




# **ABAP Continuous Integration (CI) Plugin**

## Why automation is the key to code quality?

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# Continuous Integration (CI) Certification Test \*)

1. Continuous commits [activations] to one repository
- 2a. Automated checks of Build and Unit Tests after each commit
- 2b. Automated static code checks [ATC]
3. Unit Test Failures [and ATC errors] are repaired fast

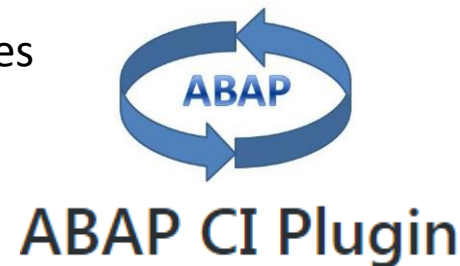


\*) adapted, see original idea and definition by Martin Fowler at:  
<https://martinfowler.com/bliki/ContinuousIntegrationCertification.html>

# The focus of the Plugin is on automation




**Target:** Automatic execution of existing ABAP in Eclipse features after each activation of ABAP development objects

**Purpose:** **Save development time and  
Get fast feedback about the code state**



Target is primary the automatic visualisation of the actual state of the source code.  
For solving unit test failures and cleaning up the particular ATC findings the standard ABAP in Eclipse views are much better and more powerful.

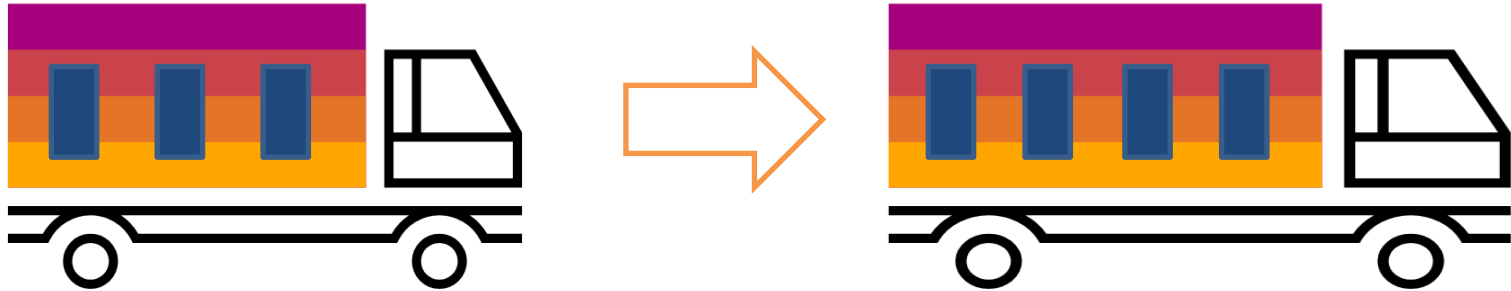
# Automated Continuous Integration saves time

| Area   | Without CI  | Manual CI tools   | With abapCI Plugin  |
|--|---|---|---|
| source code change                               | Equal   |   |   |
| Minimal mouse clicks<br>or shortcuts necessary*) | 2<br>1  | <b>12</b><br><b>4</b>   | 2<br>1  |
| CI and quality components                        | None  | AbapUnit<br>ATC checks<br>(Formatted code,<br>Delete not used vars)                 | AbapUnit<br>ATC checks<br>(Formatted code<br>Delete not used vars)                  |
| Project manager mood                             |  |  |  |

\*) base for calculation: two changed ABAP classes

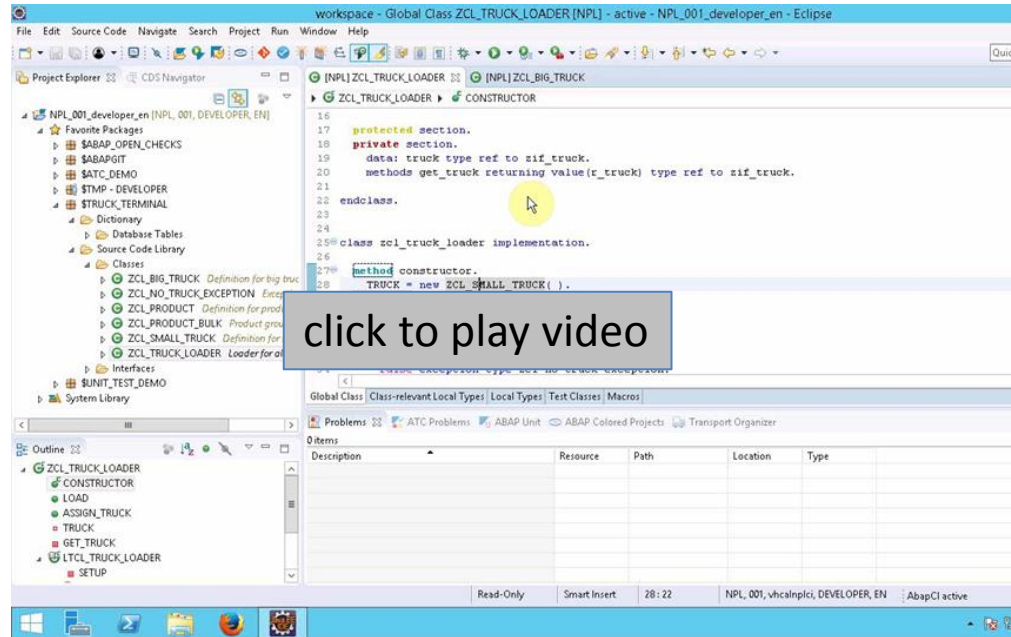
# Coding example – Truck terminal

Use case: The maximal item **capacity can be increased from 3 to 4 items** as the new bought trucks have more loading space.



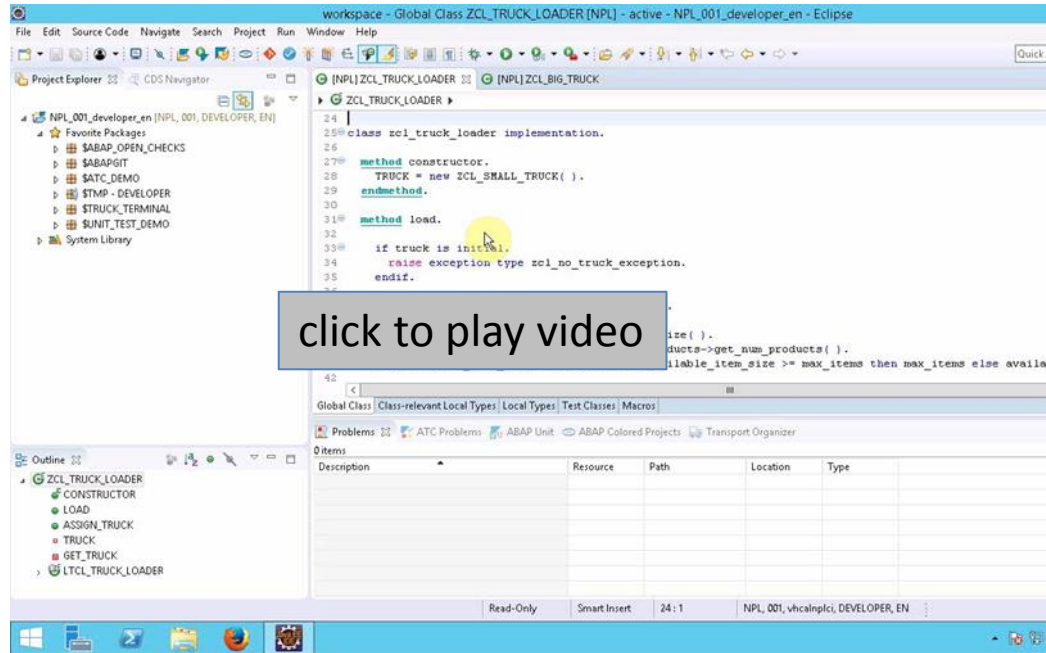
Images from <https://www.sap.com>

# Skipping Continuous Integration is fast (... in the short time)



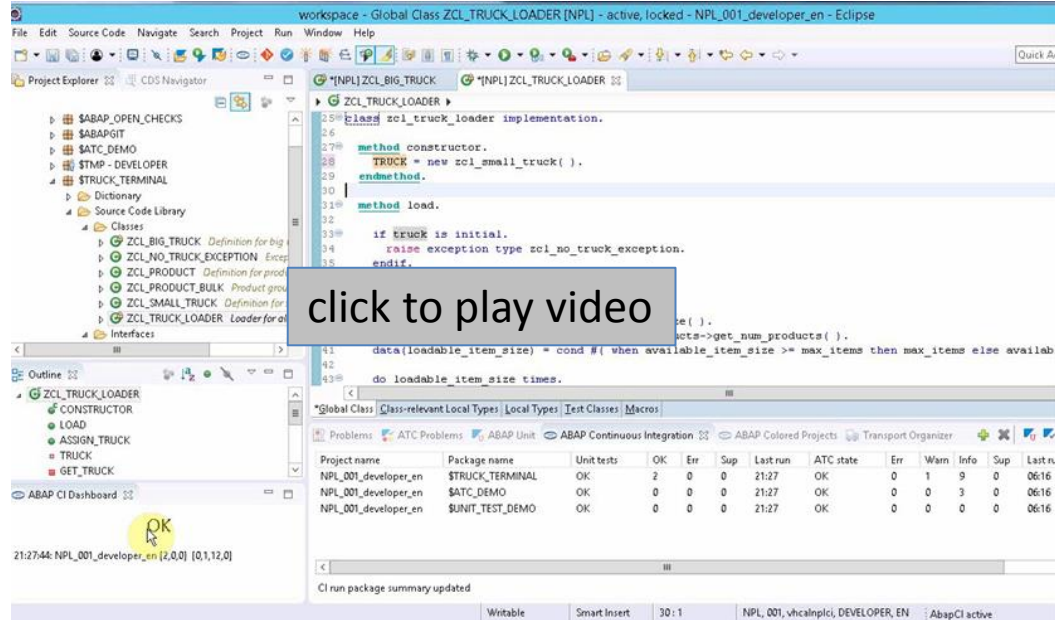
YouTube - Comparison ABAP development Performance - Without CI tools

# Manual usage of CI tools needs a lot of time



YouTube - Comparison ABAP development Performance - Manual CI tools




# On purpose of ABAP CI plugin is to save time



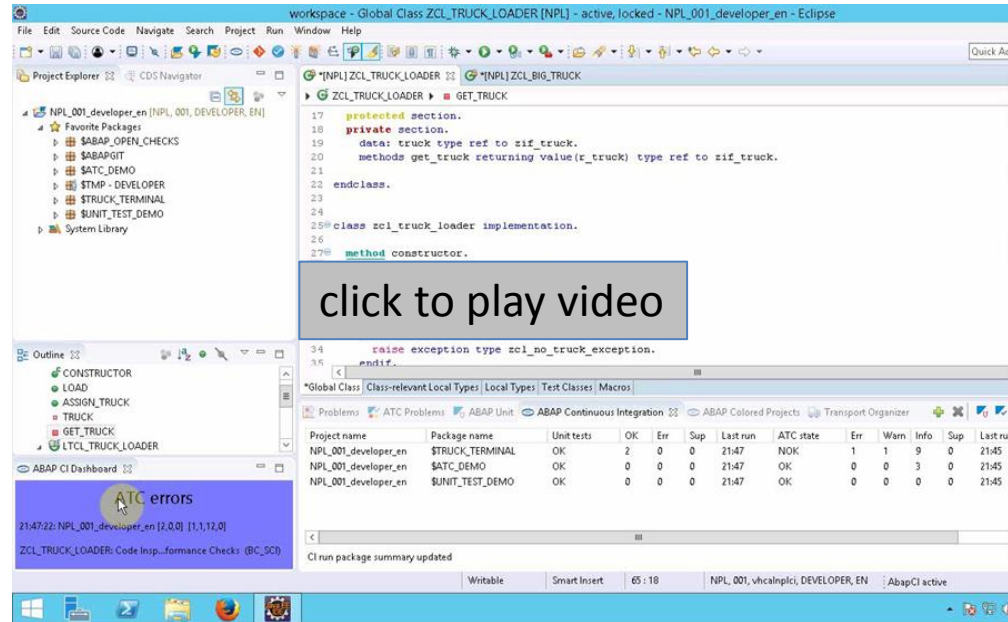
YouTube - Comparison ABAP development Performance - With ABAP CI plugin



# Using Continuous Integration prevents errors

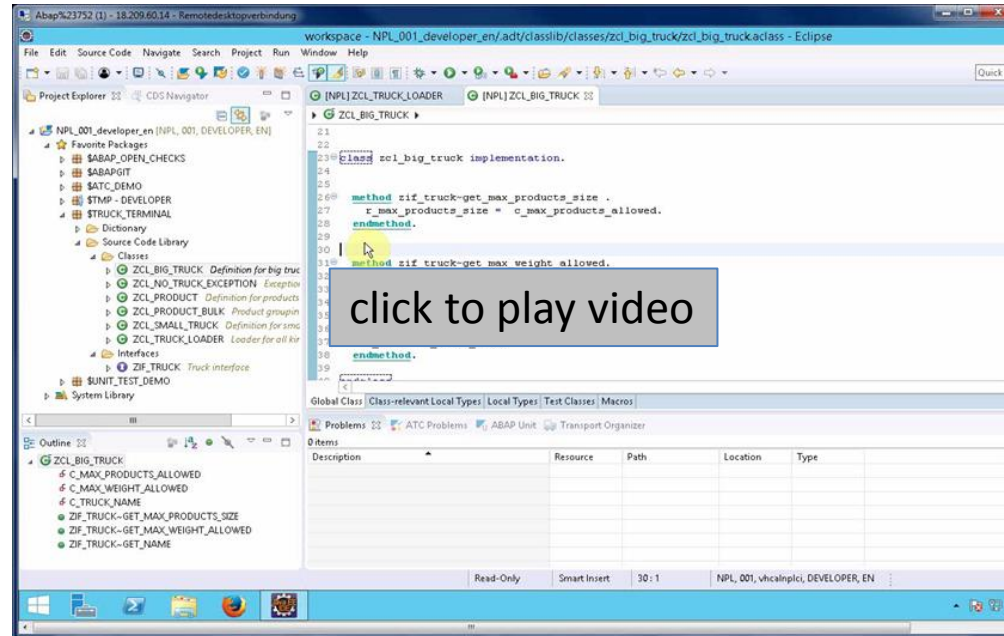
| Area   | No code quality   | Manual quality tools   | With abapCi Plugin  |
|--|---|--|---|
| source code change                               | Equal   |  |   |
| Minimal mouse clicks<br>or shortcuts necessary*) | 2<br>1  | <b>12</b><br><b>4</b>  | 2<br>1  |
| CI and quality components                        | None  | AbapUnit<br>ATC checks<br>(Formatted code,<br>Delete not used vars)                | AbapUnit<br>ATC checks<br>(Formatted code<br>Delete not used vars)                  |
| Project Manager mood<br>for 5 change requests    |  |  |  |

# Automatic sourcecode state feedback



YouTube - ABAP Continuous Integration (CI) Plugin - Sourcecode state feedback

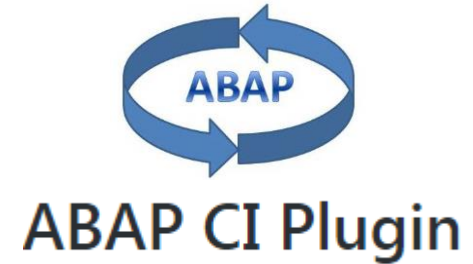
# Installing and configuring needs only 2 minutes



YouTube - ABAP Continuous Integration Plugin - Installation

# Thanks for your attention!

**Purpose: Save development time and  
Give fast feedback**



Installation with:



Open Source  
and documentation:



Question, Issues, Feature or Pull Requests welcome!

# Appendix I

- Open Source Github repository for ABAP CI Plugin  
<https://github.com/andau/abapCI>
- Listing in Eclipse Marketplace  
<https://marketplace.eclipse.org/content/abap-continuous-integration>
- Continuous Integration by Martin Fowler  
<https://martinfowler.com/articles/continuousIntegration.html>
- ATC – Blogs by , for example:  
<https://blogs.sap.com/2017/02/27/remote-code-analysis-in-atc-for-developers/>

# Appendix II

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- ABAP Test Cockpit (ATC) - Introduction Video on the ABAP channel on YouTube :  
[https://youtu.be/\\_SmSJ8Tkl8w](https://youtu.be/_SmSJ8Tkl8w)
- ABAP Open Checks by Lars Hvam  
<https://github.com/larshp/abapOpenChecks>