Welcome to our presentation at

ITP-PANORAMA is supporting all strategies for Legacy Software

Application Mining and Modernization with ITP-PANORAMA

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**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 databases and all target systems.

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

<table>
<thead>
<tr>
<th>Development</th>
<th>Maintenance</th>
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<tbody>
<tr>
<td>20% NuWave, IBM Rational, MicroFocus Ect.</td>
<td>80% ITP-PANORAMA</td>
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Users of ITP-PANORAMA are in Finance, Industry and Outsourcing

Users of ITP-PANORAMA in the NonStop Community

Master your Software with PANORAMA
NonStop Modernization Program

**Defined Seven Modernization Domains to address customer needs**
- User Interface
- Service Orientation, Integration
- Information Layer
- Execution Environments
- Development Tools
- Management
- Security

Full Support of NonStop Application Management

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Master your Software with PANORAMA
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

Master your Software with PANORAMA

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

Master your Software with PANORAMA
File Transfer from the Version Control System to a dedicated Server

CBL • Scanning
CBL • Compiling
CBL • Check of Completeness
CBL • Check Cross References

DDL
IMS CICS
JCL
XML

Error List
Function Point Analysis
Generated Reports Pivot Tables

Why does it make 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**
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
Selected CallGraph TAL

In this PIVOT Table you see that a DELETE statement is used in five programs to make a delete in file "Notify-File.

How are Files accessed by certain Programs?
2. Documentation

Pivot Table SQL COBOL

Master your Software with PANORAMA

[Image of software interface]
Master your Software with PANORAMA

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

Master your Software with PANORAMA

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 by step.
- How ITP-PANORAMA can support the conversion to C is explained in a White Paper.

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

TAL, the TECORA 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-like programming language is fading. With such new desktop systems, it’s easier to address hardware-dependent and I/O scanner statements turns out to be an increasing problem, because there are fewer programmers left who have deep knowledge of it. For this reason, there’s trend to replace TAL or by rewriting the applications in another, more standard language.

This can be quite difficult because applications that are written in it typically have technical documentation that’s hard to follow, or in the case where ITP-PANORAMA is not a maintenance tool, the documentation of all applications is 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 branching migration.
5. Retrieving Business Logic from 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?

Following the Decision Path
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 licenses 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