



**TEMENOS**

The Banking Software Company

# **PRODUCT**

## **Secure Coding Standards for T24**



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Amendment History

Version Number	Date	Author/Changed by	Description of Changes Made
0.1			Initial Draft
0.2	18-Oct-12	Smitha Nair	Formatting done for the existing document
1.0	19-Oct-12	EPG Subgroup	Baselined for publishing.

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# 1. Introduction

T24 Programming standards are available in Knowledge base under path <http://knowledgebase.temenosgroup.com/t24/Pages/Development%20Process.aspx> > Development Process guides > User guides section .

It should be used for complete understanding of basic programming standards.

Scope of this document is to further explain the Secure Coding Standards applicable for development in T24

# 2. Fundamentals

## 2.1 Basics

- Avoid using common variables to pass as parameters in subroutines
- Avoid using transaction, boundary related core common variables – except in core programs where it is specifically required. Any update to core COB files – eg JOB.LIST, its related locking updates etc should be avoided.
- Ensure that code does not alter global common variables like TODAY, ID.COMPANY, R.COMPANY, R.DATES etc within application code. Only the components/subroutines that own these common variables could change them. For example ID.COMPANY could be changed by LOAD.COMPANY.
- Ensure that named common variables are only assigned in the appropriate routines. For example named commons used in batch – should only be assigned in the load routine. The record /Select routine should only use them not alter values in them unless functionality demands it
- When common variables need to be used in programs ensure that they are reset after they are expected to be out of scope.

## 2.2 Information leakage

- Ensure not to log highly sensitive information where possible. Logging should only use T24 logger framework
- System memory variables should not be used to log any sensitive information as it can be misused /monitored by others

### 2.3 Access Control

- EB.CALL.API should be used where an API request to be done. This will ensure that core common variables are preserved so that it cannot be tampered by API's
- DAS should be used for selecting records from applications. No Direct SELECT should be used. This will have a control on SELECT's performed on applications are permitted by application owner.

### 2.4 Insecure Storage

- Data should be in database files and not directly directory structure of T24 – Eg writing directly to run directory should be avoided.