DB/IQ IA+ Workflow

Source

Catalog based SQL:
Plans, DBRMs
Collections, Packages,
Materialized QueryTables
Common Table Exp.,
Views, Triggers etc.

All Dynamic SQL Incl.
- *ERP Applications*
- *WEB Applications*
- *Client-Server*

Plan /
Program / Package
Execution
Frequency

Individual
SQL Statement
Execution
Frequency

IA Functions

Repository & X-Reference Database

Analysis of current Indexes
- *CASE Tool or Self-designed*
- *"purchased" Software*
- *RI Index Quality Check*
- *FIRSTKEY Quality Check*

Repository Analysis
- *Index- and non-index column usage*
- *Index Column Candidates*
- *Weight Biasing - Package and SQL frequencies*

Execution Frequency Database

Index Impact - incorporates :
- *Index usage*
- *Non-Used Indexes*
- *Impact upon Applications*
- *Influence with execution "frequency" values*

SQL Monitor Trace captures:
- *SQL usage & frequencies*
- *Plan-Package References*

+ QA RUNSTATS Migration
- *Transfer Prod → Test*
- *Generate volume-based*
- *Manipulate values*

Simply enforce "best" Indexes for all SQL

Benefits

Query-By-Example thru Cross-References & Repository

New Index Design Possibilities
Complete Predicate Usage

Improve Performance :
- *Revise Index design before production*
- *Check Index Quality*
- *Validate Index "Key" and "FirstKey" Columns*
- *Evaluation considers Frequency of Execution*

Application Impact
- *Across all applications*
- *Cost- and Access-Path Based comparisons*
- *Application Gain / Loss Before and After*

Enhances Static Approach
- *Dynamic X-References*
- *Locates SQL / Package execution frequencies*
- *Simulate production or futuristic values, influence Access Paths, Indexes*