**Process Report**

Project: Acher2014

Process: Acher2014 Retrieval Process

Created by: Luciano Marchezan

Date: 07-23-2020

|  |  |  |  |
| --- | --- | --- | --- |
| 1 |  | **Phase:** | **Extract** |
| **Activity:** | **Extract raw architectural FM** |
| Description: | Extract a raw architectural FM from a 150% architecture of the system |
| Retrieval Technique: | Dependency Analysis |
| **Artifact:1** | **Input** | |
| **Name:** | **150% architecture of the system** |
| Type | Architecture |
| Description: | Composition of the architecture fragments of all the system plugins |
| Extension: | .fm |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| **Artifact:2** | **Output** | |
| **Name:** | **architectural FM** |
| Type | Architecture |
| Description: | Considers both the software architect viewpoint and the variability actually supported by the system. |
| Extension: | .fm |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| 2 |  | **Phase:** | **Extract** |
| **Activity:** | **Extract plugin dependencies and generate plugin FM** |
| Description: | Extraction of plugin dependencies to derive inter-feature constraints from inter-plugin constraints (plugin FM) |
| Retrieval Technique: | Dependency Analysis |
| **Artifact:1** | **Input** | |
| **Name:** | **specification of the system plugins** |
| Type | Technological |
| Description: | A document specifying the system plugins and the dependencies declared between them. |
| Extension: | .doc |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| **Artifact:2** | **Input** | |
| **Name:** | **system plugins dependencies** |
| Type | Technological |
| Description: | a report describing the dependencies among the system plugins |
| Extension: | .doc |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| **Artifact:3** | **Output** | |
| **Name:** | **plugin FM** |
| Type | Technological |
| Description: | a fm created based on the plugins |
| Extension: | .fm |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| 3 |  | **Phase:** | **Categorize** |
| **Activity:** | **Reconstruction of bidirectional mapping** |
| Description: | Automatically reconstruction of the bidirectional mapping between the architect FM and plugin FM |
| Retrieval Technique: | Dependency Analysis |
| **Artifact:1** | **Input** | |
| **Name:** | **architectural FM** |
| Type | Architecture |
| Description: | Considers both the software architect viewpoint and the variability actually supported by the system. |
| Extension: | .fm |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| **Artifact:2** | **Input** | |
| **Name:** | **plugin FM** |
| Type | Technological |
| Description: | a fm created based on the plugins |
| Extension: | .fm |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| **Artifact:3** | **Output** | |
| **Name:** | **Constraints mapping** |
| Type | Domain |
| Description: | Specifies a bidirectional mapping between the features of the arch FM and the plugin FM by means of requires constraints. |
| Extension: | .doc |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| 4 |  | **Phase:** | **Create Feature Model** |
| **Activity:** | **Derive enhanced architectural FM** |
| Description: | Explore the mapping to derive enhanced architectural FM |
| Retrieval Technique: | Dependency Analysis |
| **Artifact:1** | **Input** | |
| **Name:** | **plugin FM** |
| Type | Technological |
| Description: | a fm created based on the plugins |
| Extension: | .fm |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| **Artifact:2** | **Input** | |
| **Name:** | **Constraints mapping** |
| Type | Domain |
| Description: | Specifies a bidirectional mapping between the features of the arch FM and the plugin FM by means of requires constraints. |
| Extension: | .doc |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| **Artifact:3** | **Input** | |
| **Name:** | **architectural FM** |
| Type | Architecture |
| Description: | Considers both the software architect viewpoint and the variability actually supported by the system. |
| Extension: | .fm |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |
| **Artifact:4** | **Output** | |
| **Name:** | **Enhanced FM** |
| Type | Architecture |
| Description: | an enhanced version of the architecture plugin |
| Extension: | .fm |
| Link (url): | na |
| Last Update: | 07-23-2020 by Luciano Marchezan |