

Verslag van deelname aan SOFSEM '85, Nov 24-30/1985, te Ždiar (Czech.)
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Founded by J. Gruska in 1977, the annual SOFSEM meeting in Czechoslovakia has become an important professional development seminar for the top computer experts (from programmers to scientists) in the country. The program consists largely of tutorials on current or otherwise promising research areas in applied and theoretical computer science, and some sessions of "contributed papers". SOFSEM has developed into an exclusive and highly regarded seminar. Always set for two weeks in the month of November, it is considered to be an honor to participate. A long lunch break and some (scientific) diversions in the evening, invite an optimal interchange of ideas between the computer experts. SOFSEM '85 was scheduled for Nov 25 - Dec 6, in the beautifully situated "Zotavovna ROH Magura" (Ždiar, Czechoslovakia) in the snowy High Tatras.

Each year the organizers of SOFSEM (try to) invite at least one "foreigner" to give a series of lectures on some recent research area. Some time in 1984 I was asked to be this year's foreigner, and I agreed to give some lectures on "the design and analysis of network protocols". I decided to attend the Seminar for one week only, as I have many other commitments and attending lectures in Czech (or was it Slovak..) isn't my daily cup of tea. To save time I decided to fly to Prague and onward to Poprad, where Michal Chytil or someone else would wait with a car to bring me to Ždiar.

Having had a busy week before and not much rest on Saturday, I fell asleep on the KLM bus from Utrecht to Schiphol Airport on Sunday morning the 29th. The bus was already pulling away from the Airport (heading for Utrecht again) when I woke up, just in time to stop the driver and to get off the bus at one of the entrances of the departure hall. Checking in went spotless, and I had an hour to spend before the Malev-plane would take off, time to write my last ten transparencies for my

lectures in Žilina. The plane left promptly at 12.35 and everything indicated a smooth trip to Prague and Poprad. I could not have been more wrong, but clearly didn't know of the things to come.

At about 13.30 the announcement came that weather conditions did not permit the plane to land in Prague and that the captain had decided to fly straight to the final destination of the flight, which was Budapest! We weren't told the precise details of the weather conditions (I later found out it probably was too foggy), and some speculated that "they hadn't shaved the snow off the runway in time". Anyway, all passengers destined for Prague felt grossly mistreated by Malev and were very angry: clearly it was known that the plane couldn't land in Prague already before we left (at least, so was our opinion), and we should not have been taken on board in the first place. The passengers destined for Budapest were very happy: they would reach their destination one hour earlier. The plane landed on the (new) airport in Budapest at approx 14.15. It was raining.

Not budging out of its responsibility, Malev was determined to deliver us in Prague. However, there would be no planes anymore to Prague that day and we would be put on the night train to Prague that left Budapest at 18.40. Several travellers immediately insisted on other arrangements, mostly business men who said that "money would be no problem". One (black) woman refused everything, shouting that "this wasn't her final destination". Who knows she's still in Budapest this very moment. I foresaw a tiresome journey (it is a 10-hour train ride from Budapest to Prague) and, as I hate to waste time this way, I briefly considered returning to Amsterdam and cancelling the whole trip. But I clearly couldn't do this to my Czechoslovak friends. The afternoon was spent on getting a visa for Hungary (costs DM 40,-; fortunately I had two spare photographs with me) and a lot of waiting. By 17.30 Malev delivered meals for us (in plastic bags) and we were transported by bus through the dark streets of Budapest to the railway station. The speeding bus nearly killed a pedestrian when jumping a red light. There seemed to

be many nice shops on endless Lenin Boulevard. At the railway station we had another wait of a half hour. Malev had arranged that a special sleeping car would be added to the train. At least the night could be spent (somewhat) comfortably. The train left at about 19.00, on its way to Bratislava and Prague.

Approaching Bratislava at about 23.00 I considered getting off the train here, and continuing on a train to Zilina and Poprad. In this way I could still arrive at SOFSEM on Monday morning, although I had no idea of the time schedules of the connecting trains. Besides, I had no Czech money, the Čedok-offices would almost certainly be closed at this time of day, and the prospect of spending the entire night on a cold railway station in Bratislava wasn't particularly attractive. I decided to stay on my warm train to Prague and literally "take it from there". We arrived at the railway station in Prague at 04.15 on Monday morning the 25th. Clearly I was still without Czech money and feared to be stuck here until daylight would come. Fortunately I had met a young Canadian fellow on the train, a guard at the Canadian mission in Prague. He was in the same "group" and we had a lot in common, at least this particular night. As his car was parked at the Airport, he decided to take a taxi there to go and pick it up, and generously offered me to share the ride. At about 05.00 in the morning I entered the Prague Airport. The sliding doors were about all that moved here at this time.

At 05.30 the first people began to enter the Airport facilities, and at 06.00 a lady CSA-representative for "domestic flights" appeared. She turned on a terminal and I felt this day would be a better one than the Sunday just passed. (The lady was still on duty by 17.00 and I have not seen here do anything with the terminal!) Anyway, she understood all about yesterday's problem with the Malev flight and scribbled something on my ticket that seemed to indicate that I would be ^{on} today's flight to Poprad. ("25" was all I could recognize, and I know for certain that she did not actually do a booking for the flight.) At 06.15 a long wait at

the Prague Airport began, and nobody knew for certain whether the plane would indeed fly at 17.40. I am not the usual touristic type and immediately dispensed the idea of "going into Prague". Fortunately I had brought a copy of E. Moss' Ph. D. Thesis (just appeared with MIT Press) and most of the day I spent on reading it, and on working on some research ideas. The Prague Airport was as depressive as four years ago. In the afternoon I couldn't keep my eyes from closing after three pages of Moss, and I changed my activity pattern. At one point I seemed to hear my name being called over the intercom system, urging me to go to the "information desk". My friends at SOFSEM had missed me on the Airport in Poprad ^{the evening} before, and had asked someone from the Technical University in Prague to find out where I was. It had been impossible to let them know of my involuntary detour, as I had no phone number and no precise address of the meeting place. But I informed the man at the other end of the line of my intention to be on today's flight to Poprad, and that I wouldn't know before 17.40 whether CSA would indeed fly it. (It seems to be policy not to cancel flights before their actual departure time.) But I promised to let him know, and he gave me his phone and extension number to reach him. After some uncertainties it became clear at 16.00 that the flight to Poprad/Tatry was on today, and that I could already check in. I had to fill out a tiny piece of paper with my name and address, undoubtedly (I felt) to enable the airline to know who was on board in the case of a crash. But I have a lot of confidence in airplanes, and felt that I would finally be moving! I will have more on airplanes a little later. I tried to call the man in Prague (I had forgotten his name) and, after some attempts with the old-fashioned coin-operated phone on the Airport, I got hold of the University operator. I asked for my extension in slow English twice but the operator uttered sounds that probably meant "who's there" or "what do you say" (in Czech) and then hang up. I decided not to try again. My apologies to "the man in Prague". (I later heard that he found out that the OK126 flight had indeed departed on schedule, and that he had called

Michal that I was on my way.) At about 18.45 the plane landed in Bratislava for a brief stop, and continued at 19.00 to Poprad. It was snowing lightly. At 20.00 the plane landed in Poprad/Tatry and I was happy to see Michal Chytil and Juraj Wiedermann, and a colleague of theirs with a car, waiting for me at the "gate". They had been quite worried after hearing of what happened, and at SOFSEM I was apparently already referred to as "the flying Dutchman". We arrived in Ždiar at about 21.00 and Michal (I think) had had the foresight to arrange a late dinner for the four of us. I immediately engaged in a discussion on programming and correctness proofs with the only Russian at the meeting (Prof. Terechov from Leningrad). (Terechov didn't understand Czech either but was looking forward to my lectures, in hopefully understandable English. He left Wednesday night.) You must be tired, someone said at 22.30. I was.

The days at SOFSEM were very pleasant. There were two 75-minute lectures in the morning (starting at 08.30) and two in the afternoon, with a four hour break in between. Many people used the break to ski or hike in the forest nearby. Unfortunately the mountain ranges (part of the High Tatras National Park) were closed to the public. Too many tourists before us had disturbed the wildlife there, and some years ago the Czech authorities decided that the area should be protected (and rightly so). I made some wonderful hikes in the area with some of my friends, usually discussing common research interests and recent projects. Ždiar turned out to be a rather authentic Slovak village, with many wooden houses. I saw one shop and a gas station, and I was told that there was a small medical facility somewhere. The wind was very cold, but it didn't seem to harm me.

On Tuesday, Wednesday, and Thursday I gave my three invited lectures on the design and analysis of network protocols: one lecture on "link-level protocols", one lecture on "reliability and election problems", and one lecture on "fault-tolerant clock synchronisation". For the larger part the lec-

tures were based on recent work in the theory-group in Utrecht. I think the lectures went very well, except in the second one I was running out of time and I felt I couldn't really get to the level of detail I had set out to give people an adequate idea of the beautiful distributed algorithms here. But I managed somehow, and from the questions and later reactions I gathered that people had found my lectures clear and informative. As I wrote earlier, the other lectures were in Czech and thus quite incomprehensible to me. On Tuesday afternoon I sat through J. Gerbrich's lecture on "Počítače a hudba" (Computers and music), and I attended Juraj Wiedermann's lectures because his transparencies were all in English. Juraj gave an overview of complexity theory, of all known models of parallel computation, and of the classification of these models in complexity terms (using Peter van Emde Boas' distinction between first, second, and third class models). On Friday night I decided to listen to the "participants", as many took the opportunity to claim ten minutes in the "free tribune" and tell something about their own work or another interesting topic they felt concerned about. The topics were too varied to be reported here (I could usually figure out what it was about, with some help of J. Král). In one presentation great concern was expressed over the recent decision by the Czech Government that introductions to "informatics" shall be taught at all secondary schools in the country, starting as soon as September 1986. Clearly the scientific view was that this can be done only when it is done right and, given great doubt about the latter, the speaker contended that it shouldn't be done ... at least, not on this short notice. Personally, I think he was mistaken but, then, I wasn't sure of the details of his argument (in Czech).

While the other lectures at SOFSEM were going on (it is a pity that there was no point in my attending the lectures) I had a lot of time to myself. But there was Moss' thesis to finish, and earlier in the week Juraj had posed an interesting question about boolean circuits that I kind of liked. We ended up spending a lot of time on the problem, refining and correcting our ideas and

thinking of the theorems we liked to prove. During the week several people asked me about the recent trends and issues in computing in the "West". I felt these questions were asked more out of curiosity than out of ignorance: perhaps due to a meeting like SOFSEM, I noticed that my Czechoslovak colleagues were well-informed and quite knowledgeable about the developments in computer science. Of course their computing equipment isn't competitive: it is sometimes a bit old (PDP-11), memory is limited, and there are difficulties with the not so reliable disks. But companies like IBM, Digital, and HP are selling their standard technology to some extent now in Eastern European countries (Someone told me that a reasonable microcomputer costs about one third of the price of a Skoda car..). Also, large machines with close-to-supercomputer performance are available from the USSR (produced in LSI-technology). SETL seems to be pushed as the Eastern European "5th generation language", apparently as an "antidote" to PROLOG. I understood that there is a steady trend towards the use of UNIX as well (in Czechoslovakia..). Applicationwise there is a lot of attention for expert systems of all sorts. But my week at SOFSEM was coming to an end. On Friday night I was treated to Georgian cognac and (smoked) Slovak cheese, and I think I drank too much of the awful-tasting sulphury mineral water called Salvator. (But it was very healthy, I was told.) After barely four hours of sleep, my day of travel back to Utrecht would begin.

Michal Chytil had arranged that we could have an early breakfast at 06.30 on Saturday morning (the 30th of November). At 07.00 I stepped out into the cold morning air. Michal's colleague (with the car) was already scraping the windows of the car. I estimated that it was 15 degrees below ($^{\circ}\text{C}$). The engine of the car was stone-cold, but after a little while Michal's colleague managed to get it started. I only needed to be at the Poprad Airport at about 08.15 but we decided to leave early, to be prepared for whatever difficulties we might run into on the ice-covered roads. But all went well. We had magnificent views of the snowy peaks of the High Tatras in the morning sun. It promised to be a

glorious day. At 07.45 we reached the Poprad Airport, and the one plane I saw there clearly was the one to take me to Prague. I thanked Michal and his colleague for their great hospitality. It had been a thoroughly enjoyable week, and I felt I had given some nice lectures and made new friends. Michal was a bit worried that the flight might be cancelled due to (unknown) conditions in Prague, but I told him not to wait and that I would be ok. At 09.25 the plane left.

The weather conditions in Bratislava, where the plane made its regular stop at about 10.15, weren't very good. It was snowing, and there was an icy wind blowing over the airfield. I feared the worst in Prague. But we took off again, and landed about a half hour behind schedule at the Prague Airport (at 12.15). The flight to Frankfurt was already checking in, but there was no reason to hurry. (The only direct flight to Amsterdam had left sometime in the morning and my travel agent had had no alternative but to route me via Frankfurt.) I had received some money at SOFSEM to cover my expenses, and decided to exchange it into Western currency at the Āedok office. I was told I could exchange only as much I had exchanged into Czech money myself. In the meantime it continued to snow, and I thought of what we had seen while landing here in Prague: the burned remains of a plane that had apparently crashed here very recently, its broked carcass sticking into the ground at a 45° angle. I later saw four trucks carrying the first loads of metal scrap from the Airport. I asked a fellow traveler whether she had heard anything about the crash, but she hadn't, although she had been staying in Prague (I later found out her name was Jitka. She was en route to Canada, where she lived.)

The CSA flight to Frankfurt seemed to be departing on schema. At 13.45 we were all seated in the plane and we waited for the things to come. At 17.00 we were still waiting.. when the announcement came that due to "traffic reasons" the departure of the plane would be delayed by another twenty minutes. Of course, as any observing passenger could have no-

iced (or was it just me), the real reason was that the pilot and the copilot had only just arrived and now hurried into the cockpit, where they would need twenty minutes for their standard procedures. By 14.15 the plane taxied over snow-covered airstrips to the runway, where we saw another plane take off successfully into the grey yonder. We were ready for take-off at 14.30 when the captain announced that a technical problem had arisen and that we would return to the gate.. There were angry reactions all over, and many passengers were worried about their connections in Frankfurt. I decided to take it very easy, and prepared myself for another long wait in Prague.. hoping I would still be able to leave here today! In the transit hall several people immediately tried to get seats on other flights out of Prague, but CSA refused to do anything. They had arranged that another Tupolev would fly us to Frankfurt at 15.45 and "we better be on it". I decided to stay close to a place where I could see the further announcements, as I had noticed that the intercom in the transit hall was completely inaudible. A television set in the transit hall made loud noises and I decided not even to look at it. (Some dumb movie was on.)

At 15.45 we were back on a plane again, and by 16.00 we were in the air on our way to Frankfurt. After landing there at 17.00 there was an immediate rush to the Lufthansa transfer office, because we all had a problem now. Jitka had missed her connection to Vancouver, a doctor had missed his connection to Windhoek (South-Africa) where he was on call in a hospital the next morning, and clearly I had missed my connection to Amsterdam. It looked like I would be stuck in Frankfurt now, but being here was a definite improvement over the Prague Airport. After waiting in line until 18.02, it was my turn at the Lufthansa desk and I was told that "our computers have automatically booked you on the next flight to Amsterdam which leaves at 21.35 from gate B33". At 18.03 I walked into the transit area of the Lufthansa terminal, and wondered what to do in the next 3½ hours. I was quite tired, and had finished Moss'

thesis. The shops at the Airport looked just a bit too expensive to my taste, and the only shop where I could buy a toy for my son was closed for reconstruction. I bought a Herald Tribune and disappeared into the restaurant for a while. Somehow the time passed. I realized I had made some errors in my solution of Juray's circuit problem, and thought about possible repairs (which I found)

By 21.35 I was seated on board of the comfortable Boeing 737 destined for Amsterdam, ready for the final stretch of my trip home. At 21.37 the captain announced that a problem had developed with one of the instruments in the cockpit. He had called for "the spare part" and we would depart as soon as the engineer was done. By 22.00 we finally were on our way to Amsterdam. I imagined I heard all sorts of funny noises, but it looked like we were finally going to make it to Amsterdam. We landed shortly before 23.00. I considered it a small wonder that my luggage hadn't stayed behind in Prague or Frankfurt. At 23.20 I was on the KLM bus to Utrecht, and a taxi brought me home by 00.10. You're late, my wife said. I was.

JUL, Dec 3, 1985