans as non-performing. "I think that is just for the benefit of the public," Walsh said of Bank of Montreal's statement. Some analysts predicted minimal earnings impact on Canadian banks from a move to declare the Brazilian loans non-performing. They said Brazil would likely resume interest payments by the banks' fiscal year-end on October 31, thus allowing banks to recoup their lost interest income. "From what Brazil has said, it is quite likely the banks will get the money," said Meredith. "My outlook at this point is optimistic that there will be no adjustment for the full-year's earnings." Meredith forecast 1987 fully diluted per share earnings of 3.80 dls for <Royal Bank of Canada> compared with 3.74 in 1986; 4.30 dls for <Bank of Montreal> compared with 3.59; 2.25 dls for <Canadian Imperial Bank of Commerce> compared with 2.23; 2.15 dls for <Bank of Nova Scotia> compared with 1.94, and 2.85 dls for <Toronto Dominion Bank> against 2.74. She forecast 1.90 dls for <National Bank of Canada> against 3.30 dls before a two for one stock split. Analyst Pulcine said she might lower full-year earnings estimates for the banks by between two cts and 10 cts a share, assuming a possible settlement reduced Brazil's interest costs. "If the banks didn't receive anything for the rest of the fiscal year, the impact could range from 16 cts to 70 cts a share. But I don't see that as a likely scenario," Pulcine said. Walsh at First Marathon suggested, however, that the Brazilian debt situation was so complex that "it could drag on beyond one full fiscal year." He said he foresaw having to lower his 1987 fiscal earnings forecasts for the banks. He estimated that Brazil's yearly interest payments to Canadian banks totaled about 575 mln dls or about 10 pct of their total 1986 pre-tax earnings. Reuter

relevant

not relevant

cancel

The structure of the relevant feedback file:

There are two relevant feedback file, one for UO collection one for reuter. The example below is the feedback file for reuter. Search query is "European bank stockhold" with relevant document ID 2123

```
{
  "european bank stockhold": {
    "not relevant": [],
    "relevant": [
      2123
    ]
  }
}
```

European banks stockholders (VSM) local query expansion:

Below is the stock price(VSM) search result without any relevant feedback:

Search		stock price		no query completion		Query Expansion	
Type of model		Vector Space Model		<input checked="" type="checkbox"/> Stopword			
Type of collection		Reuters21578		<input checked="" type="checkbox"/> Stemming			
				<input checked="" type="checkbox"/> Normalization			
View Detail		grain					
	docid	title	desc	topic	score		
1	13875	U.S. SUPPLY/...	The U.S. ...	grain	38.19093343530761		
2	4462	COCOA BUFFER...	The Internation...	cocoa	32.51908038165912		
3	5200	SEC DETAILS ...	Federal ...	acq	29.490042161310182		
4	1760	COCOA DEAL ...	The buffer stock...	cocoa	24.8733301050274		
5	20203	MIXED ASIAN ...	Governments of...	rubber	24.802656549210667		
6	3631	U.S. MONEY ...	U.S. money ...	money-fx	23.394147772761293		
7	18772	U.S. STOCK DR...	A collapse in U...	money-fx	21.808955106770092		
8	2224	COMMODITY ...	Consuming ...	tin	20.574649049919913		
9	3258	COCOA LATEST ...	The credibility ...	cocoa	19.976404995420324		
10	19060	MAIN FEATURE...	The new ...	rubber	19.693710772153395		
11	8381	PRIMARY GILTS ...	Primary dealers ...	money-fx	19.20147705137891		
12	7967	EXCHANGE SEE...	The Stock ...	money-fx	17.580947607479338		
13	5502	DANGER OF ...	Stock index-...	gold	17.545610829570972		
14	9775	CRUDE OIL ...	U.S. crude oil ...	crude	17.192243050487306		

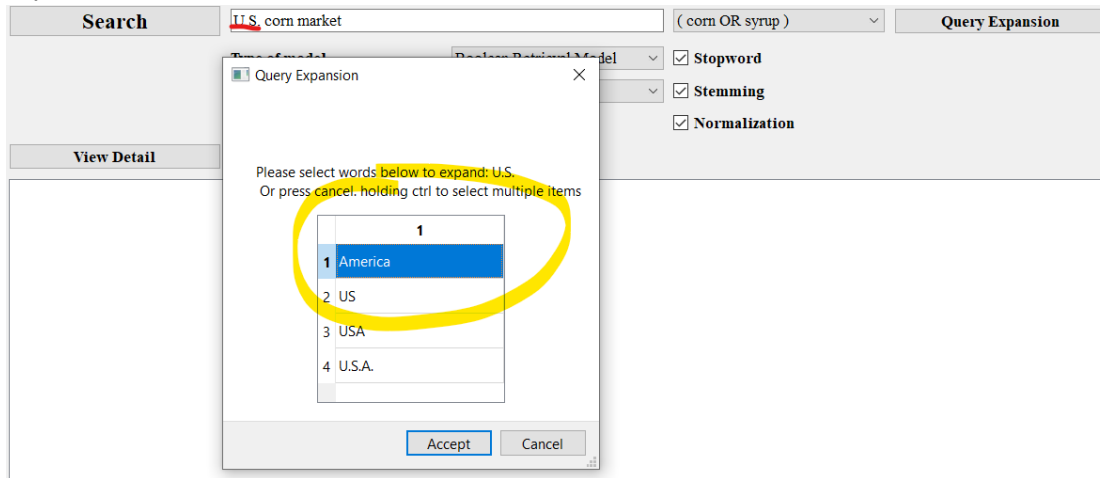
Below is the stock price(VSM) search result with relevant feedback form query "European bank stockhold" with relevant docID 2123. The documents 2123, 4629 11199 from the query "European bank stockhold" now are also show in the search result for query "stock price"

Search		stock price		stock splits		Query Expansion	
Type of model		Vector Space Model		<input checked="" type="checkbox"/> Stopword			
Type of collection		Reuters21578		<input checked="" type="checkbox"/> Stemming			
				<input checked="" type="checkbox"/> Normalization			
View Detail		grain					
	docid	title	desc	topic	score		
1	13875	U.S. SUPPLY/DEMAND DETAILE...	The U.S. Agriculture Department made the following...	grain	38.19093343530761		
2	4462	COCOA BUFFER STOCK MAY ...	The International Cocoa Organization (ICCO) buffer...	cocoa	32.51908038165912		
3	8381	PRIMARY GILTS DEALERS NEED...	Primary dealers in U.K. Government gilts will not ...	money-fx	30.501910098092203		
4	5200	SEC DETAILS CHARGES AGAIN...	Federal regulators said Boyd Jefferies, who resign...	acq	30.117843997238698		
5	7967	EXCHANGE SEEN APPROVING ...	The Stock Exchange is virtually certain to agree t...	money-fx	26.997975146407086		
6	7730	JAPANESE BANKS EXPAND ...	At a time when Britain is threatening to revoke th...	earn	26.367677108997682		
7	7837	JAPANESE BANKS EXPAND ...	At a time when Britain is threatening to revoke th...	earn	26.367677108997682		
8	20203	MIXED ASIAN REACTION TO ...	Governments of major Asian producing countries hav...	rubber	25.430458385139183		
9	1760	COCOA DEAL SEEN POSITIVE, ...	The buffer stock rules agreement reached on Friday...	cocoa	24.8733301050274		
10	3631	U.S. MONEY MANAGERS MAY ...	U.S. money managers and investment advisors said t...	money-fx	24.649751444618325		
11	2123	CANADA BANKS COULD SEE ...	Canada's major banks will likely face stiff pressu...	earn	24.074269429213256		
12	4629	ECONOMIC SPOTLIGHT - ...	Foreign banks in West Germany are reassessing thei...	money-fx	23.02672579923788		
13	18048	TOKYO STOCK PLUNGE COULD ...	Plunging Tokyo stock prices will prevent the Bank ...	interest	22.872017355272884		
14	11199	QATAR'S BANKS SET FOR ...	Bank profits in the Gulf oil state of Qatar are co...	crude	22.702915801583142		

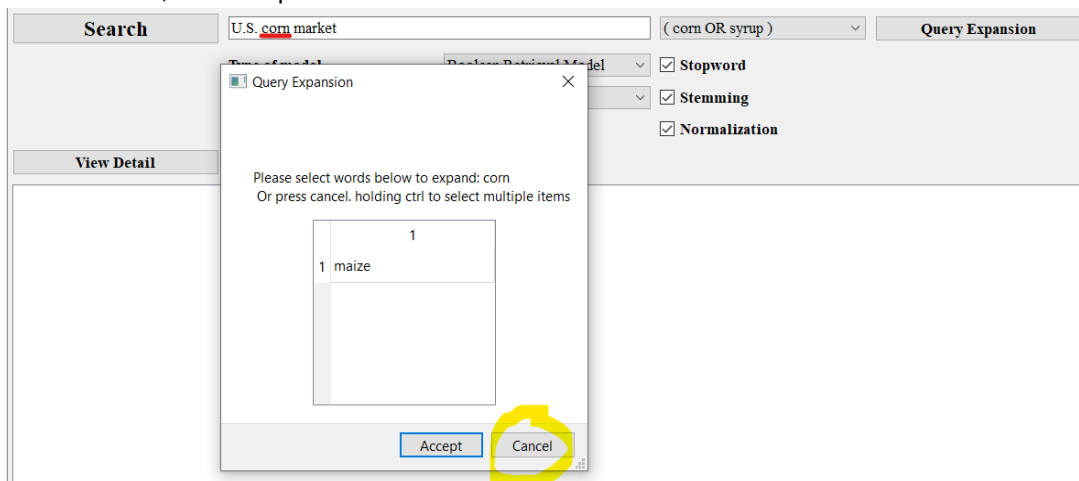
U.S. corn market (VSM)

U.S. corn market (VSM) query expansion:

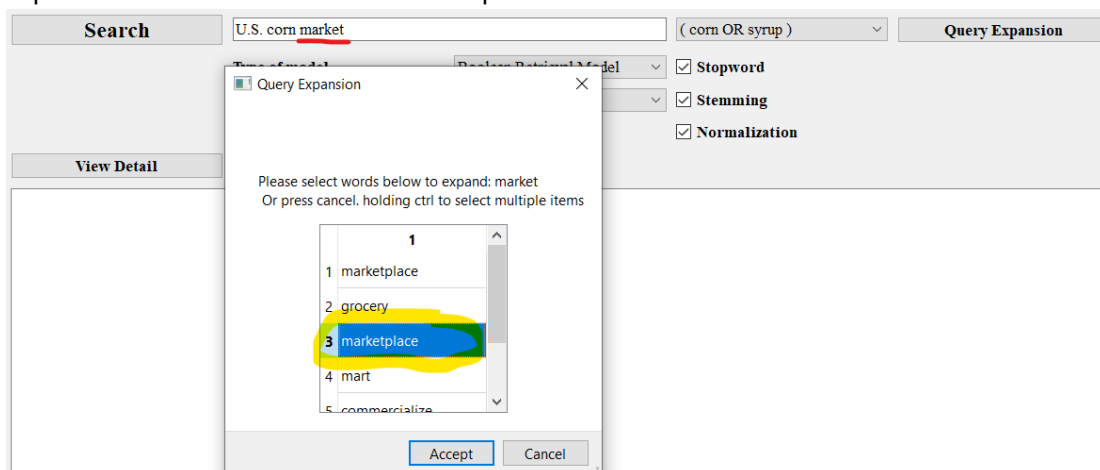
Expand word "US" with word "America"



Select cancel, not to expand word "corn"



Expand word "market" with word "marketplace"



The query become "America US corn marketplace market"

America US corn marketplace market (VSM) search result:

Search

america us corn marketplac market

(corn OR syrup)

Query Expansion

Type of model

Vector Space Model

☒ Stopword

Type of collection

Reuters21578

☒ Stemming

☒ Normalization

View Detail

grain

	docId	title	desc	topic	score
1	988	NUMEROUS ...	A greater than ...	grain	39.96932031068891
2	20058	U.S. CORN ...	U.S. corn acreag...	grain	36.503268707858496
3	20470	U.S. SUGAR ...	A leading U.S. ...	sugar	31.31661657481888
4	9913	U.S. CORN ...	Canada's ruling ...	grain	25.9998840843618
5	18772	U.S. STOCK DR...	A collapse in U....	money-fx	24.711810499781052
6	15382	U.S. CORPORAT...	The U.S. asset-...	acq	24.07847301220411
7	3109	U.S. ...	U.S. Agriculture ...	grain	23.71135647806791
8	16353	LLOYDS BANK ...	Lloyds Bank Plc'...	interest	23.14065145709796
9	10429	USSR SEEN ...	The Soviet Unio...	grain	22.43610845399502
10	5135	ECONOMIC ...	The U.S. trade ...	trade	22.254662036556653
11	11325	PRESSURE ...	Pressure is ...	dlr	21.293268843038653
12	939	USSR HEAVY ...	The Soviet Unio...	grain	20.57580237134897
13	6588	U.S. CORN ...	Recent purchas...	grain	20.473109260191332
14	14858	JAPAN MINISTR...	Japan's ...	trade	20.38462643481683