



FEU INSTITUTE OF TECHNOLOGY  
COLLEGE OF ENGINEERING • COLLEGE OF COMPUTER STUDIES

# ITSE333A ABAP

## Lesson 1: Introduction

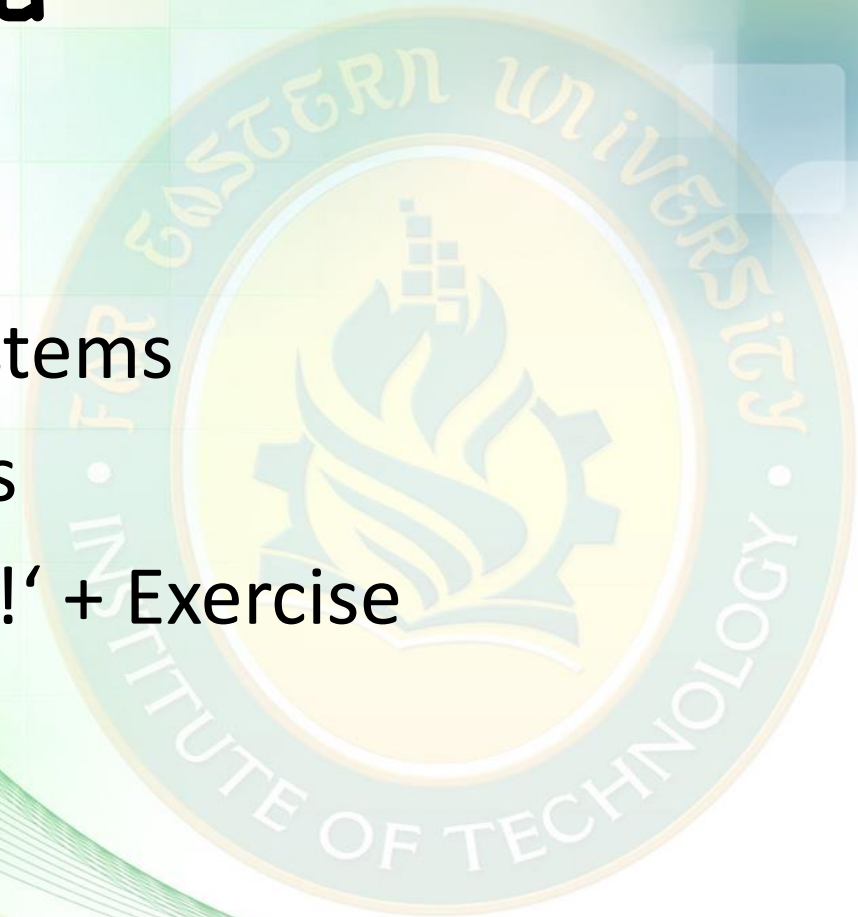
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*Anthony D. Aquino*



# Agenda

- ❖ Introduction to ABAP
- ❖ The use of ABAP in SAP systems
- ❖ Development prerequisites
- ❖ First program ,Hello World!' + Exercise
- ❖ Online help for ABAP







# What is ABAP?

- ABAP = Advanced Business Application Programming
- Similarities with Cobol and Pascal
- Established in 1980
- Since 1998 object oriented ABAP objects established
- Fully compatible to older versions



# What is ABAP?

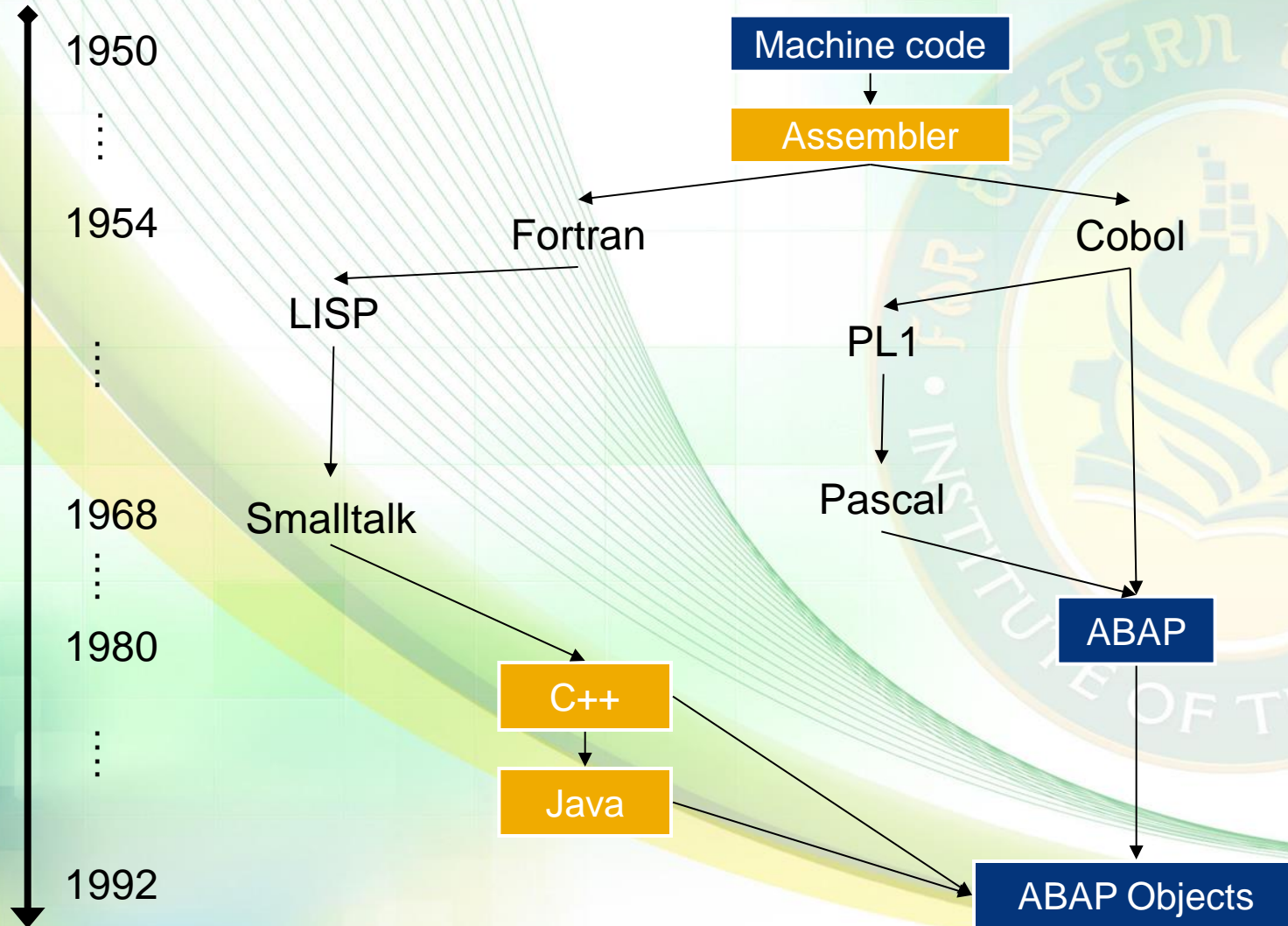
- Multilanguage support
- Embedded SQL statements
- Platform independent
- Database independent
- Reusability of code fragments







# Historical view on ABAP





# Compiling ABAP

Presentation  
layer

SAPGui

SAPGui

SAPGui

Calls program  
for the first time

Short message  
about compiling

Runs program

Application  
server

Application  
server

Application  
server

Application  
layer

Database  
server

Database  
server

Database  
server

Database  
layer

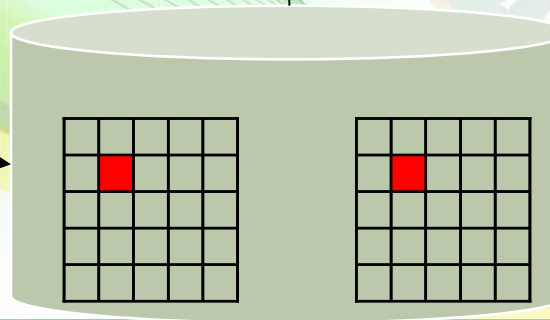
Program has to  
be compiled

Compiling

Return compilation

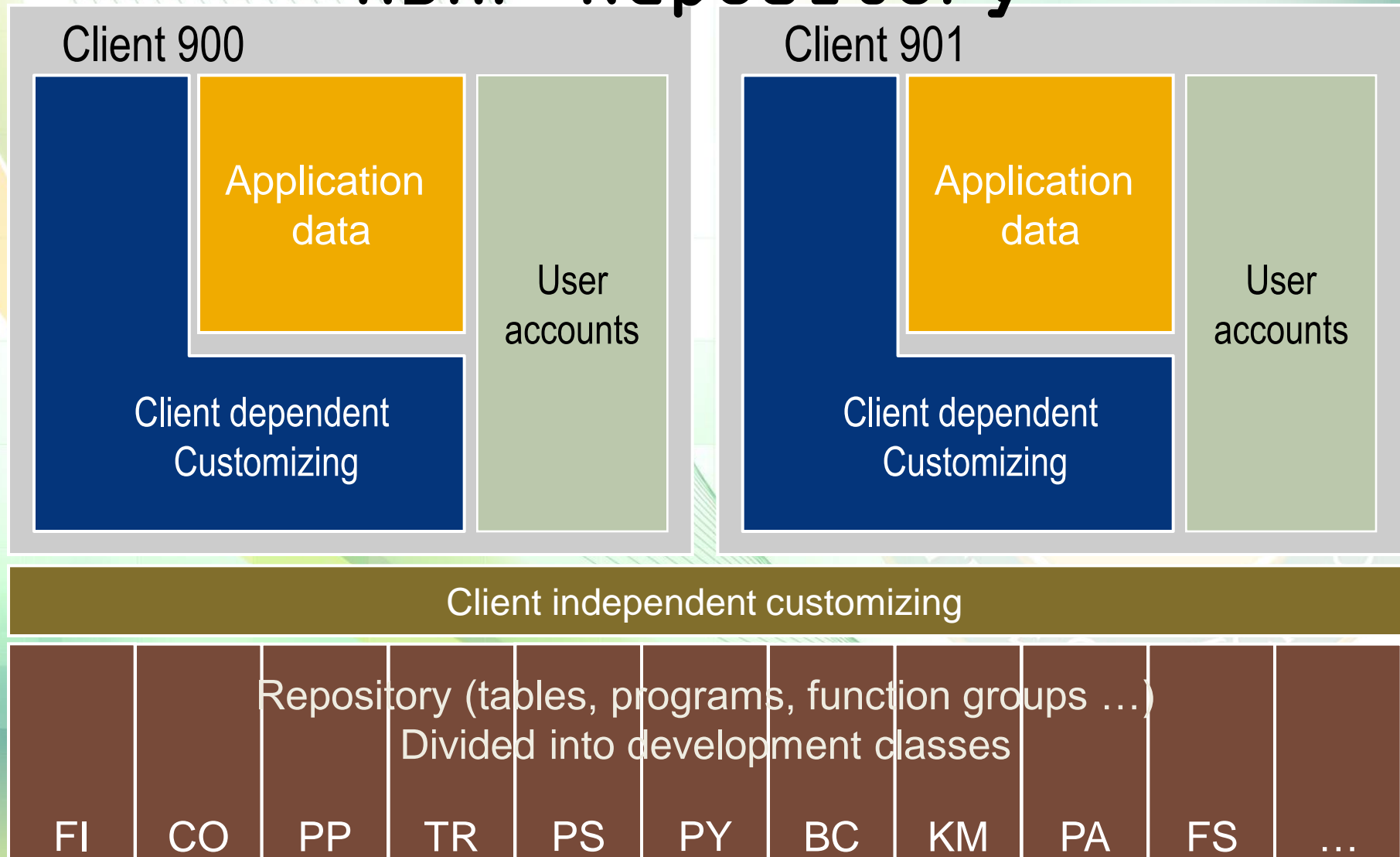
ABAP  
Source  
code

ABAP  
Compilation





# ABAP Repository

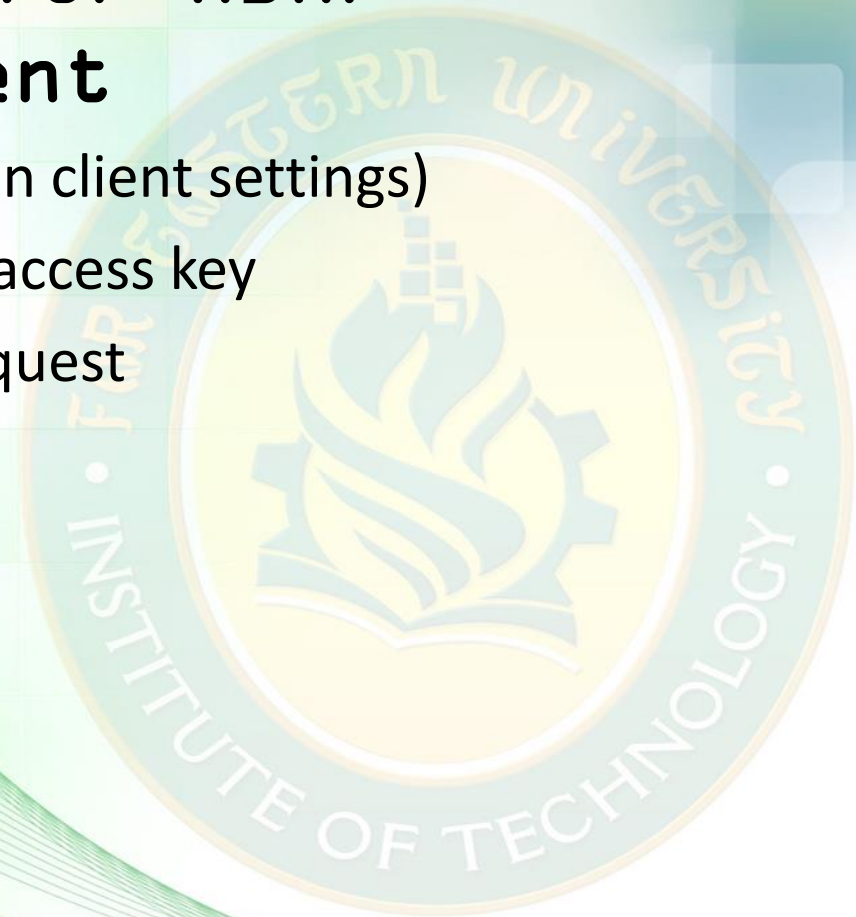






# **Prerequisites for ABAP development**

1. Access to repository (is maintained in client settings)
2. User with development profile and access key
3. Own package and own transport request
4. Pay attention to the namespaces







# Prerequisites for ABAP development

1. Access to repository (is maintained in client settings)
  - Access to repository is needed
  - Check access in transaction SCC4

The screenshot shows the SAP Client Settings (Transaction SCC4) for Client 901. The client name is 'IDES-ALE: Central FI Syst'. The city is 'Walldorf - Deutschland'. The logical system is '651CLNT901'. The standard currency is 'EUR'. The client role is 'C Customizing'. The 'Changes and Transports for Client-Specific Objects' section shows that 'Changes without automatic recording' is selected. The 'Cross-Client Object Changes' section shows that 'Changes to Repository and cross-client Customizing allowed' is selected. The 'Last Changed By' field is 'MASTER-ADM' and the 'Date' is '22.10.2006'.

Client	901	IDES-ALE: Central FI Syst	
City	Walldorf - Deutschland	Last Changed By	MASTER-ADM
Logical system	651CLNT901	Date	22.10.2006
Std currency	EUR		
Client role	C Customizing		

**Changes and Transports for Client-Specific Objects**

- ☒ Changes without automatic recording
- ☐ Automatic recording of changes
- ☐ No changes allowed
- ☐ Changes w/o automatic recording, no transports allowed

**Cross-Client Object Changes**

- ☒ Changes to Repository and cross-client Customizing allowed



## **Prerequisites for ABAP development**

2. User with development profile and access key
  - The access key allows development of new programs or changes to existing one
  - Access key are always username dependent!
  - Access keys must be requested from SAP as license cost increase by the number of development users
  - Access keys can be obtained from your local UCC





## **Prerequisites for ABAP development**

3. Own package and own transport request
  - Own packages enable you to group your developments
  - Transport requests enable you to transport new developments to other SAP systems
  - You may develop new programs using the local package \$TMP, but transport of these developments is not possible



## **Prerequisites for ABAP development**

4. Pay attention to the namespaces
  - Only use namespace Y and Z, e.g. ZZ\_\* or YY\_\* as these are customer namespaces
  - SAP uses namespace from A to X for own programs and implementations
  - Changing SAP objects is not possible unless you have a modification key





# Transport of ABAP developments

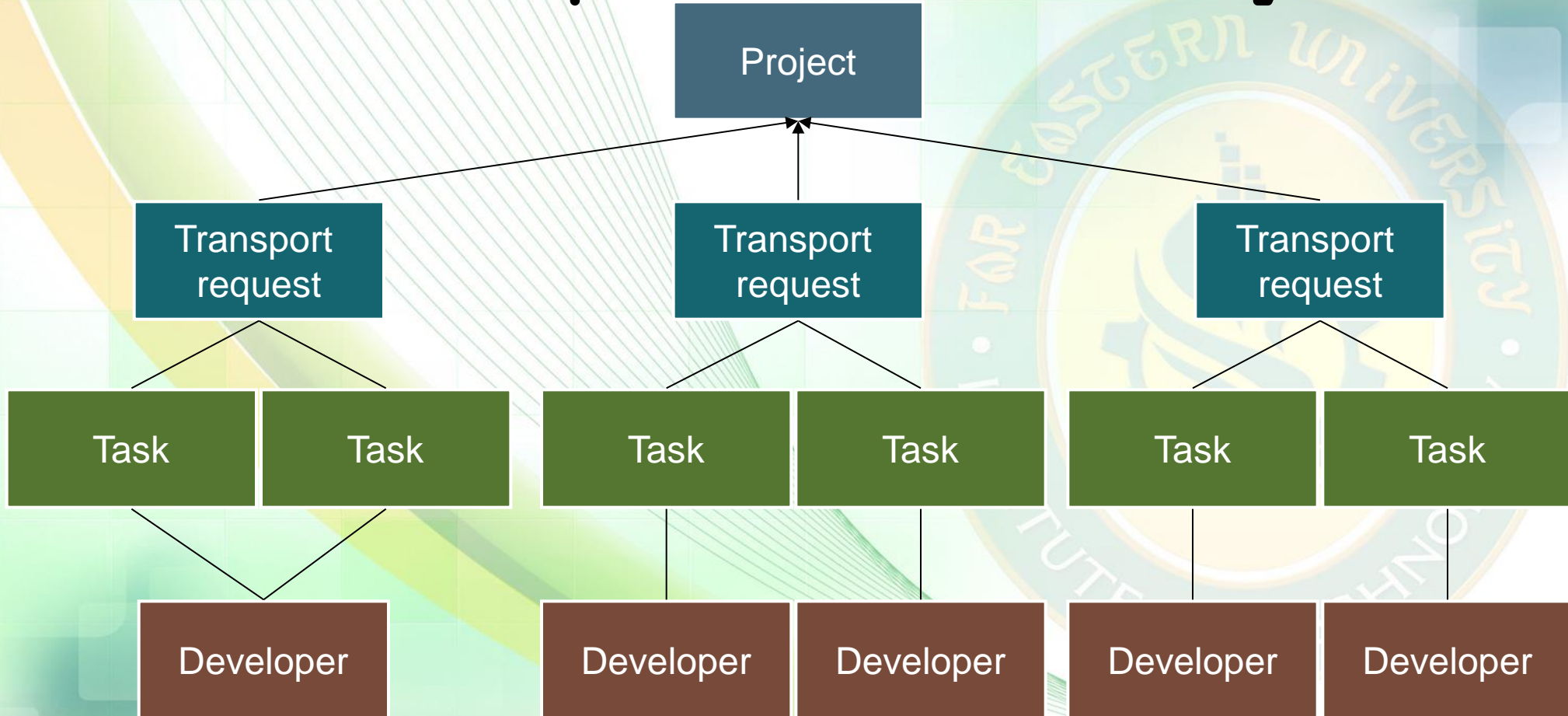


Source: Own illustration

- Developments are transported from DEV to QAS using transport requests
- Exporting transport requests creates files for transportation
- You may either import all or only one transport request in your destination system



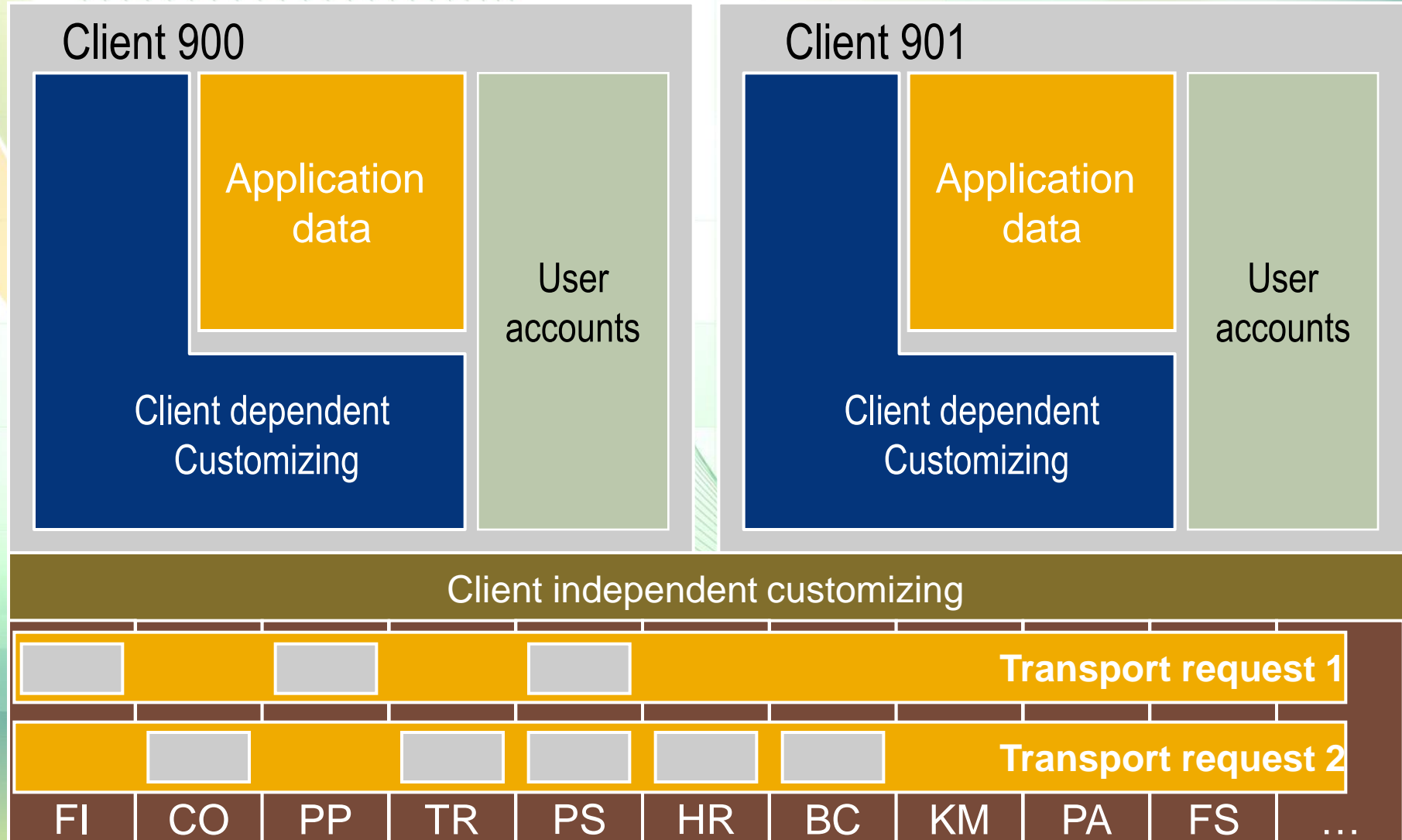
# Transport hierarchy







# Transport requests in repository





# **Transport requests: releasing and exporting**

- Release of transport requests can be done in Transport Manager TA SE09 or SE10
- First release all tasks, then release transport request
- Tasks have to be released by each developer
- In urgent situations a task can be taken over to complete the export







# The first program: Hello World!

1. Create a new package
2. Create a new transport request
3. Create the new program
4. Enter access key
5. Adjust program attributes
6. Assign program to package
7. Save, check and activate program
8. Release and export new program

