ARKET
So easy technology!

TECHNICAL MANUAL

STATION®

Data interchange manager.

Version 4.0

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Introduction

Station is the Arket's software dedicated to **Document Mapping:** it gathers data from different sources, via connectors, and extracts data from documents (pdf, txt).

Station is the ideal product to automatize repetitive tasks with minimal interaction from users (or with not interaction at all!).
Documents can be gathered automatically by the program: just set its task scheduler and connectors to acquire data from once every minute to once a month.

The powerful script editor combined with the extensive object class framework, let you code any kind of task in very little time.

Architecture

Station is based on a client/server architecture. The server module is composed by the following components:

Station Server
Station Console

1. Station Server: is a Windows service. It runs different connectors, which gather files from different kind of sources, and tries to extract data from them using Templates definitions. After data have been extracted from the files, a workflow can use those data to perform requested operations.

2. Station Console: is a desktop program that allows you to configure Station. This tool represent the unique access point for configuration and control of the operating status of the product.

The client module is the ***Station Client***, a desktop application that gives users access to station

documents waiting to be processed. Through particular procedures, end users have the ability to control the data gathered by Station before committing it to the final destination (example: check data before the invoice registering to ERP system).
The use of this module is optional; it is useful if a user interaction is needed to process data (i.e. when some data are not available in the files and need to be manually validated by a user)

Station use Microsoft SQLServer database (2008 to 2014, Express or Enterprise Edition) to save configuration data and processed data.

Server-level standard configuration of Station consists of a single Windows server with Station's service installed. A "High Availability" (**H.A.**) configuration is available in case of heavy workload or high level of service availability needed:
this setup consists of two instances of Station running on different virtual machines and sharing the same database. In this way both of the machines may run alternatively the same process, assuring continuity of service and workload distribution.

Using a database to save the configuration of the product allows to insert Station into the backup process of the corporate database, safeguarding the configuration and avoiding to lose layout.

Key Elements

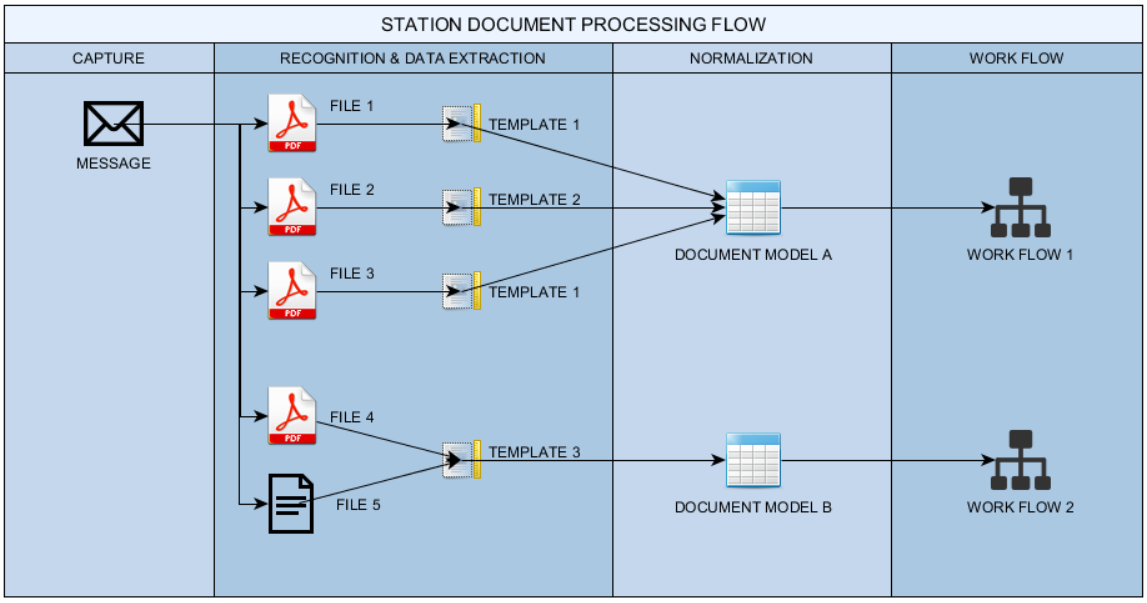
The key element of Station is the Template, a set of configurations linked to one or more files, that allows scripted programs to consume data extracted from them.
A Template can be associated with a Document Model, an object that defines the data representation we intend to use in our workflow.
Data extracted from template configuration are normalized to the document model definition via the Data Transform object, a visual object that provides the rules to data transformation.

The workflow is a set of "Actions"; an Action is a scripted program that allows to process data extracted from files. An action may require parameters, parameters validations and can be made user interactive.

A set of Out Maps mapper is available to help configuring the output of a workflow. When data extracted from files have been normalized, usually you have to make them available either to a user or to a program (i.e. ERP).
These tools helps you to configure the creation of xml files, text files or the upload of data to an external database.

Document Processing Flow

In this chapter we will discuss the typical Document Processing Flow and all the steps involved in a Station process.



1. CAPTURE
Using a Connector, Station captures a *Message*. A Message has its own set of properties and contains one or more *Files*. If the message is an email, the files are the attachments of that email, and the properties are the sender address, the email object, the email target address and so on. Also a Zip file can be seen as a Message. Once the message has been captured it can be deleted from the source or it can be moved to a different folder. A copy of the message will be stored in the Station's database for a configurable number of days.

2. RECOGNITION & DATA EXTRACTION
Station will try to associate a template to every file contained into the message. If an association can't be found, an error is raised and the file is marked with the "Template not found" state. When the template is found the file (or the files) becomes a "*STATION DOCUMENT*" and the data contained in the file are extracted using the rules defined in the corresponding mapper (see Templates section).

3. NORMALIZATION
If the template is configured to use a particular Document Model, data are normalized to the structure of the document model (using the rules defined into the template's integrated Data Transform). In the example above, TEMPLATE 1 and TEMPLATE 2 are configured to use DOCUMENT MODEL A, while TEMPLATE 3 will use DOCUMENT MODEL B. The purpose of the Document Model object is to separate the mapping part of the flow from the actual work flow, making it possible to add new templates after the work flow is already operative.

4. WORK FLOW
The work flow is a set of scripted Actions. Data extracted and normalized from files are available to be used. The work flow can request user validation and user interaction or can be completely automated server side.