ICT Project Guidance

Glossary of ICT Specific Terms:   
System Development

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Version:

0.3

## Description

A Glossary of common ICT Terms related to custom development, to establish a common understanding, while reducing duplication of effort in downstream documents.

## Synopsis

Included are the meanings of acronyms and industry terms used to describe aspects of custom development.

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## Objective

To develop a common understanding of terms used in artefacts used to deliver services with an ICT component.

# Terms & Acronyms

## System Development Industry Terms & Acronyms

### Acronyms

#### DRY

: an acronym for a Don’t Repeat Yourself, a key development approach to decrease development effort while increasing analysability and maintainability qualities.

#### OO

* : see *Object Oriented*.

#### SOC

: see *Separation of Concerns*.

### Terms

#### Immutable

: non-changing data. Examples include system categorisation lists which remain the same throughout the service’s lifespan. See Mutable.

#### Mutable

: authorised user entered data, that can subsequently be corrected or even logically deleted (data should not be *physically* deleted). Contrast to *Immutable*.

#### Object Oriented

* : a computer programming model that organizes software design around data, or objects, rather than functions and logic. See *SOLID* which provides principles on how to deliver OO, and *DDD*, which outlines how to organises OO code into deployable components and packages that maximise *maintainability* and *modifiability* while minimising *complexity*.

#### Separation of Concerns

: a key development approach to diminish the cost of development, analysis, maintenance and may improve portability and reuse.

#### SOLID

* : a mnemonic acronym for five design principles intended to make object-oriented designs more understandable, flexible, and maintainable:
* Single Responsibility principle (see *Separation of Concerns)*.
* Open-Close Principle (open for extension, closed for modification).
* Liskov’s Substitution Principle (use interfaces rather than concrete classes).
* Interface segregation Principle (use smaller interfaces).
* Dependency Inversion Principle (see *Injection*).
* *Note it may be of interest to know that SOLID only captures the first 5 principles of Uncle Bob’s 10 principles.*

#### GRASP

* : an acronym for General Responsibility Assignment Software Principles. Another well known and valuable set of development patterns to guide development towards delivering long term value:
* controller,
* creator,
* indirection,
* information expert,
* low [coupling](https://en.wikipedia.org/wiki/Coupling_(computer_science)),
* high [cohesion](https://en.wikipedia.org/wiki/Cohesion_(computer_science)),
* [polymorphism](https://en.wikipedia.org/wiki/Polymorphism_(object-oriented_programming)),
* protected variations, and
* pure fabrication

Appendices

Appendix A - Document Information

### Versions

* 1. Initial Draft
  2. Minor changes
  3. Minor changes

### Images

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### Tables

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### References

**There are no sources in the current document.**

### Review Distribution

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### Audience

The document is technical in nature, but parts are expected to be read and/or validated by a non-technical audience.

### Diagrams

Diagrams are developed for a wide audience. Unless specifically for a technical audience, where the use of industry standard diagram types (ArchiMate, UML, C4), is appropriate, diagrams are developed as simple “box & line” monochrome diagrams.