

System requirements and performance

Dialogue Technologies' Ergo platform comes in two implementations in Java and C#, with the core processing done in SICStus prolog, using a standard interface between Java/C# and Prolog. SICStus Prolog runs on a number of different Windows, Linux, and Unix platforms (see www.sics.se for further information). Java is available on most platforms. C# runs on the Windows and Pocket PC platforms.

Platforms: Ergo currently runs on platforms using Windows 2000/XP, Microsoft Mobile, Windows CE, Symbian OS 9.x and Linux/Unix. In principle Ergo runs on all platforms supported by SICStus Prolog and Java.

Interfaces:

Dialogue Technologies uses standard Java/C# interfaces. The access to the database uses a standard jdbc:odbc/odbc interface. This permits us to interact with all major database management systems. An embedded version runs as a dll under FORTSÄTT

Run-time environment – web configuration:

Processor: > 1GHz

Internal memory: 512 MB RAM, or more

Disk space: 10 MB

Software environment:

- Java SDK 1.4 or later
- Application server - IBM Websphere, Tomcat 5.0 or later, or equivalent
- Data repository - An SQL database, IBM DB2 or equivalent

Run-time environment – embedded configuration:

Processor: > 200 MHz

Internal memory: 12-15 MB RAM, or more

Disk space: 8-10 MB

Software environment:

- Java CDC or C#
- Relational database, MySQL, Mimer or equivalent

Development tools:

Application development – Customizer, a web-based development tool that runs in an ordinary browser (IE 5.0 or higher, Netscape).

Application maintenance – MaintenanceView, a web-based maintenance tool that runs in an ordinary browser (IE 5.0 or higher, Netscape).

Analysis of user logs – LogView and LogView Professional, a web-based analysis tool that runs in an ordinary browser (IE 5.0 or higher, Netscape). The graphical presentation in LogView is based on Crystal Reports 10, or later.

Performance web-configuration:

Using a sample application with 5 tables, 200 entities, and 150 words the system performance has been measured. The application is a data mining application using an IBM DB2 database. The following test questions were used:

Simple questions:

1. *List the verbs.*
2. *What do you know?*
3. *List the managers.*

Consecutive questions building on each other:

4. *Who has the highest salary?*
5. *What is his job title?*
6. *Where does he work?*
7. *How many employees does he have?*
8. *List them*
9. *List their salaries*

Nested questions:

10. *List the number of employees of managers of sales representatives who took more orders than Smith did.*
11. *Who are they?*

Compiled and interpreting versions of SICStus Prolog have been used. The trials were run on a Win 2000/Intelx86 configuration. The amount of system memory, RAM, is specified in the table.

Application CPU time (ms)

	Server						Extrapol.	
	300 MHz	300 MHz	1 GHZ	1 GHz	1 GHz	1.8 GHz	1.8 GHz	3.0 GHz
	Interpret	Compiled	Interpret	Compiled	Compiled	Interpret	Compiled	Compiled
1	210	50	60	20	16	31	10	6
2	1212	290	349	90	78	200	60	40
3	411	100	120	30	31	70	10	6
4	1122	301	331	90	62	200	40	27
5	1372	351	421	100	93	230	60	40
6	3155	912	561	301	237	561	150	100
7	11796	4766	4617	1522	1186	2163	882	590
8	2323	761	691	220	188	421	140	95
9	5136	2033	1583	631	515	941	390	250
10	18147	6889	5878	2123	1720	3214	1272	816
11	8141	2013	2585	611	482	1271	350	235
RAM	128	128	256	256	256	512	512	512

Performance with a speech-recognition front-end:

To be completed

Contact information

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