Interview with *Francis Bernard*,
President of *Dassault Systemes Russia Corp.*

Aleksandra Soukhanova, Youri Berjoza (Observer)

Francis Bernard was born in Hanoi. In 1965, he graduated from the *Ecole Nationale Supérieure de l'Aéronautique et de l'Espace*. He entered in *Dassault Aviation* in 1967 as an engineer in *Theoretical Aerodynamics*. He specialized in the theoretical engineering and construction of aircrafts. There, he invented the *CAD/CAM*, from which *CATIA* was brought to light in 1977 – the first *3D* application of its kind. For his invention, Mr. Bernard was prized by the *French Academie Nationale de l'Air et de l'Espace*, by the *Aviation Week & Space Technology* journal, and also by the *US National Air & Space* museum.

To push the development/enhancement of *CATIA*, Francis founded *Dassault Systèmes* (*DS*) (as a sister company of *Dassault Aviation*) and became its first President. Under his leadership *DS* made a *Partnership Agreement with IBM* for the sales and the support of *CATIA* worldwide. In 1995, Mr. Bernard became the Executive Adviser to the new President of *DS*, and Member of the company's Executive Committee. As part of his responsibilities, he is in charge of the marketing and the business development of *DS* in Developing Countries and in *Emerging Markets*, as well as for new technologies.

In 2005, Francis Bernard, amongst other duties, became the President of the newly named company *Dassault Systemes Russia Corp*. To explain the new *DS*'s strategy in Russia, and also clarify other questions of the Edition, Mr. Bernard invited our magazine in Moscow and gave us an extensive interview, which we publish with some shortcuts.

Congratulations Mr. Bernard for your start as President of *Dassault Systemes Russia*! In this respect, our first question: why were you precisely chosen? Weren't there proper local candidates? What is the meaning of this choice for *DS* and for Russia?

– As you know, I am the Founder of *Dassault Systèmes* and I am a member of the Board of Directors. I was also the first *DS*'s *CEO* for 15 years. It is already 10 years we have a new *CEO* – **Bernard Charlès**, which I believe is a normal step in the Company's development. One of my most important role today is to increase the level of awareness of Developing Countries, amongst which the China, India, South Asian countries and those of the Pacific ocean's region, Central Europe, the Middle East and Russia, and also of developing sectors of the industry and of the markets where *DS* is not enough established. I am helping *DS* performing successfully in here before mentioned countries. Two years ago, I opened two branches of *DS* in China and in India. Of course, we monitor the development of industries in these 2 countries and we see there a big potential for us.

DS will pay a specific attention to shipbuilding. Our business here is not bad. If we compare the success of *DS* with its competitor in the world of shipbuilding, it appears that we do better in terms of number of customers for instance. But we are not yet considered as the standard, and that's why we have a lot to do, and we will relentlessly continue in all emerging countries. Our largest customer is the US Navy, and as well European navies, commercial shipbuilding companies. In Asia, our share in the shipbuilding market is not yet very significant. In my view, ships are particularly more complex products. Cars design, for instance, require a few thousands parts, aircrafts – hundreds of thousands, and ships more than one million, and on top, there all kind of systems: mechanical, cabling, tank, pipe systems, and so forth. The biggest issue in ship construction is that it is a complex work and a relatively small market. Else, let's come back to *DS Russia* – as you understand, I cannot entirely dedicate my time to our operations in Russia, since it is absolutely necessary to develop our presence as well in those other regions. That is why I work with two directors, reporting to me for the operations of *DS Russia*. **Didier Martre** is an experienced manager of *DS France*, who will not stay permanently in Moscow, and will strive to transfer his experience and knowledge, with a focus on Marketing and Technology issues of the *PLM*. The second director of *DS Russia* is a new joiner in our company, **Laurent Valroff**, who has a business education in Russia, and speaks Russian fluent-

ly. He will stay and live here permanently, concentrating actively on the development of the company. We have today a team of 12 specialists, and we plan to take on marketing and technical staff.

In general, why this decision of setting up DS Russia? Does that mean that DS was not satisfied with IBM management of this business in Russia?

– Firstly, we are aware that *DS* is not a leader in the *PLM* market in Russia. We recognize that we do not address the market in a proper way. In the mean time, we observe that Russia and CIS are growing very actively, and we see more opportunities for us in this. It is the main reason why we created *DS Russia*.

Now I will explain you how the distribution channel works. Right after *DS Russia* was created, **a strategic partnership agreement with IBM was signed by us**. In all countries, *IBM* – our strategic partner, manages sales. The sales of all *CATIA* licenses are done by *IBM*. To allow this, *IBM* created a *PLM* business organization in almost all countries based on its own technical and sales staff. Furthermore, *IBM* has a network of Business Partners to cover most of the regions and to address various industrial sectors. Usually, *IBM* works more with Large Accounts; the Business Partners' targets being to attract and serve small and medium size companies.

Thus, we created *DS Russia* following the decision to have a reinforced and a more active presence in Russia and in the CIS region. We could not leave *IBM* manage everything here as it was short of knowledge and skills. From this comes our main first objective – to transfer our knowledge and experience to *IBM* and its partners. It is necessary that all have a direct access to the local *DS* branch to solve any issue. The *DS* decision of investment and installation in Russia does not mean to substitute to *IBM* and its business partners at all, but more to take the responsibility of and to develop the necessary marketing and technical resources to support them. **This new agreement will allow both [IBM and DS] to be more successful on the Russian market.**

In any case, we would have set up a *DS* representation because we sense the strong need of our clients to have direct relations with *DS*! The simple factual rapid growth of the industry, which needs to be addressed and supported, makes our presence absolutely relevant.

However, does not it show a contradiction between the role and responsibility of DS Russia and IBM obligations to co-ordinate the business partners in the sales and support of CATIA and other PLM applications? How will operations and responsibilities be split?

– In some countries we noticed that *IBM* could not deploy the right level of dedicated resources to secure the support of our business partners. After discussing this, we took the following step: we proposed *IBM* to take this role instead of them. A new agreement with *IBM* was signed just 2 months ago, according to which from July 1, 2005, in the US and in other countries of Western Europe (Germany and the UK), in Northern Europe and in Russia, ***DS*, on behalf of *IBM*, performs the Support and Management of *IBM*'s business partners.**

It is important to understand that all licenses previously sold remain in *IBM*'s hands. However, the split of responsibilities is the following: *IBM* focuses its resources on Large Accounts, and we, on behalf of *IBM* carry out *Channel Management* activities with the business partners. This is *DS Russia*'s main task. In other terms, **in Russia, our business partners are partnering with IBM and DS at the same time.** Our representative office manages the distribution channel of our *PLM* solutions. That is why it is useless to speak about any conflict with *IBM*: there is none, as there is no contradiction between *DS* and *IBM* responsibilities. *IBM* focuses on Large Accounts, and we manage with our Business Partners the other small and medium business accounts.

Do you experience any need to involve new business partners in Russia and CIS? Is there anyone in your radar screen?

– Since *DS* manages a worldwide network of business partners, of course, we have the full right to take on new partners whenever needed. When we identify a possible business partner, we set a contractual agreement, as well as we ask *IBM* to sign in as sub-licenses agreement. This way, our business partners have an agreement with *IBM* for the delivery of licenses and with us, for business management, marketing and support. Frankly speaking, I cannot say how many new business partners we need to run successfully our company in Russia. For the time being, we have *Bee Pitron*, *Mebius* and *HetNet*. In the future, I think that the number of them can be increased to have a better geographic and market segment coverage.

In China for example, we did this – make an *OEM* partnership deal with the Chinese company ***CAXA***, which developed [solutions] and sold on the design-centric market, closer to *AutoCAD,* for a local usage. The core of the agreement was that *CAXA* integrates some of our solutions from *CATIA V5* and *SMARTEAM* in its applications, and can provide and market local high-end solutions under its own name. **If such a partner-company existed in Russia, we would openly consider sharing some of our technologies.** Generally, *DS* philosophy in Russia is that we do not only see potential customers, we consider globally the country with its full potential of partnership opportunities. As the example, we have a successful and mutually beneficial partnership with a company of Novosibirsk ***LEDAS Group***, under the management of ***David Levin***. This is a group of brilliant mathematicians and professionals, which on *DS* request performs Research and Development in geometrical problem solver for *CATIA*.

Our redaction carefully watches the activity of CAD "leaders". We recently heard of a conflict of interest between DS and IBM in China and in the US… Do you confirm this? If you do, what is the origin of this conflict and how is it being solved?

– As you know, we started to work with *IBM* in 1981, which is the origin of our success. I consider the foundation of this union was the greatest decision in all *DS* history. Why did we do so? At that time, I had a small company with a team of 25 people mostly *R&D*. To become

МАШИНОСТРОЕНИЕ И СМЕЖНЫЕ ОТРАСЛИ

a strong competitor with the *CAD* leaders of the time, I faced the challenge to go on the international market. Our competitors in those days were American companies such as *CADAM, Computervision, CALMA*…

If you are a French company, you can reach your home market by spending relatively limited resources. But as soon as you plan to go on the market in Germany, in Japan or in the US, you have to make huge financial investments. It takes a lot of time, and you never if it is going to pay off… That is why our deal with *IBM* was very beneficial to us. Instead of going on the world market alone, we got the benefit to use the great and well-known *IBM* image. In turn, *IBM* agreed with the scheme because it contributed in selling more "hardware", and our software was a kind "cherry on top of the cake". The price of computers in that time was very high, and with this "cherry" in the form of *CATIA*, it was an additional business advantage to sell more successfully. *IBM* succeeded in quickly putting in place a network of business partners in many countries. As *IBM* was more used to work with Large Customers, it did not sufficiently address medium-size clients. And in some countries, we believe we could have achieved better. That is what happened in China. In 2004, it was decided with *IBM* to take actions to improve the results by adding more resources. On its side, *DS* promised to bring the necessary support. But the branch of *IBM* in China was not ready to properly complement our efforts. Our answer was that *DS* would take the entire load of efforts. After the negotiating with *IBM*, the situation was changed: in China we work separately and *IBM*'s *BP* joined us. Now, there are more then 40 people working in *DS China*, all of them are Chinese. *DS China* will continue to grow. And let me insist, *IBM* is still our partner in China, because we know *IBM* specialists work well with some selected customers. Nevertheless, **we start to have direct sales and a service activity on the Chinese market now.** It means *IBM* keeps on working with current customers, and almost all new customers – are under *DS China*'s control.

I must say that the situation in China – is quite unique. It is different in the US, as in the rest of the world, – in Russia, Europe, – as I said before.

The relationship between *IBM* and *DS* in China and the general non satisfaction of *IBM*'s activity in other countries, including Russia, combined with our magazine's estimation of poor *IBM* activity in the Baltic countries allow us to doubt that *DS* and *IBM* share common interests…

– The only thing I would like to say – we have very good relationships with *IBM* in Russia. Yesterday I had a meeting with our *IBM* colleagues and we have the same vision over the main strategic tasks and targets on the Russian market. Moreover I work for *IBM* as a "manager" of the *BP*'s channel.

In April 2004 *RAND* became a *DS/IBM BP* and was looking forward to sell you solutions on Russian and CIS market, even starting *PLM V5* solutions certification process for its employees. I wonder, why did you cut off this initiative and, at the same time spent money for buying *RAND Technologies CIS*?

– We have 2 options to develop our business in Russia. Either to start just from scratch, or to buy an existing company. We have decided to buy *RAND Technologies CIS*. This company had some *CATIA V5* knowledge and experience, since it was a *BP* of *IBM*. Secondly, there were opportunistic reasons to acquire *RAND* not only in Russia, but in other countries too. You know that we have acquired almost all *RAND* subsidiaries: in the UK, Sweden, Switzerland, and Germany. The acquisition of *RAND* Technologies CIS was just a part of a global deal, and an opportunity for us to have a good jump-start of our own business on the Russian market.

We will have very soon completed its renaming to *Dassault Systemes Russia Corp.*, you will not hear about *RAND* anymore.

When a company is acquired, the objects of the acquisition are technology and products, staff and some separate specialists – holders of know-how and access to customers' databases. Let's talk about *RAND Technologies CIS*. They did not have any own know-how. The core of the team gets back to *Pro/E* selling and left you. It means that you have one more competitor. No doubt that this people will try to keep their customers with them and consequently, it will limit you access to some customers you have from *RAND*'s database. So, what do you have at the end?

– If your question is "why *Andrei Volkov* and his sales team left the company?" I think it happened due to a number of reasons. Firstly, probably, he had the intension to start his own business. Secondly, his personal status in *DS Russia* was not explicitly defined. He is a pure sales manager, and we decided that our company would not be involved in direct sales. Yes, we need sales specialists but with a different profile– more "business development managers". I don't see any problems for us since we have on board the right experts we need for our activities – great technical and marketing teams.

What will be your strategy in other countries where *DS* acquired *RAND* subsidiaries?

– We will apply absolutely the same model of cooperation between *DS*, *IBM*, *BP*, and clients as what we are doing in Russia.

Relationships between *DS* and *IBM* covered by official agreement. Does *IBM* have exclusive rights for selling *DS* products?

– Please be informed that our agreement with *IBM* is discussed every year. *DS* experiences a constant growth as well as *IBM*'s participation. Earlier, 20 years ago, most of the *IBM* revenue came from hardware. Now the situation has changed, *IBM* is mostly concentrated on Software and Service business. That was the reason why *IBM* was concerned in the 80ies when we decided to have our software running on other platforms. In the 90ies – *IBM* already did not care any more. Currently, many *CATIA* licenses run on other hardware. We must all be flexible and be able to adapt to fast changing situations.

I would like to underline that **our agreement with IBM doesn't include any sales exclusivity of our products to IBM.** Exclusive agreements have never signed with any company, neither distributing companies nor software development companies. Even our cooperation with the Russian company *LEDAS* in its very specific field does not have any exclusivity. Such a model of open cooperation is optimal to us, since every party is free to decide whether to continue the partnership or to leave. We have yearly reviews with *IBM* where our strategy, marketing contribution, sales results and technical resources are discussed for every country. We work like "one company": *IBM* is responsible for sales and marketing, we – software development. However, we are more involved in the sales and marketing processes – to be ready to support our partners and clients, and to ensure that *IBM*'s objectives are reached.

As a President of *DS Russia* you probably have exact figures of a *CATIA* customers, licenses sold, etc. Could you please share this information to our readers?

– The fact is the following, but the number of *DS* product licenses used in the Russian industry is not so large in comparison to other countries. We have a large area for improvement here. To better understand where most of our customers are located, I would like to give you more facts. Most of our solutions are used in countries like Germany, Japan, and US first, and in France, the UK and South Korea second. Than follow countries like China, India, Russia. Generally speaking India consumes 2/3 of the licenses sold in China, Russia – 1/3. All these three countries grow very fast; each of them having its own strategy. For example, China is mostly focusing on manufacturing. Its difficult objective is to develop design activities. India focuses on services delivery; here India starts to have a quite strong position. But the problem for India is the lack of industrial infrastructures.

In Russia, we see a different situation. There are both strong design and manufacturing experiences here. Russia has a huge potential in engineering. We can see it looking at our major customers like *Boeing*, *Airbus*, *Pratt & Whitney* that moved some design and manufacturing activities to Russia because they can find here highly skilled design and manufacturing engineers, better than what India and China can offer. However

Russia also faces some issues – for example – the restructuring of its industry and its economy. Take for example the *Design Bureau of Sukhoi*. We help them resolve the problem of integration of design with manufacturing processes.

Generally speaking I am very well aware of the situation in those countries. Certainly each of the country has it own problems and issues, but they try to solve it. It is very interesting to monitor fast-growing countries. So, my mission is to follow the way Russia grows, and to contribute to it.

Among our major customers in the Russian aerospace industry, we work with almost all the Russian branches of large worldwide companies: the *Engineering Center Airbus* in Moscow, *Pratt & Whitney Russia*, *Snecma*. You probably know, that the *Sukhoi Design Bureau* has selected *Snecma* engines for its *RRJ* project. Also, *ANTK Antonov* has chosen *CATIA* as its *PLM* solution for its new project.

The *Boeing Engineering Center* – it is our biggest customer in Russia. With the *Sukhoi Design Bureau* – the situation is different as it is a *UGS* big Russian client. But we start to improve our position with some *DS* seats there. Talking about other industries – some of our major customers in Russia is: *Krasnoyarsk Kombines Plant*, *Kryogenmash*, *Ruspromavto*, etc.

What are your major wins in Russian industries? Could you please tell us some examples of successful implementation of *DS* products or even *DS PLM* solutions?

Observer meets DS Russia executives (from left to right): Didier Martre, Aleksandra Soukhanova, Francis Bernard, Maria Ivanova, Laurent Valroff

– Our leadership is in the Aerospace industry where we are basically the worldwide standard. As for the automotive industry, *CATIA* became the standard for most of the major automotive companies, except *General Motors*.

In Russia, we have some big work with the industrial sector. But I am concerned that the Russian automotive industry does not meet worldwide standards yet. Lots of applications were installed; *CATIA*, *UGS* products, *PTC* products, but with no global more in-depth and long-term strategy. It looks like this industry will go through a major re-organization in the nearest future with probably the help of Western investors. That is why *DS* is ready to invest to get the leadership in this market segment. My view is that in 10 years, approximately, this industrial sector will be quite developed. An idea for Russia would be to get some inspiration from the Chinese model, where joint ventures with foreign companies are established. China has a very strong and comprehensive strategy emphasized by its long-term support to the development of its industries.

As much as other industrial segments as concerned, it is hard to say who has the leadership, because most of the wins are very fragmented. For example we are doing well in tooling, consumer goods (e.g. *SONY*), but it is difficult to make a meaningful comparison with our competitors. Especially, when we talk about consumer goods products, *SolidWorks* is catching the customers' attention even more than our *PLM* solutions.

As I have already said – shipbuilding is still a "white spot" for us.

Currently we do not pay attention for *PLM* solutions-based plant design applications. For instance, Intergraph is strong in this segment. It would make sense to us when plant design is tightly integrated with products manufacturing processes.

In some cases our solutions are used in architectural design. The well known architect *Frank Gehry*, who creates very sophisticated, curved, complex and expensive buildings, uses *DS* applications. For example the *Guggenheim Museum* in Bilbao (Spain) was designed with *CATIA*.

What are your achievements in Russia in comparison to your competitors?

– Today we are not yet the leader in Russia. We are not short-term and revenue-driven, but long-term and leadership-driven. This is the reason we are not really worried if one of our competitors outperforms us today by revenue standard.

I am pretty well aware of *PTC*'s revenue and can tell you that it is about the same than what we have here. However *PTC* has absolutely different customers' database profile. All our revenue comes from limited number of deals with 10-20 sets per deal. As for *PTC*, they do much more deals (200-250) with 1-3 seats per deal. Look that *PTC* uses the same marketing message for its products than *SolidWorks*. And the 2 of them target the same product segment on the Russian

market. 15 years ago, *PTC* with its innovative technology was an obvious leader on the *SAPR* market. At that time, we seriously worked out to enter in the competition. On the one hand, we decided to jump forward with the help of *IBM* technology, and on the other hand, to push *PTC* in the corner between *SolidWorks* and process-centric *PLM* solutions. The main objective of the acquisition of *SolidWorks* was to drive *PTC* in that corner.

Now in the *PLM* business, there are only two really recognized leaders – *UGS* and *IBM/DS*. On the market of design-centric *3D* systems, the obvious leaders are *SolidWorks* and *Autodesk*. Of course, we continue to have a close look at how it struggles with *SolidWorks*.

DS is not the only software vendor company who actively tries to cover the Russian market. A long time ago *UGS* opened its representation in Moscow. *Autodesk* and *PTC* representations after some breaks just recently opened in Moscow. Does the presence of all *SAPR* leaders in Russia mean that this market is more mature, where large software vendors companies can operate?

– We sense a fast growth in Russia, which we can see by the number of foreign cars in the streets for instance, and the development of a social middle class. Of course, we would like to believe and to hope that the Russia's financial resources collected from its natural resources like oil and gas were allocated to the support and the development of the industrial sector. I cannot speak for our competitors, but our business here grows by 20% a year as a minimum, despite our relatively modest revenue of today. In that, our customers' feedback indicates us the absolute need to have a permanent presence in Russia and a strong support capability.

What business development perspective for *DS* in Russia do you have?

– Our company builds a long-term development plan for Russia, and I am here precisely not only to increase or double our revenue, but to put all strengths so that our *PLM* total revenue reaches 200 M USD in 20 years, ranking number one. China will be in the worldwide leader, outperforming Japan, the US and Europe. We therefore see high business perspectives in Russia and China.

Standards of living are significantly different in various regions of the world. How does that impact *DS* pricing strategy? Do CIS countries have a discount?

– Yes, there are indeed big discrepancies, and in this sense, *DS* pricing strategy in Russia is quite different.

First, the price of our product for Russian customers is very significantly lower than for our European and US clients. Secondly, the structure of our revenue in Russia is different from the structure of revenue in other countries, which we see as an issue. Distinctively from all other countries, our Russian and Chinese users pay our products, and do

not take annual maintenance fee contracts. This is an issue for us as we are turning to a more service-oriented organization – we issue a new product release twice a year with its support. We call our sales in Russia "one-shot", since a user gets for his money the product and the support for a limited period – usually one year. After the period, there is no more free support as the client does pay for it. And he works with the old version. This is not good for the customer as he cannot get the support he needs and he cannot enjoy our new products releases. And this is not good for us either – because we do not secure continuous revenue flow that we pour into the development of the company.

Looking at the *DS* global revenue structure, recurrent revenue represents about 50%. In Russia, we do not have recurrent revenue today! We are dependent from new sales, which is not satisfactory. My objective consists in progressively changing this. It is obvious that, first, it is a question of development of the country. Also, corporate executives must understand that the **PLM is not a tool, it is no even a solution, it is a new approach that brings deep transformations in the company and changes the way to do business.** Today it is hard to reach top-end executives of the Russian companies with this message because they do see these issues.

What is *DS* strategy toward universities? How big is our commitment?

– In this domain, we also have a sustained strategy. We have special prices where the cost of one seat is 200 – 300 USD. Thousands universities around the world include our *PLM* solutions into the core of their main academic tracks. Besides, we give many universities an opportunity to use our applications free of charge. However there is a negative aspect. Of course making money from students is not our goal; only the usage of these seats is important to us. I assure you that when we give our solutions absolutely for free, then in 90% of cases they are still on the shelves. Usually, we charge a price; it is purely symbolical – for example, 50 USD per seat. But we are sure that if they pay, they will use the seats, otherwise they would not pay.

If we give licenses, we do it, as a rule, within the frame of special partnership agreements with dedicated universities. Besides, when providing paid or free-of-charge licenses to universities, we always perform the training of teachers. Now, there is an opportunity to enhance our partnership to train students with our large industrial clients. I come to this curious fact. Yesterday I met with the representatives of *Boeing* in Moscow. They have asked us to help them train students in universities. Probably, we will jointly manage the training of some groups of students in some high schools.

As a whole, universities is a very specific domain where everything goes very slowly, everything should be free-of-charge, and at the same time nothing will work without the setup of dedicated organization appointed by the local management.

For almost five years' in the *Observer*'s history neither *DS*, nor *IBM* did not try to give any information on in the pages of our journal. Only one Moscow-based company, *HetNet* tries to tell about *DS* products, however its resources do not allow them to be published in a volume comparable to competitors'. Quite often to keep the balance of materials we have to search and to translate articles about *CATIA*. Will there be any changes in your marketing strategy?

– Our marketing strategy will improve as a natural effect of our new partnership model with *IBM*. I should explain you our business model within the *IBM/Dassault* alliance, which exists for 24 years. *DS* – is engaged in the development of software, *IBM* – sales, support and marketing. Before, we did not have a dedicated marketing budget and did not have any interest to deal with marketing neither in Russia, nor in any other country.

You can already notice our activity and willingness at the *PLM* Forum, which will be held on October, 27 in Moscow in the *Radisson SAS Slavyanskaya* hotel. We have invested in its organization this year much more resources and we expect that about 500 participants. All our main users are invited. It is also true with the advertising campaign of this forum. You will see our company will be more present in the media.

Though *DS* is the only European company that managed to get into the *CAD/CAM* leaders' circle alongside with *Autodesk*, *UGS* and *PTC*, and our readers know little about you. In this respect, we have some questions about the history of the company: when and as it has been created, as is connected with the "big" *Dassault*, etc.

– When our company started its operations in 1981, we were a 100 % affiliated company *Dassault Aviation*. The reason for this was that I personally began the development of *CATIA* in 1977, working in *Dassault Aviation* as the engineer. Before, in the early 60's, we worked with different systems, which have paved the way to *CATIA*. We, in *Dassault Aviation* decided that our own development can become for us a new business stream. Therefore we created a separate company – *Dassault* Systèmes. Then, gradually, *Dassault Group* has gone through a number of structural evolutions, and now – it is a holding, owned by the *Dassault* family and within which, *Dassault Aviation* and *Dassault* Systèmes are daughter companies. The holding owns has the majority of *DS* shares, the rest is traded on stock market – American and others. In simple words, we are controlled by the *Dassault* family that has clearly stated the impossibility of selling *DS* to anybody else.

Certainly, it is necessary that we conduct a profitable business to meet our shareholders' expectations and to increase our share value. It is important to note that our share value has grown significantly: approximately by 200 % since the beginning of their trading on the stock market. In general, *DS* is an independent company, with a strong shareholder, which controls our capital. We are practically completely free and autonomous to determine the development strategy of the company. Today

Dassault Aviation is one of our clients, let's say, on average, using 500 *CATIA* licenses. Our biggest customers are using more of 3 thousand of licenses – *Boeing*, *Airbus*, *Toyota*, and *DaimlerChrysler*.

The creation of a geometrical kernel is huge work. However, for *CATIA V5* this work has been done anew. Could you tell how it happened, how many people were engaged in it, whether scientific development were used, involved experts from the outside and so forth.

– I would tell that practically everybody participated in the creation *CATIA V5*. At *DS* there is an *R&D* division, which is responsible for the software development. Its offices, including the labs of *ENOVIA*, *DELMIA*, *SMARTEAM*, are everywhere in the world. Our largest *R&D* team is based in our Paris headquarters, and consists of 1200 experts. The strategic *R&D* department is located there. It comprises departments of pure researches and investigations, other departments and groups of experts only responsible for the application development, and which basic task is to build the common architecture of the system, which can be used in other products. The new ideas and proposals are channeled from the *R&D* Strategy department to the Research department. It has an approved development plan, which main objective is to release the new product versions. Eventually, we, together with the *R&D* team, achieved the release of the new *V5* version, while some experts continue to work on the previous *V4* version. Some research works for future versions are already conducted. We must say that number of our application developers grows continuously.

Our magazine repeatedly interviewed heads of your affiliated company *SolidWorks*. They see the future of their product as completely independent – even in 20 years. What does *DS* think about it? Are there any plan to merge together *SolidWorks* and *CATIA*?

– In this respect the strategy of our company is very simple. When we acquired *SolidWorks*, our purpose was to enter the market of design-centric *3D* applications. We decided that everything concerning *SolidWorks* would be managed completely independently from our *PLM* line of business and in no way connected to it. That is, a separate distribution network which is not at all tied to us, its own *R&D* group… There are no close connections between our *PLM* and *SolidWorks R&D* organizations. Let's say that we have some relationships, but they are minimal and limited to the strict necessity. **There should be nothing in common between *CATIA* and *Solid-Works***, not anything that could become visible to the users. For example, there is a different interface, and we have no plan to make it common. That is, we manage *SolidWorks* absolutely separately from our *PLM* business. I see, that such strategy is justified, as we practically do not face any case of competition between the two different organizations on software sales. One cannot say that there is no competition, but it is limited to the minimum and it represents less than 5 % of our common of *PLM* and *SolidWorks* deals.

What will be in 20 years? I do not know. But our today's strategy is I think the right one for the company. We have thought over practically everything – even how to generate *CATIA P1*, *P2* and *P3*. As much as possible to reduce the risk of competition, *CATIA P1* was packaged so that it is obviously more expensive than *SW*. But it is not so important, as our main market is *CATIA* P2. Then why we have made *CATIA P1* with less functionality? I must tell you that we practically do not have the users buying *CATIA P1* only. Basically, this platform is created to be complementary to *CATIA P2* to reduce the cost for our clients when they purchase a large number of licenses. The three variations of *CATIA* are completely compatible and have an identical interface.

Does it seem to you that, because of interoperability problems, *DS* could lose some deals with companies willing to build hybrid system, using *SolidWorks* for more simple tasks, and *CATIA* – for *PLM*?

– Such architectures are built only where *3D* design-centric and *PLM* processes are completely separated. If a company wants to integrate them, it buys *CATIA P1* and *P2*. Probably, we can lose one transaction, but I do not see here a big issue as this case is much reduced compared with the risk of creating an internal competition.

It is not a secret that systems of a class high-end are applied not only in the design of civil products. And not all countries, by far, are France's good friends. Are there sales restrictions of your software? Is your government controlling your deals in some countries?

– We comply with all regulations. Yes, there are some countries where we do not have the right to sell software. For example, to Iran where the situation is rather complicated. According to the French legislation, I can make sales in this country. But under the US law, which has an embargo with Iran, I am obliged to declare the sales, etc. Though I am not also really happy of these restrictions as I see the quite good market in Iran for us. Nevertheless, we do not want troubles with the US. All US defense departments practically use *CATIA*, and this country is our largest market. And I wouldn't like to afflict them because of one-million dollars deal in Iran.

The US were extremely anxious with India's nuclear weapon and consequently the government the US has imposed an embargo, but only for the trade of military equipment and weapons. Embargo was in force for some years during which we could not sell any software to the Indian defense industry. As a whole, *DS* today can sell software everywhere, with some small restrictions.

We thank you, Mr. Bernard for this long and interesting conversation!

– Thanks to your magazine, we shall be glad to see you on the *ECF* in Frankfurt and the *PLM* Forum in Moscow on October 27!

Moscow, on July, 22, 2005