**Process Report**

Project: Breivold2008

Process: Retrieval Process

Created by: Luciano Marchezan

Date: 07-25-2020

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| 1 |  | **Phase:** | **Extract** |
| **Activity:** | **Identify requirements on the architecture** |
| Description: | Requirements essential fora cost-effective software architecture transition to product line architecture are extracted. |
| Retrieval Technique: | Dependency Analysis |
| **Artifact:1** | **Input** | |
| **Name:** | **architecture description** |
| Type | Architecture |
| Description: | A document describing the description of the system archictecture |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:2** | **Output** | |
| **Name:** | **architecture requirements** |
| Type | Requirements |
| Description: | Requirements describing the architecture of the system |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| 2 |  | **Phase:** | **Categorize** |
| **Activity:** | **Identify commonalities and variabilities** |
| Description: | Common core assets and variabilities to facilitate product deployment are identified |
| Retrieval Technique: | Dependency Analysis |
| **Artifact:1** | **Input** | |
| **Name:** | **architecture description** |
| Type | Architecture |
| Description: | A document describing the description of the system archictecture |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:2** | **Input** | |
| **Name:** | **design documents** |
| Type | Design |
| Description: | Any type of design documents |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:3** | **Input** | |
| **Name:** | **source code** |
| Type | Development |
| Description: | Source code from the system |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:4** | **Input** | |
| **Name:** | **user documentation** |
| Type | Domain |
| Description: | Documents describing the users needs and expectations |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:5** | **Input** | |
| **Name:** | **requirements specification** |
| Type | Requirements |
| Description: | Specification of the system requirements |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:6** | **Input** | |
| **Name:** | **architecture requirements** |
| Type | Requirements |
| Description: | Requirements describing the architecture of the system |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:7** | **Output** | |
| **Name:** | **common core assets** |
| Type | Domain |
| Description: | Assets part of the SPL core |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:8** | **Output** | |
| **Name:** | **variable assets** |
| Type | Domain |
| Description: | Asset which are part of the variabilities of the SPL |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| 3 |  | **Phase:** | **Create Feature Model** |
| **Activity:** | **Restructure architecture** |
| Description: | The product line architecture is constructed. |
| Retrieval Technique: | Dependency Analysis |
| **Artifact:1** | **Input** | |
| **Name:** | **common core assets** |
| Type | Domain |
| Description: | Assets part of the SPL core |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:2** | **Input** | |
| **Name:** | **variable assets** |
| Type | Domain |
| Description: | Asset which are part of the variabilities of the SPL |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:3** | **Output** | |
| **Name:** | **SPL architecture** |
| Type | Architecture |
| Description: | Describes the high level design for the applications of the intended software product line |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| 4 |  | **Phase:** | **Create Feature Model** |
| **Activity:** | **Incorporate commonality and variability** |
| Description: | Feasible realization mechanisms and implementation proposals to facilitate the revised product line architecture are defined |
| Retrieval Technique: | Dependency Analysis |
| **Artifact:1** | **Input** | |
| **Name:** | **SPL architecture** |
| Type | Architecture |
| Description: | Describes the high level design for the applications of the intended software product line |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:2** | **Output** | |
| **Name:** | **SPL architecture revised** |
| Type | Architecture |
| Description: | A revised version of the architecture |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| 5 |  | **Phase:** | **Create Feature Model** |
| **Activity:** | **Evaluate software architecture quality attributes** |
| Description: | The impact of implementation proposals on the quality requirements of the product line architecture is evaluated. |
| Retrieval Technique: | Dependency Analysis |
| **Artifact:1** | **Input** | |
| **Name:** | **SPL architecture revised** |
| Type | Architecture |
| Description: | A revised version of the architecture |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |
| **Artifact:2** | **Output** | |
| **Name:** | **SPL architecture (final)** |
| Type | Architecture |
| Description: | The final version of the SPL architecture |
| Extension: | na |
| Link (url): | na |
| Last Update: | 07-25-2020 by Luciano Marchezan |