′Pigułki

14 JULY 1, 1993

An occasional electronic collection of news analysis, press reviews, and humor from/about Poland and the Polish community abroad.

In this issue:



*Po Prostu* By Dave Phillips

# Never again, and again and again...

**I grew up** in the '60s in a suburban neighborhood in southeastern Pennsylvania. Syd and Mary lived next door. Syd was a traveling salesman, educated at Columbia, who learned speed-reading and churned through dozens of science fiction novels on his trips across the Deep South booking orders for thousands of gross of gumball machine gadgets and other stuff made in the old Japan and even the old Taiwan. Whenever he came home, he always had a stack of once-read SciFi novels for me. Mary always fascinated me with her total dedication to horticulture. She planted a literal Botanical Garden, including some rare trees and incredible varieties of flowers and shrubs, in her yard. She even went to Japan to study floral arranging. Unusual neighbors like these made a big difference to a kid who was otherwise surrounded by conformity and small-town/suburban values, and who was itching to bust out of them.

**Mary's mother was Armenian**, from the old country. The few times I spoke with her were exchanges of pleasantries, but my mother told me that Mrs. B. as a girl had watched a unit of Turks murder the rest of her family while she was hidden. This was part of a massacre early this century which is still denied by the Turkish government, despite contemporary dispatches by German observers on the ground estimating a million or more people were being killed quite ruthlessly. Some younger Armenian activists still insist this genocide be remembered. Every few years, the odd Turkish consolate gets a bomb or two, the press yawns, and the world turns, much as it did even when the reports first came out of the massacre.

**The Japanese Rape of Nanking** in the late 1930s is another interesting case. For six months after occupation, the Japanese Army raped 20,000 women and girls and killed tens (perhaps hundreds) of thousands of men, including prisoners of war. The Japanese official position on this was that over this six-month period, a few soldiers got carried away and these things do happen in war. Some writers have noted that European and American observers living in the foreign quarter reported quite a different picture of events, and that world opinion sent official missive after official missive to Japan's government during those six months

ISSN 1060-9288

demanding it rein in its troops, to no avail. The most cynical interpretation of these facts, one I'm tempted to believe, is that Hirohito and the General Staff were fully aware of the situation, and were permitting it to continue (if not expressly ordering it) to send a message of terror to Chiang's KMT, to pressurize the Chinese government to an early surrender.

**The Red Army engaged** in similar behavior when it occupied Berlin in 1945. Their command told them, "Berlin is yours," and they took what was left of it with vengeful gusto. Payback was hell in this case. I don't believe this episode has made it into either Soviet or CIS/Russian history texts yet either. The nation blamed for the Holocaust, or at least its western portion, was forcibly reeducated after the war by the humane and virginal Americans and British. The Red Army engaged in a more modest, cost-effective form of reeducation in eastern Germany by recruiting the more useful bastards for the Stasi and "disappearing" anyone else who might have been a leader or who might cause trouble in the future. Of course, Dresden could not be rehabilitated, as much of it was molten rubble. Also, divided Austria, home of the sachertortes, Hitler and Eichmann, escaped reeducation and, still only following orders, lived to vote Waldheim in as its President. The Turks still deny their ethnic cleansing of the Armenians, and the Japanese disavow or minimize their atrocities in China and leave them out of their history books (we haven't mentioned chemical weapons in Manchuria in the 30s).

**America has partially atoned for Hiroshima** and Nagasaki, but not really for the N. American Indians, who were "ethnically cleansed" long before some genius found a universal way to say Juden-raus or Greater Serbia or Greater East Asia Co-Prosperity Sphere. The Indians appear finally to have achieved reservation casinos and taxfree cigarettes, although the Cree face literal liquidation should an Independent Quebec move ahead with its James Bay II and III projects. Perhaps one Indian nation will get the idea of selling smallpox-infected blankets **back** to the U.S. Army; then again, the Army would ship the blankets to southern Florida anyway.

**The rest of the world** has not atoned for the crime of doing nothing from 1939-1945 when the concentration camps and gas chambers were fed by a continental railway network. The British RAF turned Chaim Weizmann down when he asked them to bomb the Auschwitz rail yards. Technical problems, old chap. Most of Anglo-America officialdom, including British and American Jewish officialdom, refused to believe the news and messages that Jan Karski brought back from the Warsaw Ghetto. One man did take Karski at his word. Szmul Zygelbojm, representative of the Bund to the Polish National Council in London, had been briefed by Karski. Later, on learning of the liquidation of the Warsaw Ghetto, he gassed himself in his own apartment. In his suicide letter to Raczkiewicz and Sikorski, he wrote:

*....The responsibility for the crime of murdering the whole Jewish population of Poland rests in the first place upon the murderers themselves but indirectly it rests upon all humanity, the governments and peoples of the Allied States which have not yet undertaken any concrete action to stop this crime. By passively watching the extermination of millions of defenseless children, women and men being tortured to death, those countries become accomplices of the murderers....*

*By my death I want to express my strongest protest against the passivity with which the world looks on and permits the extermination of the Jewish people. I know how little human life means in our times but since I could do nothing when alive, perhaps by my death I can help destroy the indifference of those who could save, perhaps at the last moment, those Polish Jews who are still alive....*

**When I first learned of Zygelbojm**, watching a video interview of Karski, I was amazed. He had actually **heard** what Karski said. He didn't say to Karski, as American High-Church Jews like Felix Frankfurter later did, "I cannot believe you." The reality of his people in his home city prevented him from rationalizing action away. For Zygelbojm, there were no grand strategies, higher interests, geopolitical realities, diplomatic maneuvers. And yet, he was, as he told Karski, hamstrung in London, there was nothing he personally could do. So he did the only thing he could do: he wrote perhaps the most telling and damning letter to the world about the Holocaust and signed it with his own life. The letter clearly stated that most of Poland's Jews by that time had been killed, with only 300,000 left alive, and that the Polish Government had done too little to stop it, and the rest of the world had done even less.

**The rest of the world did less** than nothing to stop it. Canada and the U.S. even turned away ships full of refugees, and prewar Europe was largely closed to stateless refugees. What would Zygelbojm have to say about modern, politically correct Canada, whose PM in early 1982 (Trudeau) said on the globally-televised *Let Poland be Poland* that he regretted that martial law "had become necessary?" Canada supplies part of the UN's peacekeeping forces, but in the 1940s no Jewish refugees needed apply for its succor. The U.S. was just as bad, only America did generously accept Jewish nuclear physicists and mathematicians, just as it later extended its generosity to Nazi rocket scientists and smaller- time war criminals who helped the OSS.

**What would Zygelbojm have to say** about current events in Bosnia? As a Jew, he might wish a pox on all houses, especially the Croats whose Ustashi made the

SS look like the Boy Scouts in comparison. Then again, perhaps not. He seems to have had a sense of the essential. The Bosnian conflict has transcended civil war to a new degree of brutality we haven't seen since the Nazis, except perhaps for Pol Pot's reign in Kampuchea (although our politicians now accept Pol Pot). Like during WWII, we still don't have all the facts, which is surprising considering modern technology and newsgathering which just two years ago let us watch partially both sides of a war in near-real time. But the preponderence of evidence points to genocide, and its civilian victims are not caught in crossfires and combat shellings, but they are sought out and killed, cultural facilities systematically reduced, and women rounded up and systematically raped. To do nothing brings Zygelbojm's curse upon all of us. To intervene risks bringing the labels of imperialist, meddler, Big Brother, on us. Which is worse?

**There may not be a permanent peace** in the Bosnia/Crotia/Serbia- Montenegro region. Like Lebanon, peoples were cobbled together by outside forces and held in place until the bonding agents were catalyzed, and war resulted. The one thing the world must not stand by and watch is continued genocide. To my mind, a peace plan that everyone can agree to is secondary. The primary goal of the world community should be to **punish and stop** the commission of genocide, which in this case means the elimination of the means by which a "Greater Serbia" may be imposed by force. Destruction of Rump Yugoslavia's air force and landing strips, missile sites, and major highway links to "Serbian" Bosnia can be done without a massive commitment of ground forces. Serbian continued supply of the Bosnian rebels should be met with targeting of civilian infrastructure in Serbia and in Serbian-controlled Bosnia. Arming the Bosnians to defend themselves against the Serbs and Croats also appears necessary. Malcolm Forbes Jr. called for the Israelis to do just that recently, for several reasons including the obvious one of preventing another *again*. It has a certain symmetry but not practicality, as Israel's in bad shape politically and economically right now. The urbane, sophisticated, worldly Europeans could do it, but they like old movies and 1938-9 was a very good vintage, apparently. Also, they only care about Moslems with oil. I'm afraid Clinton isn't ready to do what's needed; if he did, it would really piss off the Europeans and spin his Administration's compass wildly.

**That leaves the Islamic nations** of the world. There'd be some irony in old Soviet-made materiel, shipped from Arab countries, deployed in Bosnia against Serbs and Croats. It would send all of us into the library, dredging up Halford MacKinder's geopolitical writings on the rimland and heartland, trying to guess what will happen next.

**One thing is for sure**, there are probably no more Zygelbojms in public life. We're lucky to have at least the witnesses and the messengers, the Wiesels, Wiesenthals, and Karskis in this world. Perhaps there's a Bosnian Konwicki, writing his own "Minor Apocalypse," in which another minor author is asked to immolate himself on world TV to protest another inevitable political injustice in the world. Perhaps this time, for the next *again,* we should choose politicans.

*Dave Phillips*

---

*Polish Affairs* — Jerzy Thieme

# Mass Privatization in Poland

***Pigulki's Marek Zielinski talked to Jerzy Thieme, Chairman of the Mass Privatization Steering Committee at the Ministry of Privatization, about the Polish Mass Privatization Program (PPP).***

**Marek Zielinski**: The first privatization bill passed some time ago was about privatization of individual companies. The one you are working on is...

**Jerzy Thieme**: It is a mass privatization of some 600 companies at once. Why this number? There had to be enough, because the government promised pay increases for the retirees and government workers, and it has no money. The plan is to pay them in part with the privatization shares. We don't know if we will find that many; one has to convince the companies, other government branches, the provincial governors, etc., but the intent of the government is that 600 companies be privatized.

## The Companies

**MZ**: Are the 600 selected already?

**JT**: No. Some have been selected, some have declared their interest, and still more are to be found. The process is voluntary, no enterprise is forced to be privatized. Conversely, at least four bodies have to agree to privatization: the company Management, the Worker's Council, The Anti-Monopoly Office of the Government and the Founding Body, which could be the town Mayor, some specific trade Ministry, etc.

**MZ**: Those Founding Bodies are from the communist times?

**JT**: Yes, they could be from 40 - 50 years ago. At that time there was no term *Treasury* in Poland, or, more precisely, there was such a term but was no such institution. The Treasury was represented by various institutions, for example the "owner" of a power plant would be the former Energy Ministry, that of a tool factory - the Light Industry Ministry and so on. Those *Founding Bodies*, if they exist now, have to agree to the privatization of "their" companies.

The Mass Privatization Program is an official government program, and the Government as a whole wants those 600 companies privatized. However, different State organs have different interests, some want to push the company in other directions. Usually the Founding Bodies cause us the biggest headaches, but the companies are also trying to be smart. They know that the government has no central database, no information system, and they apply to all the programs - individual privatization, mass privatization etc. And then they bicker, to see who will give them more.

**...at least four bodies have to agree to privatization: the company Management, the Worker's Council, The Anti-Monopoly Office of the Government and the Founding Body, which could be the town Mayor, some specific trade Ministry, etc.**

**MZ**: Isn't that a good sign, that the companies show initiative, that they try to get the best deal?

**JT**: It would be great, if it were business initiative. Very often, however, it is only a *cover my ass* attitude.

**MZ**: Are there companies which absolutely refuse to be privatized?

**JT**: Recently there have been more of them. They hope that the state will keep helping them and bailing them out.

**MZ**: Are there cases where the Government says "go bankrupt, we will not try to save you?"

**JT**: Yes, there are. There is now a new profession, a liquidator. You can take a course and obtain a certificate of a Licensed Liquidator. These liquidators sell the assets of fallen companies.

**MZ**: What decides whether companies are privatized using one method or the other?

**JT**: There are several privatization pathways. First of all, one cannot do anything with a State Enterprise. It cannot be bought or sold. It has to be first either transformed into a stock company owned by the Treasury (since only such can be sold), or liquidated. When transformed, it becomes a stock company according to the rules of the Commercial Code, with a Board of Directors, and an Annual Stockholders Meeting consisting of one minister representing the Treasury. Or, it can be liquidated, i.e. stricken off the Register of State Enterprises. What remains then is a bunch of assets, people, real estate, but it is not a company anymore. Such a transformed stock company, or the set of assets remaining after liquidation, can then be sold.

Usually small and middle-sized enterprises go through the liquidation pathway. The management and employees make a down payment and then buy on credit the assets of the former company - the land, buildings, equipment, sometimes the trademark - and form a partnership. The larger ones are first transformed into stock companies and then privatized - either individually, as described by Kwasniewski [Pigulki #12], or in the Mass Privatization program. Individually, some 50 companies were privatized in two years. If all 8000 were to be handled by this method (and at this speed), it would take 320 years to transform the Polish economy into capitalism.

**MZ**: Where do members of the Boards of Directors come from?

**JT**: Fortunately I don't have to deal with it. There is another department which, for all privatizations, trains and nominates the Directors. This is a large army already, there are special courses, etc. This is temporary, though, because later the Funds will want to put their own people on the Boards. The Funds can have representatives with more than one vote in the Board.

**One cannot do anything with a *State Enterprise*. It cannot be bought or sold.**

## The Funds

**MZ**: Who will get those 600 companies?

**JT**: In the mass privatization program the companies will be given away to all citizens. The plan is to distribute them to all Polish citizens 18 years old or older. Most likely the rule will be based on the voting law, which means that you have to be a resident for some time, and which excludes people living permanently abroad.

In fact it is more complicated than that, since we want the companies to have a definite owner. Investment Funds will be formed, which will own the companies. Each company will have one main owner, one of the Funds; some fraction of the stock will remain in the Treasury; and some will be distributed among other Funds. There will be only few direct owners.

**MZ**: Are those funds similar to Mutual Funds?

**JT**: No, they are more like Closed End Funds or Venture Capital Funds. When you buy shares of a Mutual Fund, you become an owner (in proportion to your participation) of the companies owned by the Fund. The Mutual Fund is not an owner of the shares. In the case of a Closed End Fund, you own shares of the Fund, which in turn owns the companies.

**In the mass privatization program the companies will be given away to all citizens.**

**MZ**: How many such Funds will be formed?

**JT**: About 20, which means each will be responsible for some 20 to 30 companies. Various international financial institutions, banks and funds will form consortia, and those consortia will be hired to manage the funds for a fee.

However, there is no way to divide the 600 companies so that each fund is of equal value. And it wouldn't be fair to give to Mr. Kowalski a share of Fund A and to Mr. Malinowski a share of Fund B, because those funds are different. Therefore everybody will obtain one share in a program backed by shares of all the funds.

**MZ**: Will this be a fund of a higher level, a *superfund?*

**JT**: Just as in the old times the dollar was backed by gold reserves, this security will be backed by shares of those funds. It will be a bearer's security (paper), traded in an open market. This bearer's security will be distributed for a small administrative fee, essentially to cover the printing and distribution costs. People will be free to hold this security, trade it, or go to a stockbroker and exchange it into 20 shares of the individual funds, if desired. The Fund's shares can also be traded.

**MZ**: How much will this paper be worth?

**JT**: Nobody knows it. The whole difference between mass and individual privatization is that the latter is extremely expensive. One has to hire investment banks, consultants, who make appraisals, and those cost 8% to 15% of the value. We don't make any appraisals, and that is why the mass privatization program is so inexpensive and we can so rapidly privatize a substantial chunk of the economy. We will publish the financial data of the companies, and the securities can be traded for any price; we expect the price to settle on a free market. The market itself, and not the experts, will fix the price.

**MZ**: Is there at least an order of magnitude?

**JT**: One could speculate, that the sum of the book values of the 600 companies will be some 150 trillion (150 times $10^{12}$) zloty. But still we cannot calculate the value of one share since we do not know how many people will apply. The shares will be available to every Polish citizen 18 years old or older, but only upon requesting it. There are voices saying "Mister Minister, take your stock and shove it. I don't need your shares." We did market research to estimate, how many people will claim his or her share, but it is very difficult to estimate. It will very much depend on proper marketing, advertising, etc. It is also difficult to say, how to judge a success of the program. If 50 thousand come, it will be a disaster, but if some 5 million would claim their shares, it would be enough, not everybody has to do it. This number will be enough to form a market. There will be a registration fee, now set at 10% of the average monthly salary, which is now ca. 3 million zloty. This sets the fee at about $22.

**The securities can be traded for any price; we expect the price to settle on a free market. The market itself, and not the experts, will fix the price.**

**MZ**: What are you going to do with the rest? Sell it?

**JT**: No, we will do it differently. We will issue only as many shares as we will have customers. When more comes, we will simply print more shares, until the end of the distribution period, which is set to six months, but can be extended for another half a year. Then the whole value will be divided by the number of issued shares. If one million people apply, the share will be worth much more than if all 27 million will claim their share. At this point I cannot realistically estimate if 2 or 15 million will come.

**MZ**: Will there be a special institutionalized market to trade these securities?

**JT**: No, there will be a completely free market. You can trade your share at home, in a bar over drinks, anywhere, at least at the beginning. On the other hand you can exchange your paper into those 20 individual Fund shares, and those shares will be traded on a stock exchange.

**MZ**: Will all the company assets be distributed as shares?

**JT**: No, only some 60% of each company stock will go to the Funds, 15% will be distributed among employees, and the Treasury will hold 25%, presumably to sell at a profit later.

## The Privatization Bill

**MZ**: Whose idea was this form of mass privatization?

**JT**: In 1988 Lewandowski wrote an article in which he presented the idea. This article was shelved until 1990, when Lewandowski became the Minister. The EEC had run the international competition for a position of the chief advisor to the Minister. I won this competition. I wasn't hired to do this job initially, but very soon I was assigned to work on the mass privatization. I am working on this project 18 months now, and my contract is extended for another 18 months.

**MZ**: What did you do for those 18 months?

**JT**: I was essentially building the whole department from scratch. I started with one secretary, now there is a permanent staff of 30. I was hiring various firms, assigning them the work, etc.

**MZ**: Who prepared this rather complex legislation?

**JT**: A number of specialists worked on it. In the Privatization Ministry a department was formed, and the main advisor was hired, the largest London Investment Bank S. G. Warburg. A contract for lawyer's work was won by a law firm from New York, White & Case. It had hired professors from Polish Universities, four best lawyers to be found. There are a number of other firms which worked on different aspects of this project. One has to build money markets, prepare systems for trading the securities, a clearing system must be built (like for bank checks), etc.

The latest problem I am dealing with now is to hire a specialist firm to work on promotion and marketing. There is a prevailing, traditional distrust of people towards the government, towards state institutions in general. If the program was presented by a private bank, especially a foreign bank, people would flock to claim their shares. When it is a government program, people have doubts, they don't know if it makes sense, if the government is not trying to cheat them. "They pretend to give, but perhaps have a hidden, sinister motive?" People have historical experience with such behavior of the government. The goal of the marketing group will be at least to neutralize, if not overcome, such attitudes. If we are not successful in selling the idea, nobody will come to claim his part, and the program will be a flop.

**There will be a completely free market. You can trade your share at home, in a bar over drinks, anywhere, at least at the beginning.**

The proposed legislation has been approved by the government and sent to the parliament, where it encountered a political fight between the coalition and the opposition. The opposition uses every available argument to weaken the government. Whether it is verification, abortion or privatization, it is catch as catch can. I have just learned that some fundamental resolution on the directions of the economic reform passed by one vote. Most legislation recently passed (or failed) by a few votes only. Of the 460 deputies usually 1/3 are absent and with the rest, the votes are very close. One can never guess what the results of any vote will be.

In our case there was a very fierce fight with the opposition who wanted to reject the bill outright. Eventually the government won, but it was almost treated as a confidence vote for the government. Then the bill went to the Parliamentary Committees. The political center is in favor of the bill, both the left and the extreme right are opposed, albeit each attacks it from a different position. The left declares itself leftist and does not want any privatization, period. On the other end of the spectrum, J. Korwin-Mikke asks me, "where in the world exist such funds?" "In the United States, for example," I say. "Please," says he, "don't bother me with such nonsense. Everybody knows that the U.S. is Communist now. We want a real capitalism, not the 'American' one."

The bill is in the Committees now. To make it more difficult, the Parliament voted to send the bill to not one but to three committees: to the Privatization Committee, to the Legislative Committee and to Budget Committee. Those three now form a joint subcommittee. This Committee meets with our team of experts, who present the bill. We have good experts, all those top lawyers, so the Committee voted that we cannot bring more than one expert at a time. "You have such strong experts, and we know nothing about the subject, so we can't let in so many of them, because they will intimidate and shout us down, and we won't be able to do anything."

**MZ**: Do you take part in all those meetings?

**JT**: Yes, I play a coach in a football team. I say, "Professor X, now it's your turn... Doctor Z, perhaps you can answer this question." And they jump up and present the arguments. When nobody wants to talk, then I have to make a stand.

**MZ**: How does such discussion look like?

**JT**: This is just the beginning. The discussion in the plenary session of the Parliament was rather ugly, demagogical, for the public. There are TV transmissions from the Sejm sessions Thursdays and Fridays, but not Saturdays. Therefore on Thursdays and Fridays the hall is full and everybody wants so speak, and on Saturday no vote can pass because the quorum is lacking. Very often the deputies do not feel they represent their people, their regions. A Warsaw professor cannot be elected in Warsaw - not enough seats, so he goes to Suwalki and is elected there. He will not return to Suwalki and doesn't feel connected with his constituents. Many deputies believe those mechanisms will continue to function and that there is no need to answer to their electorate.

**There is a prevailing, traditional distrust of people towards the government, towards state institutions in general. If the program was presented by a private bank, especially a foreign bank, people would flock to claim their shares.**

The representatives in the parliament often argue, because they feel like arguing. We propose to include foreign banks in preparation of the privatization. We are then accused of selling out Poland. But when we present an alternative of using Polish banks, we hear that it is foolish because they have no experience at all. When we propose to sell the shares only to adults, I hear that children also have the rights to them. The proposal to include children is criticized on the basis of high costs and complexity of paperwork. The number of companies for privatization, 600, is criticized both as too small (as compared with 8000 state enterprises - what with others?) and at the same time as too large (to give 600 companies to a bunch of crazies is a crime - let them experiment on fifty) and so on.

The Sejm is a vivid example of the unhealed ills in Polish society. The behavior of the representatives is very often beneath contempt. For example, in all the rooms, bars, cafes and restaurants of the Sejm there are gongs announcing the coming roll-call. The deputies then leave their food and tea, and run to the congressional hall to vote. After that the hall empties. Very often in the evenings, in spite of the gongs, the hall remains almost empty - everyone has already left. The Parliament is a subject of rather general contempt. Many deputies cynically take care only of their particular interests - often personal, sometimes of their party.

In the Committees it is a bit better. They have a set makeup, usually of people having some knowledge of the subject - be it law, economy etc. There are fewer pure demagogues. But even there it is not easy. Often I would talk privately with a deputy, who appeared reasonable, giving the impression that he agrees with me. He would then enter the conference room and before the cameras state something completely opposite. They cynically lie, knowing that all the country will see them on television. For example our proposed privatization bill states in Article 21 that for a prescribed time the shares can not be sold to foreigners. The deputy says in his speech that the traitorous Ministry would sell the country to German investors. Either he did not read the bill, or he purposely lies. This is very frustrating.

**MZ**: Now the privatization Minister is Lewandowski? Under how many ministers did you work?

**JT**: I have already changed 3 ministers, but it so happened that first and last was the same Mr. Lewandowski. Mr. Gruszecki was in the middle. Mr. Lewandowski was in the reign of Prime Minister Bielecki and now Ms. Suchocka, and Mr. Gruszecki in the time of Prime Minister Olszewski.

**MZ**: When the Parliament passes the bill, what next?

**JT**: Then there is still a rather complex process of bringing it into practice. We have to create a distribution system - most likely based on the Post Office, which can reach those 27 million people. The shares are bearer's instruments, so there is a need for security just like in case of currency, one has to think of registration, storage, the whole logistics. We have hired a firm which is preparing the whole game plan. We have to create a database to avoid duplication, every citizen is entitled to only one share.

**MZ**: How come you work on the implementation of the bill, which is still debated and can change?

**JT**: It is a little like making a movie. It can happen that the last scene will be made first. The big difficulty is that a lot of people and institutions don't want to cooperate until the bill is passed by the Sejm. They have a convenient excuse. The parliament, not passing the bill yet, apparently does not allow to work on its implementation. On the other hand when it passes, the expectation will be that it ought to be implemented immediately.

People have little idea of the scale of the project. One has to recruit 600 enterprises, transform them into stock companies, print the securities, make registers of some 27 million people, create a distribution system etc. Such things have never been done before.

**MZ**: How does the Polish program compare with those of our neighbors?

**JT**: I was in those countries and I had conversations with my counterparts there. There are differences. First of all none of them will distribute securities. The Czechs distribute so called "investment points," which represent just a number in a computer. People decide to spend such and such number of points for this or that company. There are auctions, and one wins a number of "shares" of different companies. However the "shares" do not change hands at this point. After the first round a balance is made, and if there is large number of buyers, the number of points needed to buy a company is increased, and if not enough buyers, it is decreased. Then there is next auction and so on, up to 5 total. The main difference between this and our system is that in the Czech system people are to "buy" individual companies with extremely limited information: Company A, Location: Karlove Vary, Production: beer, Employment: 1500, Book value: 5 billion crowns. Such information is listed for 1400 enterprises. It is very difficult to know how much any individual company is worth. We believe it is not fair to force choices on completely uninformed people. But of course we are also blamed by some for not offering the choices that the Czechs have.

**MZ**: And what about Russia?

**JT**: In Russia it is purely a political move of Jeltsin, who gave everybody "pseudo investment money" in the nominal value of 10,000 "investment roubles," for which one can buy companies if and when they will be offered for sale. For now it is not known which companies they will be. People trade this paper, and the prices vary wildly. Recently I heard from one source that this 10,000 "investment roubles" was sold for 6,000 real money, somebody else told me that he bought it below 1000 roubles. This paper is not backed by anything except Jelcyn's promise that some time in the future those enterprises will be sold.

**A The Czechs distribute so called "investment points," which represent just a number in a computer.[...] In Russia it is purely a political move of Jeltsin, who gave everybody "pseudo investment money"**

**MZ**: Does Hungary have a similar program?

**JT**: Hungary was the only one not to have such program, but I heard that last week they announced an intent to introduce some kind of mass privatization program.

Our program is the most sophisticated. On the other hand the main objection is that few people understand it. There is a big danger in this, because if people will not accept it, the Parliament will not accept it, people will not come to claim their shares and the whole project will be a flop.

**MZ**: How do you provide information?

**JT**: We have information for the press, the Parliament, the Government. We organize seminars for the enterprises, but many would like us to come to them. They were coming to Warsaw till now, but recently the Trade Unions begun to revolt. "Why do we have to go to Warsaw?", they say, "let Warsaw come here." I have two or three people who can give seminars, for 1000 enterprises it would take more than a year (including Sundays). We don't yet have information for the "buyers." One, the Parliament can still change everything. Two, we have still not decided how detailed the information should be. We could make it simple, basically where to get this security and what can be done with it. But we will be accused of hiding something. We could also print all the details, and be blamed for making it too difficult for the average citizen.

## The Mass Privatization Department

**MZ**: How do those companies you hire to do the work function in Polish realities?

**JT**: This depends to a large degree whether I have a good manager who can control those companies, direct them do do the right work. I do not have enough of such managers. I have a young man fresh after college, who is not particularly fluent in English and I pit him against an experienced firm from New York, against sharks, who know their business in-and-out, and I have a problem. This is one reason I came to New York to hire some sharp people to look after those sharks. This is not easy, though, because, in general, only those who did not make it here, want to return to Poland.

**MZ:** Those companies are from Europe or from the US?

**JT**: More from Europe, because I have more money from Europe, and less from the US. Those are either grants from various European governments or money from organizations such as the World Bank. The government money is the best because they are straight grants. The World Bank gives loans, which will have to be repaid some day.

We invite various firms, which present us their proposals, and show us how they work. We have to learn it all to know what to demand, how to prepare the tenders. It is an art to write the tender requirements. If not done right, the result is that the company claims the requirements are met, and the job is not done. We are seeking partners we can trust, who will understand that one couldn't possibly predict everything and will do the job without regard for what was formally written. It is a completely new situation for us and we have little chances of predicting half a year ahead what precisely will be needed. If the firm is not interested in further cooperation and is out there to milk you, they will do exactly what is written in the contract, and you are cooked.

We hire mostly consulting firms. There are six biggest: Price Waterhouse; Ernst & Young; Arthur Andersen; KPMG; DRT and Coopers and Lyerand, who do the management consulting. Some specialize in finance, some in accounting, banking, etc., but each will tell you that they can do it all. We have to sort the wheat from the chaff. Such a firm has its branch in Warsaw, and its representative claims he knows all the areas, but in fact he is a specialist in one or two only. It won't help if the firm is good and it has a very good expert in Hong-Kong, you have to work with the one in Warsaw. The firm advertises that it has restructured 1000 banks and privatized 300 companies - but this could have been in Argentina, and they have their office in Warsaw with 15 people who know nothing about restructuring in Argentina, because they were hired yesterday fresh after SGPiS [Central School of Planning and Statistics in Warsaw]. Perhaps one or two of them have some experience abroad. You have to keep an eye on them. If you have good, experienced people, you can do it, if they are young and naive, you have no chance.

**MZ**: What kind of work do they perform?

**JT**: They analyze the enterprises; prepare the capital markets, stockbrokers, etc.; design the databases; law firms work on the privatization bill, and prepare statutes of the companies; and a marketing firm is preparing the whole marketing campaign.

Take marketing, for example. Now, after 40 years of communism, TV says: "We are independent of the government, if the Government wants to advertise, let it buy the TV time." The government says, "We cannot spend billions on TV advertising unless the Parliament authorizes the expense." I go to foreign governments and ask if they can help buy some time in Polish TV. Some say: "If the Polish Government wants to do something, it better pay for it and not go begging. We can provide technical help, but to pay Polish Government for time in its own TV?" Another organization says: "Excellent, this is a good idea, indeed we can help, let's tender offers from various TVs." I say, "It will be difficult as we have only ONE TV - should it compete with itself?" "Sorry", they answer, "but those are our regulations, why don't you let in other TV stations?" In Warsaw, as in many other cities, there is already a private TV station, Channel 3, but it is still illegal. The Parliament still hasn't voted on the TV bill. (There is an interesting side story in it. Channel 3 broadcasts only movies, four a day, which decreased the demand for videocasettes. Those are good movies and free! The videocasette rental owners are organizing themselves and plan to buy another illegal transmitter to jam the illegal Channel 3 station.)

**MZ**:Thank you for the interview.

Editor's Note: The Mass Privatization Bill (PPP) was passed by the Sejm in a second attempt on April 30. It has been signed into law by President Walesa on May 18, 1993.

By Jacek Kryt

# The Importance of being ... in context

***Polish Computer World reported on March 3 of this year that the recent development project of a Polish fiscal system (POLTAX) became one more unfortunate but classic repetition of past Western blunders. We discussed this project on the PLEARN-L list from November 1992 to January 1993. In this piece, I would like to alert readers to four dangers faced by Polish authorities making the decisions on computerization of the country.***

### *Danger 1*: Computerizing a New or Evolving Business System.

Designing a computerized business system (including administrative systems), is like drafting and later assembling the structural elements of a high-rise. Don't forget to provide for cables and plumbing conduits!

Programming such a system is very much like pouring concrete on the erected structure of a skyscraper. Once it is done, try making just one small change, such as widening the staircase by 1 cm.!

In computerizing a system we define and document users' requirements. We ask many extremely detailed questions as if we were devoid of common sense. We make no assumptions. We analyze this material, discuss the outputs and screens, check their correctness, and completeness.

Plans and detailed designs should prove their validity in tests as close to the real life as possible. The proposed system must fully satisfy its future users. If they do not support it enthusiastically, it will be a failure.

The disaster is therefore almost certain to follow if the target system, of some complexity, did not previously exist at all in its manual format and is only evolving. After repeated costly attempts of developing it, the designers will abandon such a system. If somehow completed, the system will not satisfy the end-users who will use it because they have no other alternative, propping it up by ad hoc manual procedures. Users will keep formulating new requirements. Some will result from a better understanding of what they need. Other requirements may be the product of what users wrongly imagine that they need and what they think is feasible. The maintenance of the system will be a nightmare. It will be very hectic, ineffective and costly.

The Polish Ministry of Finance set out to develop a computerized income and value-added-tax collection system. This system did not yet exist in a manual version. Both its designers and future end-users in the Ministry of Finance could not possibly be sure what it should do and how it should do it. The economic and legal environment or context of its operation has been evolving all the time, as it had to be built on the quicksand of proposed economic and legal transformations. The system being designed was thus a continuously moving target. Complex but incomplete and possibly inconsistent administrative procedures and legislation propelled it along a meandering path. Its very input forms were not defined until just before Christmas 1992.

In such circumstances, there is no hope to develop an integrated computerized system for POLTAX soon, if ever. Some data entry programs do exist at present. They might be the first modules of the system. Will they be acceptable in the final design?

### *Danger 2:* Viewing Computerization Through The Prism of PC Owners Experience.

There are three important factors that have strongly affected current computerization efforts in Poland.

**First,** Poland is a country which has had very limited experience with large, mainframe-based computer systems. This is how Elzbieta Niedzielska described it recently:

> *Computerizing even a small enterprise **took many years**. During that time the difficulties grew in communications between informaticians and end-users (other workers), **because each side cared only for their own interests**. Several factors such as :*
>
> - *the changes of views occurring during the late stage of design and of programming, regarding what to computerize, and how to do it,*
> - *poor maintenance of implemented systems, and*
> - *problems resulting from updates of information technology, together led to computerization of only some elements of managerial procedures in **very few and very narrow areas of management.** This happened in spite of the fact that many years were devoted to computerization and great expenses were incurred for purchase of hardware and for analytical and developmental work.*

[(*Wstep do Informatyki, Panstwowe Wydawnictwo Ekonomiczne, Warszawa 1993, p13*. This was the only book of its kind displayed at the Centrum Informacji Menedzera in Warsaw along with 30 to 40 titles dealing with software packages.]

**Second**, a large proportion of Polish computer-literate people have probably never heard about a computerized mainframe-based system. For them the computer equipment is light, compact and powerful. Its installation is uneventful. Using differently shaped plugs it is impossible to connect it incorrectly. The hardware vendor normally loads the operating system. Application software typically performs defined and discrete needed functions. One picks it from a catalogue or from a friendly software dealer. Messages are in Polish. The micro users easily adjust to parameters imposed by this software, or look somewhere else for a better fit to their specific but limited needs. They get it, however, instantly from the shelf. All is easy and deceptively simple. Is not it marvelous? The users, some of them important decision makers probably even do not stop to think that this software was developed by IBM, Microsoft or others, at the cost of tens, hundreds or thousands of men/years of work, by an army of experts at a mind-boggling total cost. Their personal experience forms their view of computerization of the nation exclusively in the light of their microcomputer experiences.

Visiting government offices and student laboratories at 5 universities, all that I could see were micros, some connected to a server via a Local Area Network. (The aging mainframes were in the back rooms.) The table below, based on ministry data, reflects the emphasis on microcomputer technology in Polish schools.

## MICROCOMPUTERS IN 4,152 POLISH SCHOOLS, yearend 1992

| | | | |
|---|---|---|---|
| Total: | 31,941 | | |
| | 6,148 | Spectrum/Timex, etc. | |
| | 8,873 | ELWRO 800 Junior | |
| | 2,055 | MSX-Spectrovideo | |
| | 2,216 | other 8-bit systems | |
| | 11,872 | Compatible with IBM PC: | |
| | | 4,993 | XT-compatibles |
| | | 5,504 | AT-286 compatibles |
| | 1,375 | AT-386 and better | |
| | 400 | Apple/Macintosh | |
| | 377 | Other | |

Source: Report of Polish Ministry for National Education for 1992 (published Jan. 1993)

**Finally,** most people all over the world uncritically believe the wonders of demonstration packages and other smoke and mirrors routines of vendors and techies. It scares me when in a program of an educational institution in Poland I read that they

> *Will organize meetings during which the staff of Informatics Centre will present the advantages of computer networks, choice of software and databases and different kinds of hardware.*

This approach applied to technically naive decision-makers builds false expectations of a quick fix by computerization. Without fail, and without justification it produces money for hardware even where there is none for anything else.

### *Danger 3.* Premature Acquisition of Hardware

When a single future user buys a micro before knowing what he will do with it and which programs he will use, he might have spent too much money on too powerful a toy that he does not need. With some expert help, acquiring an available package, (s)he will soon be able to do something useful, using 10% of the power of this expensive toy!

With micros in an office it is a different story. Definition of their planned use should precede the acquisition of computers. There is no need to buy powerful processing units and color screens for word-processing and the use of spreadsheets. (Admittedly color screens make computer games by far more enjoyable!) A serious danger is a chaotic acquisition and proliferation of various makes of incompatible micros and their software. Users loudly proclaim their "individual particular needs." It causes lack of standardization and produces for management a costly and impossible to support maze of machines and programs.

Consultants estimate that total annual **visible** spending on a PC is in the range of $2,000 to $6,500. It covers the acquisition of technology and personnel for providing training and support by experts to end-users. In the report of Nolan, Norton & Co. on Managing End User Support, 1992, we read about the **hidden** cost that can add from $6,000 to $15,000 of costs per year per micro in the West. We incur this cost,

> *because people naturally rely on those closest to them for support. Peer support can be quite effective when a colleague understands* ***the context of the user's problem****.*

For a major organization like POLTAX, it is a grave misperception of priorities in the task on hand installing a network of computers, and then hoping to create rapidly, from ground up, a major custom designed system. It is also a terrible waste of funds. It takes many years of effort to develop a sizable system.

For POLTAX 1,200 km. of power and telecommunication lines are in place. Three hundred and fifty LANs are ready to allow for connection of up to 11,000 workstations. There are, however, no programs to use this equipment effectively, and this idle hardware is depreciating rapidly every year without being used productively.

### *Danger 4.* Ignoring The Context

It is the lack of sufficient understanding of the context in which the other partner in system development project lives and works that causes all these problems. The context is important both at a cocktail party and in computerized systems.

Context narrowly defined means the part of a written or spoken statement that precedes or follows a specific word or passage, usually influencing its meaning or effect. We are interested in the broad meaning of the word when context is the set of circumstances or facts that surround a particular event, situation or, in our case, system development project.

We know that: What you see depends on where you sit. This is why an end-user views the target system differently than a technical expert from Informatics Department. The corollary of it is that in computerized systems development it would be wrong to say to the user: You get what you see.

The users want an easy to operate but effective system facilitating their work. They do not like change for change's sake. Informaticians changing past administrative procedures must convince users that those modifications will be really beneficial. For communications with other people users use English (Polish).

Techies have the natural tendency to focus on technically sophisticated and elegant solutions, using state-of-the-art technology, and cutting processing time to the minimum. For communications with people they use "computerese". This technical jargon greatly impresses and intimidates the non-initiated. Communications between the two groups are nearly impossible. The former director of Informatics in the Ministry of Finance put it this way:

> *It was a frequent occurrence, that administrative procedures proposed by us did not meet the expectations of decision makers, who disregarded the arguments of informatics department or simply did not want to listen to them.*

Sharing context of the totality of certain activity is essential to enable clear and effective communications and to enter into an intelligent discourse. Each partner has to share at least some of the other partner's context of the subject matter that they intend to discuss. The depth of understanding may vary for each partner, but without a certain minimum there will be no discussion. The peer support groups so fashionable at present in society at large, attach great importance to the shared context, or understanding of the other person.

To get your own proof of the importance of context, you should test the following approach at a cocktail party. Meeting a complete stranger, introduce yourself. Then talk about the occasion for the meeting. This is our most obvious common and shared context at that moment. The person of the host is also a good topic to broaden the shared context with the partner in your chat. Little by little we expand the knowledge about the other person. We learn about his particular accent, his country of origin, background, profession and interests. With every new verbal exchange, we expand our knowledge and understanding of the context within which the other person is living, thinking and talking to us. The conversation begins to flow smoothly, and the exchange of ideas becomes broad and effective. Ideally we would like to know intimately the infinite domain of his/her potential context, built of values, personal knowledge, and common sense. It manifests itself in thoughts and judgments. People who associate closely for a long time reach this ideal state of full knowledge of other person's context. For effective communications, they frequently use a smile, a nod of the head, or a gesture of the hand. They do not need long talks to understand each other.

In professional encounters, e.g., when you talk to the doctor, you have to have the grasp of some basic medical terminology that he is certain to use in his explanations; when you discuss sports, both of you have to share the understanding of rules of the game to avoid the awkward constant need of explicit explanations slowing down the flow of discussion; in talking to a car mechanic you want to be able to follow his explanations, without him telling you at length what do you need the gearshift for. The more people share of common context the smoother the flow of information. Without a minimum of shared context, there is no way to communicate effectively.

In the case of a discussion between analysts and users, this common context for them is the shared minimum understanding of the free market economic system that is the basic universal context for all who live in Poland or in the West. The analysts must also have at least a fair understanding of the objectives, principles and procedures of the specific system that they translate for users into its computerized version. In defining the details of computerized procedures or programs he faces all the time decisions whether something is true or false? In the absence of a clear instruction of what to do, making a wrong assumption he produces an unsatisfactory solution. Conversely, the user who knows (or should know) his own system, should be familiar with ways of work of analysts. He should remember the need for a complete and precise description of procedures in the target system. What is extremely important he should know that things that are common sense or common knowledge for users, are not common sense for many systems analysts and definitely are not for computers. In defining the requirements of the system, users must specify them step by step, in minute precise detail. Do not forget contextual data when describing the screens and reports that you need. It may give you additional insight. Remember that computer does not know what one considers common knowledge. It is impossible to program common sense.

Everyone involved should have a good understanding of their respective roles in Systems Development Life Cycle (SDLC). It is essential that both sides remember that the success of computerization hinges on continued effective partnership and honest communication flow between users and information systems persons. To make it possible they must share as much of their respective context as they can afford to learn. They must be able to understand each other's problems and concerns, cooperate and help each other. Only then might computers help.

Why do we write these comments? Again I will use the words of the former director of POLTAX project:

> *I am aware of a number of similar ventures (in administration, banking and telecommunications), whose developers struggle with identical or similar problems. This is why it is important to draw conclusions from the POLTAX case. It seems also critical to spread this information.*

*Jacek Kryt, Toronto June 15, 1993*

Author's note: translations from Polish are mine, emphasis added.

---

*Informatics*

Zbigniew Tyrlik

# "Not yet a success but having fun"

***Organized commercial efforts to place E.European computing professionals into contract jobs in the West have hit bureaucratic snags. One example is that of Amerisoft, a subsidiary of James T. Lewis & Associates in Cleveland. Pigulki's Dave Phillips interviewed Amerisoft's Zbyszek Tyrlik over Internet Relay Chat (irc) one evening in late April.***

**Dave Phillips**: Can you give our readers some background on this issue?

**Zbyszek Tyrlik**: The whole story started when in 89/90 I was looking for some kind of decent job to support my wife Joanna and myself. We arrived here from Szczecin on training visas, to continue education in psychology at an outlet called Gestalt Institute of Cleveland - an nice and expensive training institute. We had no friends, family - only $150 for both of us. Well, we learned the hard way that a Polish masters degree in psychology is a nice piece of crap here, that a Ph.D. is required for sucess in our field.

**DP**: So what did you decide to do?

**ZT**: With a little help from folks we met here, I was introduced to James T. Lewis, a well-established guy running an executive search and placement business. We decided that I would try to get something related to computers - at least it was my primary education. After a couple of months, Jim was able to place me on a 100-hour contract in a Fortune 1000 company.... this job lasted 2 years.

**DP**: Was he focused on corporate, MIS-type clients?

**ZT**: Correct; he was dealing mainly with MIS shops... Jim was pleased with my performance enough to consider the following year going after my example - and taking a closer look at East Europe. Well, we spent lot of time talking: the point was that there are a lot of folks in EE who are willing to visit the USA, to learn a tad, to see what all it is about; usually they end up in cheap restaurants, or driving cabs if lucky; the less lucky work on asbestos, without status here... I hope you are familiar with reality of Polish “diaspora” in NY, Chicago...

**DP**: Yes, the na lewo route; using a borrowed or rented Social Security number...

**ZT**: Correct, Dave. That was something I do not like; so I tried to to support an idea of something giving professionals a chance to spend some time working up to their capabilities...

Jim was interested in this idea enough to travel to Eastern Europe a couple of times to interview people; we ended up with more than 2 dozen people who came here.

**DP**: What were the typical positions you were filling?

**ZT**: Computer professionals - meaning positions that require a degree and some professional (usually at least one year) of experience. One of us is working on designing microcode for a LCD display; another is working on an X-application for NMR tomographs; someone else is traveling around USA installing computers and connecting them into a network... someone else is preparing code for insurance companies. There is no typical position just like there is no typical person.

**DP**: How has it worked out so far?

**ZT**: Everything was moving in the right direction; the majority of folks were getting decent jobs. The recession took its toll on us, and we were not moving on as quickly as we planned; it resulted in some cases in folks giving up - not being able to carry periods of unemployment, some folks clearly overestimated thir language skills or their coping capabilities; but in general all was going on in the right direction.

**DP**: What was the legal basis for their coming over?

**ZT**: So-called H1b visas.

**DP**: Are these the ones where the employer tries to prove that similarly competent people are simply not available domestically, or too hard to find or keep?

**ZT**: Well, labor certification - that is what you mentioned - is necessary for green card application; in the case of H1b it is enough to prove that an alien is a professional to obtain a visa for him. There is no need to go through labor cert procedure.

**DP**: What did Amerisoft do to help bring these professionals over?

**ZT**: I would say “what did Amerisoft did to bring them here” - we are not helping, we are doing it. Amerisoft applies for a visa; usually it is couple of months of dealing with US administration. After a visa is issued, we do help this poor soul land here - we provide him for couple weeks with housing, we help him to get through first period of adjustment, get a driver’s licence, Social Security number, open an account in the Bank; there is a lot of discussion of differences between Europe and USA, for example, that manifestation of racial prejudice is not the best idea. Then we are working on professional assignements.

**DP**: Have you encountered new problems or controversies?

**ZT**: Lately, we were hit by a backfire or backdrift of new legislation introduced in ’91, and fully explained in ’92; what is funny, to date is is not clear how to interpret each part of this legislation - there is no precedence.

**DP**: What does this legislation try to accomplish?

**ZT**: We are dealing with DoL - the Department of Labor - trying to establish some ground rules regarding how to establish a prevailing wage, when DoL will consider that someone is paid hourly or by salary, etc....

It is quite confusing, but it looks twofold: on the surface, it looks like you are allowed to do anything, especially to start building up to the point where your company invites foreigners, works with them, and later expands its business abroad.

**DP**: And the catch?

**ZT**: The second layer is that aliens are not well seen in USA, and DoL goes to great lengths to make life hell, under the banner of “protectionism...” Of course, it is very bright - when the USA will be boiling behind closed borders, folks will gladly work with EEC and Japan.

**DP**: What is their stated concern? That visiting professionals will take jobs away from people here?

**ZT**: Yes.. that it can create “unfair competition” and that a “dishonest employer can take advantage of the foreigner”... I would not call it [DoL’s concern] stated - because no DoL official has written it to me, but that is my understanding of what is going on.

**DP**: In what ways have DoL officials hindered Lewis’ efforts?

*(continued on page 26)*

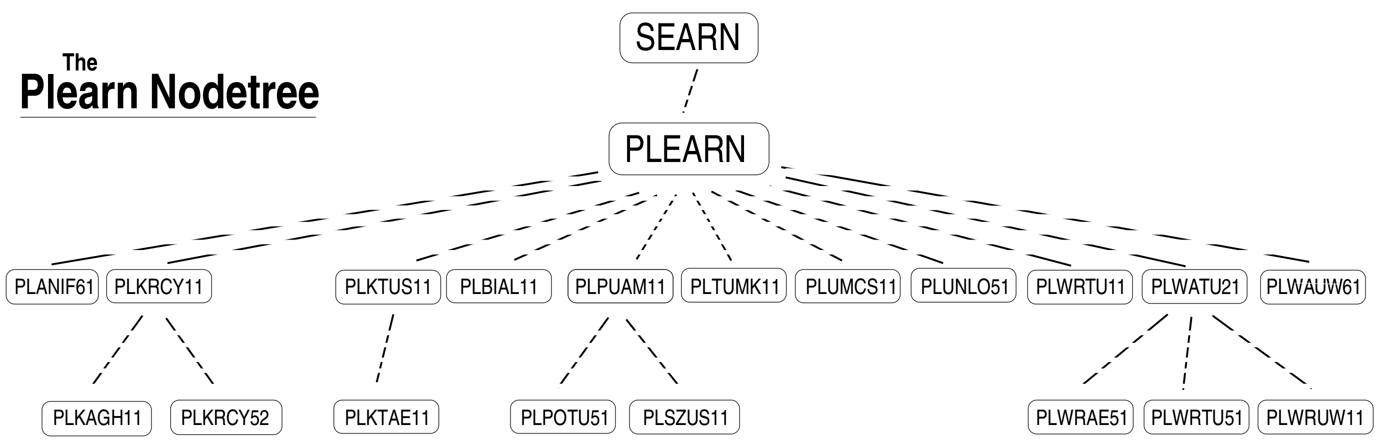
# POLAND *Electronic Contacts*

***1 July 1993*** updated by Rafal Maszkowski and Marek Zielinski

## EARN/BITNET *nodes*

*CITY* NODE, status, **Institution**, MACHINE, Operating System, Internet address, *Contact person*

The
**Plearn Nodetree**




*BIALYSTOK*

PLBIAL11 a **Computation Centre of Bialystok Academic Community at the Bialystok Technical University** BASF 7/38 VM
*Alicja Modrzejewska op. 885 224-111 x630* <amodrze@plbial11>

*KATOWICE*

PLKTAE11 a **Academy of Economics, Computing Center** IBM4341 VM
*Henryk Orzel op. 832 588-606* <orzel@plktae11>

PLKTUS11 a **Silesian University, Computing Center** IBM4341 VM
*Kasia Stephan, adm. 832 588-211 w.623* <u065@plktus11>
*Krzysztof Kurczynski, op. 832 588-211 w.623* <u017@plktus11>

*KRAKOW*

PLKRCY11 a **Academic Computing Center "Cyfronet"** IBM4381
*Witek Witkowski, adm. 12 341-124* <yawitkow@plkrcy11>
*Zdzislaw Pliszka op. 12 341-025* <ykpliszka@plkrcy11>
On Internet as earn.cyf-kr.edu.pl [148.81.18.5]

PLKAGH11 a **University of Mining & Metallurgy, Comp. Center** IBM4361 VM
*Janusz Pilch adm. 12 338-100* <pilch@plkagh11>
*Tomek Polonczyk adm. 12 338-100 w.2885* <polon@plkagh11>
Adressable also as plagh11.uci.agh.adu.pl

### *LODZ*

PLUNLO51 a **University of Lodz** VAX3300 VMS
*Marian Bieniecki, adm. 42 784-176* <mbieniec@plunlo51>
On Internet as krysia.uni.lod.edu.pl [193.59.1.1]

### *LUBLIN*

PLUMCS11 a **Uniwersytet Marii Curie Sklodowskiej** IBM4381 VM
*Andrzej Resztak adm. 81 376-240* <resztak@plumcs11>
*Jarek Korzen op. 81 376-192* <korzen@plumcs11>
On Internet as plumcs11.umcs.lublin.pl [192.147.37.100]

### *POZNAN*

PLPUAM11 a **Adam Mickiewicz University, Informatics Center** IBM4381
*Andrzej Szymczak op. 061 662-492* <as11@plpuam11>
*Dariusz Smoczynski adm. 061 662-492* <ds11@plpuam11>

PLPOTU51 a **Poznan Polytechnic, Computing Center** VAX VMS
*R. Jezierski op. 061 782-726* <jezierski@plpotu51>
*Z. Borowiec adm. 061 782-726* <njeman@plpotu51>

### *SZCZECIN*

PLSZUS11 a **University of Szczecin, Informatics Center** IBM4341 VM
*J. Kolasinski op. 91 788-65* <kolasinsk@plszus11>
*Irena Winiarska adm. 91 788-65* <winiarsk@plszus11>

### *TORUN*

PLTUMK11 a **Uniwersytet Mikolaja Kopernika (Nicolaus Copernicus University), Academic Computing Center** IBM4381 VM
*Zbigniew Szewczak adm. 856 260-17 w.70* <szewczak@pltumk11>
On Internet as vm.cc.torun.edu.pl [159.75.1.15]

### *WARSZAWA*

PLANIF61 a **Polish Academy of Sciences, Institute of Physics** SUN 4/75 Sparc-2
*Piotr Bialokoziewicz 22 437-001 w.259* <bialo@planif61>

PLWATU21 a **Warsaw Technical University, Informatics Center** IBM4341
*Janusz Pelc op. 22 217-1512* <ted@plwatu21>
*Tadeusz Englert adm. 22 217-1512* <ted@plwatu21>

PLEARN a **Warsaw University, Informatics Center** IBM3090 VM
***Central Polish EARN node***
*Andrzej Smereczynski adm. 22 200-381* <oek05@plearn>
*Tadeusz Wegrzynowski dir. 22 263-345* <oak01@plearn>
*Danuta Burzynska postmaster* <danutab@plearn>

*Malgosia Grabowska postmaster* <ruda@plearn>
On Internet as plearn.edu.pl [148.81.18.1]

PLWAUW61 a **Warsaw University, Astronomical Observatory** SUN SparcStation SunOS
*Andrzej Udalski adm. 22 294-011* <udalski@plwauw61>
*Michal Szymanski op. 22 294-011* <msz@plwauw61>

*WROCLAW*

PLWRAE51 a **Wroclaw Academy of Economy, Computer Center** K-1840 (VAX)
*Stefan Zajac dir. 71 681-155 w.486* <stefzaj@plwrae51>
*Wieslaw Borowski adm.* <borowski@plwrae51>

PLWRUW11 a **Wroclaw University, Informatics Institute** IBM4341
*Bogdan Bromirski adm. 71 402-300* <mst-adm@plwruw11>
*Marek Stajszczyk op. 71 255-081 w.77* <mst@plwruw11>

PLWRTU11 a **Wroclaw Technical University, Informatics Center** IBM4341 VM
*Jarek Kurowski adm. 71 211-018* <jk1@plwrtu11>
*Jozef Janyszek op. 71 211-018* <joejancc@plwrtu11>
On Internet as plwrtu11.ci-pwr.wroc.edu.pl [156.17.1.11]

PLWRTU51 0 **Wroclaw Technical University, Informatics Center** VAX VMS

- ***Node status:*** a = *active,* 0 = *non-active.* ● ***Contact persons****: adm. = node administrator op. = node operator.*
- ***I****n all EARN nodes there is a postmaster address* POSTMAST@NODE *where one can direct inquiries.*

# Internet *addresses*

***The list*** *below is designed as an aid in locating E-mail contacts, listing institutions with Internet connections, names and addresses of contact persons. The electronic address can be common for the whole domain (marked* ***M*** *by the domain name) or one has to send mail to a particular machine. The publicly accesible machines (anonymous ftp, telnet, Bulletin Boards) are listed separately at the end of the "Contacts" section, together with Earn services. The number of hosts in the* pl *domain exceds 3000 now. Some 600 (or 20%) hosts answer ping. This is a rough estimate of a number of machines that are always active. The world average is 28%.*

***The Internet domain names*** *are organized in a tree. The 'fully qualified domain name' is obtained by travelling along the branches of the tree, from the end-point back to the root. For example <halina> with the IP address 153.19.1.254 is known to the world as <halina.univ.gda.pl>. Handles refer to the domain tree* *(see p. 18)**. Unlike the Plearn connection scheme above, the Internet Domain map does not indicate direct connections between nodes, but only a logical name construction scheme.*

*CITY*

**Institution,Institution**, domain,( **HANDLE** ), *Contact person*, name

*BIALYSTOK*

## Bialystok Technical University

( **BI011** ) Domain: pb.bialystok.pl
<root@gaj.pb.bialystok.pl>

*BYDGOSZCZ*

## Academy of Technology and Agriculture,

**Institute of Mathematics and Physics**
*Janusz Szykowny* <atrb00@pltumk11.bitnet>
*Krzysztof Sobiecki* <krzychu@gopher.atr.byd.edu.pl>
*Zbyszek Szewczak* <zssz@cc.ncu.edu.pl>
( **BY01** ) Domain: atr.byd.edu.pl
Mail: gopher.atr.by.edu.pl - i86 KA9Q/MS-DOS

## The **Polish Internet** Domain

- pl
  - com
    - atm ( WA01 )
    - nask ( WA33 )
  - gov
    - cup ( WA26 )
    - cyf ( OT01 )
    - icso ( PO07 )
    - impan ( WA28 )
    - ippt ( WA03 )
    - kbn ( WA31 )
    - nencki ( WA27 )
    - poz ( PO01 )
  - org
    - nask ( WA02 )
  - bialystok
    - pb ( BI01 )
  - gda
    - pg ( GD02 )
    - univ ( GD01 )
  - kielce
    - tu ( KI01 )
  - lublin (LU05 )
    - umcs ( LU01 )
    - pol ( LU02 )
    - ar ( LU03 )
    - kul ( LU04 )
  - pwr ( WR01 )
  - waw
    - ite ( WA34 )
    - pm ( WA36 )
  - edu
    - agh ( KR29 )
      - biblio ( KR27 )
      - ceramika ( KR22 )
      - ftj ( KR08 )
      - geol ( KR23 )
      - ia ( KR09 )
      - ics ( KR06 )
      - icslab ( KR17 )
      - icsr ( KR18 )
      - ipbk ( KR24 )
      - kme ( KR21)
      - kt ( KR20 )
      - ktipm ( KR19 )
      - metal ( KR10 )
      - uci ( KR07 )
      - zet ( KR26 )
      - zgp ( KR25 )
    - astrouw ( WA09 )
    - byd
      - amb ( BY02 )
      - atr ( BY01 )
      - wsp ( BY03 )
    - camk ( WA06 )
    - cyf-kr ( KR01 )
    - fuw ( WA07 )
    - gliwice ( GL01 )
      - eto ( GL02 )
      - iinf ( GL03 )
      - iele ( GL04 )
    - ichf ( WA04 )
    - ifj ( KR04 )
    - ifpan ( WA05 )
    - lod ( LO04 )
      - am ( LO03 )
      - p ( LO01 )
      - u ( LO02 )
    - mimuw ( WA10 )
      - appli ( WA19 )
    - ncu ( TO01 )
    - pk ( KR12 )
    - poz ( PO01 )
      - ae ( PO06 )
      - ieittp ( PO03 )
      - ikwn ( PO05 )
      - oinov ( PO02 )
      - pol ( PO02 )
      - tu ( PO04 )
      - efp ( PO08 )
    - pw
      - ca ( WA20 )
      - ch ( WA21 )
      - coi ( WA11 )
      - gik ( WA22 )
      - ia ( WA12 )
      - iem ( WA37 )
      - if ( WA16 )
      - ii ( WA15 )
      - il ( WA17 )
      - imio ( WA25 )
      - ipe ( WA14 )
      - ire ( WA23 )
      - it ( WA18 )
      - meil ( WA24 )
      - tele ( WA13 )
    - torun
      - astri ( TO05 )
      - astro ( TO06 )
      - bu ( TO07 )
      - cc ( TO03 )
      - mat ( TO02 )
      - phys ( TO04 )
    - tup ( PO01 )
    - uj ( KR28 )
      - bj ( KR14 )
      - ch ( KR15 )
      - if ( KR02 )
      - ii ( KR03 )
      - im ( KR13 )
      - oa ( KR11 )
    - us ( KR28 )
      - cto ( KA01 )
      - ich ( KA02 )
    - uw ( WA08 )
      - biogeo ( WA30 )
      - chem ( WA32 )
      - psych ( WA29 )
    - wroc
      - ch-pwr ( WR02 )
      - ci-pwr ( WR03 )
      - ict-pwr ( WR01 )
      - impwr ( WR04 )
      - immt-pwr ( WR05 )
      - ists-pwr ( WR06 )
      - ita-pwr ( WR07 )
      - ite-pwr ( WR08 )

## Medical Academy
*Zbigniew Piszcz* <amb01@pltumk11.bitnet>
( **BY02** ) Domain: amb.byd.edu.pl

## Pedagogical University
*Slawomir Grondkowski* <wspb06@pltumk11.bitnet>
( **BY03** ) Domain: wsp.byd.edu.pl

*GDANSK*

## Gdansk University
*Marek Karkowski* <marek@halina.univ.gda.pl>
( **GD01** ) Domain: univ.gda.pl, gda.pl
Mail: halina.univ.gda.pl

## Technical University Of Gdansk
*Witold Jurczyk* <wjur@sunrise.pg.gda.pl>
( **GD02** ) Domain: pg.gda.p
Mail: sunrise.pg.gda.pl

*GLIWICE*

## Silesian Technical University
<postmaster@gleto2.gliwice.edu.pl>
( **GL01** ) Domain: gliwice.edu.pl
Mail: gleto2.gliwice.pl, gleto4.gliwice.edu.pl

**Computer Center**
Domain: eto.gliwice.edu.pl

**Informatics Institute**
Domain: iinf.gliwice.edu.pl

**Institute of Electronics**
*Witold Baran* <wiciu@boss.iele.gliwice.edu.pl>
( **GL04 )** Domain: iele.gliwice.edu.pl

*KATOWICE*

## Silesian University
*Maciek Uhlig* <muhlig@usctoux1.cto.us.edu.pl>
( **KA03** ) Domain: us.edu.pl

**Computer Center**
( **KA01** ) Domain: cto.us.edu.pl
Mail: apollo.cto.us.edu.pl, atena.cto.us.edu.pl, herkules.cto.us.edu.pl, hermes.cto.us.edu.pl, mars.cto.us.edu.pl, zeus.cto.us.edu.pl

**Institute of Chemistry**
( **KA02** ) Domain: ich.us.edu.pl
Mail: tc.ich.us.edu.pl

*KIELCE*

## Technical University
( **KI01** ) Domain: tu.kielce.pl

**Institute of Chemistry**
( **KR15** ) Domain: ch.uj.edu.pl ***M***

*KRAKOW*

## Academic Computer Center Cyfronet-Cracow
*Jerzy Pawlus* <yppawlus@cyf-kr.edu.pl>
*Krzysztof Gawel* <yskgawel@cyf-kr.edu.pl>
*Adam Krzyzek* <ypkrzyze@cyf-kr.edu.pl>
( **KR01** ) Domain: cyf-kr.edu.pl ***M***
earn.cyf- kr.edu.pl = PLKRCY11.BITNET

## Jagiellonian University
*Roman Markowski* <ufmarkow@if.uj.edu.pl>
( **KR28** ) Domain: uj.edu.pl

**Institute of Physics**
*Roman Markowski* <ufmarkow@if.uj.edu.pl>
( **KR02** ) Domain: if.uj.edu.pl ***M***
Mail: ztc386a.if.uj.edu.pl, trisc.if.uj.edu.pl - Teoretical Phys.
pkpf.if.uj.edu.pl, agnes.if.uj.edu.pl - General Physics
zfs.if.uj.edu.pl - Solid State Physics

**Institute of Computer Science**
<postmaster@ii.uj.edu.pl>
( **KR03** ) Domain: ii.uj.edu.pl ***M***

**Institute of Mathematics**
*Marek Slocinski* <slocinsk@im.uj.edu.pl>
( **KR13** ) Domain: im.uj.edu.pl

**Astronomical Observatory**
( **KR11** ) Domain: oa.uj.edu.pl

**Institute of Chemistry**
( **KR15** ) Domain: ch.uj.edu.pl ***M***

**Jagellonian Library**
( **KR14** ) Domain: bj.uj.edu.pl ***M***

### Nuclear Physics Institute
*Andrzej Sobala* <sobala@vsk01.ifj.edu.pl>
( **KR04** ) Domain: ifj.edu.pl
Mail: chopin.ifj.edu.pl, kuba.ifj.edu.pl, vsk01.ifj.edu.pl to vsk07.ifj.edu.pl, vsb02.ifj.edu.pl to vsb04.ifj.edu.pl

## University of Mining and Metallurgy
( **KR29** ) Domain: agh.edu.pl
*Szymon Sokol* <szymon@uci.agh.edu.pl>

### Institute of Computer Science
*Andrzej Krol* <genda@lily.ics.agh.edu.pl>
*Jacek Niwicki* <niwi@val.icsr.agh.edu.pl>
( **KR06** ) Domain: ics.agh.edu.pl
( **KR17** ) Domain: icslab.agh.edu.pl
( **KR18** ) Domain: icsr.agh.edu.pl
Mail: crocus.ics.agh.edu.pl, daisy.ics.agh.edu.pl, lily.ics.agh.edu.pl, rose.ics.agh.edu.pl, tulip.ics.agh.edu.pl

### University Computer Center
*Szymon Sokol* <szymon@uci.agh.edu.pl>
( **KR07** ) Domain: uci.agh.edu.pl ***M***
plkagh11.uci.agh.edu.pl = PLKAGH11.BITNET, mail only

### Faculty of Physics and Nuclear Techiques
*Marek Ciechanowski* <marek@ftj.agh.edu.pl>
( **KR08** ) Domain: ftj.agh.edu.pl ***M***

### Automatics Institute
*Wojciech Chmiel* <wch@earth.ia.agh.edu.pl>
( **KR09** ) Domain: ia.agh.edu.pl
Mail: earth.ia.agh.edu.pl, biocyb.ia.agh.edu.pl

### Metalurgy Institute
*Krzysztof Wilk* <wilk@metal.agh.edu.pl>
( **KR10** ) Domain: metal.agh.edu.pl ***M***

### Department of the Theory of Metalurgic Process Engineering
*Marcin Zembura* <marcin@rat.ktipm.agh.edu.pl>
( **KR19** ) Domain: ktipm.agh.edu.pl

### Telecommunication Department
Miroslaw Gajda <gajda@saturn.kt.agh.edu.pl>
( **KR20** ) Domain: kt.agh.edu.pl

### Department of Electrical Machines
*Grzegorz Krawczyk* <krawczyk@uci.agh.edu.pl>
( **KR21** ) Domain: kme.agh.edu.pl

### Faculty of Materials Engineering and Ceramics
*Stanislaw Komornicki* <komrnik@uci.agh.edu.pl>
( **KR22** ) Domain: ceramika.agh.edu.pl

### Faculty of Geology, Geophysics and Environment
*Tomasz Ulatowski* <tom@slc1.geol.agh.edu.pl>
( **KR23** ) Domain: geol.agh.edu.pl

### Institute of Design and Construction of Mines
*Jan Jasiewicz*
( **KR24** ) Domain: ipbk.agh.edu.pl

### Institute of Underground Mining
*Marian Branny*
( **KR25** ) Domain: zgp.agh.edu.pl

### Elektrotechnics Institute
*Maciej Ogorzalek* <maciej@uci.agh.edu.pl>
( **KR26** ) Domain: zet.agh.edu.pl

### Central Library
*Ewa Lankosz* <lankosz@uci.agh.edu.pl>
( **KR27** ) Domain: biblio.agh.edu.pl

## Kracow Technical University
<hostmaster@cyf-kr.edu.pl>
( **KR12** ) Domain: pk.edu.pl

# *LODZ*
*Piotr Wilk* <piotrwi@zsku.p.lod.edu.pl>
( **LO04** ) Domain: lod.edu.pl

## Lodz Technical University

### Institute of Computer Networks
*Piotr Wilk* <piotrwi@zsku.p.lod.edu.pl>
( **LO01** ) Domain: p.lod.edu.pl
Mail: zsku.p.lod.edu.pl

## University of Lodz
<miller@zpk.u.lod.edu.pl>
( **LO02** ) Domain: u.lod.edu.pl
krysia.uni.lod.edu.pl = PLUNLO51.BITNET

### Department of Crystallography
*Piotr Sobczynski* <psobczyn@plunlo51.bitnet>

### Department of Solid State Physics
*Marian Bieniecki* <mbieniec@plunlo51.bitnet>

**Cosmic Radiation Institute**
<miller@zpk.u.lod.edu.pl>
Mail: zpk.u.lod.edu.pl

## Medical Academy
<jkkjasio@psk2.am.lod.edu.pl>
( **LO03** ) Domain: am.lod.edu.pl

*LUBLIN*

<postmaster@golem.lublin.pl>
( **LU04** ) Domain: lublin.pl

## Maria Curie Sklodowska University
*Piotr Rozmej* <rozmej@plumcs11>
( **LU01** ) Domain: umcs.lublin.pl
Mail: zio1u.umcs.lublin.pl
plumcs11.umcs.lublin.pl = PLUMCS11.BITNET

## Lublin Technical University
( **LU02** ) Domain: pol.lublin.pl

## Academy of Agriculture
( **LU03** ) Domain: ar.lublin.pl

## Catholic University of Lublin
**( LU05 ) Domain: kul.lublin.pl**

*OTWOCK - SWIERK*

## Institute of Atomic Energy

**Computer Centre Cyfronet**
<office@cyf.gov.pl>, <cyfronet@plearn.bitnet>
( **OT01** ) Domain cyf.gov.pl ***M***

*POZNAN*

## Poznan Technical University
*Mikolaj Lubiatowski* <nick@oippuxv.poz.edu.pl>
( **PO01** ) Domain: poz.edu.pl, tup.edu.pl, poz.gov.pl
Mail: oippuxv.poz.edu.pl

**Faculty of Electrical Engineering, Department of Control, Robotics and Computer Science**
*Krzysztof Kosarzycki* <krzys@oippuxv.poz.edu.pl>
( **PO02** ) Domain: oinov.poz.edu.pl, pol.poz.edu.pl

**Faculty of Electrical Engineering,
Institute of Electronics & Communications**
*Rafal Krenz* <rkrenz@cygnus.ieitpp.poz.edu.pl>
( **PO03** ) Domain: ieitpp.poz.edu.pl
Mail: cygnus.ieitpp.poz.edu.pl

**Faculty of Electrical Engineering, Institute of Informatics**
*Ryszard Jezierski* <chief@plpotu51>
( **PO04** ) Domain: tu.poz.edu.pl
Mail: perseus.tu.poz.edu.pl

**Institute of Natural Fibres**
*Dobroslawa Gucia* <bointe@oippuxv.poz.edu.pl>
( **PO05** ) Domain: ikwn.poz.gov.pl

## University of Economics
*Michal Walczak* <walczak@novci1.ae.poz.edu.pl>
( **PO06** ) Domain: ae.poz.edu.pl
Mail: uci1.ae.poz.edu.pl, novci1.ae.poz.edu.pl, nvlig.ae.poz.edu.pl

## Ministry of Industry

**Institute of Heavy Organic Synthesis**
( **PO07** ) Domain: icso.gov.pl
Mail: icm2.icso.gov.pl

## The Franco-Polish School of New Information and Communications Technologies
*Jan Glinski* <rector@efp.poz.edu.pl>
( **PO08** ) Domain: efp.poz.edu.pl ***M***

*TORUN*

## Nicolaus Copernicus University
*Zbyszek Szewczak* <zssz@cc.ncu.edu.pl>
*Tomasz Wolniewicz* <twoln@mat.torun.edu.pl>
( **TO01** ) Domain: ncu.edu.pl, torun.edu.pl
Mail: cc.ncu.edu.pl

**Institute of Astronomy**
*Jerzy Borkowski* <jubork@mat.torun.edu.pl>
( **TO05** ) Domain: astri.torun.edu.pl ***M***

**Computer Center**
*Maja Gorecka* <MGorecka@cc.torun.edu.pl>
( **TO03** ) Domain cc.torun.edu.pl ***M***
vm.cc.torun.edu.pl l = PLTUMK11.BITNET

**Institute of Mathematics**
*Tomasz Wolniewicz* <twoln@mat.torun.edu.pl>
( **TO02** ) Domain: mat.torun.edu.pl ***M***

**Institute of Physics**
*Jacek Kobus* <jkob@risc.phys.torun.edu.pl>
*Darek Dyl* <dd@risc.phys.torun.edu.pl>
( **TO04** ) Domain: phys.torun.edu.pl
Mail: risc.phys.torun.edu.pl

**Astronomical Observatories of NCU: Observatory of the Institute of Astronomy Torun Radio Astronomy Observatory**
*Andrzej Marecki* <amr@astro.torun.edu.pl>
*Maciej Kaminski* <mka@astro.torun.edu.pl>
( **TO06** ) Domain: astro.torun.edu.pl ***M***

**University Library**
*Andrzej Kaczor* <kaczor@pltumk11.bitnet>
*Marek Czubenko* <czubenko@pltumk11.bitnet>
( **TO07** ) Domain: bu.torun.edu.pl

*WARSAW*

## Advanced Technology Manufacturing Inc., ( ATM )

*Leszek Zieniuk* <leszek@atm.com.pl>
( **WA01** ) Domain: atm.com.pl ***M***

## Research & Academic Computer Network ( NASK ), Foundation administering the National Network.

*Tomasz Hofmokl* <fdl50@plearn> dir.
*Irek Neska* <irek@nask.org.pl> op.
*Janusz Motoszko* <jasio@nask.org.pl> op.
*Andrzej Zienkiewicz* <osk03@plearn.bitnet>
*Wiktor Krzanowski* <wiktor@frodo.nask.org.pl>
( **WA02** ) Domain: nask.org.pl ***M***
gandalf.nask.org.pl has a protocol converter to access other services and networks: EARN, Decnet via VAX. Login and password: guest. In EARN you can reach plbial11 and pltumk11.

## NASK Service

( **WA33** ) Domain: nask.com.pl ***M***

## Polish Academy of Sciences

**Institute of Fundamental Technological Research**
*Marek Pokulniewicz* <mpokul@ippt.gov.pl>
( **WA03** ) Domain: ippt.gov.pl ***M***

**Institute of Physical Chemistry**
( **WA04** ) Domain: ichf.edu.pl
Mail: charon.ichf.edu.pl

**Institute of Mathematics**
( **WA28** ) Domain: impan.gov.pl ***M***

**Institute of Physics**
*Jacek Madajczyk* <jlmad@beta1.ifpan.edu.pl>
*Mariusz Olko* <molko@beta1.ifpan.edu.pl>
( **WA05** ) Domain: ifpan.edu.pl
Mail: sigma.ifpan.edu.pl. beta1.ifpan.edu.pl

**Nencki Institute of Experimental Biology**
<msikora@nencki.gov.pl>
( **WA27** ) Domain: nencki.gov.pl ***M***

**Nicolaus Copernicus Astronomical Center**
*Maciek Kozlowski* <mko@camk.edu.pl>
*Zbyszek Loska* <zbylo@camk.edu.pl>
*Zbyszek Markiewicz* <zbyszek@camk.edu.pl>
*Andrzej Kaczorowski* <andrew@camk.edu.pl>
( **WA06** ) Domain: camk.edu.pl ***M***

## Warsaw University

**Institute of Physics**
*Rafal Pietrak* <rafaup@plearn>
*Michal Jankowski* <michalj@fuw.edu.pl>
*Marcin Gromisz* <gromisz@fuw.edu.pl>
*Jacek Blocki* <blocki@hozavx.fuw.edu.pl>
( **WA08** ) Domain: fuw.edu.pl ***M***
Mail: hozavax.fuw.edu - VAX-4000/VMS, ibmna35.fuw.edu - IBM- RISC/6000 Aix, ccfs1.fuw.edu - Sparc Station, thfs1.fuw.edu - Sparc, zfja-gate.fuw.edu.pl - Nuclear Physics Institute

**Informatics Center**
*Irek Neska* <irek@camk.uw.edu.pl>
*Janusz Motoszko* <jasio@camk.uw.edu.pl>
( **WA07** ) Domain: camk.uw.edu.pl ***M***
Plearn.edu.pl = PLEARN.BITNET.

**Astronomical Observatory**
*Andrzej Udalski* <udalski@sirius.astrouw.edu.pl>
*Michal Szymanski* <msz@alkor.astrouw.edu.pl>
( **WA09** ) Domain: astrouw.edu.pl
Mail: sirius.astrouw.edu.pl, orion.astrouw.edu.pl

**Mathematics, Informatics, Mechanics departments.**
*Staszek Kurpiewski* <staszek@mimuw.edu.pl>
*Jerzy Wrobel* <jurek@mimuw.edu.pl>
( **WA10** ) Domain: mimuw.edu.pl ***M***
Mail to DECNET: <user>%<host>.decnet.edu.pl@mimuw.edu.pl
<host> may be: ciuwtr; cyfrtr; ghost, iiuw1 (MIMUW); gleto1, gleto2 (Gliwice); glibib; krak11; krak8k; krakow; krysia; lodz, lodz1 (Lodz Tech. Univ.); mainvx; mv2000; mv3100; mvii;

mviic; nask1 (CIUW Warsaw); odyn (UAM Poznan); pozn2v; pozn3v; pwvax1, pwvax2 (Warsaw Tech. Univ.); ucirtr; uwrtr; wrocv. Contact: system or operator, e.g. system%gleto2.decnet.edu.pl@mimuw.edu.pl. Mail from DECNET to Internet: ghost::"user@internet.host"

**Institute of Applied Mathematics**
<wojsyl@appli.mimuw.edu.pl>
( **WA19** ) Domain, mail: appli.mimuw.edu.pl

**Biophysics and Biochemistry Departments**
*Antek Laczkowski* <antek@asp.biogeo.uw.edu.pl>
( **WA30** ) Domain: biogeo.uw.edu.pl
Mail: asp.biogeo.uw.edu.pl

**Department of Psychology**
<supervisor@psych2.psych.uw.edu.pl>
( **WA29** ) Domain: psych.uw.edu.pl
Mail: psych1.psych.uw.edu.pl, psych2.psych.uw.edu.pl

**Department of Chemistry**
<lukomski@chem.uw.edu.pl>
( **WA32** ) Domain: chem.uw.edu.pl ***M***

## Warsaw Technical University

*Roman Adamiec* <rha@coi.pw.edu.pl>
Domain: pw.edu.pl

**Central Administration**
( **WA20** ) Domain: ca.pw.edu.pl

**Faculty of Chemistry**
( **WA21** ) Domain: ch.pw.edu.pl

**Computing Center**
*Roman Adamiec* <rha@coi.pw.edu.pl>
*Andrzej Szymanski* <as@coi.pw.edu.pl>
( **WA11** ) Domain: coi.pw.edu.pl ***M***

**Institute of Automatics, Fac. of Electronics**
*Jerzy Sobczyk* <jurek@ia.pw.edu.pl>
( **WA12** ) Domain: ia.pw.edu.pl ***M***

**Physics Institute, FTiMS**
( **WA16** ) Domain: if.pw.edu.pl

**Informatics Institute**
( **WA15** ) Domain: ii.pw.edu.pl ***M***

**Faculty of Civil Engineering**
( **WA17** ) Domain: il.pw.edu.pl

**Instityte of Micro- and Optoelectronics, Fac. of Electronics**
( **WA25** ) Domain: imio.pw.edu.pl ***M***

**Institute of Basic Electronics**
( **WA14** ) Domain: ipe.pw.edu.pl ***M***

**Institute of Radioelectronics, Fac. of Electronics**
( **WA23** ) Domain: ire.pw.edu.pl ***M***

**Transportation Institute**
( **WA18** ) Domain: it.pw.edu.pl

**Faculty of Geodesy and Cartography**
( **WA22** ) Domain: gik.pw.edu.pl

**Faculty of Power and Aeronautical Eng.**
( **WA24** ) Domain: meil.pw.edu.pl

**Institute of Telecommunication, Fac. of Electronics**
*Leszek Wronski* <lbw@tele.pw.edu.pl>
( **WA13** ) Domain: tele.pw.edu.pl ***M***

**Institute of Electron Technology**
*Wojciech Lewandowski* <stasiek@opto.ite.waw.pl>
( **WA34** ) Domain: ite.waw.pl
Mail: opto.ite.waw.pl vax5.ite.waw.pl

**The Palace of Youth**
<postmaster@pm.waw.pl>
( **WA36** ) Domain: pm.waw.pl ***M***

## Central Planning Office

**Data Processing Center**
( **WA26** ) Domain: cup.gov.pl
Mail: ci1.cup.gov.pl

## Commitee for Scientific Research

( **WA31** ) Domain: kbn.gov.pl

*WROCLAW*

## Wroclaw Technical University

**Institute of Technical Cybernetics**
*Witold Paluszynski* <witold@ict.pwr.pl>
( **WR01** ) Domain: ict-pwr.wroc.edu.pl
Mail: ict.pwr.pl (mail only)

**Computing Centre**

( **WR03** ) Domain: ci-pwr.wroc.edu.pl

*Jozef Janyszek* <Janyszek@sun2.ci-pwr.wroc.edu.pl>
*Tomasz Trubisz* <TTrubisz@sun2.ci-pwr.wroc.edu.pl>
*Jerzy Pankiewicz* <Pankiewicz@mvax.ci-pwr.wroc.edu.pl>

( **WR03** ) Domain: ci-pwr.wroc.edu.pl

plwrtu11.ci-pwr.wroc.edu.pl = PLWRTU11.BITNET

**Faculty of Chemistry**

*Krzysztof Rohleder* <kjr@kchf-1.ch-pwr.wroc.edu.pl>

( **WR02** ) Domain: ch-pwr.wroc.edu.pl

Mail: kchf-1.ch-pwr.wroc.edu.pl, kchk-1.ch-pwr.wroc.edu.pl

**Mathematics Institute**

*Krzysztof Szajowski* <Szajow@math.impwr.wroc.edu.pl>

( **WR04** ) Domain: impwr.wroc.edu.pl

**Institute of Materials Science and Technical Mechanics Institute of Materials Science and Technical Mechanics**

*Wojciech Myszka* <postmaster@ldhpux.immt-pwr.wroc.edu.pl>

( **WR05** ) Domain: immt-pwr.wroc.edu.pl

Mail: ldhpux.immt-pwr.wroc.edu.pl, ldscoux.immt-pwr.wroc.edu.pl

**Institute of Control and Systems Engineering**

<mszr@i17unixB.ists-pwr.wroc.edu.pl>

( **WR06** ) Domain: ists-pwr.wroc.edu.pl

Mail: i17unixB.ists-pwr.wroc.edu.pl

**Institute of Telecommunication and Acoustics**

*Zygmunt Krawczyk* <root@hp750ts.ita-pwr.wroc.edu.pl>

( **WR07** ) Domain: ita-pwr.wroc.edu.pl

**Institute of Electronic Technology**

*Zbigniew Helak* <root@ite-pwr.wroc.edu.pl>

( **WR08** ) Domain: ite-pwr.wroc.edu.p

### Engineering College in Zielona Gora

*Waldemar Wozniak* <wsizi@mvax.ci-pwr.wroc.edu.pl>

### Branch of T.U. Wroclaw in Jelenia Gora

*Maciej Pawlowski* <Pawlowski@mvax.ci-pwr.wroc.edu.pl>

## **Fidonet** addresses

| Fido Node | BBS Name | Location | Sysop | Phone | Domain address |
|---|---|---|---|---|---|
| 2:481/1 | SM-Net | Bydgoszcz | Mariusz Boronski | 48-52-411222 | f1.n481.z2.fidonet.org |
| 2:481/3 | POLSUNG | Bydgoszcz | Dariusz Bagnucki | 48-52-229402 | f3.n481.z2.fidonet.org |
| 2:481/4 | ATR BBS | Bydgoszcz | Piotr Michal Kruza | 48-52-438629 | f4.n481.z2.fidonet.org |
| 2:480/5 | BG-EDU BBS | Bydgoszcz | Pawel Krause | 48-52-415810 | f5.n480.z2.fidonet.org |
| 2:481/2 | Technical Univ. | Gdansk | Mariusz Matuszek | 48-58-472109 | f2.n481.z2.fidonet.org |
| 2:480/25 | PiK'us BBS | Gliwice | Wojciech Apel | 48-32-374848 | f24.n480.z2.fidonet.org |
| 2:486/7 | NExter BBS | Katowice | Klaudiusz Staniek | 48-32-586007 | f2.n486.z2.fidonet.org |
| 2:480/34 | The Verbum BBS | Katowice | Marek Gorny | 48-32-586903 | f34.n480.z2.fidonet.org |
| 2:486/1 | Mikrokomputery SA | Krakow | Maciej Piotrowski | 48-12-218777 | f1.n486.z2.fidonet.org |
| 2:486/2 | Mikrokomputery SA | Krakow | Maciej Piotrowski | 48-12-217210 | f2.n486.z2.fidonet.org |
| 2:486/4 | Peter's BBS | Krakow | Piotr Walczak | 48-12-362222 | f4.n486.z2.fidonet.org |
| 2:486/5 | BitART BBS | Krakow | Tomasz Polys | 48-12-335486 | f5.n486.z2.fidonet.org |
| 2:486/6 | QUMAK BBS | Krakow | Jacek Piotrowski | 48-12-216273 | f6.n486.z2.fidonet.org |
| 2:486/8 | COMEX BBS | Krakow | Marcin Gonet | 48-12-365054 | f8.n486.z2.fidonet.org |
| 2:480/11 | SNOOPY BBS | Lodz | Jan Waliszewski | 48-42-336573 | f11.n480.z2.fidonet.org |
| 2:480/6 | RBMeteo_BBS | Poznan | Jaroslaw Bernatowicz | 48-61-496107 | f6.n480.z2.fidonet.org |
| 2:480/3 | PlUUG | Warszawa | Andrzej Mazurkiewicz | 48-2-6415876 | f3.n480.z2.fidonet.org |
| 2:480/4 | MONTH BBS | Warszawa | Andrzej Bursztynski | 48-22-291578 | f4.n480.z2.fidonet.org |
| 2:480/7 | FTI BBS | Warszawa | Michal Szokolo | 48-2-6355904 | f7.n480.z2.fidonet.org |

| | | | | | |
|---|---|---|---|---|---|
| 2:480/10 | Home of PCQ | Warszawa | Jan Stozek | 48-22-410374 | f10.n480.z2.fidonet.org |
| 2:480/13 | Spectrum BBS | Warszawa | Tomasz Bursze | 48-22-256965 | f13.n480.z2.fidonet.org |
| 2:480/16 | USERS' BBS | Warszawa | Jacek Marczewski | 48-22-213224 | f16.n480.z2.fidonet.org |
| 2:480/19 | Bajtek BBS | Warszawa | Michal Szokolo | 48-2-6284594 | f19.n480.z2.fidonet.org |
| 2:480/21 | AKME BBS | Warszawa | Pawel Miesojedow | 48-22-315889 | f21.n480.z2.fidonet.org |
| 2:480/23 | Galaxy BBS | Warszawa | Jarek Wojcik | 48-2-6431010 | f23.n480.z2.fidonet.org |
| 2:480/24 | G.B.L. Medlink | Warszawa | Michal Szokolo | 48-22-497632 | f24.n480.z2.fidonet.org |
| 2:480/30 | IMPERIAL | Warszawa | Krzysztof Mlynarski | 48-22-176658 | f30.n480.z2.fidonet.org |
| 2:480/31 | OPEN_THE_SKY #1 | Warszawa | Andrzej Bacinski | 48-22-250263 | f31.n480.z2.fidonet.org |
| 2:480/32 | Acces BBS | Warszawa | Darek Pruchniak | 48-22-580417 | f32.n480.z2.fidonet.org |
| 2:480/33 | Home of AMiga | Warszawa | Rafal Wiosna | 48-22-339649 | f33.n480.z2.fidonet.org |
| 2:480/35 | Post Box No 1 BBS | Warszawa | Tomasz Kepinski | 48-22-424599 | f35.n480.z2.fidonet.org |
| 2:480/36 | ZWK@LAB_BBS | Warszawa | Zbigniew W.Kaminski | 48-22-465692 | f36.n480.z2.fidonet.org |
| 2:480/37 | Time BBS node 1 | Warszawa | Sebastian Streich | 48-2-6796457 | f37.n480.z2.fidonet.org |
| 2:480/38 | Opus BBS | Warszawa | Robert Trzeciak | 48-22-188465 | f38.n480.z2.fidonet.org |
| 2:480/39 | Rainbow BBS | Warszawa | Krzysztof Korczak | 48-22-198337 | f39.n480.z2.fidonet.org |
| 2:480/40 | The Pal. of Youth | Warszawa | Krzysztof Halasa | 48-22-203372 | f40.n480.z2.fidonet.org |
| 2:480/41 | Time BBS Node 2 | Warszawa | Radoslaw Labanowski | 48-22-188048 | f41.n480.z2.fidonet.org |
| 2:480/20 | Mehama BBS | Wroclaw | Ludwig Schuette | 48-71-218943 | f20.n480.z2.fidonet.org |

# Publicly accessible sites and servers

**Gophers** Select the Gopher from the world gopher list, or use your gopher client with one of the addresses below:

| | |
|---|---|
| galaxy.uci.agh.edu.pl | Univ. of Mining and Metallurgy, Cracow |
| gopher.ae.poz.edu.pl | Univ. of Economics, Poznan |
| gopher.atr.byd.edu.pl | Academy of Technology and Agriculture, Bydgoszcz |
| gopher.fuw.edu.pl | Warsaw Univ., Physics Dept. |
| gopher.ia.pw.edu.pl | Warsaw Univ. of Technol., Inst. of Automatic Control |
| gopher.torun.edu.pl | Nicolas Copernicus Univ., Inst. of Math., Torun |
| ldhpux.immt-pwr.wroc.edu.pl | Inst. of Mat. Sci. and Technical Mechanics |
| mvax.ci-pwr.wroc.edu.pl | Technical Univ. of Wroclaw |
| plearn.edu.pl | Warsaw University |
| plumcs11.umcs.lublin.pl | Maria Curie Sklodowska Univ. |
| usctoux1.cto.us.edu.pl | Silesian Univ., Katowice |
| vm.cc.torun.edu.pl | Nicolaus Copernicus Univ., Torun |
| volt.iem.pw.edu.pl | Warsaw Univ. of Technology. |

**Anonymous ftp sites** Login as anonymous, give your E-address as password

alfa.camk.edu.pl - Pigulki, GUST archive
camk.uw.edu.pl - also telnet.
cc.ncu.edu.pl - KA9Q, telnet
copernicus.astro.torun.edu.pl
frodo.nask.org.pl - main Internet router statistics, Pigulki
ftp.cc.torun.edu.pl - also telnet
ftp.fuw.edu.pl - Donosy archive
ftp.ia.pw.edu.pl - unix docs.
galaxy.uci.agh.edu.pl - Gopher, Pigulki, books, journals, humor, more.
jetta.if.uj.edu.pl - various programs and docs.
ldhpux.immt-pwr.wroc.edu.pl
merkury.atm.com.pl
sigma.im.uj.edu.pl
sirius.astrouw.edu.pl - Acta Astronomica archive
titan.coi.pw.edu.pl -
zfja-gate.fuw.edu.pl - PA0GRI
zsku.p.lod.edu.pl - Pigulki

**Listservs** Send E-mail with the word HELP in first line to obtain instructions.

listserv@ia.pw.edu.pl
listserv@if.uj.edu.pl
listserv@plearn.bitnet = listserv@plearn.edu.pl
listserv@plpotu51.bitnet
listserv@pltumk11.bitnet = listserv@vm.cc.torun.edu.pl
listserv@plwrtu11.bitnet = listserv@plwrtu11.ci-pwr.wroc.edu.pl
listserv@uci.agh.edu.pl

polip-request@camk.uw.edu.p l (send a polite request, it is not a machine)

Many thanks to Andrzej Smereczynski for updates on EARN, to Boguslaw M. Borowski, Krzysztof Halasa, Jozef Janyszek, Witold Jurczyk, Jerzy W. Katcki, Adam Kleiner, Pawel Lukomski, Wojciech A. Myszka, Jerzy Pawlus, Jacek Piotrowski, root@indy.slcj.uw, Szymon Sokol, Miroslaw Szczypinski, Zbigniew S. Szewczak and Piotr Wilk for help in updating the Internet list and to Mariusz Boronski for FidoNet nodelist. Please send changes and corrections to Rafal Maszkowski <rzm@mat.torun.edu.pl>.

## Not yet a success but having fun *(continued from page 14)*

**ZT**: I can go on for next half an hour to ridicule this point, and any economist will recognize old dicussion between lassez-faire and protectionism.

**DP**: How was the DoL interfering?

**ZT**: In several ways, 1) by attempting to fine him [Lewis] for not following rules before they were published... 2) by not providing cooperation when [Lewis] was asking for clarification to avoid errors; 3) by using off-the-wall data to compare wages; as a result in some cases they requested him to raise wages above what customers are paying.. cute, isn't it? 4) not to mention contacting cutomers .. great way to scare them..

I'm not complaining; that's life; but the United States is no longer welcoming others - especially not Eastern Europeans -unless they are refugees (and religious as well).

**DP**: How would you characterize your progress so far?

**ZT**: Well, we're not yet a success, but we're having fun.

*Informatics*

By Rafal Maszkowski

# Cracking - a New Hobby in Poland

***There is more and more crackers in Poland and a lot of accounts on many computers has been broken in, but the problem remains not yet widely known. Only quite recently SysAdmins begun to discuss the security issues.***

Cracking is historically (sometimes practically too, as in Poland) related to phreaking. Phreaking refers to using the telephone without paying for it - usually by generating the control signals. The signals are produced by special devices or by phreaks themselves - if they have a very good ear. Cracking, according to the *Jargon Dictionary*[1], means breaking into a computer system. The term "cracker" has a pejorative meaning and crackers do not like to be called that and prefer the term "hacker" instead. The meaning is different, however: hackers posess exceptional programming skills, which is not always true in the case of crackers.

*Jargon*[1] defines the 'hacker ethic', giving it two meanings: 1. the belief that sharing information is good and hackers should do it, and 2. the belief that system-cracking for fun and exploration is ethically OK as long as the cracker commits no theft, vandalism, or breach of confidentiality. The *Jargon* authors write also:

> *Sense 2 is more controversial: some people consider the act of cracking itself to be unethical, like breaking and entering. But this principle at least moderates the behavior of people who see themselves as 'benign' crackers. On this view, it is one of the highest forms of hackerly courtesy to*

*(a) break into a system, and then (b) explain to the sysop, preferably by email from a superuser account, exactly how it was done and how the hole can be plugged —- acting as an unpaid (and unsolicited) tiger team.*

For about two months I was collecting information on the break-ins to the Polish Internet hosts. I was using several different resources: information from System Administrators, from crackers themselves, experimenting and monitoring the net using network tools such as finger, last, who, netstat etc. and also from some documents available on the network, e.g.[3].

## Who?

Crackers are usually students or university employees, even system administrators, but some are people having no connection with academia. Many of them are good programmers and have relatively high income.

## Why?

There are several reasons why I think people break into computers and why some do it constantly.

- lack of access to the Internet (especially for crackers not affiliated with universities; there are very few public dial-up hosts and they cost $200/month)
- No specific laws which can be used against such activity, and practically no enforcement of existing law
- it is easier to break into an existing dial-up site than to install your own
- trying unknown systems
- fun, the feeling of power
- addiction, collecting accounts

Probably the first reason is least important, while the most important may be addiction. Crackers say: "I have to do it, it gives me satisfaction... "Other reasons, given by crackers I spoke to:

- somebody has to know how to break-in to know how to improve security.
- they like it.
- they do not do anything bad like deleting files.
- bad and lazy systems' administrators will lose their jobs when their employers will see how easy is to break systems they are taking care of.

They definitely do not agree that using someone else's property without his/her consent is wrong in this case.

## How?

First, a cracker has to gain access to the net or the host he is going to break. Sometimes he is sitting at a terminal at a university (and logging on to his or someone else's account), but using dial-up access is less dangerous - it is much more difficult to track and identify the caller. Computers which have attached modems are very likely to be attacked, especially since there are not many of them in Poland. For some of the intruders, who are neither students nor university employees, the dial-up access is the only way to reach the Net.

The next step is a simple guessing of passwords, "thinking like a user." When there are trivial passwords in the system, it is only a matter of time to find them. Next, after breaking-in, one has to look for the password file. Sometimes it is just world-readable, sometimes the intruder needs to obtain superuser privileges to read it. But this is the ultimate goal anyway - to create a copy of shell which has the superuser privileges set. This may be dangerous for the system sometimes. A cracker may not want to destroy anything but, having all the privileges, he might not be as careful as a legitimite operator would be.

Sometimes system administrators take part in cracking or support it. I know of one case in detail. A system administrator (SysAdm) of a host at Warsaw University gave accounts to his cracker friends, who used them to break into other systems. They were also connecting to their (semi-legal) accounts from the cracked hosts. Once I was talking with this SysAdm on IRC and he offered to show me, that it was HIS host that was invaded, and not used for making invasions elsewhere. He showed me a log with two examples of entering his machine from a cracked account on frodo.nask.org.pl. I asked him to send me the logs for a few hours before and after this intrusion. After some time he agreed. I could compare his log with my data, because I was monitoring the use of both frodo and his host. The log he showed me lacked about half the information! He just edited out the logins of one of the users, made from frodo, which were showing quite unambigously that this user has broken into frodo. I asked the SysAdm for the whole log file, but he lost the will to cooperate. Some time later I could compare my data with the complete log provided by another system administrator, and I found it fit my data. In response to my repeated inquiries the SysAdm turned off the network daemons "fingerd" and "systatd" (which allow others to see who is logged into his host). Later, at least some crackers' accounts were locked out, apparently on demand of NASK.

Crackers often do not hesitate to threaten people who are trying to stop their activity or are considered dangerous for them. I was a subject of such threats a number of times; I don't know how real they are, but I am going to be on alert when visiting Poland this summer.

## What?

Actual deleting of files is very rare. Most of the broken accounts are used for further breaking in. And that seems to be main aim for most crackers: collect as many accounts as possible - 100, 1000 or more. Just like collecting stamps. In Poland they can't yet hunt for bank, military, inteligence or medical information, (which is a popular crackers pastime abroad[4,5]) because such institutions are not connected to the Net (and probably very few have dial-up entries). They enjoy struggling with the computer, learning different computer systems, feeling the power, having their own secrets and secret societies.

Despite the fact that the break-ins are usually hidden from the view of the users, they may cause problems. After several break-ins to plearn.edu.pl, a security system was established and users were compelled to change their passwords. Some of the passwords expired immediately, and legitimate users were caught unawares, having to contact the operators to restore their access. An accident connected with serious altering of system files happened in the domain astrouw.edu.pl, where an intruder gained superuser privileges and added some new accounts. Some other machines there were broken in as well but without serious consequences. Some crackers were caught and their accounts were locked. This happened on PLEARN, in fuw.edu.pl and mimuw.edu.pl. One of these crackers was breaking very often into hosts abroad too, for example to jpl.nasa.gov.

Frodo.nask.org.pl (a NeXT computer) is a well-known site attacked constantly for a number of months. Until the beginning of this year new passwords were cracked very fast and NASK was not able to get rid of them, or even to limit crackers' access. In April, a complete novice in NeXTs discovered, after few days of using the computer, that a shadow password file, which is supposed to be read only by user with superuser privileges, was world-readable and any user could copy it and try to break passwords. In addition, the passwords were usually trivial there. Even after correcting this problem, frodo and computers at atm.com.pl (another place with dial-up access in Warsaw) are still the most ofen intruded hosts. In June somebody else (also not from NASK) discovered that there was a log file with new passwords left with reading access rights for everybody...

## How to prevent cracking?

There are several methods of making systems more secure. One should start with an estimate, how much work is worth a certain degree of security. Your host may be as difficult to break as a tank, but you will spend many nights installing software and tuning it. Sites where disk space is scarce may also decide to restrict logging operations. General guidelines are as follows:

- educate users (it is not worth securing a system at all if a user will mail a password file to the first person who will be interested in it...)
- use network tools such as (Unix) "who" (which lists crackers), "netstat" (to show from where they are connected), "last" (to list recent accesses); do not ignore strange activities on the system
- users should know what are trivial passwords and not use them, not reuse old (expired) passwords etc. Lists of hints are available on the Net [3]; programs which compel users to use more complicated passwords (e.g. npasswd) also exist
- install shadow passwords and C2 security, not forgetting about applying all patches offered by the OS's vendor

There is also some cooperation needed. Crackers usually cooperate, exchange broken accounts and tricks with friends e.g. through crackers' BBSes. Systems' administrators and users should cooperate in identifying break-ins and in finding security holes.

## The Law

To date there have been no trials against crackers or phreakers in Poland, and it is difficult to find someone who knows which paragraphs could be used in such a case. Most of the cracking is connected with universities' or governments' computers. Local universities' laws may include such activities, and even now these regulations can be used and they can be improved and made more precise in the future. Western universities' codes of conduct can be used as a model here.

## The Future

Any prognoses may turn false because of the exponential rate of network growth. Several prognoses, some very pessimistic and some very optimistic:

- crackers will get bored with cracking;
- crackers from Poland will break several systems in the US and routing will be cut down;
- companies will choose not to use modems and nets because of widespread cracking;
- basic C2 security will be installed on most hosts in Poland;
- administrators will warn each other about dangerous activities;

*Rafal Maszkowski, rzm@mat.torun.edu.pl*

References:

1. Jargon File, V. 2.9.12, 10 May 1993, prep.ai.mit.edu: /pub/gnu/jargon2912.txt.gz (ftp)

2. CERT documents - cert.org (ftp): cert_advisories, cert_faq, network_tools

3. Rafal Maszkowski, Bezpieczenstwo komputerow - gopher.torun.udu.pl:/Archiwa Plikow/Kilka ciekawych programow/Bezpieczenstwo komputerow/wskazowki dot. bezpieczenstwa (gopher)

4. Landreth, Bill. Out of the inner circle : a hacker's guide to computer security. cop. 1985

5. Cornwall, H. The new hacker's handbook. Rev. ed. 1986

## Correction

An error occured in the inteview with Jurek Drygalski (Pigulki #13, "Poland, the Country under Reconstruction"). Following the question on privatization in the neighboring countries, Drygalski begun describing the Polish program and not, as appears in the text, the Russian one. The relevant quote should read:

**MC**:I would like to ask you about the Program of Universal Privatization and how it compares with the plans adopted by neighboring countries, i.e. the Czechs and Russians?

**JD**:This program [Polish! - ed.] is indeed very popular, in spite of the fact that it is also relatively humble. At the moment it encompasses 200-300 companies..."

## Notes on Contributors

**Jacek Kryt** (fcty7475@RyeVm.Ryerson.Ca) is a retired professor from Ryerson Polytechnical Institute in Toronto. Since 1967 he has taught in the area of Computerized Business Information Systems and management, first in the school of business, currently in continuing education. He graduated from SGH Warsaw, University of Brussels, and the University of Toronto. He is the Treasurer of the Committee for Technological Cooperation with Poland, based in Toronto.

**Rafal Maszkowski** (rzm@mat.torun.edu.pl) graduated last year from Nicolaus Copernicus University in Torun. His speciality is astronomy, his hobby - travelling the Netland. Presently he is a PhD student at the Onsala Space Observatory of the Chalmers Polytechnic in Goteborg. He is also the sysop of the NCU BBS in Torun.

**Dave Phillips** (davep@acsu.buffalo.edu) is a doctoral candidate in geography (urban and regional analysis) at SUNY at Buffalo. He was a cofounder of the EARN-Poland Link Discussion Group in 1987 and of the PLEARN-L discussion list in 1990. A contributing editor of *Pigulki*, he is also master operator of Buffalo's relay (masrelay@ubvm).

**Jerzy Thieme** is an economist (PhD, U. Lodz). He taught economics at the University of Bridgeport, CT, and worked for Citibank in New York. He subsequently became Vice President and Corporate Finance Director for Poland at Citibank, London. In 1991 he became Chief Advisor to the Minister of Privatization in Poland.

**Zbigniew J. Tyrlik** (zbig@wariat.org) is employed by Amerisoft, a subsidiary of James T. Lewis & Associates, a contract programming and consulting shop based in Chagrin Falls, Ohio. Amerisoft specializes in placing professionals from Eastern Europe in contract positions in the U.S. and assisting them in their adjustment to life in the U.S. He has Master degrees in economics/data processing (U.Gdansk) and psychology.

**Marek Zielinski** (zielinski@acfcluster.nyu.edu) of Rego Park, NewYork is a chemist and a contributing editor of *Pigulki.* He was a founding member of the EARN-Poland Link Discussion Group in 1987, and was co-founder and editor of *Poglady*, a "Solidarity" magazine of Lodz (1980-81).

# Pigulki

*Editors*

| | | |
|---|---|---|
| Marek Cypryk | Lodz, Poland | (mcypryk@plearn.bitnet) |
| Jerzy Klimkowski | Glen Allen, VA, USA | (jleleno@cabell.vcu.edu) |
| Dave Phillips | Kenmore, NY, USA | (davep@acsu.buffalo.edu) |
| Jacek Ulanski | Lodz, Poland | (julanski@plearn.bitnet) |
| Marek Zielinski | Rego Park, NY, USA | (zielinski@acfcluster.nyu.edu) |

*Production Editor*

Wojtek Hempel Rego Park, NY, USA

*Distribution*

| | | |
|---|---|---|
| Dave Phillips | North America | (davep@acsu.buffalo.edu) |
| Marek Samoc | Oceania | (mjs111@phys.anu.edu.au) |
| Marek Zielinski | Europe/Africa | (zielinski@acfcluster.nyu.edu) |

**Pigulki is also available** from the NCU BBS in Torun, located in the Student Government of the Nicolaus Copernicus University. Its sysop is Rafal Maszkowski (sysop%ncubbs@cc.ncu.edu.pl); the BBS is accessible 24 hours at 48-56-14252 (2400, N81, MNP5).

**Pigulki is available in ASCII and Postscript** forms. The ASCII version is distributed by E-mail, the Postscript edition is available by anonymous ftp, by E-mail and by using Gopher. For instructions see below under Back Issues.

*Back Issues*

**Anonymous ftp:** The sites at alfa.camk.edu.pl, galaxy.uci.agh.edu.pl, info.in2p3.fr, laserspark.anu.edu.au, poniecki.berkeley.edu and zsku.p.lod.edu.pl store back issues in subdirectory /pub/pigulki. Log in as *anonymous* and give your E-address as password. ASCII files have extension pub, Posctscript files have extension ps.

**Electronic mail:** Send mail to netlib@alfa.camk.edu.pl with the line *send index from pigulki* to obtain the list of available files, and with the line *send pigulk14.pub from pigulki* to obtain eg. the current ASCII issue. For Postscript substitute *ps* for *pub*.

**Gopher:** In your Gopher's list of Other Gophers locate *University of Mining and Metallurgy, Cracow*, or *Uniwersytet Kalifornijski, Berkeley*, and find *Public access files/pigulki* or *Publications/pigulki* menu entries. Or connect directly to galaxy.uci.agh.edu.pl, poniecki.berkeley.edu or laserspark.anu.edu.au (experimental) using your gopher client.

**Pigulki's editors are grateful** to Andrzej Kaczorowski of the Nicolaus Copernicus Astronomical Center in Warsaw (andrew@camk.edu.pl), to Jaroslaw Strzalkowski of the University of Mining and Metallurgy in Krakow (js@uci.agh.edu.pl), to Wojtek Wojcik of the Centre de Calcul of Lyon (wojcik@frcpn11), to Marek Samoc of the Australian National University in Canberra (mjs111@phys.anu.edu.au), to Darek Milewski from the University of California at Berkeley (darek@garnet.berkeley.edu) and to Konrad Pilch from Lodz Technical University (konradpl@zsku.p.lod.edu.pl) for making space available to archive Pigulki.

*Legal Bits*



Your articles, letters, threats, denunciations are welcome; please send them to any editor you can find who'll admit being one. We reserve the right to edit for brevity.