PLC Coding Style

Variables

🐫 Camel case
🔤 First letter in Lower case
⛔ Prohibited "_"

Example:
- ✅ ready, isUp
- ✅ run, stop, up

⚠️ Grouped variables that cannot be in a structure can use "_":
- ✅ motor1_run
- ✅ motor1_stop

Constants

🐍 Snake case
🔤 All Upper case

Example:
- ✅ STATUS_0_DONE
- ✅ ERROR_NOT_FOUND

Structures Data Types

🐫 Camel case
🔤 1st letter in lower case
⛔ Prohibited "_"

Example:
- ✅ userData, motor
- ✅ nameOfStructure

```
STRUCTURE motor
  isRunning: bool
  command: int
  error: bool
END STRUCTURE
```

Enumerations

- Definition follows Structure rules.
- Data follows Constant rules.

```
ENUMERATION status
  ID_0_NIL : int := 0
  ID_2_BUSY : int := 2
END ENUMERATION
```

Data Containers (DB/DI)

🐍 Snake case
🔤 All Upper case

Example:
- ✅ DB_NAME
- ✅ MOTOR1, SYSTEM

Program Organization Units

🐍 Snake case
🔤 All Upper case

Example:
- ✅ MAIN, CYCICAL, HW_INTERRUPT
- ✅ OB001_MAIN (Siemens compatibility)

Subroutines Procedures

🐫 Camel case
🔤 First letter in Upper case

Example:
- ✅ Group1
- ✅ Controllers

⚠️ "_" can be used for semantic ordering
⛔ "_" Prohibited in other case

```
OB001_MAIN:
├─ FC: Group1
│   ├─ FB: Motor1_control, DB: MOTOR1
│   └─ FB: Motor2_control, DB: MOTOR2
└─ FC: Group2
    ├─ FB: Motor3_control, DB: MOTOR3
    └─ FB: Motor4_control, DB: MOTOR4
```

Functions

🐫 Camel case
✅ "_" Must be the first char.
🔤 First letter in Lower case

Example:
- ✅ _foo(), _calc(), _measure()
- ✅ _add(), _toggle()

Interfaces

🐫 Camel case
✅ "I" Must be the first char.

Example:
- ✅ IMotor, ILamp
- ✅ IAlarm, IMotion

⛔ **Prohibited Hungarian Notation**

⚠️ **Safety data may have the prefix "F_"**