

Business Intelligence

Purple Frog Systems
Business Intelligence Consultancy



Alex@PurpleFrogSystems.com

Hollie@PurpleFrogSystems.com

www.PurpleFrogSystems.com

@PurpleFrogSys

@PurpleFrogIT



Introduction

- Welcome
- Overview of Session
 - Problems with data
 - The BI Solution
 - Demo
 - Summary
- Who are Purple Frog



Purple Frog Systems

Business Intelligence Consultancy

Data Warehousing

Data Quality

OLAP Cubes

Reporting Systems

Data Mining

Web Design

**NEW:
BUSINESS
INTELLIGENCE
TRAINING**



Group of individual experts in their field



Confused.com



Liberty
Syndicates

ACCREDITUK
ASSURED QUALITY FOR IT

CERTIFIED FOR:
ICT CONSULTANCY

**PRINCIPALITY
BUILDING SOCIETY**



**GALA CORAL
GROUP**

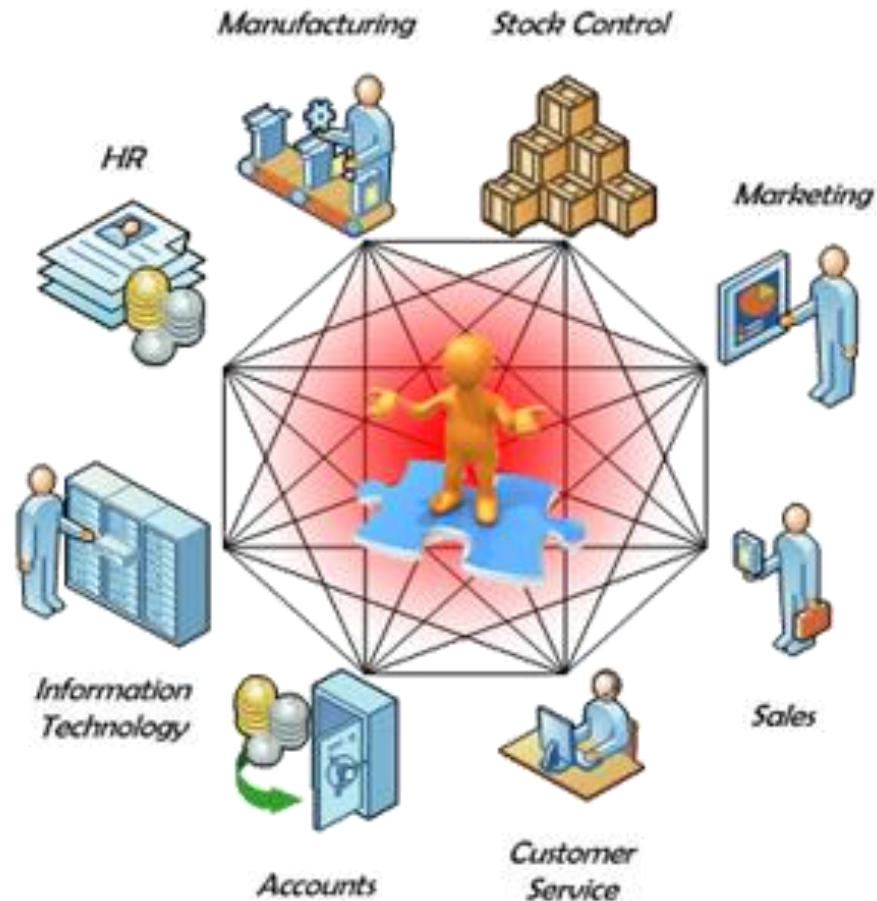


Common Database Problems

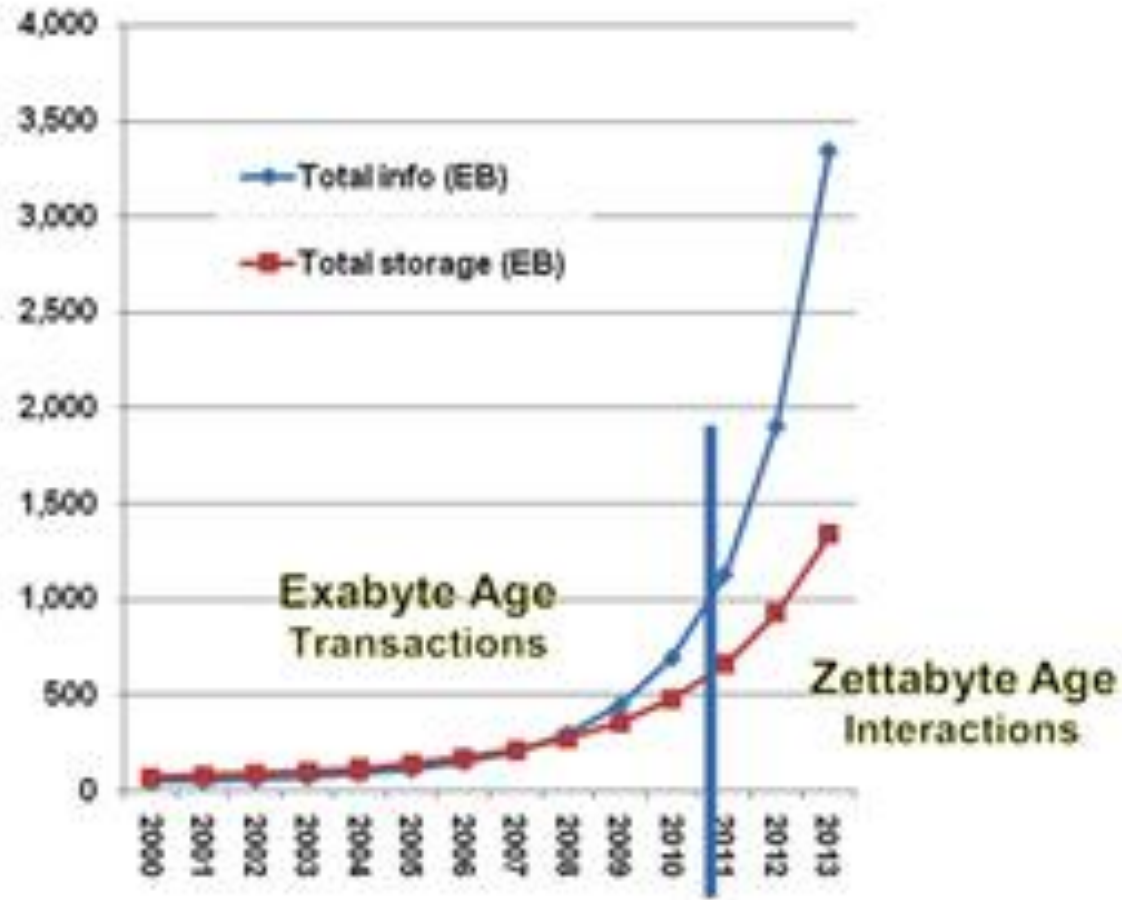
- Reports impacting server performance
- Multiple sources of data
- Inconsistent data/terminology



Common Database Problems



Data Growth



The BI Solution

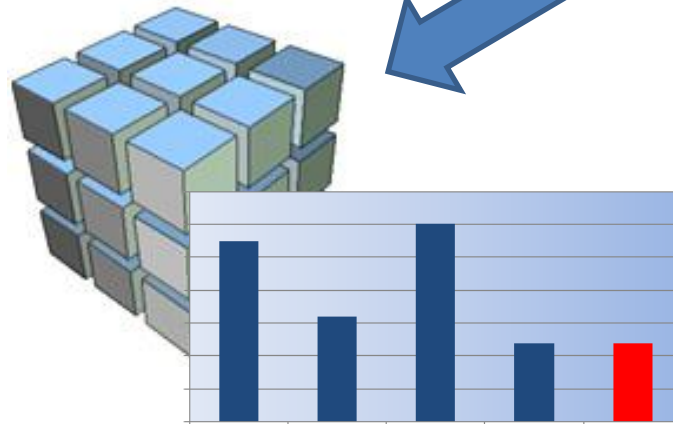
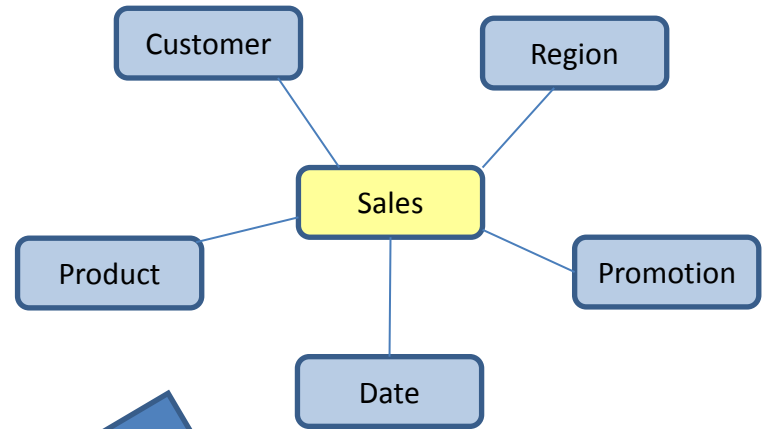
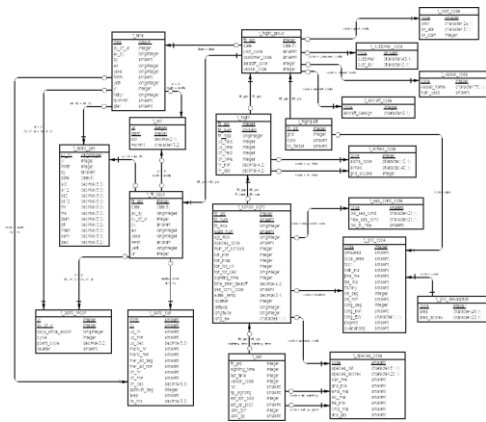


The BI Solution

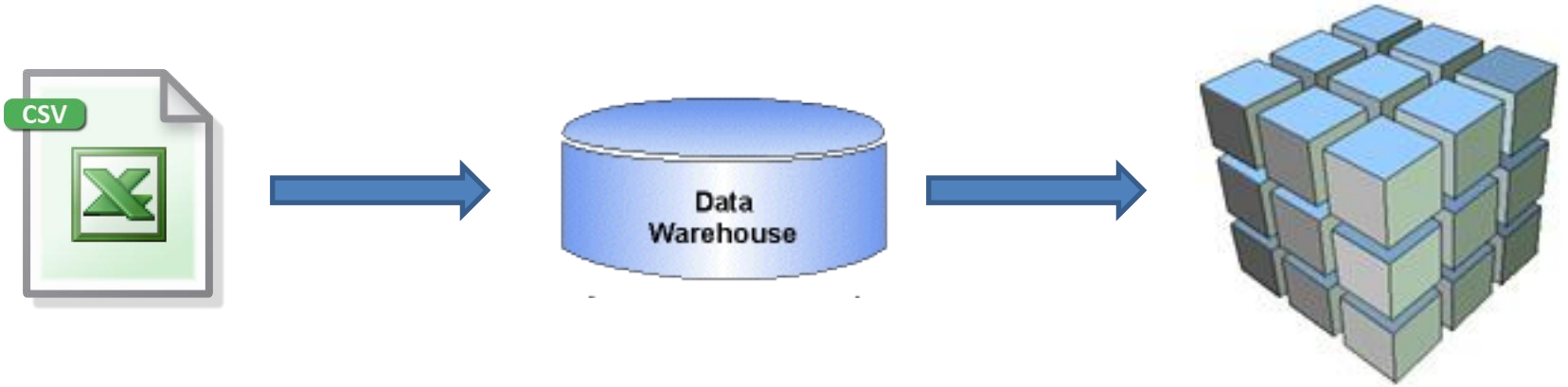
- Move reporting to separate system
- Consolidate, standardise & simplify data
- Pre-define and standardise terminology



What does BI involve?



BI In Action

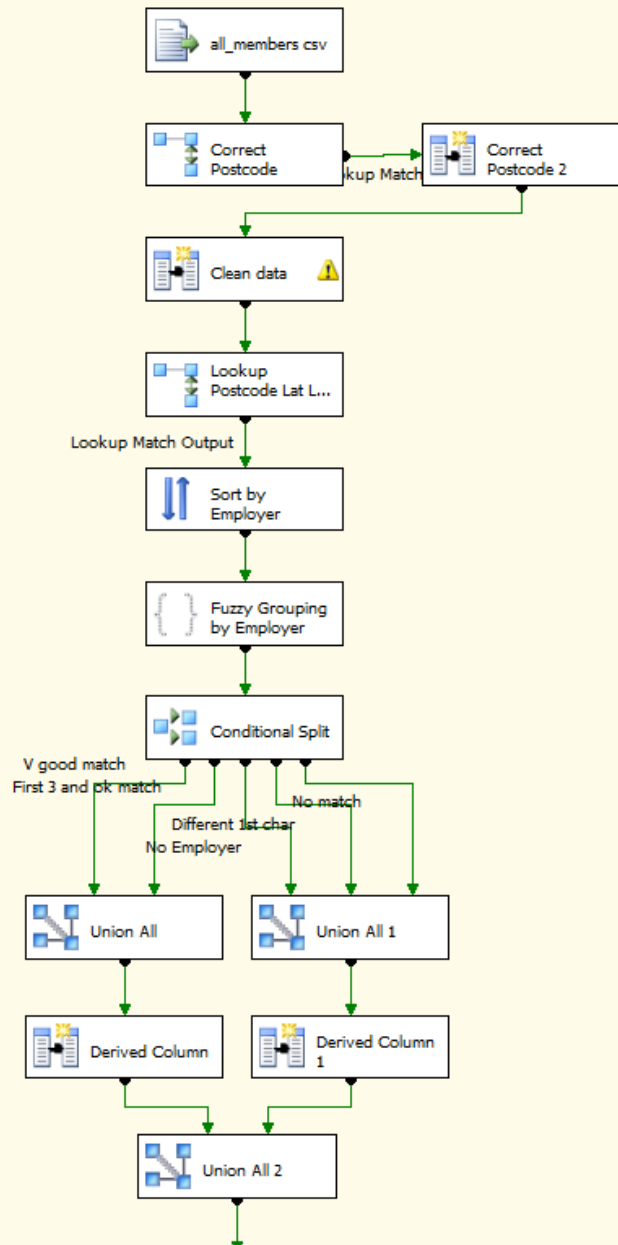


DEMO



Town,County,Post_Code,Country,Telephone,Email_Address,Current_list_server,Communication_Preference,Mail_Hold,Email_Hold,Marketing_Hc
 ,9455173@bcs.org,Y,E,N,N,Y,RSM Tenon,Director of IT,M,22/08/1969,N,CHARTERED MEMBER,,Y, ,CURRENT,01/09/1997,31/08/2010,,Chartered I
 166@bcs.org,Y,E,N,N,N,,M,12/05/1962,N,,MEMBER,,, ,CURRENT,13/07/2007,31/07/2011,,,21/09/2007,S
 31963@bcs.org,Y,E,N,N,N,Apex Internal Solutions Ltd,Managing Director,M,22/05/1968,N,,MEMBER,,, ,CURRENT,26/02/2007,28/02/2011,,,21,
 ,300310@bcs.org,Y,E,N,N,N,,F,05/04/1950,N,,CHARTERED MEMBER,,Y, ,CURRENT,01/08/1974,30/04/2011,,,21/09/2007,S
 390076190@bcs.org,Y,E,N,N,N,,M,05/04/1950,N,,MEMBER,,, ,CURRENT,18/04/2006,30/04/2011,,,21/09/2007,P
 ,E,N,N,Y,Doncasters Aerospace Ltd,IT Support,M,25/10/1974,Y,Y,MEMBER,,, ,CURRENT,23/07/2007,31/07/2011,,,21/09/2007,P
 123,9410370@bcs.org,Y,E,N,N,Y,,M,27/11/1945,N,,CHARTERED FELLOW,10-Mar-04,Y, ,CURRENT,01/05/1997,30/04/2011,,Chartered Eng,05/08/20
 23@bcs.org,Y,E,N,N,Y,British Telecom,Head of Architecture,M,06/03/1973,N,,CHARTERED FELLOW,25-Nov-08,Y, ,CURRENT,25/11/2008,30/11/20
 cg,Y,E,N,N,N,IBM United Kingdom Ltd,Network Architect,M,08/04/1969,N,,CHARTERED MEMBER,,Y, ,CURRENT,01/11/2007,30/11/2010,,,12/10/20
 cs.org,Y,E,N,N,Y,Netnorth Ltd,Network Engineer,M,24/07/1979,Y,Y,MEMBER,,, ,CURRENT,19/10/2005,31/10/2010,,,21/09/2007,S
 30244696@bcs.org,Y,E,N,N,N,E D S,Chief Technologist,M,04/06/1951,N,,MEMBER,,, ,CURRENT,28/10/2008,31/10/2010,,,20/10/2008,P
 390086251@bcs.org,Y,L,N,N,N,,F,11/04/1982,Y,Y,STUDENT FULL COURSE WEB,,, ,CURRENT,07/06/2006,31/03/2014,,,29/03/2010,P
 ,Y,E,N,N,N,,M,24/04/1955,N,,CHARTERED MEMBER,,Y, ,CURRENT,01/01/1998,31/12/2010,,Chartered Eng,21/09/2007,S
 ,N,N,N,,M,02/01/1969,N,,MEMBER,,, ,CURRENT,07/04/2010,30/04/2011,,,07/04/2010,P
 cs.org,Y,E,N,N,N,Retired,Retired,M,31/03/1946,N,,CHARTERED MEMBER,,Y, ,CURRENT,01/11/1979,30/04/2011,,,21/09/2007,S
 bcs.org,Y,E,N,N,N,D I UK Ltd,It Manager,M,04/04/1959,N,,CHARTERED MEMBER,,Y, ,CURRENT,27/06/2008,30/06/2011,,,20/08/2009,S
 30732@bcs.org,Y,E,N,N,Y,,M,29/09/1962,N,,CHARTERED MEMBER,,Y, ,CURRENT,22/09/2006,30/09/2010,,,21/09/2007,P
 .org,Y,E,N,N,N,MTB Consulting,Managing Director,M,24/05/1965,N,,MEMBER,,, ,CURRENT,03/05/2002,31/05/2011,,,01/05/2009,P
 123,8024320@bcs.org,Y,E,N,N,N,Capgemini UK PLC,Solution Architect,F,07/02/1962,N,,CHARTERED MEMBER,,Y, ,CURRENT,06/11/1981,30/04/20
 @bcs.org,Y,E,N,N,N,EDS,Architect,M,18/01/1948,N,,MEMBER,,, ,CURRENT,10/07/2006,31/07/2011,,,21/09/2007,P
 ,N,N,N,Ruskin Air Management Ltd,Analyst/Programmer,M,15/04/1970,N,,MEMBER,,, ,CURRENT,01/12/1995,30/11/2010,,,21/09/2007,S
 .org,Y,L,N,N,N,Capgemini,Citrix Infrastructure Engineer,M,04/06/1976,Y,Y,MEMBER,,, ,CURRENT,04/06/2004,31/05/2011,,,21/09/2007,S
 bcs.org,Y,L,N,N,N,University Of Wolverhampton,Senior Lecturer,M,04/06/1953,N,,MEMBER,,, ,CURRENT,06/10/2005,31/10/2010,,,21/09/2007,
 30071036@bcs.org,Y,E,N,N,N,Wolverhampton Homes,Head of ICT,F,12/01/1962,N,,MEMBER,,, ,CURRENT,14/11/2006,30/11/2010,,,21/03/2008,S
 s.org,N,L,N,N,Y,,M,20/10/1980,Y,N,MEMBER,,, ,CURRENT,06/02/2003,31/01/2011,,,21/09/2007,S
 ,Y,University of Brighton,,F,18/08/1990,Y,Y,STUDENT FULL COURSE,,, ,CURRENT,14/04/2009,30/04/2013,,,14/04/2009,P
 23,273191@bcs.org,Y,E,N,N,Y,,M,14/05/1945,N,,CHARTERED MEMBER,,Y, ,CURRENT,01/11/1973,30/04/2011,LIFE MEMBER,,21/09/2007,P
 38307@bcs.org,Y,E,N,N,N,,M,,,MEMBER,,, ,CURRENT,13/05/2004,30/04/2011,,,21/09/2007,S
 m,01952 123123,9524831@bcs.org,Y,E,N,N,Y,University Of Birmingham,M,23/10/1964,N,,CHARTERED FELLOW,12-May-06,Y, ,CURRENT,14/09/20
 30228903@bcs.org,Y,E,N,N,Y,Interpulse Ltd,Md,M,16/04/1964,N,,MEMBER,,, ,CURRENT,22/07/2008,31/07/2011,,,10/07/2008,P
 3123,8034688@bcs.org,Y,E,N,N,N,,M,11/11/1932,N,,CHARTERED FELLOW,10-Mar-04,Y, ,CURRENT,24/06/1982,30/04/2011,,Chartered Eng,21/09/:
 074688@bcs.org,Y,L,N,N,N,Y,Shropshire County Primary Care Trust,Senior Informatics Manager,F,21/01/1953,N,,AFFILIATE,,, ,CURRENT,28/0:
 78410@bcs.org,Y,E,N,N,N,Capgemini,Systems Engineer,M,02/04/1955,N,,CHARTERED MEMBER,,Y, ,CURRENT,01/11/1994,31/10/2010,,Chartered En
 10002830@bcs.org,Y,E,N,N,N,Y,HM Revenue & Customs,Enterprise Architect,M,24/01/1963,N,,CHARTERED MEMBER,,Y, ,CURRENT,14/04/1999,30/04/
 cg,Y,E,N,N,N,,M,24/11/1984,Y,Y,STUDENT FULL COURSE WEB,,, ,CURRENT,19/03/2010,31/03/2014,,,19/03/2010,P
 l@bcs.org,Y,E,N,N,Y,,M,09/04/1950,N,,CHARTERED MEMBER,,Y, ,CURRENT,01/10/1993,30/09/2011,,Chartered Eng,21/09/2007,S
 cs.org,Y,E,N,N,N,The Royal Mercian and Lancastrian Yeomanry,Administration Officer,M,23/04/1956,N,,MEMBER,,, ,CURRENT,23/03/2007,31,
 0134118@bcs.org,Y,E,N,N,Y,Applabs Ltd,,M,22/03/1961,N,,NEW CHARTERED MEMBER,,Y, ,CURRENT,13/09/2007,30/09/2011,,,21/09/2007,P
 bcs.org,Y,E,N,N,N,I L X Group,Project Management Training Consultant,M,11/04/1955,N,,MEMBER,,, ,CURRENT,01/04/1996,31/08/2011,,,21/
 530@bcs.org,Y,L,N,N,N,Y,IBM United Kingdom Ltd,Test Analyst,M,11/11/1957,N,,MEMBER,,, ,CURRENT,01/04/2005,30/04/2011,,,21/09/2007,S
 198@bcs.org,N,L,N,N,N,Insight Systems,Managing Director,M,15/03/1948,N,,AFFILIATE,,, ,CURRENT,01/09/1994,31/08/2011,,,21/09/2007,S
 3,9415593@bcs.org,Y,E,N,N,N,EDS Limited,Security Manager,M,17/06/1950,N,,CHARTERED MEMBER,,Y, ,CURRENT,01/05/1997,30/04/2011,,Chart





Load data from CSV

Perform data updates

Clean empty/incorrect data

Lookup postcode to Lat/Long
for mapping – data downloaded from internet

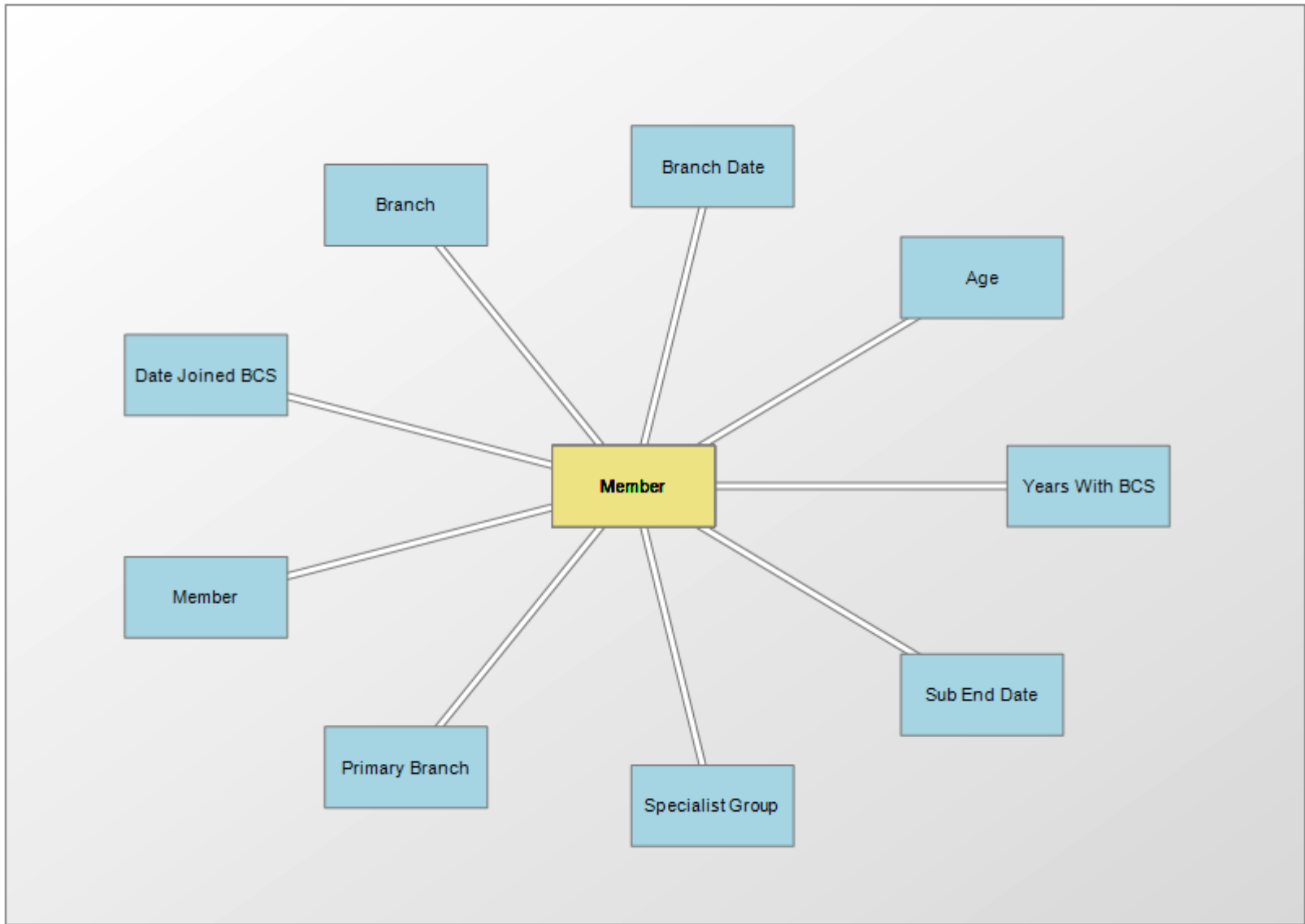
Fuzzy group the employer to match
different spellings

Depending on the level of fuzzy match,
perform different functions

Group the results together

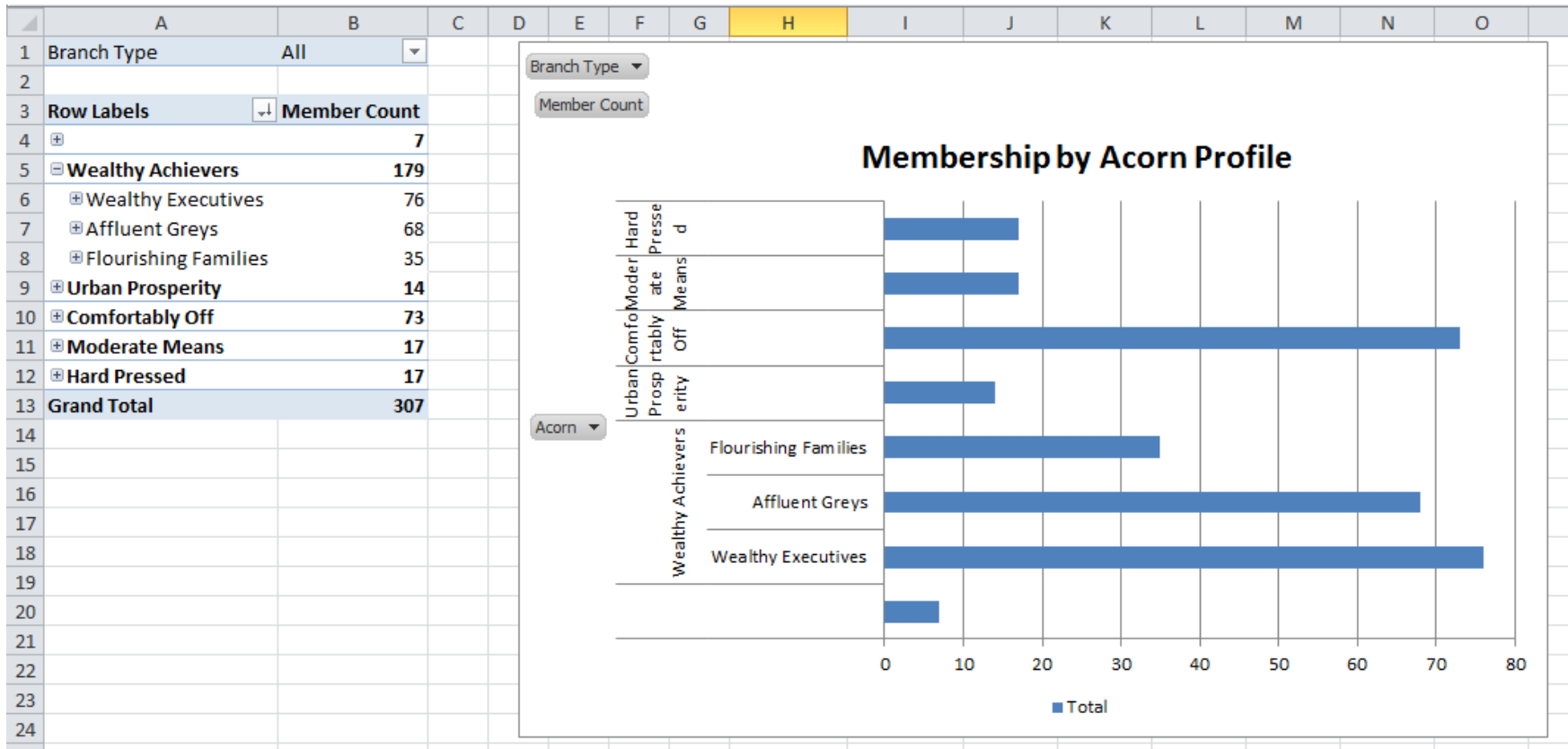
Save into a data warehouse

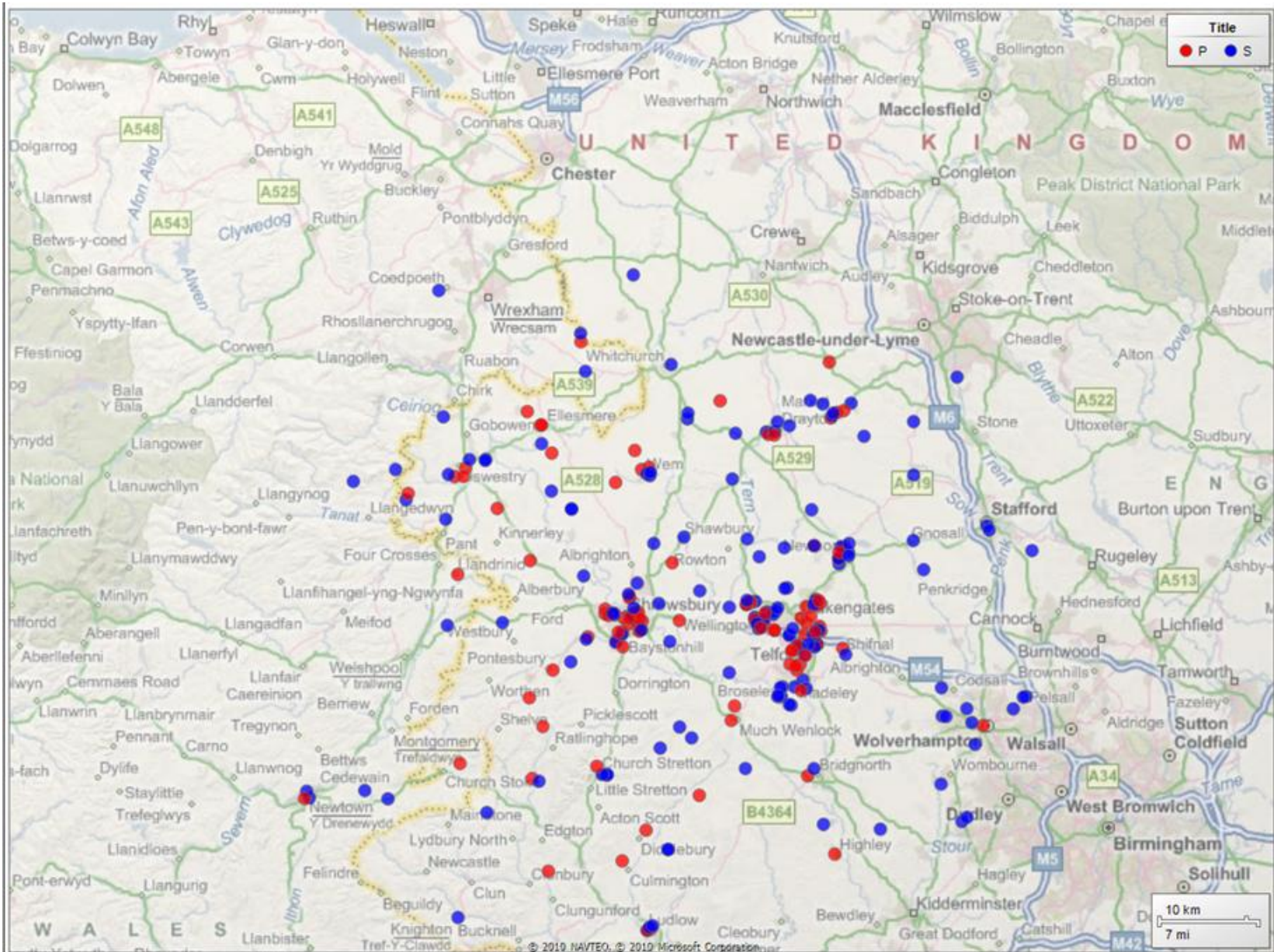




	A	B	C	D	E	F	G																					
1	Specialist Group	Member Count		Membership Grade																								
2	Consultancy	22		<table border="1"> <tr> <td>AFFILIATE</td> <td>ASSOCIATE</td> </tr> <tr> <td>CHARTERED FELLOW</td> <td>CHARTERED MEMBER</td> </tr> <tr> <td>EDUCATIONAL AFFILIATE EMPLOYEE</td> <td>MEMBER</td> </tr> <tr> <td>NEW CHARTERED MEMBER</td> <td>STUDENT</td> </tr> <tr> <td>STUDENT FULL COURSE</td> <td>STUDENT FULL COURSE WEB</td> </tr> <tr> <td colspan="2">Unknown</td> </tr> </table>				AFFILIATE	ASSOCIATE	CHARTERED FELLOW	CHARTERED MEMBER	EDUCATIONAL AFFILIATE EMPLOYEE	MEMBER	NEW CHARTERED MEMBER	STUDENT	STUDENT FULL COURSE	STUDENT FULL COURSE WEB	Unknown										
AFFILIATE	ASSOCIATE																											
CHARTERED FELLOW	CHARTERED MEMBER																											
EDUCATIONAL AFFILIATE EMPLOYEE	MEMBER																											
NEW CHARTERED MEMBER	STUDENT																											
STUDENT FULL COURSE	STUDENT FULL COURSE WEB																											
Unknown																												
3	ELITE	20		<table border="1"> <tr> <td>CITP</td> <td>Gender</td> <td>Eng Council Grade</td> </tr> <tr> <td>N</td> <td>Female</td> <td>Chartered Eng</td> </tr> <tr> <td>Y</td> <td>Male</td> <td>None</td> </tr> <tr> <td>Unknown</td> <td>Unknown</td> <td>Unknown</td> </tr> </table>				CITP	Gender	Eng Council Grade	N	Female	Chartered Eng	Y	Male	None	Unknown	Unknown	Unknown									
CITP	Gender	Eng Council Grade																										
N	Female	Chartered Eng																										
Y	Male	None																										
Unknown	Unknown	Unknown																										
4	Internet	19		<table border="1"> <tr> <td>YPG</td> <td>Communication Prefe...</td> <td>Country</td> </tr> <tr> <td>N</td> <td>Email</td> <td>Falkland Islands</td> </tr> <tr> <td>Y</td> <td>Letter</td> <td>France</td> </tr> <tr> <td>Unknown</td> <td>Unknown</td> <td>New Zealand</td> </tr> <tr> <td></td> <td></td> <td>United Kingdom</td> </tr> <tr> <td></td> <td></td> <td>USA</td> </tr> <tr> <td></td> <td></td> <td>Unknown</td> </tr> </table>				YPG	Communication Prefe...	Country	N	Email	Falkland Islands	Y	Letter	France	Unknown	Unknown	New Zealand			United Kingdom			USA			Unknown
YPG	Communication Prefe...	Country																										
N	Email	Falkland Islands																										
Y	Letter	France																										
Unknown	Unknown	New Zealand																										
		United Kingdom																										
		USA																										
		Unknown																										
5	Information Security (ISSG)	18		<table border="1"> <tr> <td>Branch Type</td> <td>Life Member</td> </tr> <tr> <td>P</td> <td>LIFE MEMBER</td> </tr> <tr> <td>S</td> <td>Not Life Member</td> </tr> <tr> <td>Unknown</td> <td>Unknown</td> </tr> </table>				Branch Type	Life Member	P	LIFE MEMBER	S	Not Life Member	Unknown	Unknown													
Branch Type	Life Member																											
P	LIFE MEMBER																											
S	Not Life Member																											
Unknown	Unknown																											
6	Data Management	16																										
7	Business Information Systems	15																										
8	Information and Technology Training	13																										
9	Law	12																										
10	Project Management (PROMS-G)	11																										
11	Enterprise Architecture	10																										
12	Software Testing	9																										
13	Data Centre	9																										
14	Service Management	8																										
15	Methods and Tools	8																										
16	e-Learning	7																										
17	Requirements Engineering	7																										
18	Open Source	7																										
19	Business Change	7																										
20	Green IT	7																										
21	Advanced Programming	6																										
22	Computer Conservation Society	6																										
23	Information Risk Management and Assurance (IRMA)	6																										
24	Quality	5																										
25	Artificial Intelligence	4																										
26	Interaction	4																										
27	Health Informatics (Northern)	3																										
28	Software Practice Advancement (SPA)	3																										
29	Sociotechnical	3																										
30	Cybercrime Forensics	3																										
31	Health Informatics (Primary Health Care)	3																										
32	ASSIST	3																										
33	Configuration Management	2																										
34	Financial Services	2																										
35	BCSWomen	2																										
36	Health Informatics (Interactive Care)	2																										
37	Software Process Improvement Network (SPIN-UK)	2																										
38	Computer Arts Society	2																										
39	Geospatial	2																										
40	Health Informatics (London & South East)	2																										
41	Disability Group	1																										
42	Electronic Publishing	1																										
43	Information Retrieval	1																										
44	Cybernetic Machine	1																										
45	Grand Total	307																										







What We Didn't Cover

- BI Architecture
 - Kimball Vs Inmon
- Data Mining
 - Predictive modelling
 - Cluster Analysis
 - Basket Analysis
- Self Service BI
 - Report Builders
 - PowerPivot
- Data Cleansing
- Dashboards
 - KPIs
- Unstructured Data



Summary

- Not a product, but a process
- Not reports, but a reporting ability
- Driven by the business, not IT
- Makes staff more efficient
- Can provide a greater insight into the business
- Don't do it all at once
- Does not have to be expensive



SQL Server User Group

The First Midlands SSUG



Talks / Demos /
Q&A for SQL Server

Send us your E-Mail address if you're interested



Business Intelligence

Questions.....

Alex@PurpleFrogSystems.com

Hollie@PurpleFrogSystems.com

www.PurpleFrogSystems.com

@PurpleFrogSys

@PurpleFrogIT

The Frog-Blog: www.PurpleFrogSystems.com/blog

