ITP-PANORAMA

Welcome
to our presentatíon at

Connect Germany
G T U G
GO INTERNATIONAL

ITP-PANORAMA is supportig all Stragegies for Legacy Software

Application Mining and Modernization with ITP-PANORAMA

Presentation by:
Juergen Overhoff
ITP Software Systems, Munich

ITP Software Systeme GmbH, Munich
Panorama Vies Software Corporation, USA

Founded: 1990 in Munich

In 2012 ITP is 25 years young.

Independent Software-Vendor (ISV)

Owned by the management team

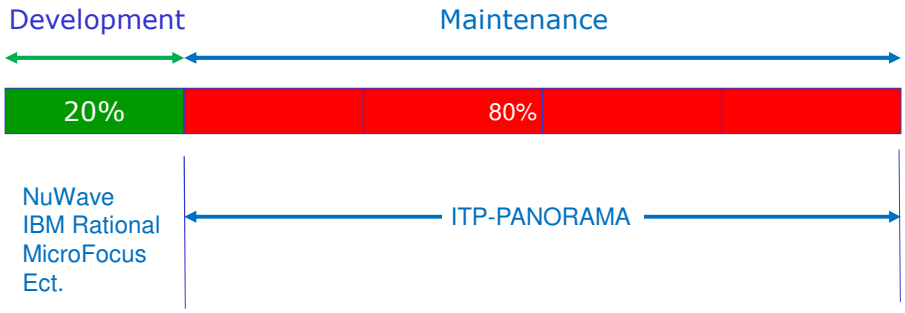
All R&D financed out of revenue.

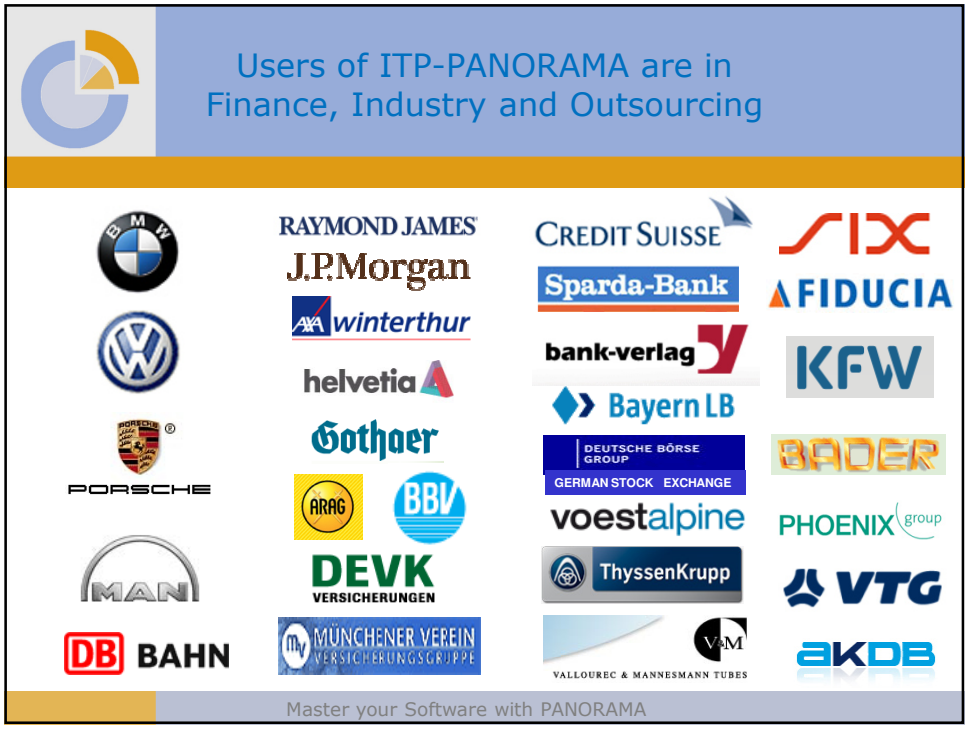
Product offer:
1991 **Terminal-Emulation** (VT220, IBM 3270, 5250)

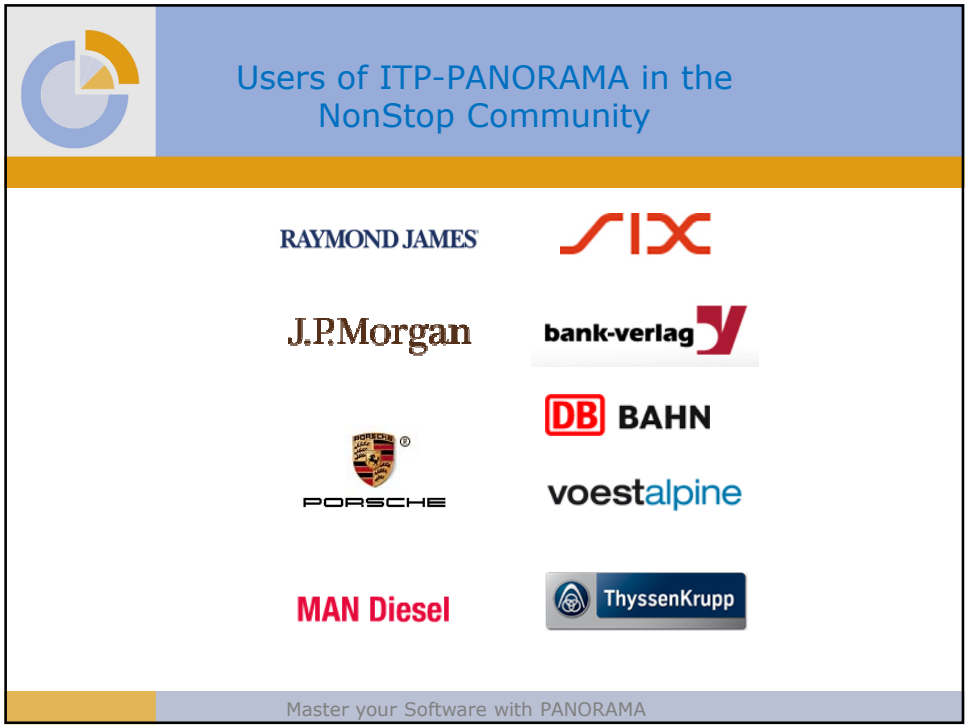
1996 **ITP WebSolv** GUI–Development replacing 3270 with web representation.

2000 **ITP PANORAMA** for maintenance and modernization of applications for all programming languages, all data-bases and all target systems.

Why is ITP 100% dedicated to improve Productivity of Software Maintenance?




Users of ITP-PANORAMA are in
Finance, Industry and Outsourcing
RAYMOND JAMES
J.P.Morgan
winterthur
helvetia
Gothaer
ARAG
BBV
DEVK
VERSICHERUNGEN
MÜNCHENER VEREIN
VERSICHERUNGSGRUPPE
CREDIT SUISSE
Sparda-Bank
bank-verlag
Bayern LB
DEUTSCHE BÖRSE
GROUP
GERMAN STOCK EXCHANGE
voestalpine
ThyssenKrupp
VALLOUREC & MANNESMANN TUBES
IX
FIDUCIA
KFW
BADER
PHOENIX group
VTG
aKDB
PORSCHE
MAN
DB BAHN
Master your Software with PANORAMA


Users of ITP-PANORAMA in the
NonStop Community
RAYMOND JAMES
J.P.Morgan
PORSCHE
MAN Diesel
IX
bank-verlag
DB BAHN
voestalpine
ThyssenKrupp
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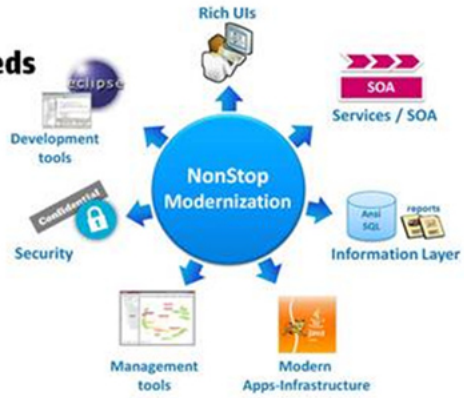
NonStop Modernization Program

Defined Seven Modernization Domains to address customer needs

- User Interface
- Service Orientation, Integration
- Information Layer
- Execution Environments
- Development Tools
- Management
- Security



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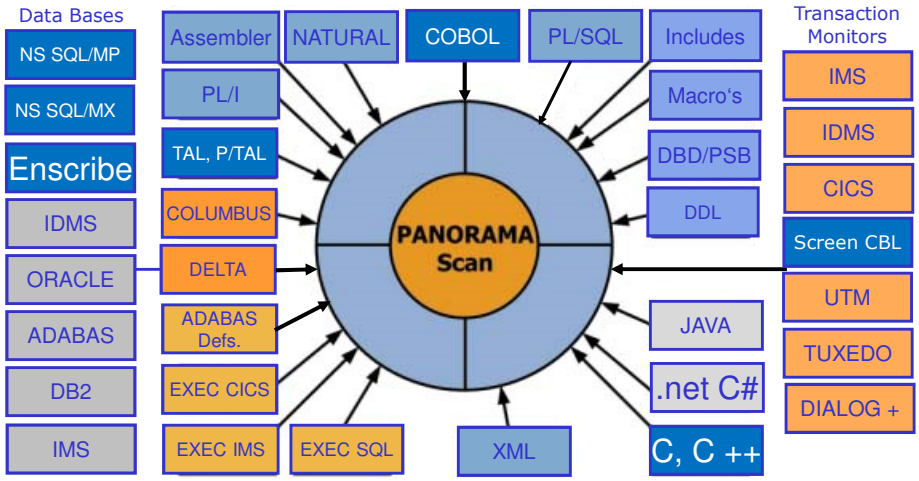
Full Support of NonStop Application Management



Master your Software with PANORAMA

Agenda of Today

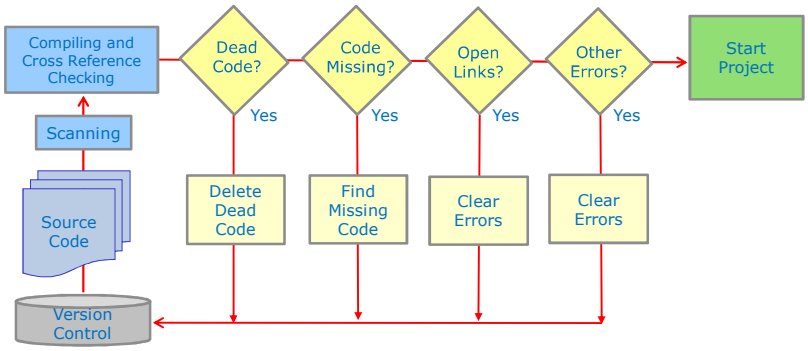
1. Cleaning the source code
2. Building a documentation over all applications
3. Repository with a mix of COBOL, TAL and C
4. Conversion of TAL to C
5. Retrieving business logic from source code

1. Cleaning the Software

At the daily compiling of all programs and cross-reference checking over all applications, PANORAMA finds:

- Unused
  - Programs, Sections, Paragraphs,
  - Modules, DDLs
  - Tables, Files, Records, Code Lines
- Unclosed
  - Files
  - Cursors
- Missing Code
- Open links

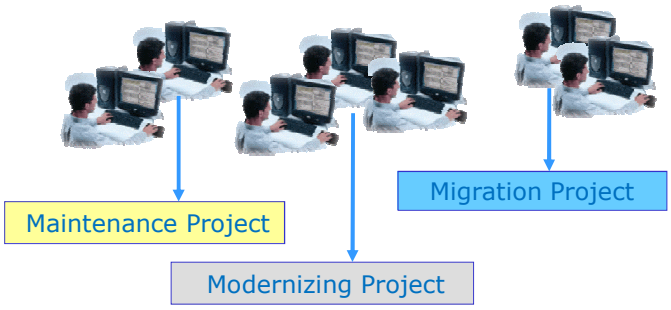
Cleaning the Source Code is a must before making a Redesign, Replacement, Maintenance and Modernization Projects



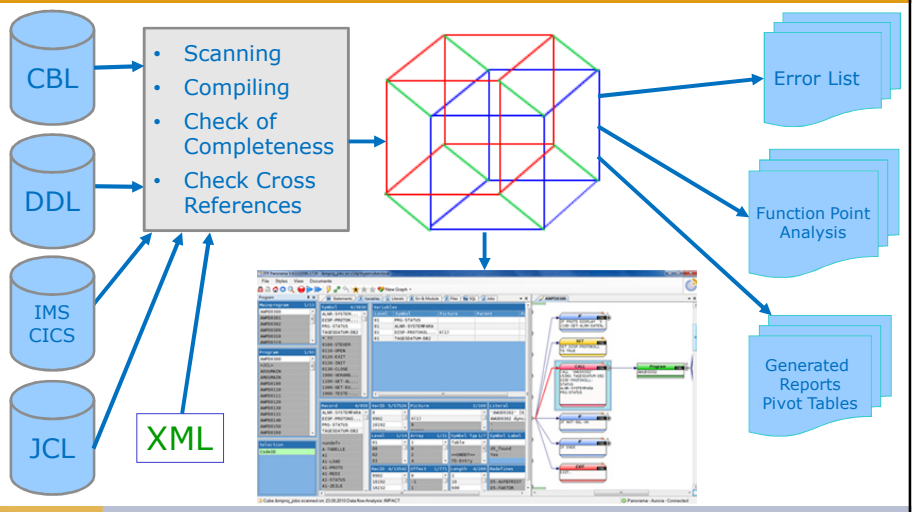
Building a Software Factory where Applications are made so transparent that they can be maintained by all Developers

Building a Software Factory

Development teams formed to perform maintenance projects



File Transfer from the Version Control System to a dedicated Server



Why does it mace sense to evaluate ITP-PANORAMA?

Raising quality while saving costs:

Results of analyses are always 100% correct and comprehensive!

The job: Extending a data-field by 3 digits.
Which programs in 7,500 have to be changed?

Result: Two developers found within
two weeks 24 programs (160h*$ 70/h=$ 1,200)

With ITP-PANORAMA they found in
10 minutes **all 26** programs (0,2h*$ 70=$ 14)

Saving of € 11,186

NonStop Customer wrote this e-mail:

Bob.J.Campbell@RaymondJames.com
Sent: Monday, June 25, 2010
To: Juergen Overhoff

Panorama

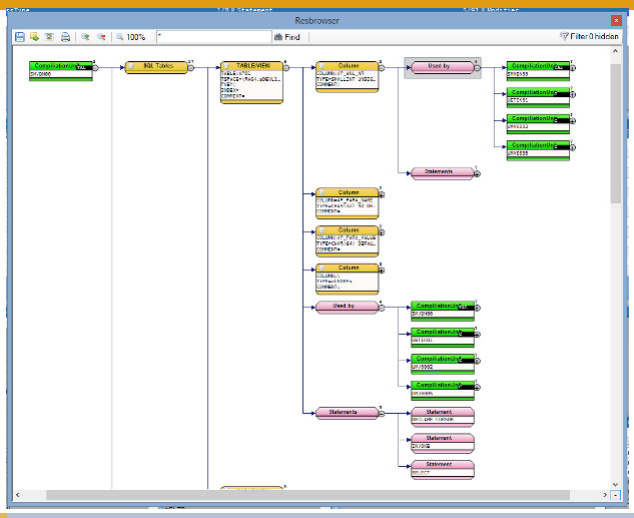
Juergen,
You'll like to hear this: We had already spent **$ 70K within three weeks** on an **unfinished** analysis project. I have re-started the project with Panorama and finished the analysis **within four hours**.

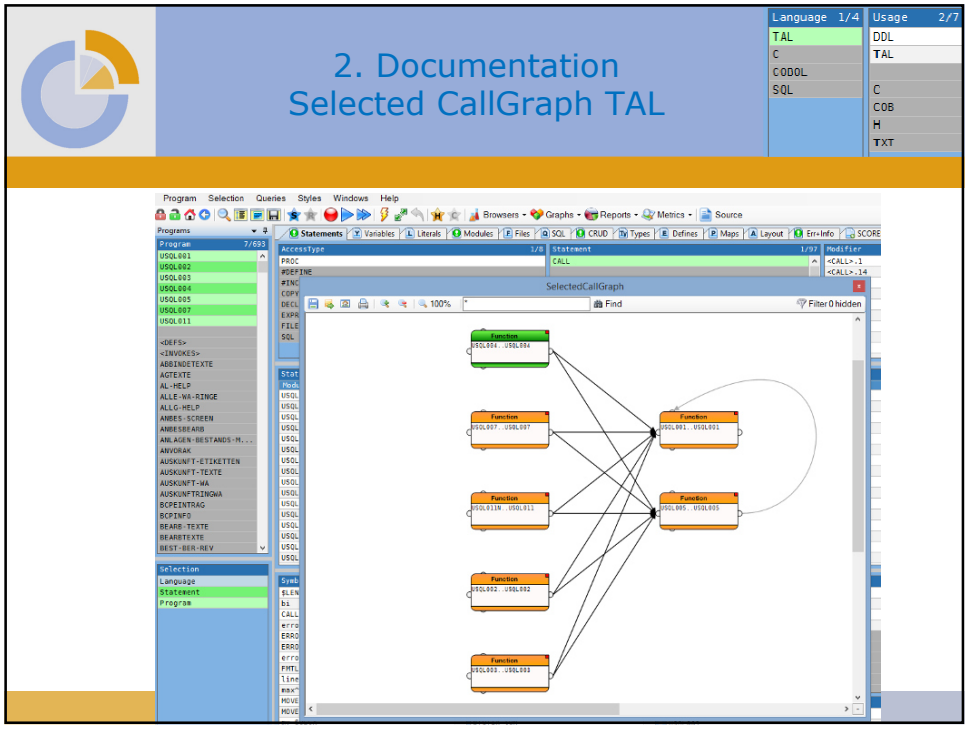
We will get our investment in Panorama back with two projects of this kind.

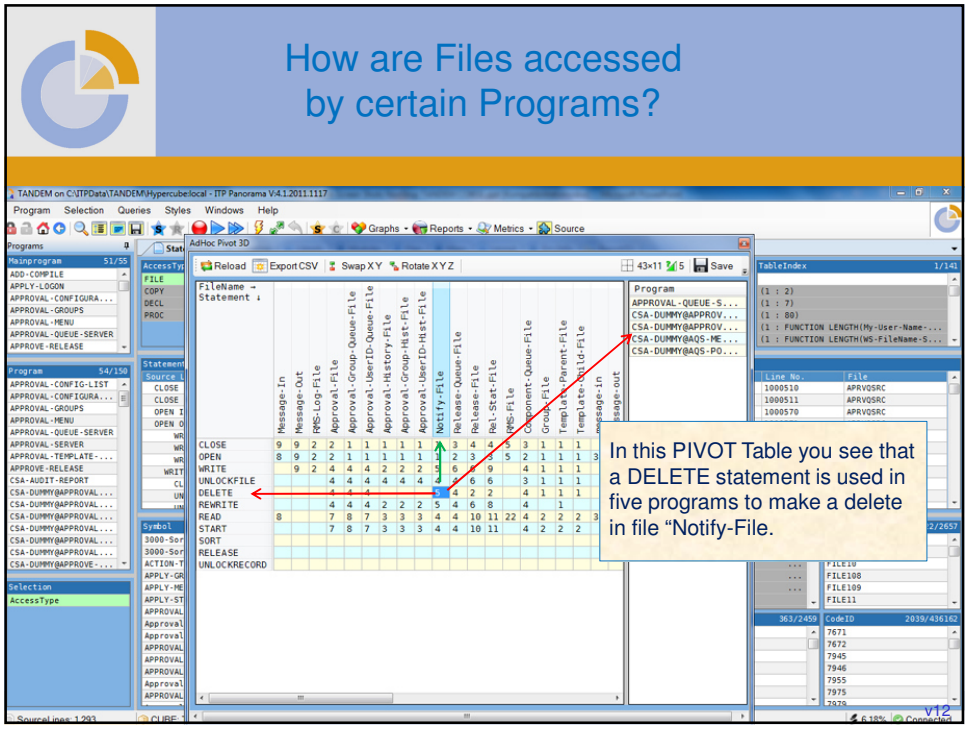
Equally important is the fact that we are able to shorten the time to market of this project.

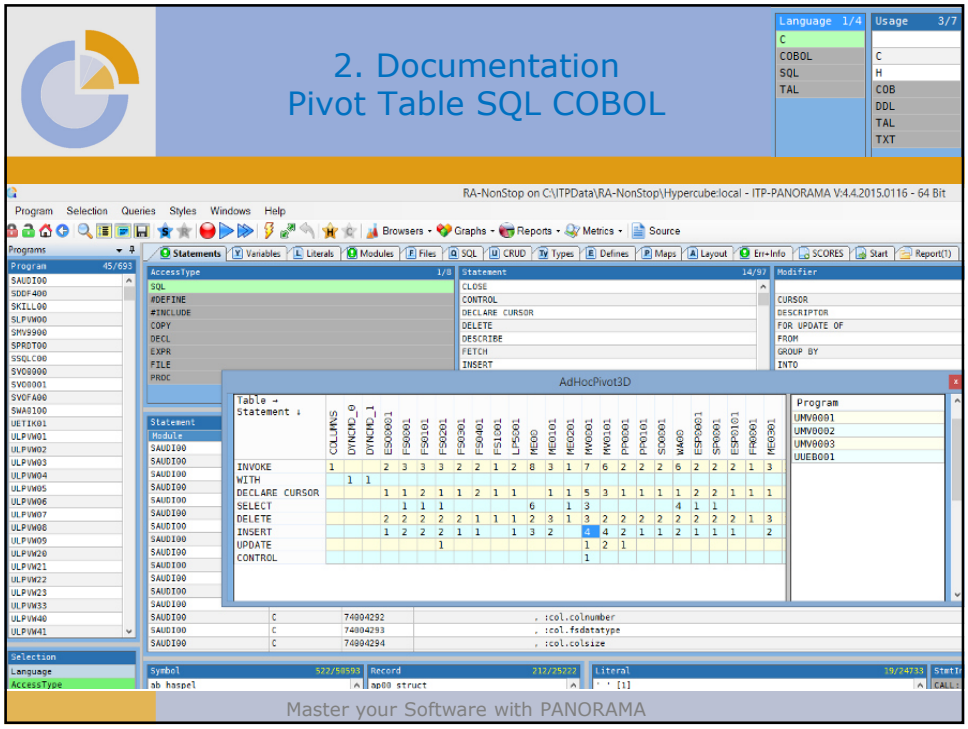
Bob Campbell
IT Solutions Architecture
Raymond James

2. Documentation
Recourse Browser TAL




2. Documentation
Selected CallGraph TAL
Language 1/4
TAL
C
CODOL
SQL
Usage 2/7
DDL
TAL
C
COB
H
TXT
SelectedCallGraph


How are Files accessed
by certain Programs?
In this PIVOT Table you see that a DELETE statement is used in five programs to make a delete in file “Notify-File.


2. Documentation
Pivot Table SQL COBOL
Language 1/4
C
COBOL
SQL
TAL
Usage 3/7
C
H
COB
DDL
TAL
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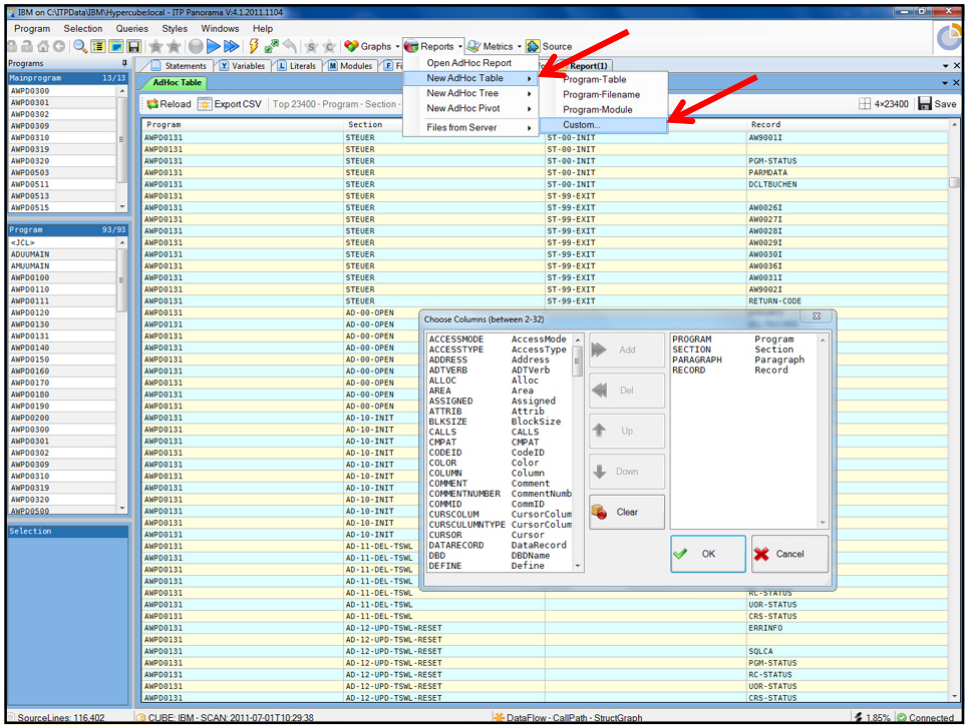
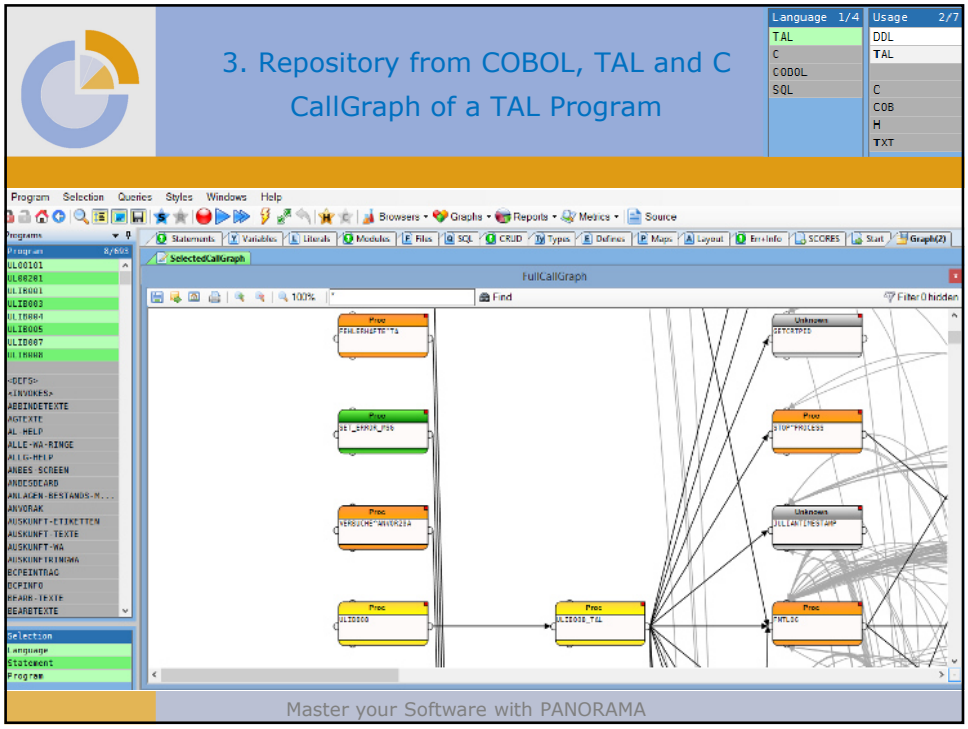

Open AdHoc Report
New AdHoc Table
New AdHoc Tree
New AdHoc Pivot
Files from Server
Program-Table
Program-Filename
Program-Module
Custom...
Choose Columns (between 2-32)
OK
Cancel


3. Repository from COBOL, TAL and C
CallGraph of a TAL Program
Language 1/4
TAL
C
CODOL
SQL
Usage 2/7
DDL
TAL
C
COB
H
TXT
Program Selection Queries Styles Windows Help
Browsers Graphs Reports Metrics Source
SelectedCallGraph
FullCallGraph
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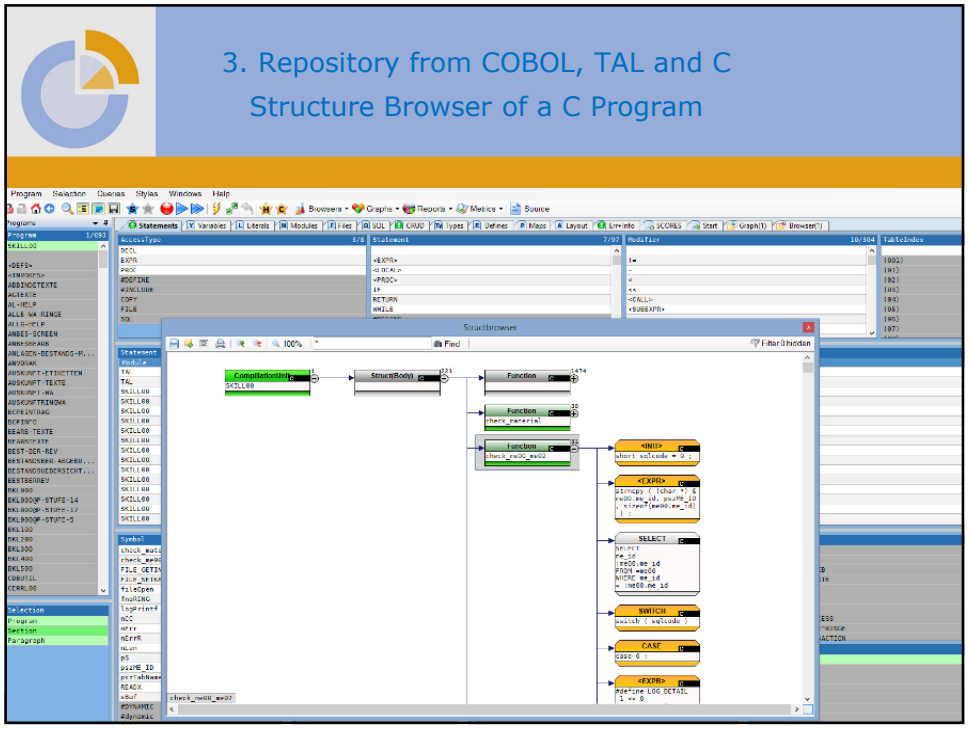
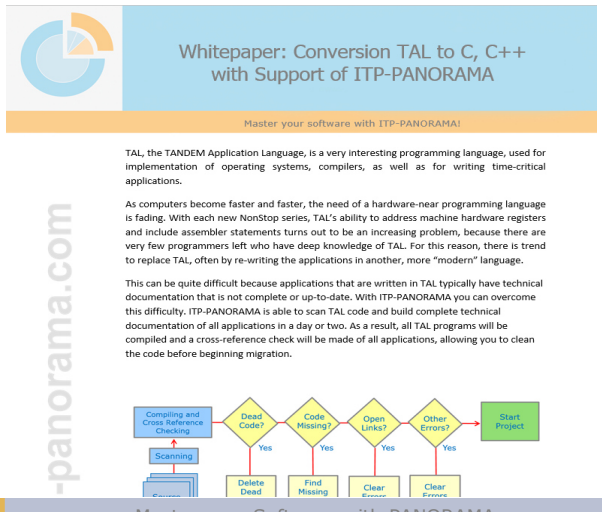

3. Repository from COBOL, TAL and C
Structure Browser of a C Program

4. Conversion TAL to C

- Regardless what you plan to do with your TAL applications, you need to understand how the business logic is supported by your software
- Converting to C has the benefit that both languages have a lot in common
- Because both languages can be scanned in the same HyperCube repository the conversion can be done step be step
- How ITP-PANORAMA can support the conversion to C is explained in a White Paper

4. Conversion TAL to C



Whitepaper: Conversion TAL to C, C++
with Support of ITP-PANORAMA

Master your software with ITP-PANORAMA!

TAL, the TANDEM Application Language, is a very interesting programming language, used for implementation of operating systems, compilers, as well as for writing time-critical applications.

As computers become faster and faster, the need of a hardware-near programming language is fading. With each new NonStop series, TAL's ability to address machine hardware registers and include assembler statements turns out to be an increasing problem, because there are very few programmers left who have deep knowledge of TAL. For this reason, there is trend to replace TAL, often by re-writing the applications in another, more "modern" language.

This can be quite difficult because applications that are written in TAL typically have technical documentation that is not complete or up-to-date. With ITP-PANORAMA you can overcome this difficulty. ITP-PANORAMA is able to scan TAL code and build complete technical documentation of all applications in a day or two. As a result, all TAL programs will be compiled and a cross-reference check will be made of all applications, allowing you to clean the code before beginning migration.

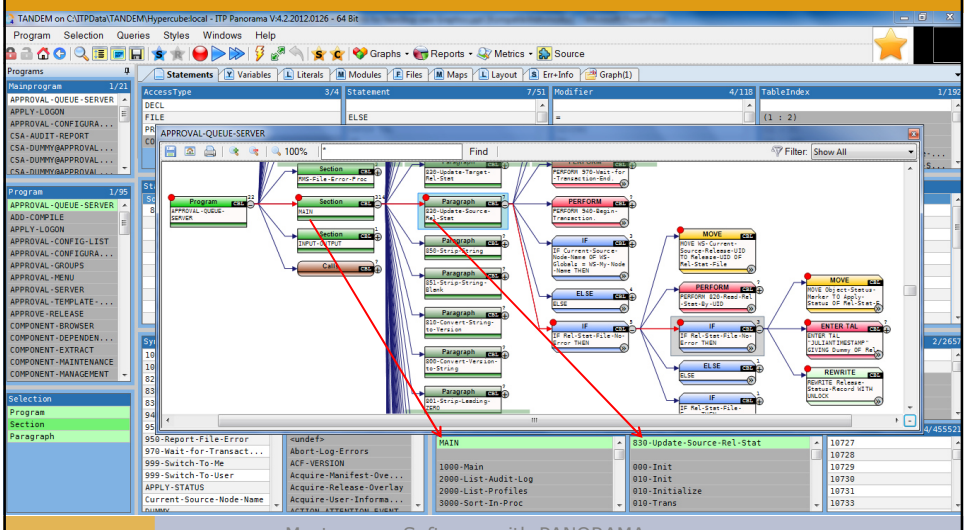
-panorama.com

5. Retrieving Business Logic form Source Code

- After cleaning the source code and building the HyperCube repository you have a technical documentation to the very detail
- Now, you can start to detect how your business processes are supported by your software
- The Dataflow Analysis allows to follow the value chain of e.g. Symbols
  - Forward from a READ or FETCH, …
  - Backward from a WRITE or UPDATE, INSERT, …
  - Both ways from any statement in the code, …

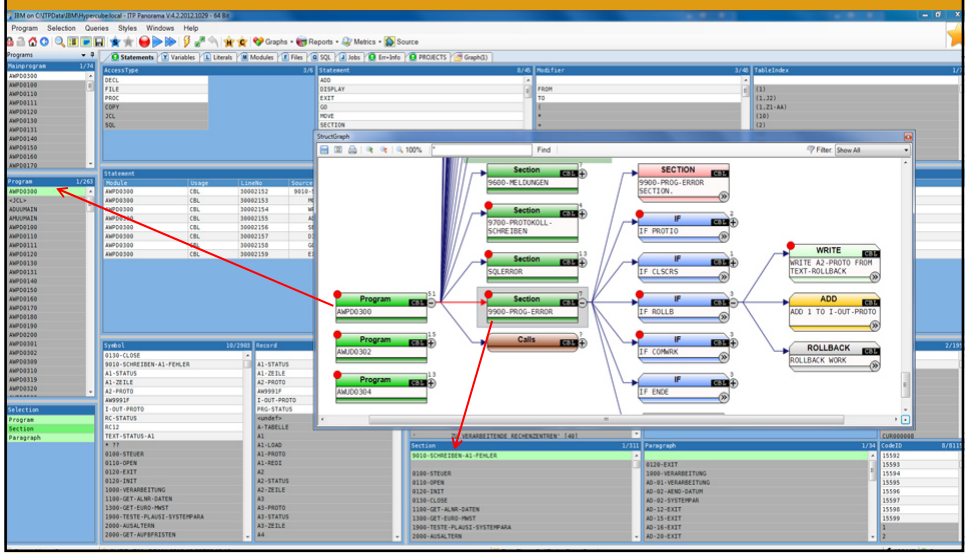
5. Dataflow Analysis

Which statements are processed with the variables of a READ?



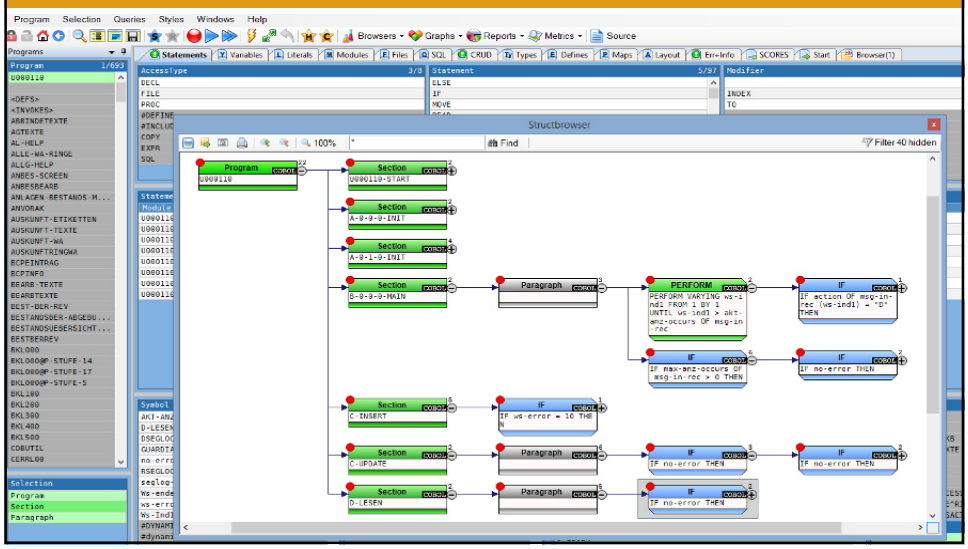
6. Retrieving Business Logic

Which statements are processed with the variables of a FETCH?



6. Retrieving Business Logic

Following the Decision Path



ITP-Panorama Summary

ITP-PANORAMA
can help NonStop developers to
maintain and modernize their code
efficient and with high quality

Example of setting up the Software Quality Check with a 30 Day Trial?

We arrived at RJ on a Friday morning at 10am.

- Install ITP-PANORAMA,
- Scanned the complex application with 11m LOC,
- Showed all missing sources and open links.

After doing some homework over the weekend,
we were back on Monday morning.

- Trained a development team within 4 hours.

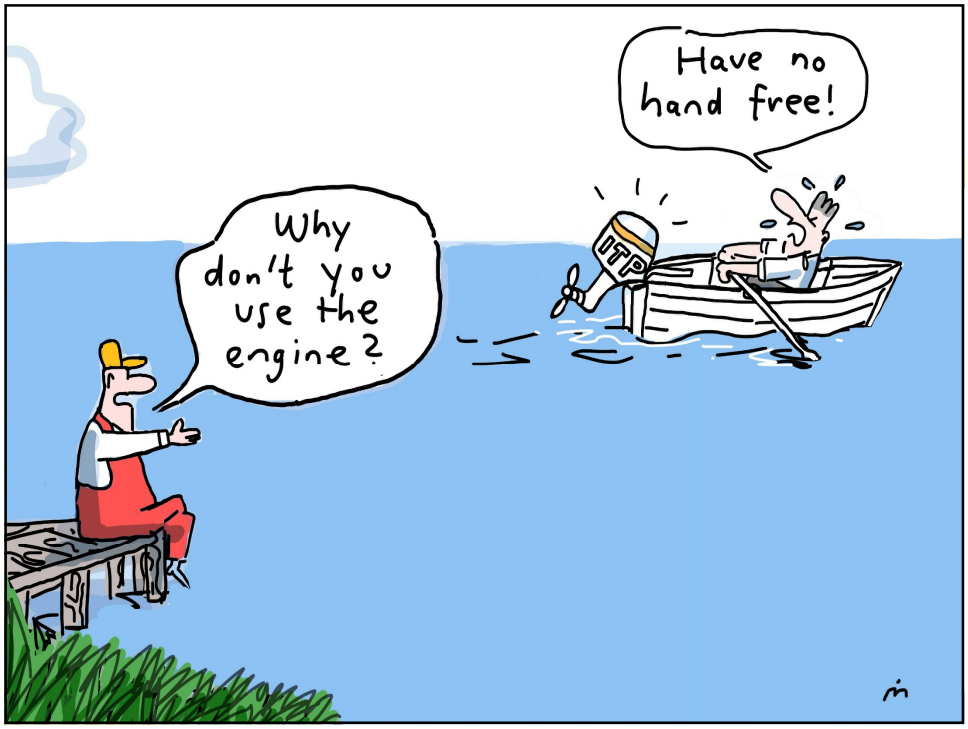
Than the team worked with 5 multi-user lice
for 30 days.

US Finance Institution and TANDEM user made this Comment after the Software Check:

"After completing a 30-day trial of ITP-Panorama, we had to revert back to the old, slower, painful ways of performing impact analysis.

It was like giving someone a Ferrari for 30-days and then asking them to settle for a scooter from now on.

I cannot imagine we have ever had so much success with a trial copy of software.

We're starting the purchase process right away."

Bob Campbell
IT Solutions Architecture