



N° 3 – October 2006

Ident-PHF newsletter

The Newspaper to inform the « Non Production Materials Identification » network

Editorial

By **Claude PICHOT**
(AFIM Chairman – Association Française des Ingénieurs et Responsables de Maintenance)

Catalogue requirements for Industrial Maintenance in France

A strategy costing 0,4 % of the GDP, would indeed deserve the attention of company directors. In 180 000 industrial concerns which includes France (more than 250 employees and SMALL AND MEDIUM-SIZED FIRMS) the same push-button was classified and indicated 180 000 times differently. At least 180 000 hours of lost time. On the basis of 1000 new articles identified year and by company, there are more than 7 billion euro spent in pure loss. These figures demonstrate the interest to go towards identification and a unique characterization of articles (that given by the manufacturer). Internet offers the means to break with expensive processes among which each does not measure that the stake is global. To obtain that all the efforts of the manufacturers and the end users converge in a joint representation is strategic. By using the classification ECI@ss and the description PFI, the e-catalogs of detailed parts of industrial supply are in our reach. Joining the PFI initiative, 0,4 % of the GDP is at stake.

KEY EVENT

Within the framework of the show Maintenance Expo on 2006 which will be held from 7th till 10th November in Paris-Villepinte and of the 18th national Forum of the Maintenance coupled with this show, a conference for **" E-catalogs for industrial consumables "** state of promotion of the program of identification, characterization and classification of the industrial spare parts for **maintenance "**

..on **Wednesday, November 8th** from **4:00 pm till 5:00 pm** will allow you to keep posted



about the last headways on the initiative introduced for several years by the French car manufacturers. This initiative enters henceforth its operational phase *see page 2*

THE REPORT...

PLib – Plib - Plib - Plib - Plib - Plib

A formal model of ontology for engineering, e-commerce and semantic Web: the model of the PLIB semantic dictionary

If the Web constitutes a tremendous reserve of information under documentary shape, associated to powerful engines allowing to look for all the documents which contain a word, or a set of words, it is still impossible to ask your favorite navigator some elementary questions such as :

- What **temperature** is it in Panama?



see page 3

CONTENTS

EDITORIAL	p 1
TRIMESTRIAL KEY EVENT	p 1 & 2
OTHER EVENTS	p 2
THE MONTHLY REPORT	p 1 & 3
BRIEFLY	p 3
TO NOTE ALSO, TERMINOLOGY, CONTACTS AND USEFUL LINKS	p 4

KEY EVENT

Conférence « E-catalogues maintenance »

(continuation of page 1)...
...with the commitment of the manufacturers of components.

The problem of the identification of spare parts and other articles) or consumables connected to the activity of the Industrial Maintenance meets itself throughout the process of life of the capital goods and the means of production:



1) choice of constituents for industrial machines in catalogs
- In the conception of the means

- in the stake in exploitation of these means (1st subsidy of spare parts)

2) effective search

- of equivalences of constituents (sourcing, better price and control levers of negotiation, deletion of monopolistic situations)

- of replacing products within the framework of obsolescence

- analyses of interchangeability of spare parts (in the identical, or simply adaptable, or replacement requiring a study) for functions or cases of uses where all the

performances of the product are not used or exploited...

It will be this problem which the conference " e-catalogs of industrial consumables " will suggest approaching and bringing to it solutions. This conference, positioned at the end of 2nd day (on Wednesday, November 8th from 4:00 pm till 5:00 pm) will be the occasion to call back:

- The solutions recommended by the PFI committee (illustration with the result and the balance of the experimental operation LMPR-2005 of Renault)

- The lobbying and the deployment of this PFI initiative:

➤ Towards the French Normalization, through a current workgroup, and the international normalization

➤ Towards the European car industry, a workgroup (NPMI working group), coming to start this way within ODETTE (grouping of car manufacturers

And European motor parts manufacturers)

➤ Towards the German organization eCI@ss by making our contribution there

➤ Towards the manufacturers French principals (big, small and medium-sized companies), by constitution of a hard core PFI of big principals involved in the initiative

G. Chaumond

For more information about this conference and for registration, please connect to www.afim.asso.fr et click-on « le Forum » of « Expo-Maintenance 2006 »



Or Call AFIM (Association française des ingénieurs et responsables de maintenance) at 01 56 56 29 29 (Thérèse Loiseau) or afim@afim.asso.fr

OTHER EVENTS

NPMI European Working Group (Non Production Materials Identification) –Odette :

Two working sessions have already taken place: September 13th in one hand, with the official launch of this group in the presence of the SAB Bröckskes, Legris which was held by Web-participating (+ Schneider working trainings: the / PSA Peugeot Citroën / recommendation to be analysis of eCI@ss and a structuralization.



September 13th in one hand, with the official launch of this AUDI, PSA Peugeot Citroën, BMW, Renault, ZF, Industries, Comau companies). In 2nd session, conference on October 5th, with the same Electric company) allowed to validate the first adoption of the French recommendation PFI (GALIA Renault) as the starting point of the European produced; the next session will be dedicated to the presentation of the concept of PLib / ISO 13584

IDE@-Mosaic-PFI Steering committee: a session was held on July 11th, in the presence of members of the team for technical management of eCI@ss (Eva Maroscheck and Raymond Betz); it allowed the clarification of the mode of immediate functioning of our group in the proposition of evolutions or addition of new classes and/or ontology in eCI@ss. So before October 15th will be distributed, according to the format required by eCI@ss, a first lot of propositions both on the properties of bases and on the new ontologies, so that they are examined by the committee of expertise of eCI@ss and integrated into the version service pack V5.1.4 (release foreseen in March, 2007)

The session of September 5th, dedicated essentially to the analysis of scenarii of hosting and management of data for catalogs, allowed to welcome a supplementary principal: the company Arc International, (glassware, art de table). This session led to the start of a working subgroup, constituted of the principals of the committee, to elaborate as quickly as possible a note of specifying the functional need of a communal place of data; that sub-group has already begun to work in Web-conference on the writing of this document



French Experimental Standard XP Z 99-005 : Sessions of the workgroup CN-DSTI GT2 (Committee of Normalization - Scientific Technical Data and Manufactures - Workgroup 2) took place on July 12th, in September 6th and October 3rd in the premises of the Afnor (St Denis). The pursuit of the validation of the translation in French of the guide ISO-IEC CD77 (guide for normalized elaboration PLib of ontologies) which will be integral part of the French experimental standard is now advanced and should end at the end of October. The contents of this experimental standard will redefine on the initial objectives of the PFI recommendation.

Internally: Purchasing Dpt /Engineering Maintenance,

regular meetings between the managers for these 2 activities have as object to insure a coherence of the internal Systems of Information compared to themes such as "Renault's base for PHF, deployment of e-procurement, links between consumables and Computer Aided Maintenance Management", etc. ...

Life-cycle test phase

Beyond the operation LMPR-2005, among which 20 000 informed articles are accessible on the Komerko portal (http://komerko.traceparts.com/kce_renault/connect.asp), a test phase "life cycle of products data" is driven by Komerko during some months: for a subscription of a cost adapted to the number of hosted articles, the manufacturers so have the possibility of holding up to date, on-line, the data or the documents relative to their article), or to add new articles.

For more information, please contact Michel Gautier (michelgautier@komerko.com) (tel 06 08 06 90 51)

Arc International

joined the PFI committee since July, 2006. Bernard Leprêtre, manager for the Industrial Pole in Arc International in Arques (62), participated in the committee on September 5th which was held in premises of Galia in Boulogne Billancourt. The problem of this company is exactly the renewal of its federal base of PHF articles, the maintenance of the Information System of which will not be any more insured from 2010

Mosaic meeting in Michelin

On September 26th in Paris, a presentation of the PFI committee (G. Chaumond) was made during a session grouping together managers for purchasing and e-procurement of EDF-GDF, Columbus consulting, Saint-Gobain, Alcan and Michelin. Besides interesting exchanges on the promotion of our respective activities, the objective of this meeting was to ask Mosaic for a formal membership in the PFI concepts ...

THE REPORT

PLIB

(CONTINUATION OF P.1)

or

- Have you a **CHC screw** of diameter 12? **Characteristics** and price?

To answer this kind of question four classes of problems:

1 - How to identify the concepts problem:

"**Temperature**", is it from **air**? Of **unit**? **When**?; "**Panama**" is it a **city**? **cocktail**?



requires to resolve

involved in the

from **water**? In what **A country**? A **hat**? A

2 - How to extract or clarify the meaning of the sentence or the speech as well of the question, as its sources of potential answers:

Do we want the temperature today? The most recent? At what date? The available history? Do you want to buy CHC or are you selling me some? How many?

3 - Which language(s) and which format(s) to use to exchange at the same moment the question and its answer.

4 - How to find "who" (agent, server) may answer the question.

The purpose of this column is to present the activities during the last 10 years in the field of engineering through the development of ISO 13584 standards known under the name of PLIB (Parts Library), to answer the first type of problem.

In this October edition, we shall begin by evoking briefly the context of the development. Later, we shall clarify the notion of ontology used in the PLIB model and its main characteristics. In the third part we shall present a rather general sight of the model of ontology defined in the standard PLIB under the name of "semantic dictionary". Finally in a last part we shall evoke the available tools and the existing PLIB ontologies or in creation.

1 Modelling and exchange of data of components : the PLIB project

Initialized in 1987 at the European level, then developed since 1990 at the ISO level, the ISO 13584 standard is the standard intended to allow the modeling, the exchange and the referencing of computerized catalogs of components or pre-existing technical objects. PLIB allows as well the representation of abstract components, such as they are used for example in a process of functional conception as that of components from suppliers or normalized (ball bearings SKF catalog). This standard also allows to associate to a catalog object some number of representations, appropriate for each of the disciplines which manipulates the object (a solid sight, a model of behavior for the simulation). It allows finally to integrate into a homogeneous and coherent environment some libraries supplied by various sources.

The need to integrate data coming from various diverse sources rapidly put in evidence the necessity of defining "ontologies" or "semantic dictionaries", allowing to identify and to represent the various present concepts in a catalog under an exchangeable format (so that the user can understand the contents if he does not know it) and referable (so that normalized ontologies can be referenced by various suppliers so allowing an immediate integration at the user level).

So, the PLIB standard, established today by a dozen parts, covers in fact two types of problem:

- Identify and represent in a formal way the various concepts existing in a particular domain: it is the notion of ontology, modeled by a scheme expressed in the EXPRESS language published in 1998 [ISO13584.42-98]. This scheme was completed by extensions in the standards ISO 13584-24 and 25.
- Key-in, model and exchange the knowledge on components, in particular the behaviour and the criteria of choice: it is the notion of libraries of components, the representation of which in the form of document ends in computerized "active" or "intelligent" catalogs.

What will interest us and will thus be the object of the report in the next edition, is the model of ontology that allows in fact to define any set of "items", an "item" being "anything that can be captured by a class structure and a set of properties" [ISO 13584-24]. This model can be thus used in most of the domains which we can envisage for Web semantics.

Guy PIERRA (Laborator of Scientific and industrial Data processing, E.N.S.M.A. 86961 Futuroscope Cedex)
(pierra@ensma.fr).

To continue...

For the diary...

↳ Intervention of the PFI committee in the Maintenance Forum, on **November 7th, 2006, in Paris-Villepinte**: the subject of this session will be "State of promotion of the actions of identification, characterization and classification of industrial consumables ». *Information on site www.afim.asso.fr*

↳ **Odette Conference 2006** "the Automotive Industry Communication Show Case" in **Munich on November 28th and 29th**: "presentation of the NPMI" concept *Information on site www.odette.org*

Find your marks.

You wish to find basic information about the concepts of the initiative PFI, or to know more about it?...

Do not hesitate to connect you to the following sites:

- www.galia.com (working groups, then PFI)
- www.afim.asso.fr (left column: *gestion des actifs*, then *pièce/composant*)
- [Http://komerko.traceparts.com/kce_renault/connect.asp](http://komerko.traceparts.com/kce_renault/connect.asp): catalog LMPR-2005: password to ask to: gerard.chaumond@renault.com

Technical balance of the operation LMPR-

2005 *On July 3rd, 2006, in Paris, representatives met from the " 4 actors " of the processes on the data of the operation LMPR-2005 (preparation, certification, delivery, hosting, exploitation and shaping) to draw up a technical balance of this operation: 62 lines of remarks, back up, for the main part, by the manufacturers suppliers of data, shared in 7 subjects, were analyzed, discussed and fed a base of recommendations which will be very useful for the future ...*

FOR FURTHER NOTE....

PFI Ontologies migrate towards eCI@ss: A first lot of PFI ontologies used in the operation LMPR-2005 and not existing in eCI@ss has been finalized and will be the object shortly (on October 15th, 2006) of an official transmission to the organization eCI@ss to enter the official process of integration: the result should be a consideration of this work supplied in the version Pack V5.1.4 service the release of which is forecast in March, 2007. The contents of this first lot touch on one hand the basic properties of all the articles: concrete propositions were both made on the terminology of these properties in the French language and on the addition of essential properties for us such as properties of obsolescence. On the other hand, certain number of ontologies, after agreement of a mini committee of validation (established for the moment with PSA Peugeot Citroën, Renault, Legris, Schneider, Siemens), is also to be proposed in eCI@ss in this 1st lot.

Within the framework of the pursuit of a **workgroup** to develop or improve the **ontologies** of the **Programmable Controllers** of eCI@ss, PSA Peugeot Citroën, under Agnès WINTZ's animation, continues to pilot a concrete work on all the articles managed by the Schneider Electric and Siemens brands, in link with the list of articles managed by Renault, implying the respective Technical Pilots of these 2 groups, and naturally the companies quoted above. A similar process (on the global nature of repository active PSA and Renault) also started with the components of the Legris Company (pneumatic and hydraulic domains); several sessions face to face or in Web-conf have already taken place ...

Coordination activities and simulation between **PSA Peugeot Citroën** and **Renault** was the object of a session in audio conference July 10th, tackling issues concerning the distribution of the tasks of elaboration of ontologies, mutual exchanges and harmonization of the respective actions of lobbying. The next session scheduled for November 16th should handle more particularly joint actions towards the manufacturers suppliers of data and on the community hosting of these data ...

Arc International, which joined the **PFI committee** in July, 2006, as Principal beside PSA Peugeot Citroën, Renault, Schneider Electric, is a group of 18 000 persons, with sites of manufacture in France, Spain, the USA, Italy, United Kingdom, China and United Arab Emirates. This company is specialized in the " Arts of the Table " with brands as prestigious as Crystal d'Arques, Salvati, Studio Nova, Mikasa and naturally Luminarc et Arcoroc (for more information, to see the www.arc-international.com site)

Other companies such as Total, Arcelor, and EDF are next on the trail!

Terminology

PHF (Produits Hors Fabrication) : Non Production Materials (**NPM**) , *named also PFI* (produits de fonctionnement Industriels

EAN : European Application Number ; **PLib** (Parts Library) : standard concept of ISO 13584 ; **LMPR** (Liste des Matériels Préconisés Renault) : List of Renault favourites components ; **AFNOR** (Association Française de Normalisation) : French Association for Normalization ; **ISO** : International Standards Organization

Contacts & useful links

Internet Sites

- about **PFI** initiative : www.galia.com (=> groupes de travail => PFI)
- about **LMPR-2005** operation : www.afim.asso.fr (=> gestion des actifs => pièce/composant)
- about **PLib** : www.lisi.ensma.fr or www.plib.ensma.fr or www.toplib.com (Toshiba)
- about **eCI@ss** : www.eclass-online.com ou www.eclass.de
- about **EAN** : www.gs1fr.org ou www.gs1.org

Aide-mémoire of working groups (presently in place)

NPMI Working Group (within ODETTE, group of European car and automotive parts manufacturers): elaboration of a European recommendation for the automotive field on base of the 3 PFI concepts.

Enlarged Committee IDE@ (Gifec-Fenotec) –**Mosaïc** (Alcan, Arcelor, EDF, Alstom, Renault, St Gobain, ..) – **PFI** (Renault, PSA, Michelin, AFIM, SYMOP) + Gimelec: French interprofessional committee for the promotion of the convergence of e-catalogs (purchasing and technical).

Normalization Commission Afnor CN-DSTI GT2: Elaboration of a French experimental standard XP Z99-005 resuming the contents of the recommendation PFI published at Galia in 2004.

PFI Working Group for elaboration of **ontologies** on the **electric materials for safety** : animation by Renault ; participants : PSA Peugeot Citroën, Renault, Pilz, Euchner, Schneider Electric, Omron, Sick, Schmersal, Rockwell Automation, Heinrich, JLP Automatismes, Coutier, Troax, Leuze, ...

Working Group on the harmonization of ontologies on **belts** between IDE@, PFI and eCI@ss: Renault animation, with participation of Gates (manufacturer), Orefi (retailer), Renault (customer).

Working Group for the elaboration or improvement of **ontologies** on the **programmable controllers** : Citroën Peugeot PSA animation with participation of Renault, PSA , Schneider Electric, Siemens, ...

Working Group for the elaboration of ontologies on the specific tools for automotive sheet metal workshop (Body framing) (spot welding, fastenings, index tools): animation by PSA Peugeot Citroën; participants: Renault, PSA ...

Editorial staff committee

Gérard CHAUMOND
El Houssaine DRIOUCH
Thierry GENITEAU
Dominic WALTON (TRANSLATION)

To contact us :
Tél : 00 33 (0)1 76 85 81 39
E-mail : gerard.chaumond@renault.com