ABAP Development Tools
Bringing a server-based programming model to Eclipse

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ABAP: Some Numbers

- Invented 1982
- ~ 3.5 million developers
- ~ 60% of the world’s transactions touch an SAP system
ABAP Development Tool in 2008
3 Challenges

1. Loves files

2. Local development

3. One client version for all server versions

Loves database tables

Server based development
Provide Files

SAP GUI

ABAP Workbench UI

ABAP Workbench functionality

Repository / Database
Provide Files

- SAP GUI
- ABAP in Eclipse
- ABAP Workbench UI
- RESTful APIs
- ABAP Workbench functionality
- Repository / Database

Some other tool
Demo

Asynchronous Communication
Asynchronous Communication

Frameworks not prepared for asynchronous work:

- Editor Initialization
- “Link with Editor”
- Context menu in Project Explorer
- Calculation of Code Completion Results
Migration Strategy via SAP GUI Embedding
Compatibility – What Does It Mean?

One client version works fine with all server versions

Client checks features available on server
Enables / disables functionality

Server checks if client is incompatible
Triggers client update
Compatibility: Homemade Solution

Driving Force: Backport single features to older server versions
Compatibility: Homemade Solution

Driving Force: Backport single features to older server versions
Compatibility: HATEOAS or Standards Are Your Friends

- API discovery via Atom publishing protocol \( (RFC\ 5023) \)
- Hypermedia via Atom links \( (RFC\ 4287) \)
- Client URI calculation via URI Templates \( (RFC\ 6570) \)
- API versioning via versioned content types \( (RFC\ 2616) \)
Demo

Compatibility
Compatibility: HATEOAS or Standards Are Your Friends

- Discovery document via Atom publishing protocol (RFC 5023)

- Links via Atom links (RFC 4287)

- URI calculation via URI Templates (RFC 6570)

- Versioning via versioned content types
More Information

Links

• Update Site: https://tools.hana.onemand.com/#abap
• ABAP in Eclipse on SAP Community: https://blogs.sap.com/tag/adt/
• ABAP in Eclipse on YouTube: https://www.youtube.com/watch?v=BXg7xXrEAUw

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