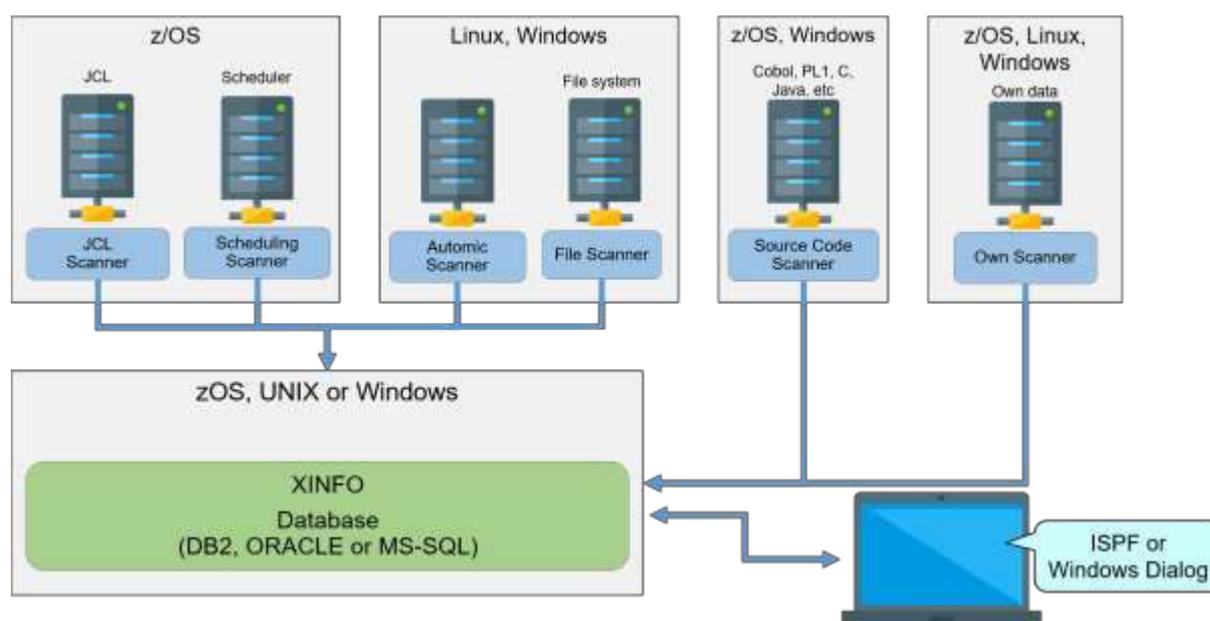




What is XINFO?

XINFO is an IT information system, which enables you to cross-reference data from various systems and to analyse data from a wide variety of systems of the data centre. XINFO automatically collects and correlates data from the areas of:

- Operations Management
- Production Planning
- Application Development
- Quality Assurance and Integration
- Disaster Recovery and Conversations
- End-user departments



Once data has been collected into the XINFO repository, authorized users can issue queries to cross-reference, verify and analyse data, and produce graphs of all data structures. Pre-defined queries can be tailored to provide specific views and formats. Queries can also be scheduled to run in batch mode.

XINFO provides for comprehensive evaluations of different data, (e.g. CA-7, IWS, ZEKE, Control-M, CA-Scheduler, Automic, DB2, JCL, SMF, IMS, CA-1, RMM, COBOL, PL/1, report writers, etc.) – all using one common dialog and a single user interface.

Authorized users can create their own queries, without the requirement of programming, SQL, or database knowledge. Traditional tools such as SPUFI or QMF become unnecessary.



Utilizing the uniform interface, there's no need to use different access methods and languages to "jump" from data source to data source. Users can navigate freely from screen to screen.

XINFO is also an open system, which allows for the integration of "custom" data sources. Site-specific tailor-made solutions can be fully utilized and are not made redundant.

Unlike "other products", XINFO was designed to run across "all" Windows platforms.

- XINFO helps in projects like:
 - merge, consolidate or separate data centres
 - maintain or reshape legacy applications
 - clean-up production environments
 - convert scheduling systems and more ...
- XINFO quickly and accurately helps gathering information like:
 - Where is a program or dataset used?
 - When and how did a (critical) job run, was it late?
 - Who is using/updating which DB2 table?
- XINFO is open and modular: It's easy to add your own data and to choose your set of Scanner.
- XINFO prints various graphics on any printer.
- XINFO delivers both graphical and text-based data.
- XINFO is an open system for all kinds of data.
- XINFO runs on system Z with DB2 (z/OS) as well as on MS Windows with ORACLE or MS-SQL Server.

Who should use XINFO?

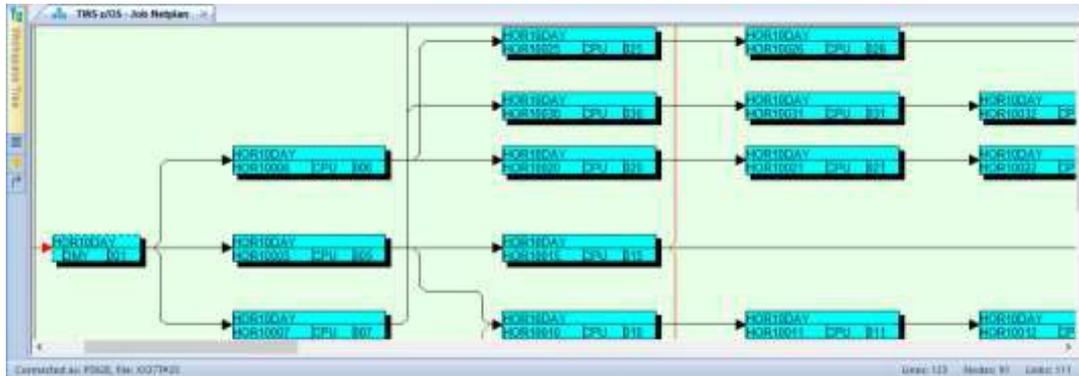
Anyone who needs to query data structures, but especially:

- Production Planning
- Production Control
- Application Programmers
- System Administrators
- Project Teams
- Specialized Departments
- Non IT Departments



Why should you use XINFO?

A graphical view of your data says more than a thousand words!



Address	SM	Program	DD Name	DS	Job Name	Rec/Clas	DS	Class P	Pos/Bt (col/rt)	LNRECL	BUKZ	REC	ORG
XNRDCL1	2	DCAMS	MEDE	0	SYSH HSM BCDS								
XNRDCL1	2	DCAMS	MEDE	0	SYSH HSM BCDS								
OPABAK	1	DCAMS	R	0	*								
OPABAK	1	DCAMS	R	0	SYSH TWSAUDIT VSRMS DATA VSAM JTWK								
OPABAK	1	DCAMS	R	0	SYSH TWSAUDIT VSRMS BACKUP	-1	NCC			3250	V85	P3	
XNRDCL1	2	DCAMS	MEDE	0	SYSH HSM BCDS								
XNRDCL1	2	DCAMS	MEDE	0	SYSH HSM BCDS								
OPABAK	1	DCAMS	OUT	0	SYSH TWSAUDIT VSRMS DATA COLLECT ICA	+1	NCC			3276	0 VB		
OPABAK	1	DCAMS	OUT	0	SYSH TWSAUDIT VSRMS DATA COLLECT IEM					3276	0 VB		
XNRDCL1	2	DCAMS	OUTDS	0	SYSH XINFO VSRM DATA COLLECT ICA					3276	0 VB		
XNRDCL1	2	DCAMS	OUTDS	0	SYSH XINFO VSRM DATA COLLECT IEM					3276	0 VB		
XNRDCL2	2	DCAMS	OUTDS	0	SYSH XINFO VSRM DATA COLLECT ICA					3276	0 VB		
DBZC	1	DCAMS	SYSH	0	*			XRFLANC	SYSH XINFO VSRM PROCLE				
DBZC	1	DCAMS	SYSH	0	SYSH XINFO VSRM DATA DBZC REPORT	000		XRFLANC	SYSH XINFO VSRM PROCLE				
DBZCOB2	1	DCAMS	SYSH	0	*								
DBZCOB2	1	DCAMS	SYSH	0	SYSH XINFO VSRM DATA DBZCOB2 REPORT	000							
DBZCOB1T	1	DCAMS	SYSH	0	*								
DBZCOB1T	1	DCAMS	SYSH	0	F280CXINFO VSRM DATA DBZCOB2 REPORT DBZWB1	000							
DBZCOMP	1	DCAMS	SYSH	0	*			XRFLANC	SYSH XINFO VSRM PROCLE				
DBZCOMP	1	DCAMS	SYSH	0	SYSH XINFO VSRM DATA DBZCOMP REPORT	000		XRFLANC	SYSH XINFO VSRM PROCLE				
DBZCOMP	1	DCAMS	SYSH	0	SYSH XINFO VSRM DATA DBZCOMP REPORT	000		XRFLANC	SYSH XINFO VSRM PROCLE				
DBZCOMP	1	DCAMS	SYSH	0	SYSH XINFO VSRM DATA DBZCOMP REPORT	000		XRFLANC	SYSH XINFO VSRM PROCLE				
DBZVTRM	1	DCAMS	SYSH	0	T								

Actually being able to *visualize* your Production on a screen can help you find solutions and answer much faster than wading through complex dialogs, lists and reports.

But some people really like lists...

So wouldn't it be great to "jump" from one list of results to another, without having to exit the program and use a new dialog?

XINFO won't stop you from doing that in fact, it's easy.



Submit queries, such as:

- My job “sales” failed, how can I restart it?
- Show me all datasets that use payroll applications because we need to make some tax code changes.
- What is going to be affected in the rest of today’s schedule?
- Which jobs use file ABC?
- Which main programs call subprogram ABC?
- How many jobs ran last week? How many of those abended? Of those jobs which abended, which ones used the DB2 table XXX?
- Show me a graph of my SMD data as I need to see all anomalies during the past month.
- Which DB2 tables are processed by which jobs and programs?
- When was dataset A.B.C. last closed successfully?
- What datasets were in use last night between 1:30 and 3:00 a.m.?
- What jobs (JCL members) have programs with suffix *TABC?
- What tapes do we need for the disaster recovery test?
- Which successors does a certain job have?
- Which COBOL programs use copy member ABC?
- Which PSB’s are used in which jobs?
- Which datasets are updated by program ABC?
- Show all jobs in JCLLIBS which are not defined in IWS.
- Show all procs in PROCLIB which are not referenced by jobs (orphaned).



How does XINFO work?

XINFO consist of two main components:

- An ISPF Dialog for the Host
- A Windows Dialog

The ISPF Dialog

For z/OS data centres, ISPF is often still the best dialog system. The XINFO ISPF dialog provides (customizable) selection criteria in predefined panels. The results are displayed in tables and lists. The advantages here are:

- No need for any user-specific configuration.
- Minimal training for users.
- Complete integration of all ISPF tools (Listcat, Browse, ...)
- Easy to use. Only three steps to get to the result.

1 - Select Panel

```
----- XINFO - JCL ----- ROW 001 TO 019 OF 022
Please choose ==>
Top: Info XINFO
0 - Options
1 - JOB Statements
2 - JES Statements
3 - EXEC Statements
4 - EXPORTED JCL Symbols
5 - DSN
6 - SYSIN Content
7 - SYSOUT+OUTPUT
8 - OUTPUT Statements
9 - Jobs with OPC Variables
10 - JCLLIB-Statements
11 - Symbols and Proc. Params
12 - Comment Cards
13 - Scanned Libraries
14 - Control-M Variables
15 - SUBSYS
16 - IF Statements
17 - HFS (PATH)
18 - SET JCL
```

2 - Specify Search Criteria

```
----- Search Arguments JCL - JOB Statements ----- ROW 001 TO 018 OF 028
Command ==>
Top : BATCH Build JCL OPT Options Reset Clear Panel SHOW Show SQL
      EditSQL Modify SQL before Execution
Jobname      ==> EQ XKR+
Account      ==> EQ
Programmers Name ==> EQ
CLASS       ==> EQ
MSGCLASS    ==> EQ
NOTIFY      ==> EQ
PRIORITY    ==> EQ
REGION      ==> EQ
RESTART     ==> EQ
TYPRUN     ==> EQ
USER        ==> EQ
GROUP       ==> EQ
MSGLEVEL    ==> EQ
SCHENV      ==> EQ
           ==> EQ
```

3 - Get Results!

```
----- JCL - JOB Statements ----- ROW 001 TO 014 OF 318
Command ==> _
Top : Legend SAVE SORT Find STAT LIBS BATCH Arrange Exit
      ALL FIX SHOW EditSQL Info Tables Group REFResh
Bottom: ? List all Line Commands S Select DP Dependencies B Browse Job
        JU JCL+Proc PJ PGM/PROC DS Dataset PC ProcParm SJ SMF/Job SM SMF
        US SMF/DSN JT Job/Table PL PGM/Plan JB Job/DBD Q PGM/PSB ...
Jobname Account Programmers Name C M NOTIFY PR REGION RESTART TYPRUN USER
--- XKRJRUNS ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJASM ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJASMU ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJBGJ ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJBND0 ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJBND5 ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJCAD ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJCC ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJCCU ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJCD ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJCDL ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJCID ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJCIM ACCOUNT 'HORIZONT' A T 8SYSUID -----
--- XKRJCID1 ACCOUNT 'HORIZONT' A T 8SYSUID -----
```

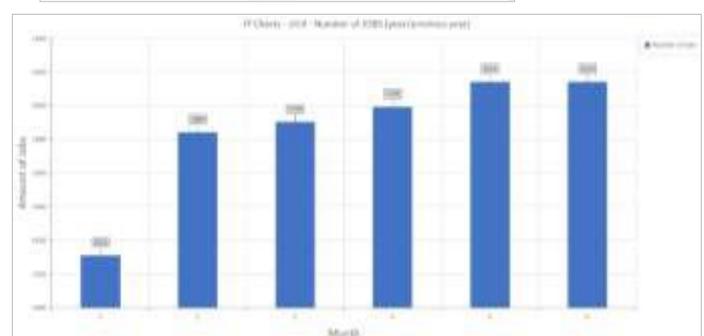
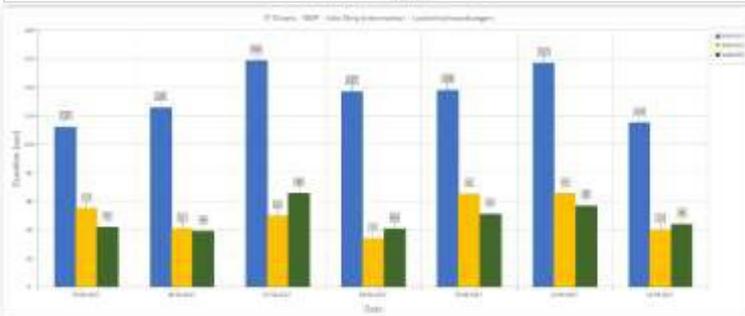
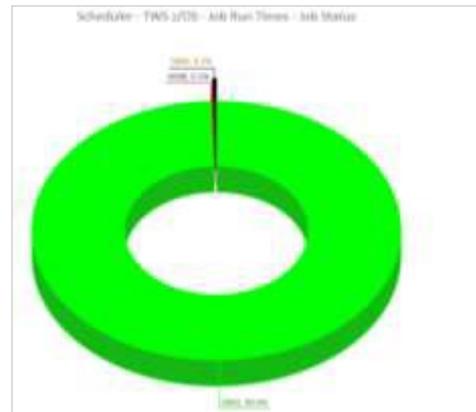
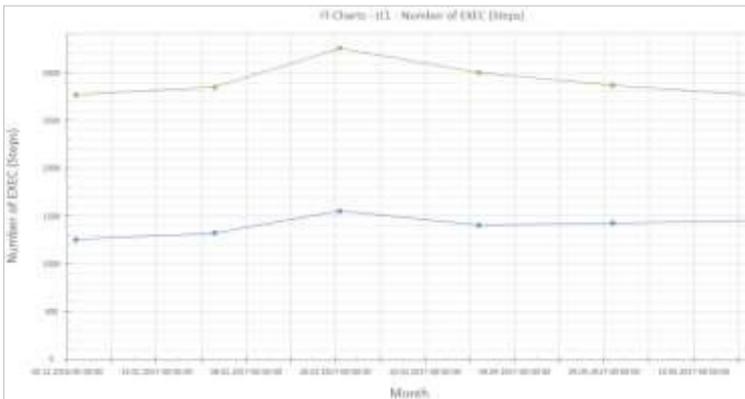



IT-Charts

XINFO allows you to create graphical reporting or overview to analyse your data. Reports and statistical functions help you to better understand your IT infrastructure. You can:

- Use your data base from different sources.
- Use comprehensive cross-reference queries.
- Create Netplan, Barchart, and Data Flowchart presentation.
- Create line, bar and pie charts.
- Create structured HTML documentation with output of graphics and charts.
- Do Batch execution with delivery of variables.

Application ID	ON	Jobname	Job Start Time	Job End Time	Duration	S	Code	WSID	V	L-Air Date	LA-Time
DCPA01	001	TIME	13.06.2017,17:00:29	13.06.2017,17:00:29	00:00:00	C	0000	DMY	Y	13.06.2017	17:00:00
DCPA01	001	TIME	13.06.2017,09:00:28	13.06.2017,09:00:28	00:00:00	C	0000	DMY	Y	13.06.2017	09:00:00
DCPA01	002	DCPJ00	13.06.2017,17:00:29	13.06.2017,17:01:58	00:01:29	C	0000	WAIT	Y	13.06.2017	17:00:00
DCPA01	002	DCPJ00	13.06.2017,09:00:28	13.06.2017,09:01:56	00:01:28	C	0000	WAIT	Y	13.06.2017	09:00:00
DCPA02	001		13.06.2017,17:01:58	13.06.2017,17:01:58	00:00:00	C	0000	DMY	Y	13.06.2017	17:00:00
DCPA02	001		13.06.2017,09:01:56	13.06.2017,09:01:56	00:00:00	C	0000	DMY	Y	13.06.2017	09:00:00
DCPA02	010	DCPJ01	13.06.2017,17:01:58	13.06.2017,17:03:27	00:01:29	C	0000	WAIT	Y	13.06.2017	17:00:00
DCPA02	010	DCPJ01	13.06.2017,09:01:56	13.06.2017,09:03:24	00:01:28	C	0000	WAIT	Y	13.06.2017	09:00:00
DCPA02	020	DCPJ02	13.06.2017,17:01:58	13.06.2017,17:05:58	00:04:00	C	0000	CPU	Y	13.06.2017	17:00:00
DCPA02	020	DCPJ02	13.06.2017,09:02:29	13.06.2017,09:06:30	00:04:00	C	0000	CPU	Y	13.06.2017	09:00:00
DCPA02	030	DCPJ03	13.06.2017,17:01:58	13.06.2017,17:05:27	00:03:29	C	0000	WAIT	Y	13.06.2017	17:00:00
DCPA02	030	DCPJ03	13.06.2017,09:01:56	13.06.2017,09:05:24	00:03:28	C	0000	WAIT	Y	13.06.2017	09:00:00

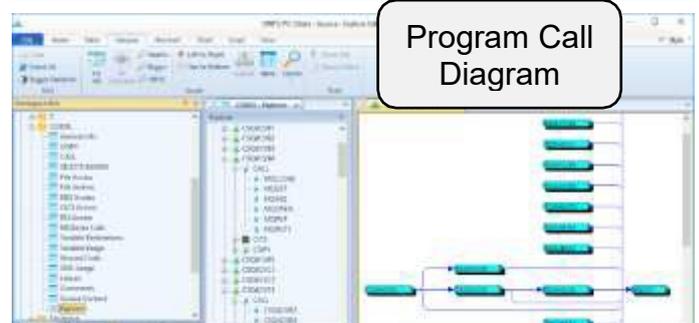
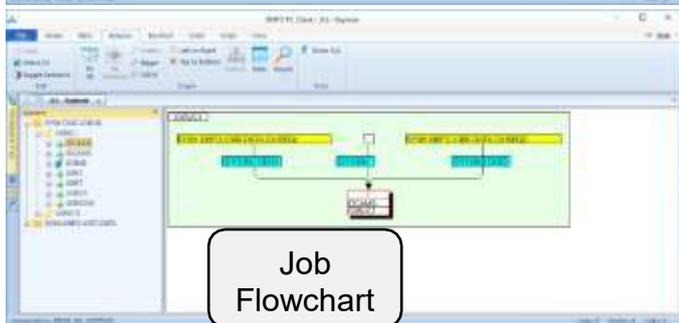
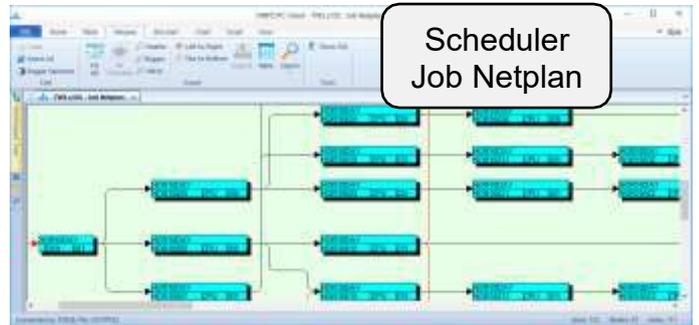




What do the XINFO Graphics look like?

Using the PC Dialog, XINFO enables you to create graphics based on Job Scheduling data and JCL.

- Barcharts display the job runtimes based on SMF.
- Netplans display the job flow based on scheduler data.
- JCL and Dataset flowcharts.
- Source explorer.
- Call Diagrams (main program / sub program).

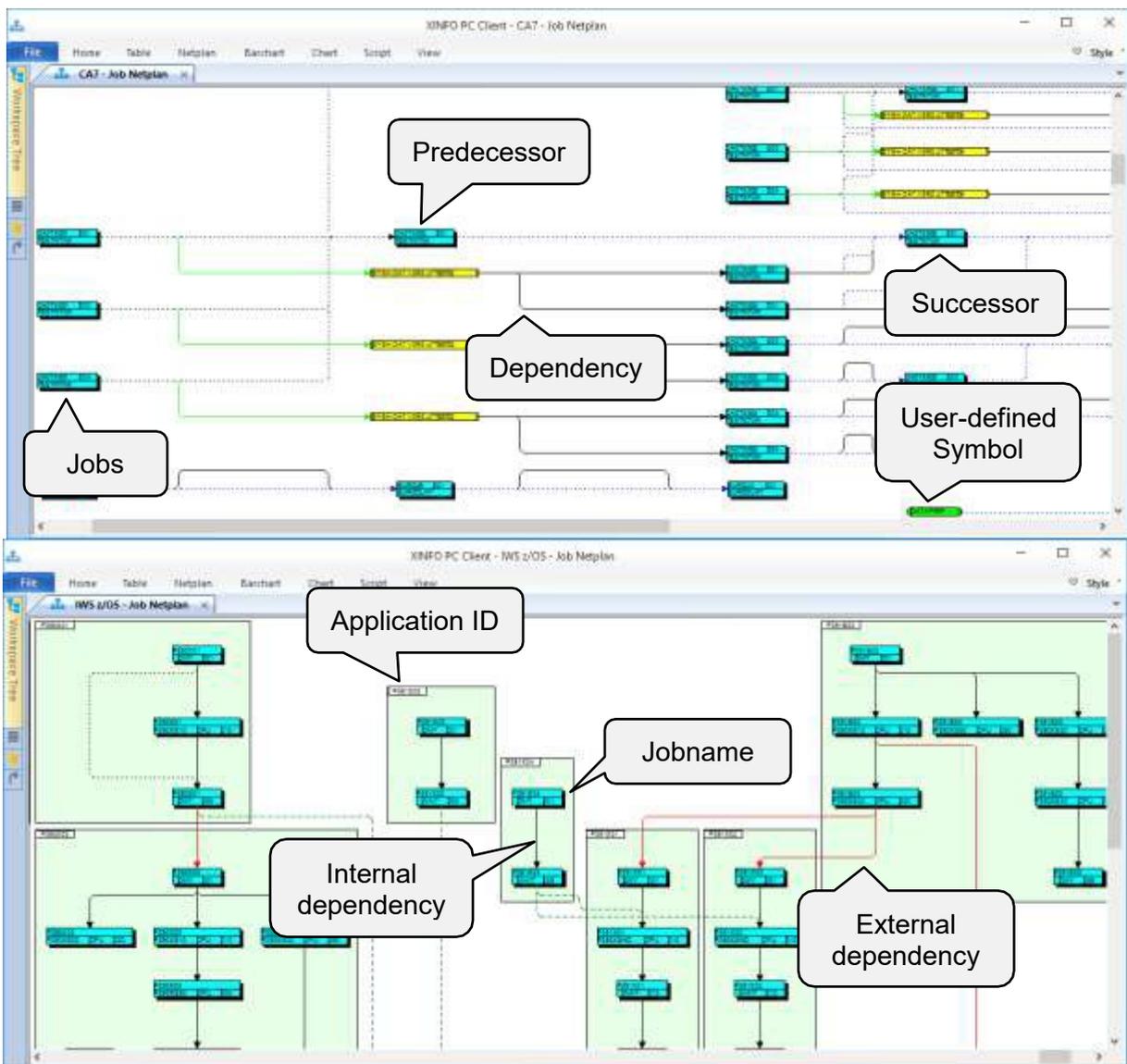




The Job Netplan

XINFO analyses scheduling data (IWS, CA-7, Control-M, ZEKE, CA-Scheduler, and Automic), and displays jobs and their dependencies in a clear way. Information is presented as an easy-to-understand netplan. Symbols can be customized for clarity and convenience. In one single, comprehensive graph, the netplan displays:

- All important data fields for every job
- All predecessors
- All successors
- All different link types (all dependencies in IWS, trigger, not-parallel or requirements in CA-7, conditions in Control-M, etc.)

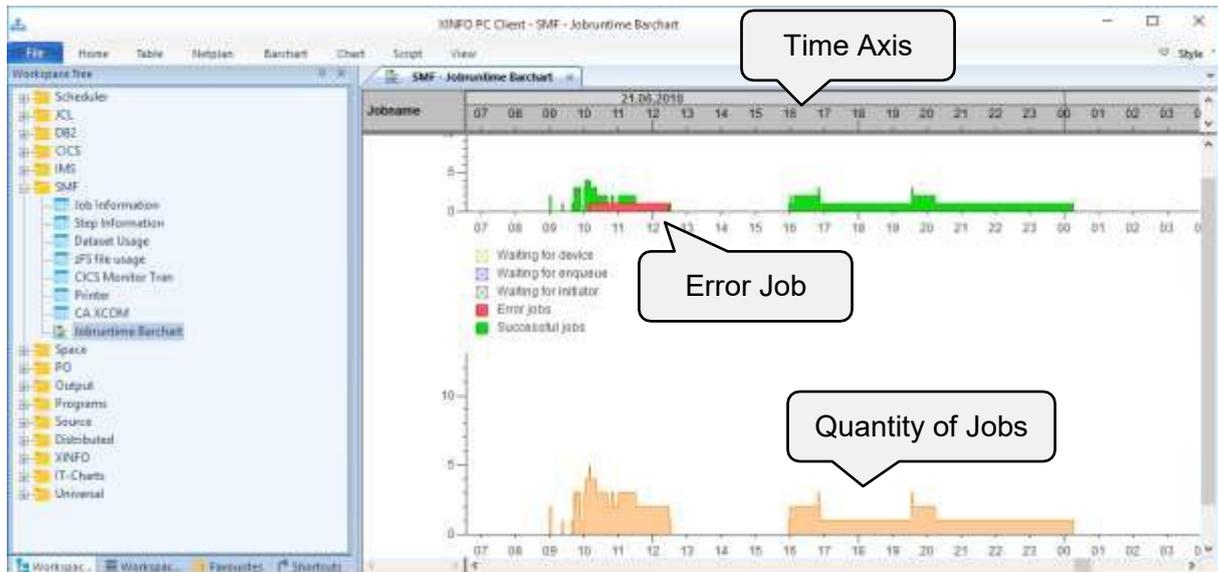




Barcharts

Barcharts present the job history as an easy-to-read graphic. Colours can be customized, e.g. jobs with waits or errors can be shown in contrasting colours in contrasting colours. In one single, comprehensive graph, the SMF Barchart displays:

- The start and end time of every single job.
- The (un)successful execution of every single job.
- The wait time of every single job.
- The total quantity of jobs at a certain time.
- The quantity of error jobs at a certain time.
- The quantity of wait jobs at a certain time.



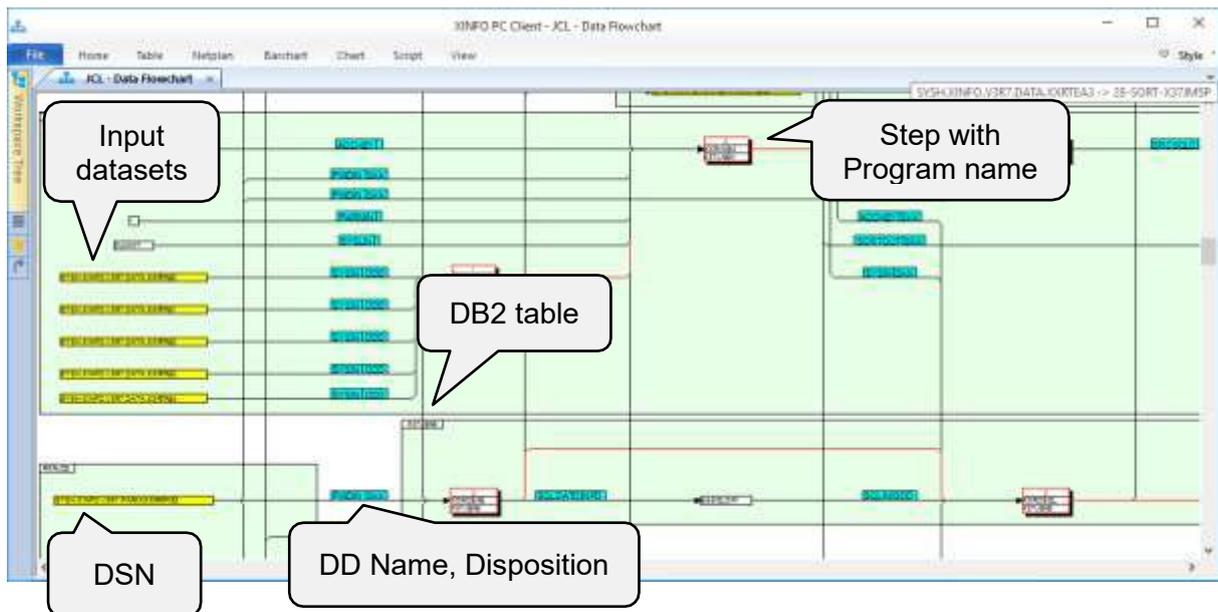


The Data Flowchart

XINFO analyses JCL and displays datasets and programs in a clear way. The JCL is represented as a flowchart. All symbols and line types can be customized to suit your requirements, e.g. the background colour or the font size, etc.

The flowcharts displays:

- Steps
- Programs
- DB2 tables
- Datasets
- DD statements
- Disposition parameters

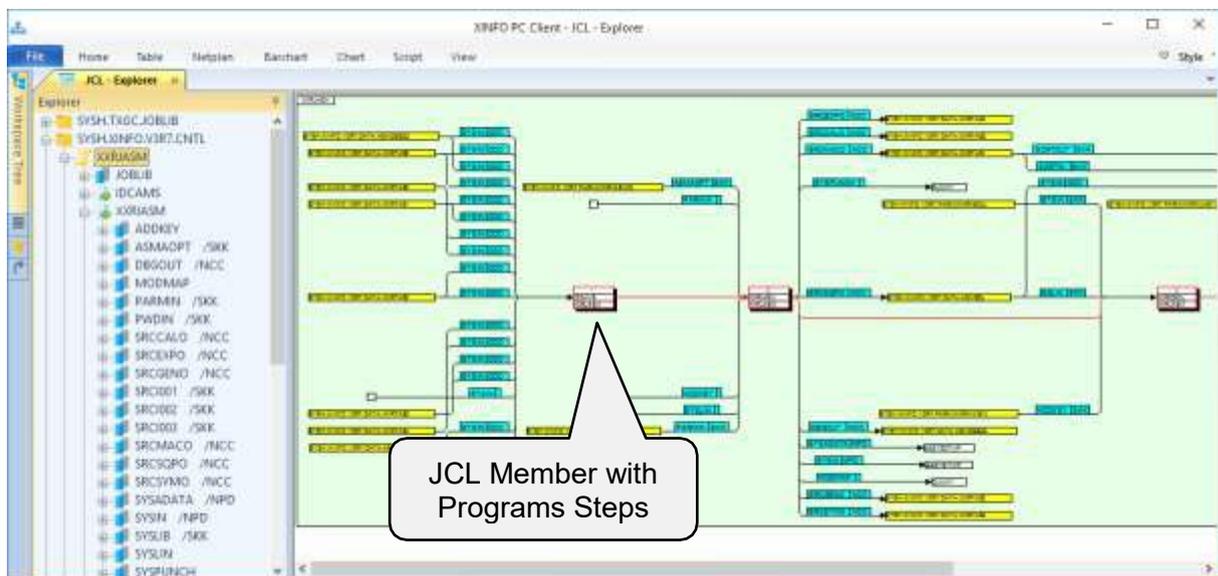




The JCL Explorer

The JCL Explorer gives fast access to dataset flowcharts, which can be activated using a single mouse click by the user. The Explorer displays the most important JCL information:

- Jobs
- Dependencies
- Programs
- Datasets





Analysis of Program Source Code

In addition to production data, XINFO also analyses program source code. With the inclusion of this data, XINFO becomes an extensive IT Information System. Application development and production planning can now answer questions, such as:

- Which main programs call which sub programs?
- Which copy members are included by which main programs?
- Which programs access a specific DB2 table?
- Which programs use dynamic SQL?

Of course the result of the analysis is also represented graphically, for example: the relationships of main programs to subprograms.

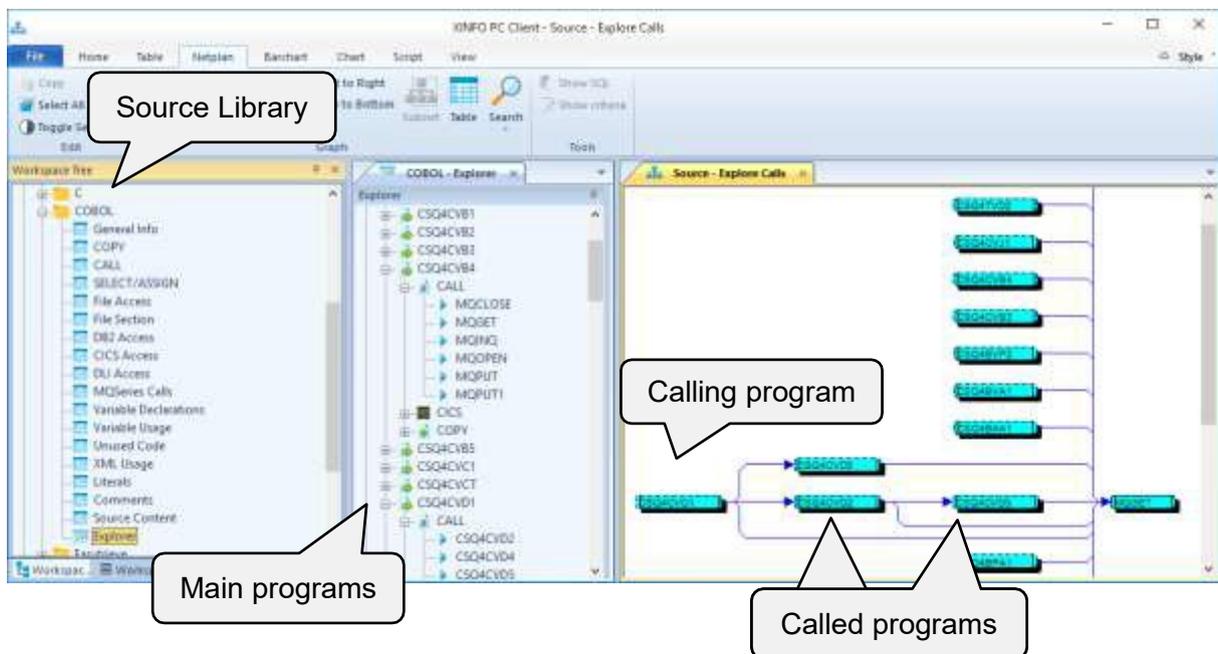
MainMod	SubPgm	Level	Method	MainSclM	MainSclLib	MInq	SubSclM	SubSclLib	SInq	Sub-Env	F
DSNBPO	DSNBPO	0	DUMMY	DSNBPO	DSNB10.SDSNSAMP	PL1	DSNBPO	DSNB10.SDSNSAMP	PL1		Y
DSNBPO	FLITDL	1	CALL	DSNBPO	DSNB10.SDSNSAMP	PL1					N
DSNBPO	DSNBMPG	1	CALL	DSNBPO	DSNB10.SDSNSAMP	PL1	DSNBMPG	DSNB10.SDSNSAMP	PL1		Y
DSNBPO	DSNBPF1	1	CALL	DSNBPO	DSNB10.SDSNSAMP	PL1	DSNBPF1	DSNB10.SDSNSAMP	PL1		Y
DSNBPO	DSNBPF2	2	CALL	DSNBPO	DSNB10.SDSNSAMP	PL1	DSNBPF2	DSNB10.SDSNSAMP	PL1		Y
DSNBPO	DSNBPF2	2	CALL	DSNBPO	DSNB10.SDSNSAMP	PL1					N



The Source Explorer

The XINFO source explorer shows the essential program elements in a tree chart:

- Main programs
- Sub programs
- Copy and Include member
- Sequential file access
- DB2 access
- CICS statements





XINFO collects information from:

Mainframe

- Scheduler**
 - IWS
 - CA-7
 - Control-M
 - ZEKE
 - CA-Scheduler
- SMF**
- DB2, IMS**
- JCL**
- VSAM, HSM, SMS**
- CA-1, RMM**
- Source**
 - Assembler
 - C/C++
 - COBOL
 - Easytrieve
 - Java
 - Natural
 - PI/1
- CICS, CICS SMF**
- Load module**
- PDS/PO dataset**
- Output**
 - Beta92 EJM
 - CA-Deliver
 - Control-D

Distributed Systems

- Scheduling**
 - IWS distributed
 - Automic
 - Control-M distributed
 - File Content



Features/Benefits

XINFO is an Open System

- Integrates new data easily.
- Integrates existing applications.
- Installs much faster than “other products”.
- Extremely efficient analysis programs.
- Easy to learn.
- Panels can be tailored to meet individual requirements.
- Queries can be set to run in foreground or in batch.
- Reports can be exported in a variety of formats (e.g.: HTML, WMF, etc.).
- No SPUFI or QMF required.
- End users require no programming or SQL knowledge.
- Improves service for data centres customers.
- Saves time and money searching for data.
- Powerful IT-chart reporting.
- IWS performance tuning.
- Create your own solutions.

For more information regarding XINFO please visit:

<https://horizont-it.com/productsoverview/xinfo-the-it-information-system/>