



N° 6 – September 2007

# Ident-PHF newsletter



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

## Editorial

By Bernard LEPRETRE (Industrial Data Management Responsible- Arc International)

ARC International (<http://www.arc-intl.com>), world leader of the Arts of the table, works with RENAULT, PSA, EDF, SCHNEIDER, TOTAL, MICHELIN, large companies at the heart of very different professions but with a common problem. All of us, as manufacturers must buy, conceive and maintain equipments in order to respond to our customers.

Bad information is a source of dispute and the research is boring and expensive.

So, before beginning work on our article repository, we undertook a reflection on the definition of the contents which caused numerous questions to arise: What elements have to appear there? How to classify every article? Who captures this information? How to identify? Who uses the data? What are the goals to be reached?

At the conclusion of these researches, we decided to join the PFI workgroup to undertake a common reflection with all the manufacturers concerned to find a solution which is innovative, unique and shared, made concrete in the shape of a community data base.

This data base, shared by all the manufacturers - from the multinational to the small and medium-sized firm - includes all the characteristics, the classifications and the identifications of the commercial products following the international rules which guarantee the uniqueness of the information resulting from the most reliable source which is the manufacturer of the product. We do not speak here about price, which is another profession, but about the making available of information and technical documentation only.

According to requirements, certain manufacturers will systematically use the Internet to find the information. For others, it will be more a question of loading the internal repository through a mass collection of the information.

Finally, to close this editorial, it is not a question of starting from scratch but of rationalizing the existing: a solution which can be envisaged by the knowledge that the strong commitment of the industrial actors is a guarantee of speed and quality. B. Leprêtre

## KEY EVENT

Appointed by the PFI committee, AFIM, an active member of this committee, joined the Steering Committee of eCl@ss on April 19th, 2007 and so officialized the **entrance of the PFI committee in eCl@ss**

Claude PICHOT, chairman of the French Association of Maintenance Engineers, was appointed by the

other members of the PFI committee, to make the PFI committee a strong constituent part of eCl@ss. Thus on April 19th, AFIM representing the PFI committee, was admitted onto



the steering committee of eCl@ss.

C Pichot was also elected the same day to the board of directors of Ecl@ss by the members of the steering committee. From now on this will give the PFI committee

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## THE REPORT...

### PLib – Plib - Plib - Plib - Plib - Plib

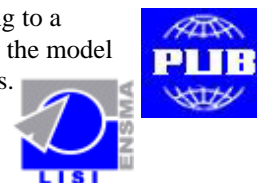
A formal model of ontology for engineering, e-commerce and semantic Web: the model of the PLIB semantic dictionary (continuation from the previous edition)

#### 3.2.2. Fundamental principles of the modelling PLIB of ontologies

Using an approach object, where the classes are organized according to a hierarchy (simple) with factorization / inheritance of the properties, the model of semantic dictionary PLIB is based on two fundamental principles.

1) *Hierarchy of classes and properties applicable to every class must be simultaneously defined*

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# KEY EVENT

## Entrance of PFI committee in eCI@ss

(continuation)

(continued from page 1)...

serious strength to make a success of the electronic catalogues project and have action paths in order that the development of the eCI@ss international classification and characterisation adheres to the needs of the French manufacturers whilst fitting into the international context. This strategic position was made possible by the tenacious work carried out over several years by the PFI committee. With this opening, a period of cooperation starts with the German industry. We can more quickly advance a system of classification and description adapted to the era of electronic communication of the data and to the French needs.

Within the framework of the entry of the PFI committee into eCI@ss, a certain number of concrete actions have already been started, during a PFI-eCI@ss working session which was held in Berlin on May 25th of this year in the presence of Raymond Betz, Friedhelm Hausmann, Thomas Einsporn and Eva Maroscheck, with regard to the demands formulated by Claude Pichot, in the name of the PFI committee, on April 19th, 2007

As a result of this May 25<sup>th</sup> session, a first working session between German and French experts was held on August 10th in Cologne (Germany); the French position being represented by Agnès Wintz (PSA Peugeot Citroën), member of the PFI committee.

From Germany, the participants were: H.Beckmann, J. Lehmann, E. Maroscheck, J. Schmidt and P. Sommer. The following points were tackled:

**1- Ontologies** (classes and characterisation) **suggested by the PFI committee in 2006** (issuing from the LMPR 2005 Renault operation) ; Investigations with the quality committee of eCI@ss must continue on these 40 or so proposed elementary ontologies, taking into account that:

- A working subgroup for domains 27-29 and 27-30 (pneumatic and hydraulic) is going to start September 6th ( German and French experts)

- For the mechanical and electric domains, the German experts are going to deepen the analysis of the French propositions

**2- Developing work within the PFI committee on 16 new classes (ontologies), conducted by Renault.**

*Note: these 16 new classes cover domains " electrical safety materials " (6 classes), " resistance welding " (9 classes) and "stamping" ( 1 class). An article dedicated to this subject will be the subject of the next issue of the Newsletter.*

It was agreed, on August 10th, to:

- Make certain that the "Quick Guide" (basic guide available on the eCI@ss site) has been well taken into account, and of the process of feedback of the results towards eCI@ss

- Examine some precise questions raised by the Working groups (interferences between classes 40 and 27, etc.)

**3- Consideration of the request to add 7 (basic?) properties** relative to the management of the **obsolescence** of products or services: this point judged to be of interest, is going to be more deeply studied under the properties angle in agreement with an international standard

**4- Other points :**

- Renaming the basic property "article number", to be replaced by "manufacturer's article number"

- Examination of the generalization and the homogenization of the SPB (set of basic properties) so that these 5 existing basic properties are applicable to all the classes without exception

- Implication of the PFI committee in the translation (or validation of the translation) to French as soon as possible during the publication of a new version of eCI@ss

- Precision on the use of the classes 91 (Parts / specific spare-parts) and 92 (accessories)

- ServicePortal to formulate change requests, or list all the current topics in progress for new releases

# OTHER EVENTS

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

Two further working sessions took place during the past 5 months: June 14th with a web-conference session dedicated to the resumption of the first 2 of 4 parts of the Recommendation (introduction, codification): the participants were thus able to express their remarks, and a session of adjustment between L. Le Garlès and G. Chaumond, respective writers of these 2 parts took place by Web-conf on June 22nd, 28th and July 4th. Another session was held on July 10th, in the premises of GALIA in Boulogne Billancourt: the pursuit of the draft (parts 3 and 4 : classification / characterization and data exchange format) were the agenda of this session: a session between A. Wintz and G. Chaumond took place on July 25th by Web-conf on the part classification / characterization. F. Hausmann, for his part, drafted for 31/07 a 1st version of the 4th part... The next session is scheduled in Web-conf on September 12th

**IDE@-Mosaic-PFI Steering committee:** 3 new sessions of this committee took place during the last quarter:

- A session held **May 22nd** allowed the review of the PFI operations launched for 2007, on the collaboration with eCI@ss and on the return of the offers relative to the community of catalogue data: 3 of the files were thus retained.

- Another session, on **June 21st**, was the occasion to welcome **MICHELIN**, as a new member, in our committee (Jean-Claude AVRILLON); this session led to handle points such as: detailed examination of 2 of the selected offers, re-launches within the framework of the PFI operations 2007, collaboration with AFNET, the starting up of 16 groups of ontology development animated by Renault, perspective of launch of the other working groups and the organization of a Convention of large user-companies by the end of the year.

- A 3rd session held **July 19th** allowed the clarification of the Convention of companies foreseen later in the year, to examine in detail the 3rd of the selected offers and to validate adaptations on the AFIM portal and the certification tool

**French Experimental Standard XP Z 99-005 :** Sessions of the workgroup CN-DSTI GT2 (Committee of Normalization - Scientific Technical and Industrial Data - Workgroup 2) continued on **May 23rd, June 20th** and **July 12th** in the premises of AFNOR (St Denis + Web-conference). The 1st of these 3 sessions was dedicated to a common reflection of centering on the principal contents of the standard and the following 2 sessions allowed the pursuit of the writing of the draft up to the paragraph 6. The **Michelin** company (JC. Avrillon) participated for the 1st time in this workgroup. The session of July 12th also allowed the evocation and organization of the facilitation of the submission at the ISO level, by I'ISO-TC37, of the classification / characterization (ontology) eClass (vote foreseen in the USA in August)

*Please note that this workgroup is open to all, and that we can thus welcome new volunteers on this subject (contact for that purpose [catherine.protic@afnor.org](mailto:catherine.protic@afnor.org))*

## FPDMUG- AFNET

Contacts between the PFI committee and AFNET (Association Francophone of users of the NET, e-business and the networked company, founded by Dassault Aviation, Thales, Safran, Dassault Systemes, IBM) were established on May 24th and 25th, 07 in Berlin, during a workshop eBSN, between C. Pichot, R. Betz (for the PFI committee) and Marc Moreau (Ministry of French Commerce) as well as Pierre Faure (Dassault) Chairman of AFNET. Also, G. Chaumont (PFI committee / RENAULT) participated, on June 7th, in the 1st meeting of a newly baptized workgroup " PLM working community (Product Lifecycle Management), organized by J. Brangé (Afnor) and animated by G. Forax (FPDMUG / PLM decision)

To **AFNOR**, Christine HERMETET-FILLEZ, who assured the organization of the Workgroup GT Z99-005 (French experimental Standard on the identification of PFI) wished to take advantage of leave for a new business start-up. Since May, she is henceforth replaced in this function by **Catherine PROTIC** ([catherine.protic@afnor.org](mailto:catherine.protic@afnor.org)), still assisted by Martine Dejardin. The secretariat of ISO TC184 is assured by Valérie Maupin



became, at the beginning of July, a member of the executive committee of eCI@ss. This membership in "eCI@ss" demonstrates once again the international interest for this standard which is every day more used by industry and global trading companies.

C Pichot and R. Betz, members of the PFI committee, attended the 13th Workshop of eBSN (European e-Business Support Network for SMEs) in Berlin, on May 24th and 25th, on the use of eBusiness by Small and Medium Enterprises (SME). Numerous contacts took place on this occasion, notably with the president of Afnor (Pierre Faure / Dassault Aviation) and its vice-president (Marc Moreau / Ministry of Industry).

After EDF and TOTAL, it is now **MICHELIN** who has joined the PFI Steering Committee. **Jean-Claude AVRILLON** thus participated in the PFI committee of June 21st, during which he confirmed the interest of Michelin for the PFI initiative. Michelin also wished to be involved in the work with Afnor and the NPMI workgroup. In the 2nd half of the year, **Hervé PIGNARRE** will accompany him in this committee to gradually take over from him by the end of 2007

## THE REPORT

### PLIB

(SUITE P.1)

- The applicable properties clarify the meaning of a class;
- The field of application clarifies the meaning of a property.

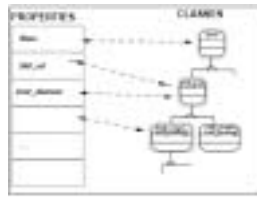


Figure 1 – Simultaneous definition of classes and properties

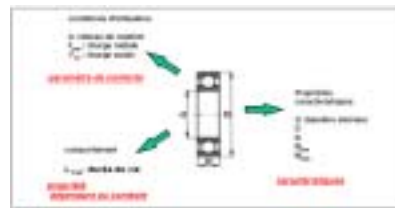


Figure 2 - Typology of properties

In the example above ( fig.1 ), the notion of "mass" is associated to the class "parts" (mechanical component). This property clarifies the concept of " mechanical component ": they are components for which the mass exists and has a value (in the difference, for example, of software components ). This property is also defined, by inheritance, for all the subclasses of mechanical components . On the contrary "inner\_diameter\_of\_bearing" is only defined for all the components of a SKF catalog of bearings, but not for the other sub-trees which could describe the concepts of screws, of cylinders, of transistors, etc.

#### 2) Distinction between visible, applicable and used properties

- A property is defined at the highest level of the hierarchy where we can define it without ambiguity; it is said visible for all the corresponding sub-tree
- A visible property in a knot can become applicable there; it means that it is stiff that is to say essential for any object of the class and any subclass: any instance has to present a value or a size which represents this property
- Finally an applicable property can or not being used in the representation of a particular authority of class in a particular formal universe (data base, computerized exchange,...)

So in the example above the mass will be defined as visible and applicable to the level "parts". It means on no account that any instance of "part" will have to contain a value for the property "mass". But if this value is present, it will be recognized and understood by the agents referencing the ontology. An ontology is not a scheme but a mechanism allowing the interpretation of different schemes. The visible / applicable distinction allows to share properties between several sub-trees, even if they are not applicable for certain sub-trees of the same level . So,

"inner\_diameter\_of\_bearing" will be defined as visible in the root of the catalog if this one contains at the same moment several sub-trees of circular bearings and a sub-tree of linear bearing . This property, inherited, will become then applicable in all the sub-trees of circular bearings.

#### 3.2.3 Typology of properties

When we try to describe an object by values of properties, the first properties, evident, are the permanent, characteristic properties, which characterize this object. For example for a geographic place such as a city, its name, its possible code, coordinates geographic of a point considered as exchange, etc. For a ball bearing , its inner diameter and its maximal speed of rotation for example.

But many interesting properties are not simple values because they depend on the other factors that of the only object: we shall call these factors the parameters of context. So the temperature of a city is, for every city, a function which depends on date. The date a parameter of context of the property temperature which is itself a property depending on the context, that is depending functionally on the object and the parameters of context. The parameters of context on which depends possibly a property have to be a part of the definition of this one at the level of the ontology so as to ensure the coherence of a dialogue. So, in the example quoted in introduction on the temperature of Panama, the question will be identified at once as inconsistent if no indication is given (implicitly or explicitly) on the date.

The figure 2 above shows the ontological description of a technical object such as a bearing. To choose a bearing, what interests especially the user is its life cycle. And this one is itself function of terms of service: actual speed of rotation, undergone radial force, etc. So the ontology defines three categories of properties, allowing an agent (representing for example a customer) to ask to another agent (representing for example a salesman) for the life cycle of one of these bearings to the condition however than this one specifies the foreseen speed of rotation and the undergone radial and axial forces .

The parameters of context, and the values required for the properties depending on the context, allow the user to define the problem which he has to resolve. The description of the behavior, that is to say the representation of the methods of calculation of the properties dependent on the context according to the characteristics of the component and on the parameters of context allow the supplier to model and to exchange the knowledge which he possesses on the behavior of his components.

The next number will deal with the typology of the system of types and with the description of an ontology

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to be continued ...

## In Brief...

.Access

### Beta-Catalogue AFIM...

Whether you are a manufacturer, a distributor, a user of industrial components, do not hesitate! Connect (free trial) to the site [www.afim.asso.fr](http://www.afim.asso.fr) and click the link "ecat-npmi" under the heading " e-catalog " (left column) or access directly via the link <http://www.afim.asso.fr/e-catalogue/ecat-npmi.asp>

### PFI 2007 OPERATIONS

At the end of July, no less than **fifty** manufacturers of industrial components had confirmed their registration on the AFIM portal for delivery of the product data of their brands . To date, **32 000 articles** have been entered on that same portal (14 brands plus **140 Mb of documentation** and associated **images**). Targeted and recurring follow-ups are going to take place in the weeks to come ...

### What became of the work which you did in 2005?

The technical data of the **20 000 articles** deposited within the framework of the **RENAULT LMPR 2005** operation have not been forgotten !..

- They were recovered to pre-feed temporarily the AFIM Beta-catalogue and thus allow an opening of this on-line catalog as soon as possible (in the middle of 2007 ). These data, modelled according to PFI ontologies, today put aside for the benefit of eCI@ss, will be gradually replaced in the course of the new deliveries.

- On its side, Renault recovered all the attached documentation (7Go), transferred in the documentary repository of the company. Besides this, the code EAN was integrated, via a supplementary column, into the LMPR and different current LRP ( LRP62)

### Community of PFI catalogue technical data

According to the schedule validated by the PFI committee, the call for tenders, for the project management of this community, destined to become the PFI catalogue on the horizon 2008-2009, was launched in March 2007 towards a dozen solution providers: three of these were selected in May, and a more profound study of these 3 dossiers in the 2nd half of the year will lead to the selection of the best proposition by the end of 2007.

## FOR FURTHER NOTE....

Assistant of G. Chaumond in the "NPM Identification Project" team of Renault, **Thomas Dufour** is going to leave us shortly. This year was part of his cursus of **apprenticeship in alternation** university-company to obtain the diploma of superior technician **DUT** (IUT Cergy Neuville)

He worked for 1 year on the interfacing of our obsolescence properties , etc.) as well as on the side (establishment and confirmation of the contact files He also participated actively in the launch of 16 groups reports of the sessions.



Thomas DUFOUR

propositions of collaboration with eCI@ss (ontologies PFI, implementation of the "PFI 2007" operation on the Renault with the PFI manufacturers).

of elaboration of ontologies: test of tools, preparation and of the PFI committee (writing drafts of the reports).

Last, but not least, he acted as the technical secretariat

For all these activities, the PFI committee and his hierarchy thank him sincerely and wish him good luck in the pursuit of his apprenticeship with the aim of obtaining an engineering degree

After the PFI committee entered eCI@ss, through AFIM (C.Pichot, member of our committee ), and having obtained the official "approval" of eCI@ss in May 2007 for the launch and the animation of 16 working subgroups for the elaboration of new ontologies, not currently present in eCI@ss, but of strong interest for Renault, an official **launch** of these 16 workshops took place on **June 19th** in **Renault Technocenter** in Guyancourt (France)

The 16 families are respectively:

- In the field of the **electrical safety materials** : Movable guard, trip device or mats, bumper, intervention box, guard locking and trip device
- In the field of specific **car manufacturing**: welding resistance electrodes, electrode holder/extension, low impedance cables, flakes shunt, manual welding gun, robot welding gun , welding transformers, fittings, multifunctional pilots and punches for stamping

This launch session took place in the presence of 10 among 32 invited manufacturers, as well as the experts of Michelin and Renault (PSA sent apologies), and allowed the resetting of the context and the objectives of these works, and the clarification of the methodology and the adopted tools (audio-conf / Web-conferences, etc.)

Three sessions (1 on electrodes, 1 on laminated shunts and 1 on guard locking ) took place respectively on July 24th, 25th and 27th. Other sessions are going to take place from September (for the other families and the continuation of these 3 families) at the rate of an average of 3 sessions of 2 hours with collaborative tools by family.

The next edition of this Newsletter will give more details about these works and their first results

## 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 recommended 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](http://www.galia.com) (=> groupes de travail => PFI) , [www.afim.asso.fr](http://www.afim.asso.fr) and [www.odette.org](http://www.odette.org)
  - about concrete operations : [www.afim.asso.fr](http://www.afim.asso.fr) (=> gestion des actifs => pièce/composant)
  - about **PLib** : [www.lisi.ensma.fr](http://www.lisi.ensma.fr) or [www.plib.ensma.fr](http://www.plib.ensma.fr) or [www.toplib.com](http://www.toplib.com) (Toshiba)
  - about **eCI@ss** : [www.eclass-online.com](http://www.eclass-online.com) or [www.eclass.de](http://www.eclass.de) or [www.eclass.eu](http://www.eclass.eu)
  - about **EAN** : [www.gs1.org](http://www.gs1.org) or [www.gs1.eu](http://www.gs1.eu) or [www.gs1.fr](http://www.gs1.fr)

## Aide-mémoire of working groups (currently in place)

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

**Enlarged Committee IDE@** (Gifec-Fenetec) –**Mosaïc** (Alcan, Arcelor, EDF, Alstom, Renault, St Gobain, ..) – **PFI** (Renault, PSA, Arc International, EDF, TOTAL, Schneider Electric, AFIM,) + 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 reusing the contents of the PFI recommendation published by Galia in 2004..

**PFI Working Group** for elaboration of **ontologies for electric materials for safety** and **specific consumables for car-body manufacturing**: started in June 2007 (animation by Renault)

**Working Group** between IDE@, and eCI@ss: animation by GIFEC, participants SAF-Air Liquide welding ( manufacturer)

**Working Group** for the elaboration or improvement of **ontologies for automatism components** : PSA Peugeot Citroën animation with participation of Renault, PSA , Schneider Electric, Siemens, IFM Electronic, Woodhead,... : in stand-by

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