



► **ICON is a suite of integrated tools that will allow you to gather and analyze information about your legacy applications.**

ICON provides powerful automatic processes to do complex searches of source-code, to estimate software complexity.

ICON stores the information in an easy to access SQLRepository using products such as Oracle, MySQL, MS Access. A complete utility kit allows almost any type of inquiry.

### The ICON Suite

The ICON suite is composed of several modules:

#### Building module

- Inventory/Auditing process
- Scanner process

#### Browsing module

- Repository browser
- Enhanced source editor
- Object flow
- Visual reports builder

#### Settings module

- General tools settings

## Environment Support

ICON supports the most popular mainframe, Unix and Windows environments. All application elements can be loaded into the Repository and then analyzed. The types of objects supported are Programs, Copybooks/Includes, Maps, JCL, Proc, Control Cards, DDL, CICS and IMS definitions and more.

## ICON Analyzer Module

The ICON Analyser Module is a server-side component which is composed of two parts:

- Inventory/Auditing process
- Scanner process

The inventory process analyzes the native application's libraries and automatically recognizes the objects typology. Once the information has been stored in the Repository then the elements of the application can be organized in several libraries and application sets as shown in *Picture 1*.

The Scanner process analyzes the target application source code. Each object is carefully analyzed and each information is stored in the relationship tables of the Repository. This step extracts the following information from the source-code onto the storage:

- Field definitions
- Instructions
- Links among all objects
- Missing and duplicated objects
- Syntax errors
- Software complexity

The Building Module can be set to operate automatically ensuring that the Repository is continuously updated.

## ICON Key Features Highlights

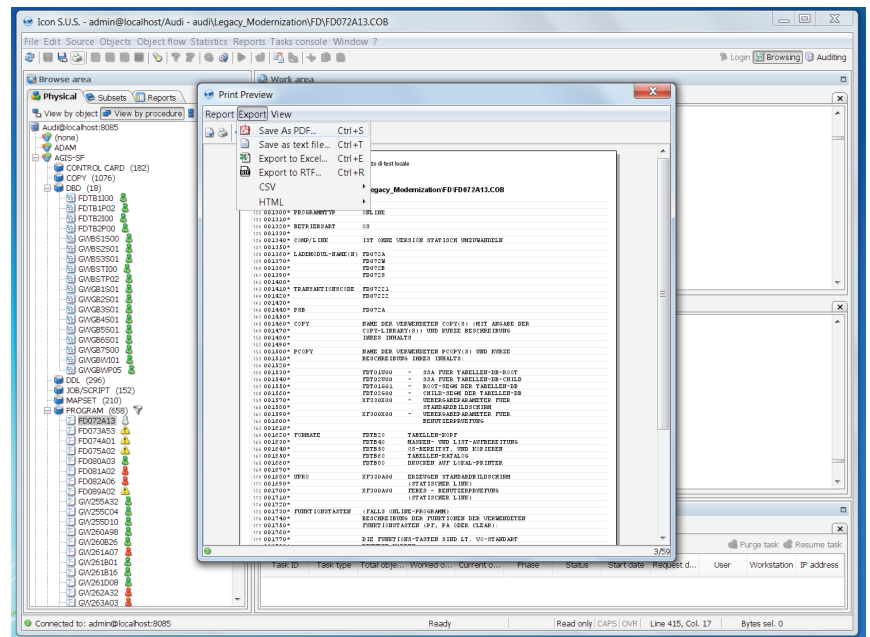
- Client/Server technology: Java technology edition with java web services features
- Standard SQL REPOSITORY: Oracle, Sql Server, MS Access
- Support for: Program, Copy/Include, Map, Jcl, Proc, Control Card, DDL etc.
- Language support for: 370 Assembler, all COBOL versions, PL/I, Easytrieve, MANTIS, JCL, SQL
- Tp Monitor support: CICS, IMS/DC
- Data Storage support: ISAM, VSAM, SQL (DB2, ORACLE etc.), DL/I, IMS/DB



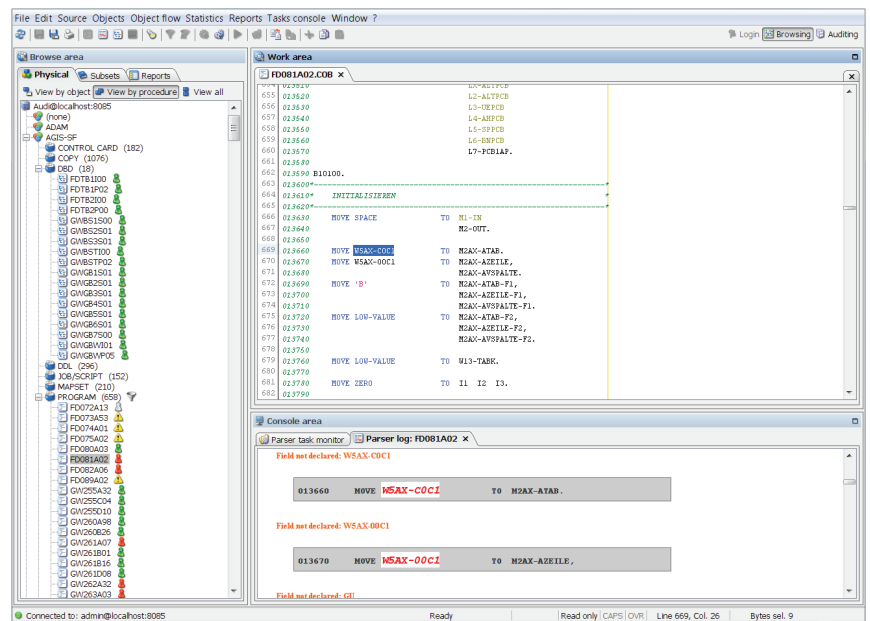
The source editor provides an advanced GUI editor and a broad range of developer - friendly features such as:

- Highlight words for all supported languages
- Intermediate jumping to related object
- View of expanded source
- Log view with hyperlinks to jump to the error lines

Picture 3 - Printer and exporter module



Picture 4 - Enhanced source editor and the log view

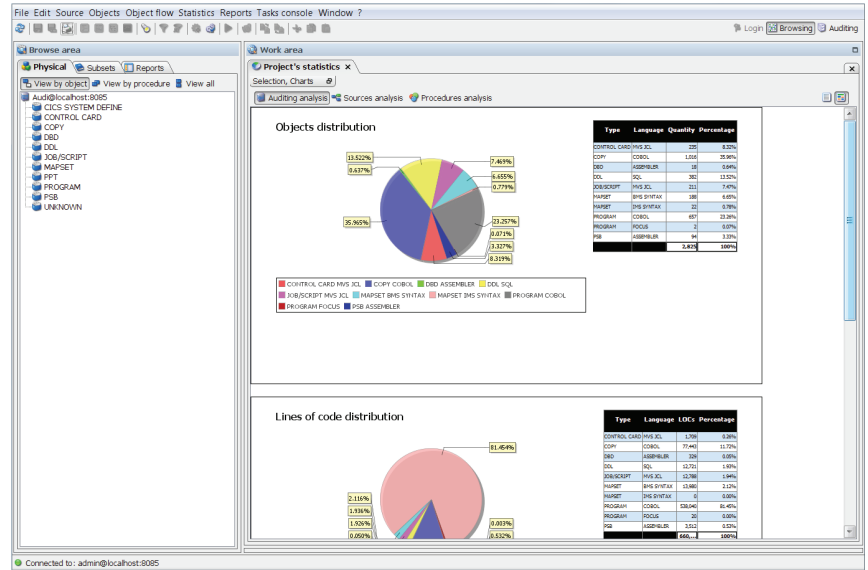


The object flow allows the user to explore in a graphical mode all type of relationships among the objects:

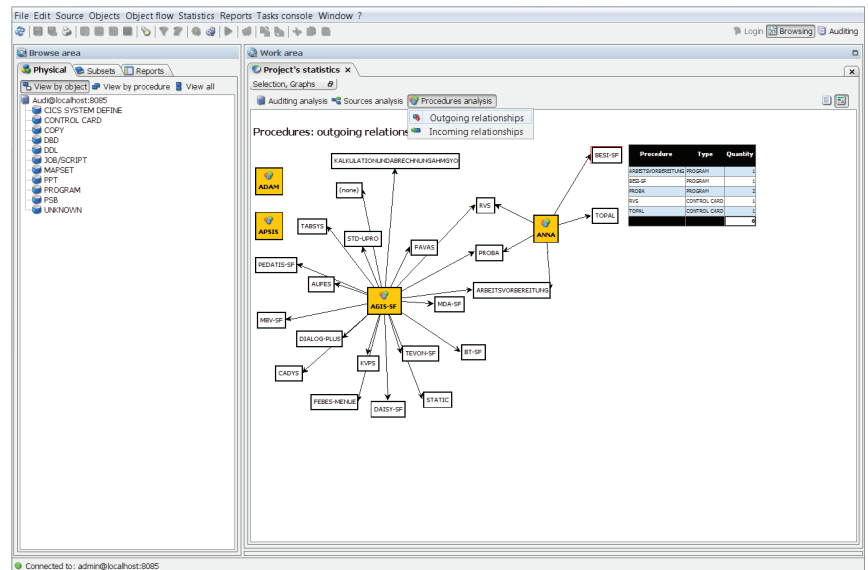
- Physical relationships
- Logical relationships
- Relationships between objects and data
- Logical objects structure flow

The interface is structured as an internet browser and by clicking on the correlated objects the navigation will continue through the elements. A navigation panel shows all the statements and fields of the objects that are contained in the repository.

**Picture 5 - Sample report showing the objects' distribution throughout the various application**

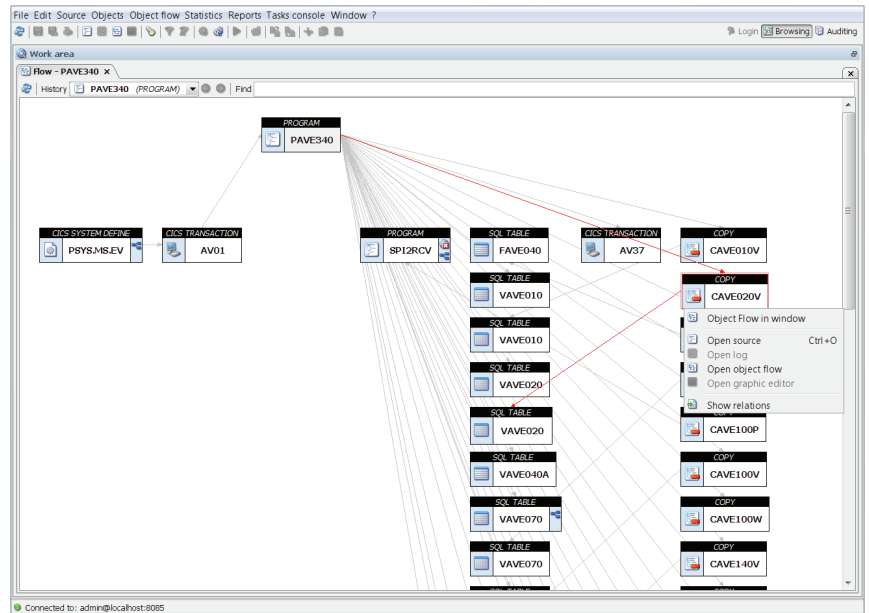


**Picture 6 - Sample report showing the relationships between a section of procedures and programs. Indirect relationships can also be detected easily**

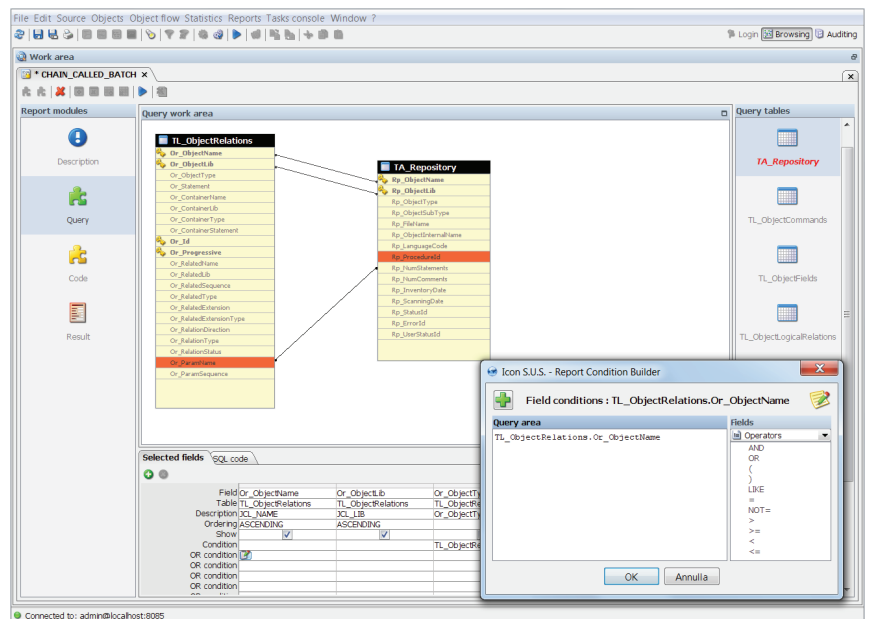


ICON provides a large set of the most commonly needed reports such as; missing/wrong objects, software complexity, data propagation and much more. Using Visual Report Builder the user can design custom reports to fit specific needs. New reports can be built by combining query modules and code modules. A query module is built in graphical mode by linking the tables of the Repository, adding conditions and order rules. A code module allows the user to extend the report by inserting complex processing. Every new report can be created by inheriting and extending the characteristics of an existing one.

Picture 7 - Object Flow showing logical structure of a program



Picture 8 - Visual report builder, drawing a query module



## Overview of HTWC

HTWC is one of the top leading European rehosting, software conversion and application management solutions company. HTWC focuses on large organizations and is a valid aid in all those problem solving processes related to enterprise systems.

In particular, HTWC deals with all matters related to the integration and modernization of legacy environments. HTWC has specialized in Mainframe rehosting and software management solutions since 1987.

Currently, HTWC labs develop products for rehosting analysis, migration, conversion and reengineering of legacy software. The integration of these products guarantees a reliable, flexible and cost effective solution for our customers.

Picture 9 - Visual report builder, a report result

PROGRAM	LOC	EXECUTABLE	EXEC	OPERATORS	OPERANDS	U_OPERATORS	U_OPERANDS	C_COMPLEXITY	NESTING	HALSTEAD_L	HALSTEAD_V
PL325003	29	0	0	0	0	0	0	0	0	0	0
PL316A18	6410	3254	11	8044	6458	61	1756	648	5	14502	15701
PL316F09	762	0	0	0	0	0	0	0	0	0	0
PL316011	23	0	0	0	0	0	0	0	0	0	0
PL328A26	4466	1788	2	4174	3168	65	963	258	7	7342	7346
PL328F06	194	0	0	0	0	0	0	0	0	0	0
PL328006	24	0	0	0	0	0	0	0	0	0	0
PL329A15	3348	1096	2	2538	1896	60	736	154	7	4434	4272
PL329F05	184	0	0	0	0	0	0	0	0	0	0
PL329007	24	0	0	0	0	0	0	0	0	0	0
PL330A15	3796	1402	2	3249	2445	63	840	190	7	5694	5590
PL330F05	189	0	0	0	0	0	0	0	0	0	0
PL330006	24	0	0	0	0	0	0	0	0	0	0
PL331A20	4391	1686	2	3959	2972	69	962	223	7	6931	6937
PL331F04	185	0	0	0	0	0	0	0	0	0	0
PL331Y06	35	0	0	0	0	0	0	0	0	0	0
PL332A19	3716	1543	18	3721	3062	62	788	210	5	6783	6600
PL332F01	165	0	0	0	0	0	0	0	0	0	0
PL332Y05	48	0	0	0	0	0	0	0	0	0	0
PL333A01	2112	624	0	1453	975	44	400	86	7	2428	2125
PL333F00	106	0	0	0	0	0	0	0	0	0	0
PL333Y00	19	0	0	0	0	0	0	0	0	0	0
PL334A01	2380	842	0	2081	1446	47	448	127	7	3527	3157
PL334F00	116	0	0	0	0	0	0	0	0	0	0
PL334Y00	19	0	0	0	0	0	0	0	0	0	0
PL335A01	2622	964	0	2279	1650	51	500	125	7	3929	3577
PL335F00	118	0	0	0	0	0	0	0	0	0	0
PL335Y00	19	0	0	0	0	0	0	0	0	0	0
PL337F01	182	0	0	0	0	0	0	0	0	0	0
PL339A07	4142	1540	2	3599	2698	71	888	213	7	6287	6227
PL339F00	185	0	0	0	0	0	0	0	0	0	0
PL339003	25	0	0	0	0	0	0	0	0	0	0
PL343F01	89	0	0	0	0	0	0	0	0	0	0
PL356A07	2290	801	1	1979	1400	52	508	83	3	3379	3084
PL356F02	125	0	0	0	0	0	0	0	0	0	0
PL356Y02	52	0	0	0	0	0	0	0	0	0	0
PL357F02	202	0	0	0	0	0	0	0	0	0	0
PL359F02	113	0	0	0	0	0	0	0	0	0	0
PL360A34	2301	1140	0	2258	1705	57	531	141	7	3963	3649
PL360B01	157	49	0	106	78	18	43	5	2	184	109
PL360094	445	0	0	0	0	0	0	0	0	0	0
PL360786	395	0	0	0	0	0	0	0	0	0	0
PL361A05	695	304	0	716	504	34	163	48	7	1220	929

## Further Information

For further information on the XFRAME® products, please visit our website at [www.htwc.com](http://www.htwc.com) or for specific questions, please contact us directly at [info@htwc.com](mailto:info@htwc.com).

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