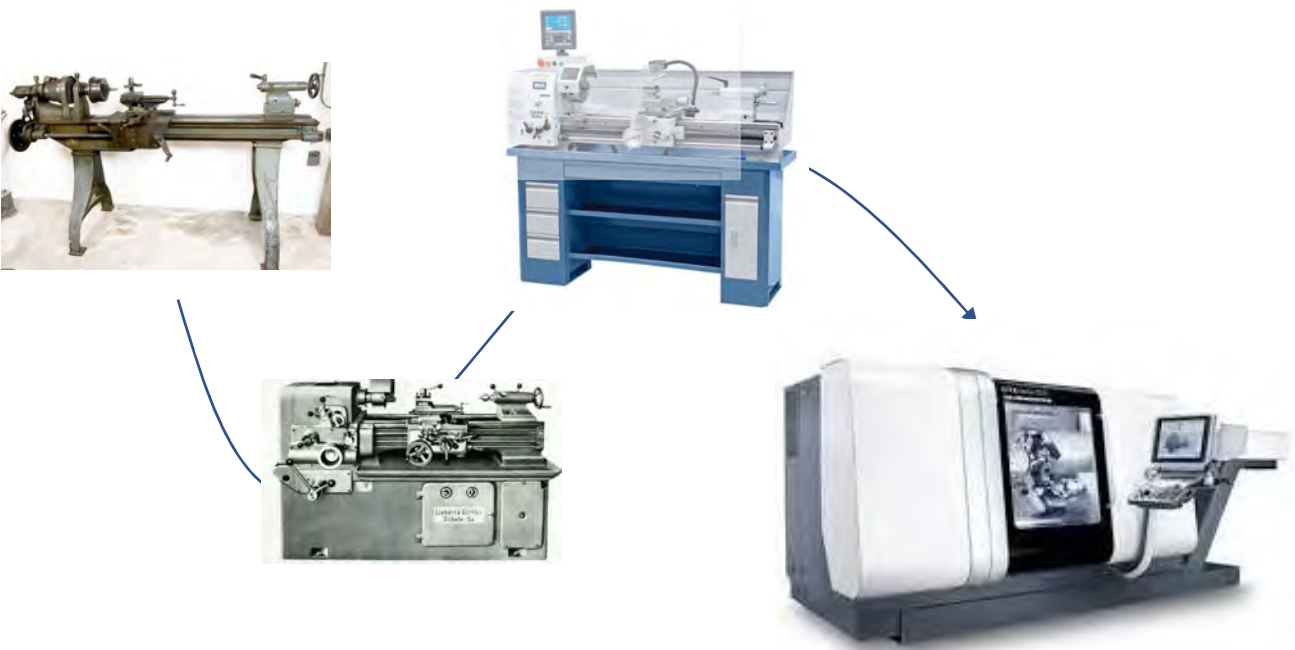


# What happened in Skill 06 since 1999 ?

## The evolution of Skill 06 ..... The happenings since 1999



*from 1999 ....*

Jia-Hsing and Gernoth

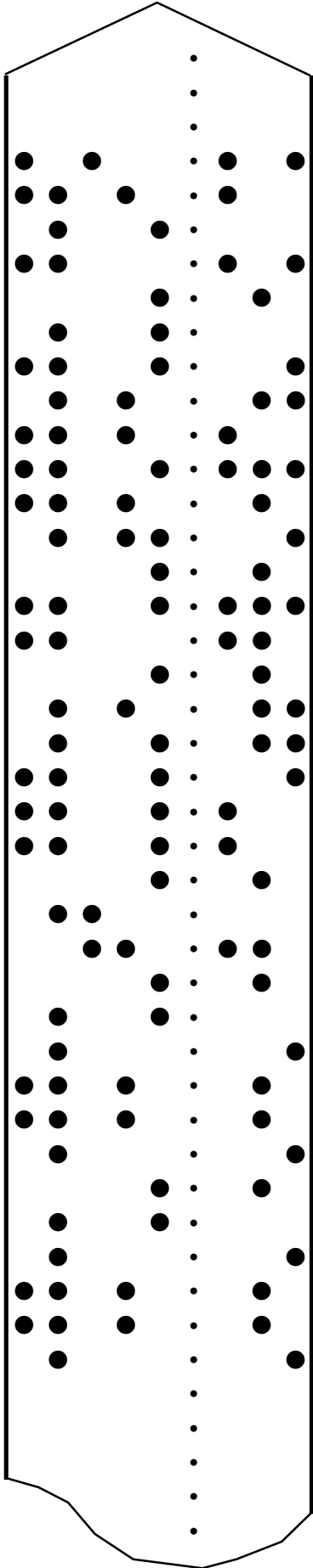
*..... Constantly involved*



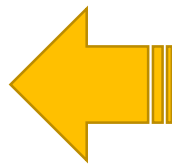
The CNC Dinosaurs

Version 2024

# What happened in Skill 06 since 1999 ?



For all our CNC Dinosaurs



I am sure you can  
read this message ☺

For all others....  
you may be to young for this ;-)

*For the younger generation - here the key :-)*

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# What happened in Skill 06 since 1999 ?

Dear Mr. Shen ... Jia-Hsing, my good ( old ) friend from Taiwan.

A few years ago I was looking at some pictures from Skill06 WorldSkills and realized that there are TWO experts - who where in this skill since 1999 ... YOU and I.

So I decided to collect what I can and try to write down our journey :-)

Over the time, many friends came and left again, but you and I have been present in this team since Montreal 1999.

We had many stressful situations, we had many cheerful situations, and we had many emotional moments on our path with WorldSkills competitions.

Jia-Hsing, there was a lot of development in our skill since 1999, and you have always been on my side ( along with many friends in our Team, such as William, or Sue - Hanno, Henrik, Dieter or Fangzhi and many many others )

Thank you for keeping up with me and working with me.

I believe that we left a big impact on the competition and formed it to what it is today.

Both of us are the "Dinosaurs" left in our competition since 1999. This made me think of our history and I tried to write some of it together for us.

Reading all the stories of our past, you will realize how many changes and adaptations we went through together. There were also some funny things we experienced.

Man, what an expedition.

To some of the events I found some photos and put them in this memory, maybe you will remember some situations or events :-)

Take a journey through our history with me ...

Remember Montreal 1999 ? Looking at these photos ... we were veeeeery young :-)



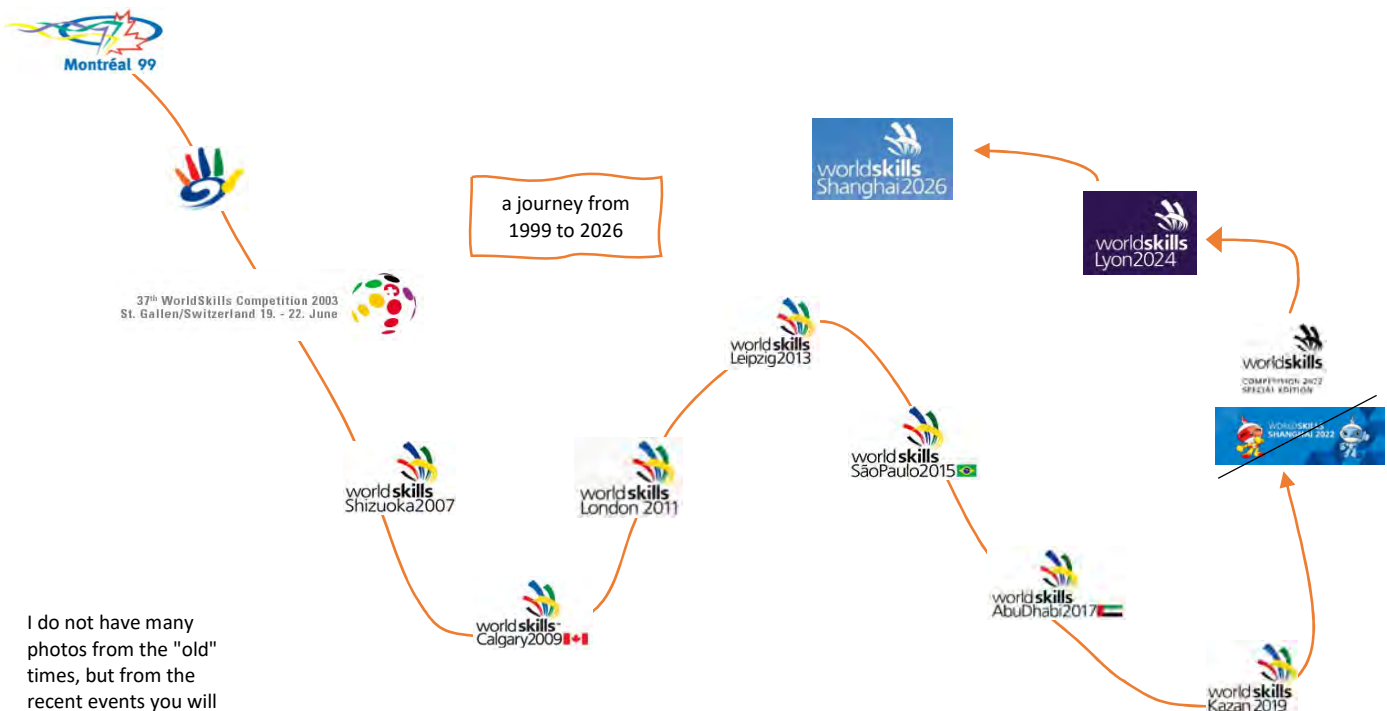
Jia-Hsing Shen ( 1999 )



Gernoth Dolinar 1999 Harra Harra :-)

To all other friends, old and new, many of you are part of this history and I am sure you will remember some of the events.

Take this journey with us - have fun and enjoy good memories.



I do not have many photos from the "old" times, but from the recent events you will see many memories :-)

# What happened in Skill 06 since 1999 ?

1999 Montreal Canada ... Our beginning :

My first Worldskills competition :-)



I have been a trainer for WorldSkills competitors for years, but this was my first time as EXPERT at a WorldSkills competition. I was very excited. By the way - back then it was not WorldSkills - it was **IVTO**

International  
Vocational  
Training  
Organization 

We arrived and started planning the competition. Most things went smoothly while we were preparing and planning the competition. After 2 days of planning I looked closely at a machine and realized that the turret in the machine was imperial,  $\frac{3}{4}$  inch holder-size - but we all did bring metric holders 25mm x 25mm.

At this point we all realized that we could not use any of the tools we had and therefore could not have a competition.

Oh man, what a disaster for us 😞

Everybody was mentally destroyed - we did not know what to do and WorldSkills-Management wanted to cancel skill 06. But then I asked all experts if it would be an acceptable solution to grind down all toolholders of the competitors. Basically "destroy" them for the future but make them fit for this competition only.

We knew that we would not be able to use these tools anymore once we go back home. After some discussions you all agreed and I collected all toolholders from the competitors.

Then the Workshop-Manager, me and 3 other experts went to a local college and worked all night to grind the holders down to  $\frac{3}{4}$  inch. Man, what a job. But we managed and when we walked in the next morning we could start the competition.

Man, I was tired that day :-)

Another problem back then was, that the welding competition was next to us and they were on the same electrical circuit as our competition. And whenever many welding competitors started to work, the fuse went out and Skill 06 and the welding competitors had no electrical power anymore. Man, we were not under a lucky star in 1999.



Welding on the same circuit as CNC Turning - what a biiiiiiii mistake :-)

In 1999 every competitor had his own machine and the project was a 4-day project.

The project time was 20-24 hours.

With the growth of the competition, can you imagine today to manage 30 CNC machines in our competition ?

I believe this was the first time we had Mastercam in the competition. It was an option for the competitor to use Mastercam or the machine-controller.

*Do you remember that I brought a wooden Yo-Yo for everybody, and you ( the MASTER ) showed us many Yo-Yo artistic tricks ? We called you the "Kung-Fu-Yo-Yo Master" :-)*

At least your Yo-Yo tricks brought some fun into the group. Everything else was tough and the chief and deputy did not involve experts in anything and were constantly in "secret rooms" with all the paperwork and marking sheets. We were not a team.

They evaluated dimensions and the written program. ( That was the Marking Scheme )

Dimensions was something we could mostly witness ( All was measured on the CMM, we could only watch ), but nobody knew how they evaluated the written program in their secret room.

This often led to the situation where the chief-expert and the experts got into arguments. It came to the point where we were constantly disputing and I believed that the Skills-Competition is nothing but a sad quarrel-disaster.

I heard this from friends in other skills as well and I decided that I will never come back to this again.

But things changed.

The chief and deputy resigned a few months later, and WorldSkills management asked me to take the chief expert position ( because I managed the tool-disaster so well )

You may remember, I became chief-expert, and Walter ( Switzerland ) became deputy-chief.

This was loooooooooooooong ago 😊

WorldSkills was the "International Vocational Training Organization" ( IVTO ) and we had 3 official Languages - English, German and French.

In 1995 I moved from Austria to North Carolina - and therefore I was Expert for the United States of America.

Your competitor won **GOLD**, my competitor was 12th.

Jia-Hsing, this was our beginning :-)

See some "old" images on the next page.



# What happened in Skill 06 since 1999 ?



Switzerland ( Walter ) and Austria ( Josef )



Japan and USA



Singapore, Thailand , Korea, Japan ,Taiwan



Our Team of 1999



Wow, today a mobile phone is bigger than the display of the control from 1999 :-)



Look at the size of the monitors we used :-)  
Flat screen was not invented yet :-)



IVTC Montreal 1999: Results: 6

Page 1 of 1



6



CNC Turning, CNC Dreher , CNC Tournage

Skill 06 Results 1999

## Final Results

	Rank	Points	Name	First Name	Member
	1	554	Huang	Ching-Feng	Chinese Taipei
	2	549	Hundertpfund	Kevin	Austria
	2	548	Sung	Dae hoon	Korea
	4	530	Ruohonen	Toni	Finland
	5	522	Frick	Manfred	Principality of Liechtenstein
	6	513	Miyashita	Masanori	Japan
	7	505	Jeambrun	Didier	France
	8	498	Scanfone	Eli	Brazil
	8	497	Morrissey	Larry	Ireland
	10	495	Jindalaung	Komkrid	Thailand
	11	485	Benchemsi	Samir	Belgium
	12	481	Roche	Steven	New Zealand
	12	480	Lavoie	Sébastien	Canada
	12	480	Bösch	Daniel	Switzerland
	12	480	Davis	Spencer	United States of America
	16	474	Speckin	Robert	Germany
	17	468	Yeo	Tee Kiang	Singapore
	18	441	Ghanmi	Faiçal	Tunisie

# What happened in Skill 06 since 1999 ?

Then came 2001, Seoul – Korea

My first competition as Chief :-)

The name changed from IVTO to WorldSkills



## About the Skill

As the "New Chief" I had to change a few things.

I changed to a **modular competition** setting. We did not have 1 Project over 4 days, we now had 4 different projects over 4 days. What a change for everybody. Tactic and strategy had to be modified a lot by the competitors.

The project time was still 20-24 hours.

I made every **expert responsible to design a module** and we all voted 4 designs from this pool.

Remember, we did not restrict the length of the design and therefore I requested a bandsaw for our shop. This made it possible to vote projects and then cut the selected test projects on the bandsaw. This remained standard procedure until 2015.

This is also when I implemented the document "Project Design Criteria for Skill 06". We needed a guide for all experts, and very important - cut down on the amount of tools we needed to bring. This document helped everybody for preparation and to minimize tool-purchase.

I created a new and transparent marking scheme.

We now have 5 criterion to evaluate.

Conformity to drawing	10%
Surface Finish	10%
Main Dimensions	50%
Secondary Dimensions	25%
Use of Material	5%

Use of Material is actually "Sustainability"

I wanted a fair and transparent marking and that the experts become a team - So now **every expert** is part of the **marking team**. Inspection of the test-project is now a combination of Mitutoyo technicians and us experts.

I implemented the "blind-marking", so experts do evaluate the quality of the test project and do not know what country the test project comes from.

**Mastercam** was provided, but still an **option** for the competitor. Because we still had one machine for every competitor, they could easily choose to program on Mastercam and/or on the machine control.

## General happenings

Mastercam changed our entire project-designs, because all of a sudden the manual calculations with Sine, Cosine or Tangent were not so important anymore. The Computer now does this for you.

*A very important CNC-Skill ( Trigonometry ) was now obsolete.*


*This was a horrible thought for us CNC-Masters - it was difficult to overcome this.*

*Man, what a time 😊*

My first competition as the chief was a great success ( Juhuu ). But WorldSkills told me that we will have problems in the future – It was difficult to get so many machines and the competition space we needed for all these machines. I must think of a solution.

The Terrorist attack 9/11 in the USA was the big sad shadow that overwhelmed the entire world at the time 😞

Also for us at the competition. Travel arrangements back home became for many very difficult.





# Seoul

Korea

## 6

Turning / CNC, Dreher / CNC, Tournage / CNC

Rank	Code	Score	Country	Participant	Participant
1	G	554	AT	Blum	Michael
2	S	542	US	Rowe	Anthony
2	S	541	KR	Kim	Joon Dug
4		532	JP	Ishikawa	Taishi
5		529	TW	Wang	Chien-Pin
6		514	CH	Kessler	Daniel
6		512	UK	Butcher	James
8		506	BR	Gomes De Melo	Célio Roberto
8		504	FR	Boudaille	Vincent
10		496	NL	Van De Kerkhof	Dennis
11		490	CA	Langevin	François
12		487	FI	Hyryläinen	Harri
12		487	SG	Sum	Kar Woh
12		485	HK	Wong	Wai Chun
15		484	BE	Bornia	Fabio
16		476	TH	Sanlee	Wongrak
17		470	DE	Mantel	Carmen
18		449	PH	Tuliao	Ricardo
19		441	IR	Rezapour	Hassan



# What happened in Skill 06 since 1999 ?

St. Gallen 2003

The decision of combining Skill 6&7 - We ALL left WorldSkills !

37<sup>th</sup> WorldSkills Competition 2003  
St. Gallen/Switzerland 19. - 22. June



## About the Skill

Because we could not get so many machines and big space anymore, I changed our format to a "Shift-Rotation" system. We **now only need ½ of the machines and ½ of the space.** Machine- and space-mission accomplished.

But it was difficult to fulfill the 24 hours of project time. I had to organize an early bus for experts and competitors so we could start before 9:00, and a late bus for the competitors, so the afternoon shift could work longer. The **project time** was now **18-22 hours.**

Starting in St. Gallen, every competitor now **had to use Mastercam.** It was not an option anymore.

Our system where every expert designed a project according to the Project-Design-Criteria was well accepted and we continued this system. We still had our bandsaw in our shop and had to cut the material for the selected projects. Also the procedure where experts are the marking team and evaluate with blind marking is well accepted.

Every day they have 2-3 hours to walk around and look at all the other competitions. This now is a great personal benefit for the young people.

I think I remember that the competitor from Korea had a biiiiiiig BOOM-BOOM during the familiarization. We used EMCO machines, and the Tool-Turret broke off and fell into the chip conveyor. Luckily nobody was injured and the competitor could use the provided spare machine to continue.



It did not help that we proved that the shift-rotation system works well and that we did solve the problem of space and number of machines. They thought they can save more space and more machines when they combine the two skills.

We had approx. 20 experts in CNC turning, and approx. 20 experts in CNC milling who told them that the time and advancement is not ready for the competitors to work on both technologies to such a high level. Cost of training and tools for ONE competitor will explode. But it seemed they had their mind set.

All of the experts resigned and said good bye to each other. We did not believe in this combination and for us this was the end of our part in WorldSkills. Nobody wanted to come back to such a combination.



After a successful competition the "sad" thing happened to us : WorldSkills ( back then ) thought that the shift-rotation system will not work well.

Even though we told them this is common practice in Industry, they believed that this will not work well in the future and decided that they better combine CNC-Turning and CNC-Milling into ONE skill competition.

## General happenings

*This was the hottest summer in Europe, and I had a hotel-room with no air-condition. ☹️*

A very big benefit for the competitor in this shift-rotation method is, that now every competitor has enough time to visit the entire competition.

Trade 6 Turning / CNC				Beruf 6 Drehen / CNC		Métier 6 Tournage / CNC		
Rank Rang Place	Gold Gold Or	Silver Silber Argent	Bronze Bronze Bronze	Diploma Diplom Diplôme	Points Punkte Points	Name Name Nom	Nation Nation Nation	
1	●				538	Toru Koide	Japan	
2		●			530	Zenz Daniel	Austria	
3			●		527	Lee Jong Seok	Korea	
3			●		526	Tsai Chin-Lung	Taiwan	
3			●		526	Pavlak David	Switzerland	
6				●	519	Davenport Sam	USA	
6				●	518	Gozi Alan Patrick	Brazil	
8				●	507	Vermonden Peter	Netherlands	
9				●	504	Laville Christophe	France	
10					499	Romppainen Ville-Veikko	Finland	
10					499	Schädler Dominik	Liechtenstein	
12					491	Turner Pierre-Luc	Canada	
13					472	Lownie Craig	UK	
14					461	Peh Kok Liang	Singapore	
15					446	Scholiers Wim	Belgium	
16					437	Or Wai-lap	Hong Kong	

**Skill 06 Results 2003**

# What happened in Skill 06 since 1999 ?

## Helsinki 2005

*None of us belived in this setupt, and none of us participated.*



The combined competition CNC-turning and CNC-milling was held. I did not participate, because I did not believe in this combination.

From what I have heard, it was a "difficult" competition. That is all I know.

The next WorldSkills-competition was planned for Shizuoka, Japan. I got a phone call from WorldSkills. The experience in Helsinki made them "re-think". They wanted to separate the 2 skills again and asked me to take the role of chief expert for CNC-turning again.

I had to think for a while, knowing how we were treated in St. Gallen and that we may have all new experts for this upcoming event.

This was when I moved from the United States to Austria, and I would then be an expert for Austria. This had to be cleared with SkillsAustria at the time, but that did not seem to be a problem.

I knew this competition would be difficult to manage. So I asked them if we could get our "old" deputy ( Walter from Switzerland ) to help me. Together we may be able to manage the competition in Shizuoka.

*I visited Walter in Switzerland to ask him to help me ... It took a beer or two before he agreed 😊*

I am sure you remember Walter.  
He is now enjoying his retirement in Switzerland :-)

We had a lot of preparations to manage, write hundreds of e-mails and prepare a lot of documents and processes.

Walter and I did the best we could to get this thing back on the road. We wanted Shizuoka to be a great competition again.

We were wondering if we would meet any of the "old" experts again. But from what I remember, it was only you Jia-Hsing.  
You - Walter and I. All others were new to WorldSkills.  
We had to run this show :-)



*I had to buy some beers to get Walter to agree to help me :-)*

# What happened in Skill 06 since 1999 ?

## Shizuoka 2007

The Baby Expert Test was "invented"



### About the Skill

Our competition had almost the same setup as we used in St. Gallen. We had a shift-rotation system, experts were the designers of all projects, we had 4 days of competition, we had modular projects and we used Mastercam. Experts are the ones who evaluate and mark all test projects and we used blind marking.

The only thing that changed was that we could not evaluate each module to 100 points anymore. **Now all 4 Modules together had to be 100 points** ... So we had to divide all points by 4 - Every module was now 25%.

We realized that organizing extra buses for our skill, just to have an early start, was not something we wanted to continue. We now were allowed to cut down the hours of competition to **18-20** hours.

4 Projects with 4,75 hours was now feasible and good manageable.

### General happenings

This is the competition where YOU ( Mr. Shen ) and I met again 😊 It was a difficult competition to manage, because it was only you, Walter and I who were experienced experts.

Everybody else was new. We were able to form them to a team, to a family. We managed this show well :-)

Every day the beautiful view on Mount Fuji



By the way ... in 2007 William Brunie joined our Team and he became also a very valuable and loyal Family-member. ( He invented the *Baby-Expert-Test* )



William ( FR )  
The Inventor of the Baby Expert Test 😊

Shizuoka was very well organized by WorldSkills Japan. I was very impressed.

*But there was a funny thing - I remember that every day after the competition, everybody went to the buses to go back to the hotel. I also remember that the Japanese bus drivers had the order to fill every bus - to the last place ! But because people came at different times, it could happen that ONE seat was still empty in the bus - and the bus driver had to wait for ONE more person before he took of. One day I was sitting in the bus for 45 minutes because we had ONE or TWO empty seats. Looking back - How "funny" :-)*

Jia-Hsing , do you remember, his Highness, the Prince of Japan came to visit our hall. Security was very high on this day.

And then, 2 minutes after the Prince left the building, the competitor from Sweden had a very big "BOOM-BOOM". It was the loudest crash I have ever heard on a CNC Machine.

The chuck-jaws broke off, the competition-part came out through the back of the machine, we could now look "through" the machine. The competitor turned totally white. Luckily nobody got injured.

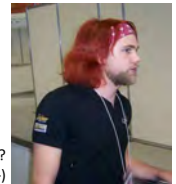
Can you imagine the disaster if this would have happened during the visit of the Prince ?

5 minutes earlier ?

Well, the competitor ( Andreas ) and his expert ( Henrik ) now were mentally challenged and needed time to calm down.

Andreas was shaking.

I remember the next day he got standing ovations from all competitors and experts for coming back to finish the competition. This was very emotional for all of us.



Remember Andreas ?  
He was cool :-)

Skill 06 Results 2007

Country	Name	Result	Medal
Japan	Akira Fujimoto	544	GOLD
Korea	Myeong Gyu Lee	536	SILVER
Thailand	KORRAKOT NITANANCHAI	535	SILVER
Austria	Martin Hämmerle	534	SILVER
Brazil	Jeferson Relvas De Oliveira	522	Medallion For Excellence
Switzerland	Thomas Schaber	519	Medallion For Excellence
Singapore	Seah Shun	511	Medallion For Excellence
Chinese Taipei	Hu Li-Hui	507	Medallion For Excellence
France	Sébastien EVRA	506	Medallion For Excellence
Finland	Heikki Kalpio	484	
Sweden	Andreas Adén	483	
Iran	BAHMAN MOAYERI	470	
Belgium	Aubin Vighier	469	
Norway	Even Soldal Jensen	466	
Germany	Tim Hertrich	466	
Croatia	Dario Hršak	445	



# What happened in Skill 06 since 1999 ?

Calgary 2009

Our first "Team Challenge" event :-)



## About the Skill

WorldSkills changed the format from 4 days to **3-1/2 days** and I was faced with a very difficult situation. Competition-day 4 was now only ½ day.... how should we have a good project when we do a shift – rotation ? This would mean that we would have a 1,75 hour module for the last competition day. ( Programming, setup and working - cleaning and shift-change).

I did not think that we could have a nice competition project on a CNC machine in less than 2 hours. I decided to ask WorldSkills if I could run a 3-day-competition and have the competitors work on a "Team-Challenge" on day 4.

I thought that putting the competitors from all around the world in 2 different teams and ask them to build something together as a team, would be a very nice memory for them ( and for us ).

This **changed the marking** - We had now 3 Modules, 2 modules were now worth 33 points, and one module was 34 points.

The **project time** was now shortened to 4,5 hours per module - so it was 3 x 4,5 = 13.5 hours.

I designed the big chessboard and the two teams were working as fast as they could to be the team that finishes first. They had 3 hours and it was a huge and memorable experience.



Teamchallenge 2009 design by Harra Harra

Two teams built two chess- boards, and we made it a custom that the Workshop manager should get one project, and we gave one to WorldSkills to give it to the Host-Country Committee as a **present from CNC-Turning**.

The Team-Challenge was such a success and became a constant setup for CNC turning. ( Yeehaaaaaaw )



We also had a YO-YO world-champion to do a Yo-Yo-artistic performance. What a super-show, even for you, the "Kung-Fu-Yo-Yo-Master" :-)

This all was to show the visitors what we can build in CNC turning. We had thousands of happy visitors.

*Ahh .. remember ... there was a protester who changed into a seal-costume to confront the prime minister as he walked by our competition. 😊*

*We had a little "Police-action" at the time :-)*

*Funny that none of us realized how this person sneaked into our skill area and changed into this seal-costume.*

*Oh man, what a time 😊*

## General happenings

Wow ... this was a super competition. Very well prepared by SkillsCanada. Back then ... if you remember ... we had our very first woman as workshop manager. It was Sue from Canada. She really did a great job and was very happy to receive the chess-board 😊 Sue "desperately" wanted to be part of our family and came back as expert for Canada, and 2017 she was chief expert, if you remember 😊

Our workshop manager organized a college to produce and give away plastic YO-YO's. They build an injection-mold, produced thousands of Yo-Yo's and the visitors could assemble them in our CNC-competition workshop.



I have some memories from 2009. See the photos on the next page :-)



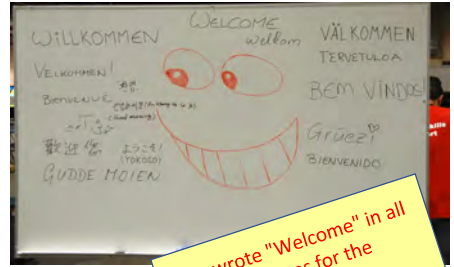
Remember Grand Chief Charles Weaselhead at the opening ?



# What happened in Skill 06 since 1999 ?



This was the Yo-Yo Assembly Line :-)



We wrote "Welcome" in all languages for the competitors



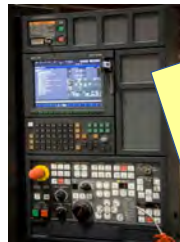
Our competitors of 2009 - posing with the Team-Challenge for the Canada-TV :-)



The chess board - present for our WS-Manager



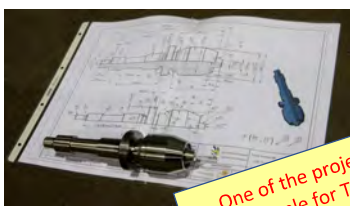
Jia-Hsing ... this is you and William :-)



Wow - the control of 2009



Mr. "Silverfox" in his younger years :-)



One of the projects 2009. To simple for Technology today :-)

WorldSkills Competition 2009

06 CNC Turning, CNC Drehen, CNC Tourtage

Member	Competitor	Result	Medals
Austria	Poredos Benjamin	542	GOLD
Korea	Jo Jaewoo	541	GOLD
Thailand	Chaiprasian Nathaphon	540	GOLD
Japan	Kitayama Noriyuki	539	BRONZE
Brazil	Batisti Weliton	529	
Chinese Taipei	FANG CHUN-KO	525	
Netherlands	Borgelink Patrick	515	
Germany	Zelmer Daniel	515	
Canada	Grenier Guillaume	511	
Switzerland	Vogelbacher Fabian	505	
Finland	Lappalainen Joni	496	
Sweden	Ottosson Marcus	488	
Singapore	Bin Abdul Rashid Muhammad Afiq	483	
Denmark	Blaabjerg Kjaer Jensen Hans	483	
Iran	Khalili Geshnigani Akbar	481	
United States of America	Schwarzer Josef	474	
France	LEPROUX Julien	473	
Belgium	Chamizo Michaël	469	
Mexico	Rodríguez Jose Mario Cruz	447	
Luxembourg	Da Silva Marco	444	

Skill 06 Results 2009



# What happened in Skill 06 since 1999 ?

London 2011

Finally we could use life tooling ( milling ) in our competition :-)

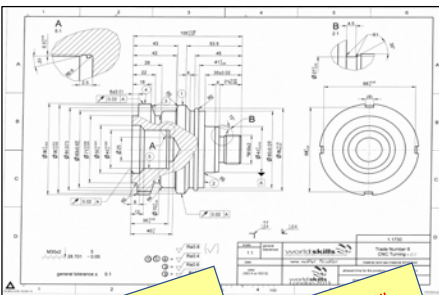


## About the Skill

London was the first time we used **Life-Tooling**. Finally we could introduce **simple** milling work to our projects. I was so happy.

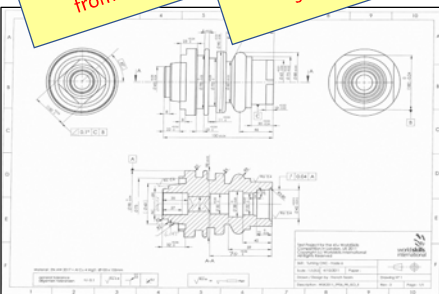
This presented another big step and huge change in our competition.

As usual, all experts had to design a Testproject, and all Experts did vote from this pool the "best suited" Projects.



2 of the Projects from London

our first "milling" steps :-)



Tzu-Ling, the **FIRST** girl in our competition. Jia-Hsing, she was your competitor. This was a milestone for our competition.



Team-Challenge 2011 design by Harra Harra

## General happenings

London is a great city and the hospitality from SkillsUK was great. But we had many challenges.

Jia-Hsing, do you remember that **SkillsUK changed the computer-password for every competitor** and did not tell anybody ? Wow, we had a funny 1st day when all competitors came to tell us that their password did not work anymore.

There was also a "problem" with **letting the experts in earlier to prepare the competition materials**. We were not allowed to enter early, so we always arrived at the skill **AFTER** the competitors. Every day we needed to postpone the start of the competition 30 - 45 minutes, only because we could not get in on time to prepare the materials, drawings, USB-Sticks etc. Because we have 2 shifts, we had to do the same in the afternoon group.

Management told us every day that this problem will be fixed and that experts can enter early on the next day, but this never worked. Every day we had to shorten the project time.

Remember the small "**camping-tables**" and cabinets they gave us ? I made it clear that we need heavy duty tables for our heavy steel workpieces, but SkillsUK decided that camping tables are good enough for us. Oh man, do you remember how the **tables collapsed under the weight and all projects rolled out on the floor into the competition area and the audience** ? Ohhhhh maaaaan .... After this "disaster" we finally got heavy-duty tables and cabinets. Yeah, some funny situations. ☺

Hey Jia-Hsing - This is the first time we had a Lady competitor in Skill 06. Tzu Ling - YOUR student ... This was a milestone for us in CNC turning and our CA-Expert ( Sue ) was soooo proud :-)

The Team-Challenge in London was the Canon. Remember this ? Even the Local TV-Channel came to do film this Team-Challenge event.



Look at our CA-Expert giving an interview on TV :-)

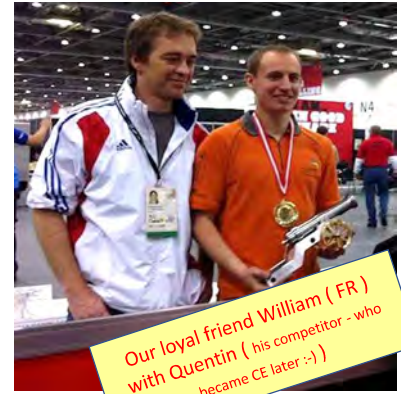


The winning Team of the Team Challenge

# What happened in Skill 06 since 1999 ?

06 CNC Turning 500 Scale Marks		WorldSkills London 2011	
Name	Member	Result	Award
Abe, Haruki	Japan	535	GOLD
Choppanid, Teeranun	Thailand	534	GOLD
Oh, Sun Jic	Korea	534	GOLD
SANTOS, RAFAEL	Brazil	531	Medallion for Excellence
TU, TZU-LING	Chinese Taipei	523	Medallion for Excellence
Michel, Konstantin	Germany	521	Medallion for Excellence
Fink, Martin	Austria	520	Medallion for Excellence
Sheng, Guodong	China	519	Medallion for Excellence
Bichet, Raphael	Switzerland	507	Medallion for Excellence
Persson, Pontus	Sweden	504	Medallion for Excellence
Munkeby, Martin	Norway	499	
Ong, Han Jie	Singapore	499	
OSTERROTH, Quentin	France	497	
Spowart, Phillip	United Kingdom	495	
Lilja, Ossi	Finland	482	
PRADHAN, BISWARANJAN	India	461	
Briceño, Javier	Colombia	451	
Gran, Kevin	Spain	445	
Hershey, Maxwell	United States of America	441	

**Skill 06 Results 2011**



Our loyal friend William ( FR ) with Quentin ( his competitor - who became CE later - : )



Team Challenge Teamwork

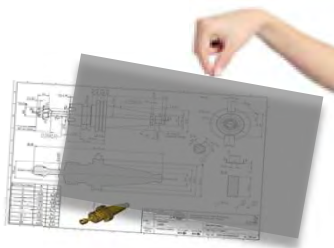


Our Team Challenge Medals 2011

## Leipzig 2013 The "Harra Harra - Song" from William :-)

### About the Skill

We started to use the "Privacy-Filter" for the project-drawings. Now only the competitor can see the drawing and nobody from the audience can take photos and show them to competitors from the afternoon shift.



*Many of us had to take a Taxi to get there on time. We were worried about the Tram-schedule for the next days. But they quickly changed the frequency of the Tramway and the following days were ok. ( no more Taxi-expense )*

Our expert evening was ( as usually ) very funny and team-bonding. ( a lot of German Beer )

I remember that the Skill "Plastic Die Engineering" had the bigger CNC-milling machines than the Skill "CNC-milling", even though Plastic Die Engineering used the machines only for a few hours and had smaller Workpieces.

How funny this looked for us 😊

The saddest thing we had to face in Leipzig was the disqualifying of a competitor who secretly used an USB-Memory-Stick to upload forbidden Tool-Data. I really felt sorry for the boy, but I had to fulfill my duty as Chief Expert.

Do you remember that WorldSkills management did not want to disqualify the competitor ?

This was a very critical situation for me. Why do we have rules, and when we find somebody who breaches the rules to such an extend to gain an illegal advantage - why not disqualify this person ?

### General happenings

Everything worked really well from the organization of SkillsGermany. This event was very well organized. For the Team-Challenge we used again the Chess-Board set we produced at the competition in Calgary 2009.

*Funny anecdote - The Tramway on day one did not have the capacity to transport everybody to the competition.*

Team CNC turning 2013





# What happened in Skill 06 since 1999 ?

You may remember that the Deputy ( at the time it was Henrik from Sweden ) and I wanted to resign from WorldSkills and leave the competition, because we both could not work for an organization who did not disqualify somebody who was cheating. I remember the very emotional moment when we came back from the committee-meeting that evening and told all of you that we did put down our badges ( and quit ).

Luckily Sue ( Canada ) and Guy ( USA - we called him Gandhi ) talked us into staying and try to solve this together.

Now all experts informed their Technical Delegate, explained the situation and that everybody would leave and quit the competition if WorldSkills would not disqualify the competitor who cheated. Wow - what a commitment.

The Technical Delegates had an emergency meeting that night and changed their decision.

The competitor who cheated was downgraded below 500 points and all experts saw this as a fair compromise. We all did continue the competition.

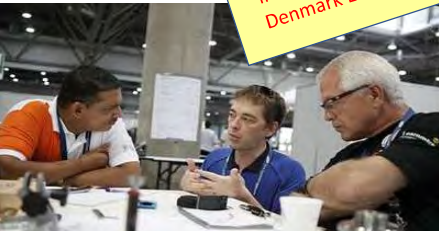
*By the way ... the "Harra Harra" song was created by William :-)*  
*watch on YouTube*  
<https://www.youtube.com/watch?v=9oCz05Unubw>



NL, USA and UK Experts



Again a girl in CNC-Turning - Singapore



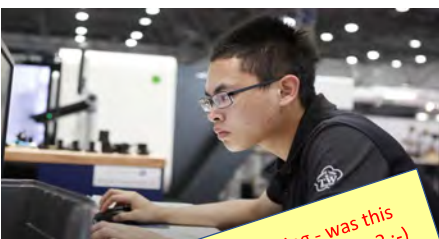
India, France and Denmark Experts



The Team Challenge Medals - and the legendary big Swiss-Cow-Bell



The Team Challenge



Jia-Hsing - was this your competitor ? :-)

Skill 06 Results 2013

world skills Leipzig2013		06 CNC Turning 500 Scale Marks WorldSkills Leipzig 2013		world skills international	
Name	Member	Result	Award		
MANIWONGRUNGROT, PREECHA	Thailand	545	GOLD		
Nam, Gi Gyeong	Korea	539	SILVER		
Ishii, Yusuke	Japan	535	BRONZE		
Prado, Jacques	Brazil	530	Medallion for Excellence		
Feurstein, Manuel	Austria	526	Medallion for Excellence		
YANG, CHIN-HAO	Chinese Taipei	522	Medallion for Excellence		
Wolbers, Roland	Netherlands	517	Medallion for Excellence		
Bieler, Riccardo	Switzerland	513	Medallion for Excellence		
Chia Siew Peng, Eunice	Singapore	503	Medallion for Excellence		
Mo, Junjie	China	499			
Tuhkanen, Jari	Finland	497			
Jonasson, Villman	Sweden	489			
Brockfeld, Tobias	Germany	487			
Anderson, Ben	United Kingdom	484			
Arango, Julian	Colombia	477			
Hveding Bergum, Tor Erland	Norway	472			
Boudreau, Luc	Canada	470			
SANKAR, MUTHUKUMAR	India	467			
TOUCHE, Amaury	France	464			
Olkowski, Ronald	United States of America	457			
Luther, Glenn Guldbæk	Denmark	455			



# What happened in Skill 06 since 1999 ?

Sao Paulo 2015

The "Harra-Bot" dominated this event :-)



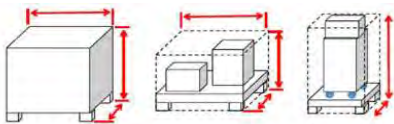
## About the Skill

Starting in Sao Paulo we used an **External Test-Project-Designer**. At first experts were very skeptical – but in the end the designer became standing ovations. It was, Dieter - who later became a team-member as CNC-turning expert :-)- he really did a super job.

From now on we do **not need a Bandsaw** in our competition anymore, because we do not have to vote for any projects.



We also **restricted the shipping size of the toolbox** in the TD, remember ?



Because of bus-schedules we had to have the same starting and ending time as all other skills. I was advised to **cut our project time to 12 hours**.

## General happenings

The Expert evening was ( as usual ) a great event. We went to a Churrascaria. Experts, Sponsors, Interpreters - we all had a lot of fun and good bonding time.

We found some "funny" signatures and corrections on some marking sheets, and nobody seemed to be responsible for these changes. So we changed everything back and decided to use a CE + DCE stamp in the future to authorize any changes on marking sheets.



I also remember we had "funny" Aluminum. The material we all got was so tough that many competitors broke their Inserts of the tooling.

*You may recall that we have in our safety rules that we are allowed to work with short pants. Short pants is not a safety hazard in our skill. I remember it was veeeery hot in Brazil and I did put on short pants. André Vermeulen from WorldSkills came by and told me this is a safety hazard and I had to leave the area. Remember this ? How funny 😊*

Safety



Hazard :-)

Jia-Hsing, maybe you remember the competitor from Kazakhstan ?

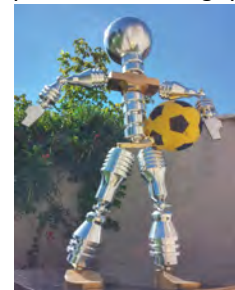


In their country they made a terrible mistake. They did not know we have a CNC competition. They trained only on manual machines.

The competitor has NEVER worked on a CNC Machine ... Oh man, what a shock when he saw our CNC- machines. For safety reasons I had to take him out of the competition, but we had ROMI and Mastercam technicians who did teach him a little CNC in the 3 days, and on day 4 he could already participate in the Team-challenge. He was so happy to learn a bit CNC.

A sad situation in 2015 .... Our friends from CNC-Milling did not have the results ready by the closing ceremony :-(  
This was a first in WorldSkills History.

Hey, our Team-Challenge was the "Harra-Bot" .. designed by our French deputy chief expert William. Everybody loved that little guy :-)



# What happened in Skill 06 since 1999 ?



The finishing of the Team Challenge



Name	Member	Result	Award
Somsongkham, Kittinan	Thailand	559	GOLD
kruzbekievicz, Eduardo	Brazil	552	SILVER
CHEN, ZHI-MING	Chinese Taipei	549	BRONZE
Lee, Beom Hee	Korea	538	Medallion for Excellence
Wang, Shuai	China	536	Medallion for Excellence
Sakai, Ryuta	Japan	526	Medallion for Excellence
Rohrer, Robin	Switzerland	523	Medallion for Excellence
Wagner, Alexander	Austria	520	Medallion for Excellence
Ng, Ming Yang	Singapore	511	Medallion for Excellence
Elton, Alex	United Kingdom	500	Medallion for Excellence
Ruiz Tobar, Herman Dario	Colombia	499	
Kottayi, Jishnu	India	497	
Zelmer, Tim	Germany	497	
Vadstrup Pedersen, Nikolaj	Denmark	489	
Tåsås, Jonas	Norway	487	
Degerheim, Vidar	Sweden	485	
Fandrick, Trevor	Canada	484	
Loskutov, Anton	Russia	483	
Khadaa, Lkhagva	Mongolia	479	
POMINAU, ALIAKSANDR	Belarus	475	
LAPEIRA, Jon	Spain	471	
VERNY, Alex	France	463	
AL Hamad, Abdulla	United Arab Emirates	461	
de la Tejera Reyes, Gustavo Ulises	Mexico	460	
Davids, Duwayne	South Africa	456	

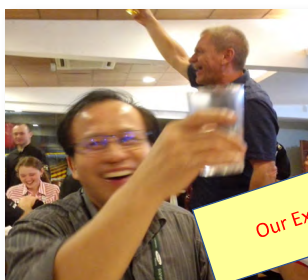
Skill 06 Results 2015



Shen, you and your Bronze Medal Winner



everybody wore the Colombian hats :-)



Our Expert Evening :-)



# What happened in Skill 06 since 1999 ?

Abu Dhabi 2017

The "CNC Song" - by Elena Myasnikova :-)



## About the Skill

We implemented the "Skills Competition Manager". This was a needed change and adaption by WorldSkills. The Skills Competition Manager is neutral and independent. He does not represent a member or country, he represents Industry and WorldSkills.

Jia-Hsing ... we faced many changes in our time with WorldSkills, right ? 😊

I implemented new operations and processes to our competition. Remember ... we now have the "Mass Production", the "Rework" and the "Customer Change" module. The "Project Design Criteria" Document was updated to apply this.

Also, we did NOT tell the competitors which material we will use. From now on the material is a secret. The competitor must face the material challenge at the competition.

Bus-travel is good and competition time is now 3 projects à 4,25 = 12,75 hours.

WorldSkills made it mandatory that experts are tested on the use of the inspection tools, so we had to develop a "testing procedure".

## General happenings

We had so many problems with the Infrastructure. Remember ? Many items were missing for every skill. We all faced difficult and stressful situations. Wayne Dejong was the sector manager at the time and he ( and all other sector managers ) were really stressed. But Wayne was one who can keep people calm and find solutions.

The most important items for our skill were the VDI-Toolholders. We thought we must stop the competition. But then - the relief ... the evening before the familiarization-day the VDI-holders arrived.

We unpacked them - and found out that they delivered the wrong holders ( Left Tool ). Oh maaaaaan ... for us this was the end - I was ready to tell WorldSkills to cancel skill 06 :-) But then Wayne Dejong had an Idea.

He got us copper tubing and we experts did braze cooling-tubes onto those holders. We worked late into the night. The result was not very professional, but hey ... at least we could now have a competition :-) I remember that some skills had to start one day late because of missing material.

brazed coolant tubes :-)



Oh, we had also the issue with the security line they installed. That was a huge jam and delay for some of us. One day even the WS-Manager was 1 hour late :-)

Hey ... remember, our own CNC-Song was created and performed ... What a great performance from the Russian Interpreter Elena :-) 'cause we're C-N-C ....



Sweden & Denmark ( Oskar & Silverfox )



Russia ( Ilya ), Germany ( Hanno ) and me



and again a girl in our competition ( Singapore )



Our Team 2017



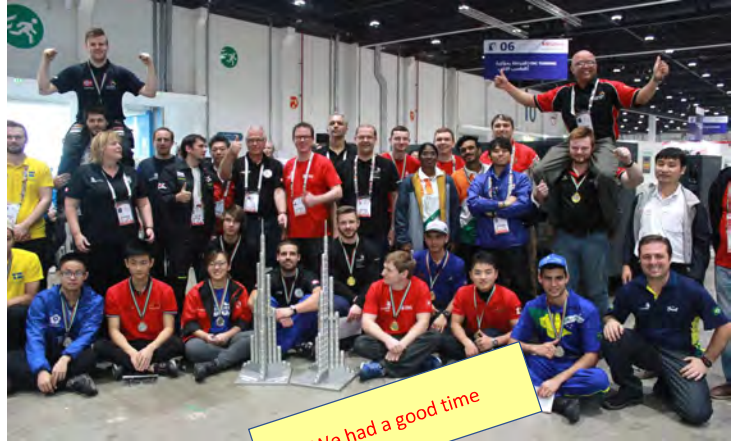
Sheikh Harra Harra



# What happened in Skill 06 since 1999 ?



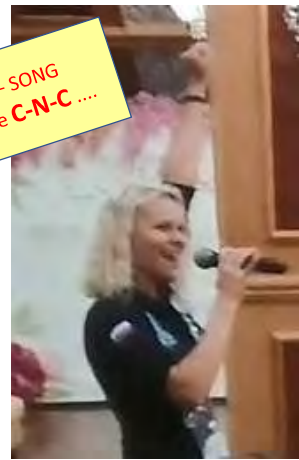
Problem discussing



We had a good time



The Expert - Evening well prepared by Abdulla, the UAE Expert what a great time



The CNC - SONG 'cause we're C-N-C .....



Team challenge Burj Khalifa design by our Swiss Expert Simon :-)



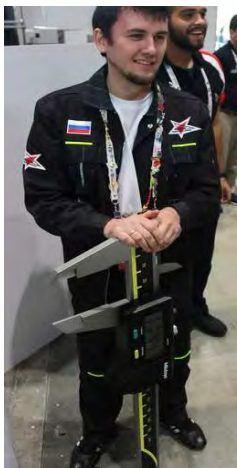
See more ( many emotional ) photos here : <https://disk.yandex.ru/d/6xuLliEk3NyQiy>



## 06 CNC Turning WorldSkills Scale Results WorldSkills Abu Dhabi 2017

Skill 06 Results 2017

Name	Member	Result	Award
Mateus Moriel	Brazil	748	Gold
Zhimin Chen	China	744	Silver
GUMIN HEO	Korea	737	Bronze
Yuta Asazu	Japan	734	Medallion for Excellence
Boris Satarov	Russia	732	Medallion for Excellence
Jeerawat Sakunee	Thailand	722	Medallion for Excellence
Marco Kern	Austria	720	Medallion for Excellence
Patrick Meier	Switzerland	716	Medallion for Excellence
Min Li Rachel Ho	Singapore	701	Medallion for Excellence
SHI-BIN CHEN	Chinese Taipei	700	Medallion for Excellence
Sergio Andres Suescun Sanabria	Colombia	692	
Lukas Bosslet	Germany	691	
René Kling Hansen	Denmark	690	
Jonathan Adair	Canada	688	
Renier Wepener	South Africa	683	
Tobias Alm	Norway	681	
Nam Pham	Sweden	679	
ANURADH THANDAYAN MADAPPURAKKAL	India	674	
YURY KASACH	Belarus	671	





# What happened in Skill 06 since 1999 ?

Kazan 2019

The first girl with a medal in Skill 06 :-)



## About the Skill

Driven Tools have been in use since 2011 and I decided to now implement the use of a **Y-Axis**. This is very common in Industry. The CNC-Machine we used in Abu Dhabi was already equipped with a Y-Axis, but per Technical Description we were not allowed to design projects for the use of this Y-Axis.

We changed the TD and were ready for this new process.

Sadly we could not get a CNC-Lathe with a Y-Axis from the Sponsors :-)

But as the SCM I could now implement other common industry-technology. We now give the competitors a **STEP file** of the test-projects. This was another huge step forward. Finally we implemented this commonly used process. The competitor receives a 3-D model ( STEP-FILE ) and does not design the test-project from the paper-drawing anymore. Because we now use STEP-files, **new guidelines** had to be established for the Test-Project-Designer.

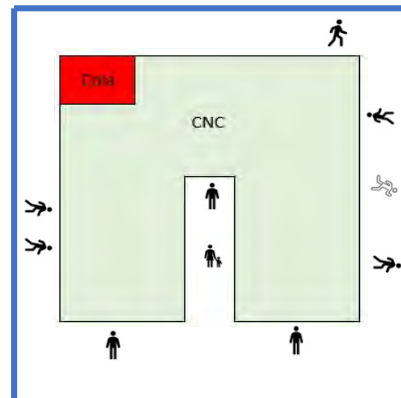
However, we have to **wait for the competition in Shanghai to implement the Y-Axis** in our projects.

## General happenings

To have the competition in Kazan was really great. Well prepared by SkillsRussia, from entering the country, to the opening-, the competition as well as the closing ceremony - SUUPER :-)

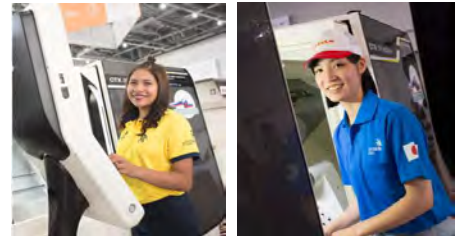
As I recall, they had volunteers at every airport to help WorldSkills people with all the Visa- and transfer processes. This was really great.

*I also recall a funny thing ... We had to give away competition space to a Coca-Cola advertising booth :-) - In the LAST corner of the hall - where they would not get many visitors - how funny :-)*  
*Well, our WS-Manager now did not have enough space to store our material - and Cola had a space but seldom occupied it.*  
*Oooooohh maaaaaan :)*



We had **TWO Ladies** now in our competition. Colombia and Japan, and the Lady from Japan did win a Silver-Medal.

Man, what a success for a girl in this male-dominant skill.



2 CNC girls - Columbia and Japan

Oh, remember the rain ( only short time ) we had at the closing ceremony ?

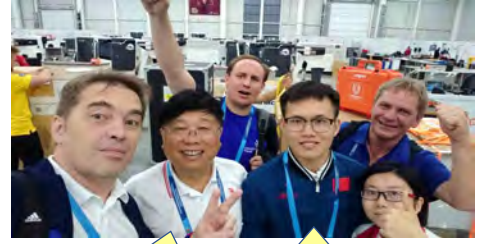
But it did not bother any of the winners :-)



We had again a great expert evening. This is family bonding and friendship building  
Thanks' so much to Ilya for this :-)

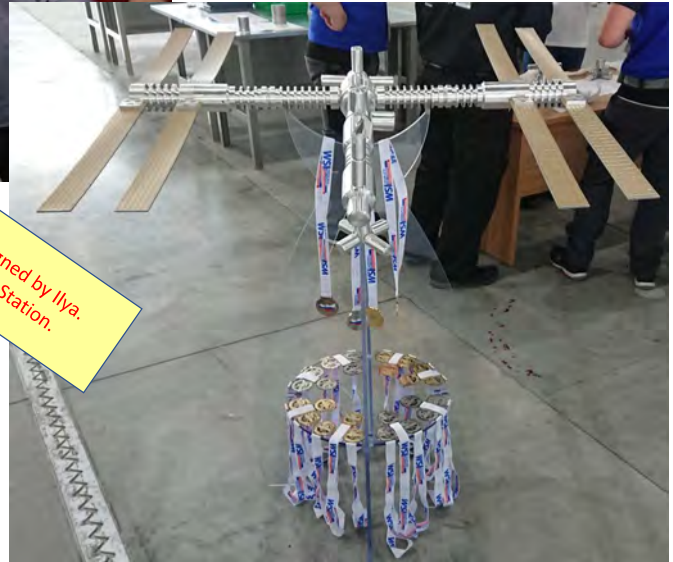


# What happened in Skill 06 since 1999 ?



Gold Medal ( CN ) 2019  
Happy Mr. Song :-)

The Team-Challenge was designed by Ilya.  
It was the International Space Station.



## Skill 06 Results 2019

Name	Member	Result	Award
Xiaocheng Huang	China	766	Gold
Lukas Albert Muth	Switzerland	751	Silver
Leonardo Escola	Brazil	750	Silver
Miho Kumon	Japan	749	Silver
Wuttichai Pligsang	Thailand	745	Medallion for Excellence
Deuk-Hee Jung	Korea	744	Medallion for Excellence
Casper Rasmussen	Denmark	730	Medallion for Excellence
Egor Zhadan	Russia	728	Medallion for Excellence
Simon Pankratz	Germany	726	Medallion for Excellence
CHUNG HSUAN LIN	Chinese Taipei	722	Medallion for Excellence
Alexander Absmann	Austria	719	Medallion for Excellence
Phan Van Quoc	Vietnam	717	Medallion for Excellence
Alex Ong	Singapore	708	Medallion for Excellence
Gabriel SAINTRAIS	France	702	Medallion for Excellence
Niko Mähönen	Finland	698	
Jan Willem ten Hag	Netherlands	698	
Abinash Swain	India	697	
Jack McCarthy	United Kingdom	697	
DZMITRY HRUK	Belarus	692	
Markus Hansson	Sweden	686	
Sondre A. Larsen	Norway	685	
Rashad Ali	Canada	683	
Adrian Moonsamy	South Africa	682	
Tsogtsaikhan Tumurbaatar	Mongolia	680	
Dimas Alvian Putra Setiawan	Indonesia	679	
Erika Paola Suarez Suarez	Colombia	678	
Temirlan Orynov	Kazakhstan	674	
Eyas Al-Maqbali	Oman	663	

# What happened in Skill 06 since 1999 ?

## Leonberg 2022 - Special Edition

What an event - I am so happy we did it :-)



### Cancellation of Shanghai :-)

On 31 May 2022 WorldSkills International announced the cancellation of WorldSkills Competition 2022 (WorldSkills Shanghai 2022).

The lockdowns in Shanghai and ongoing pandemic prevention and control restrictions in China made hosting the event not possible in 2022.

**WorldSkills Competition 2022 Special Edition** was the official replacement for WorldSkills Shanghai 2022. 62 skill competitions were held over 12 weeks in 15 countries and regions between 7 September and 26 November 2022.

Many countries were forced to cancel their participation. However, we still had 20 (+ 1) competitors for our skill. As you may remember, South Africa could not come to Germany in time because of VISA problems. He was too late to start in the competition, but we could let him work, practice and gain experience ( outside of the official competitor List ). He was the 21st participant.

Sadly the war on the Ukraine started, and Russia and Belarus were excluded from WorldSkills :-)

The CNC-Skills Competitions were held in Leonberg, Germany, at a DMG-Mori facility.

There was ONE Workshop Manager for both skills.

We did NOT have a CMM for inspection - All was done by hand ! You may recall that we had 6 CNC Lathe's and 5 CNC Milling machine in ONE Center. We were working for 10 days in 3 Shifts. Oh man - Loooong days.

We had to work in 4 Groups and competitors had always 1 day competition, and then one day "free time", which we tried to compensate with excursions to DMG in Pfronten, Horn, Chiron and a Museum.

Some of the memorable things: Remember the Swiss cowbell ? Man, eeeverybody wanted to ring the bell for start and end of the competition, this was a real catch for everybody.

The French competitor cut his hand and was bleeding heavily - but it did not bother him much ;-)

Remember that Quentin ( our Chief Expert ) was about to be a father ? His wife was home and expecting the baby any moment - his son Liam was born shortly after the competition - all healthy and fine :-)

The Opening and the Closing Ceremony was held in the nearby Movie-Theater. We had very comfortable seats :-)

And at the Expert evening - together with CNC milling - we had a group of expert-singers - almost Opera-Quality.

### About the Skill

In our skill - for the 1st time - we used ZOLLER Tool-presetters. The CNC Machines were not equipped with a tool-setting-arm, so Zoller sponsored a Toolpresetter for each machine.

All Modules were designed with milling features to use the Y-Axis.

All Tasks were given out as STEP files, which is standard already in our skill.

We had **THREE Ladies** in our male dominant competition. UAE, Germany and Chinese Taipei.



2022 - Three CNC Ladies :-)

As you may remember, because of the limited resources and the limited time, we did NOT have a Team-Challenge in 2022.



CNC Milling and CNC Turning - 11 Machines in one room at DMG-Mori in Leonberg :-)



# What happened in Skill 06 since 1999 ?



Soon to be a father



the French boy cut his hand



kuckuck ;-)



hard to believe - Experts at work ?? ( hihi )



Somebody had fun ;-)  
Look - that's him 2011 :-)

Expert evening :-)

**Skill 06 Results 2022**

## 06 CNC Turning

WorldSkills Scale Results  
WorldSkills 2022 Special Edition

Name	Member	Result	Award
Hongyu Wu	China	760	Gold
Nguyen Xuan Thai	Vietnam	748	Silver
Natthawut Phetngam	Thailand	746	Silver
Hayato Shiozawa	Japan	746	Silver
Minjun Shin	Korea	732	Medallion for Excellence
Nicolas SCHWING	France	719	Medallion for Excellence
Kevin Emhofer	Austria	715	Medallion for Excellence
Hanan Alshamsi	United Arab Emirates	709	Medallion for Excellence
Sander Hem Münchow	Denmark	704	Medallion for Excellence
XUAN-ROU WANG	Chinese Taipei	701	Medallion for Excellence
Fabian Leuenberger	Switzerland	699	
Hannu Helve	Finland	691	
Christian Armando Rodriguez Montezco	Mexico	689	
Satyaranjan Mohanty	India	683	
Merle Ruffing	Germany	681	
Bun Long Chan	Singapore	679	
Alexander Johnsson	Sweden	673	
Ochbaatar Gankhuu	Mongolia	668	
Maxwell Melling	Canada	656	
Ilsur Tukayev	Kazakhstan	652	





# What happened in Skill 06 since 1999 ?

Lyon 2024

I am sure, looking at the photos, we all can say this was a very memorable event :-)



## About the Skill

Hey, the Forum was very active. So much interest and action from our experts - great. However, I think I must find a better way to arrange the Forum. Information is hard to find when you have so many topics.

African countries seemed to get high interest in Skill 06. Besides South Africa ( a well known participant ) now Egypt, Ethiopia and Kenya registered.

Some friendly training-competitions were organized, where countries were invited to "practice" the skill, exchange training ideas and build partnerships.

We had 3 Modules + a Team Challenge, worked in shift rotation and had secret projects. We used STEP files and the Y-Axis for milling. ( our usual procedure )

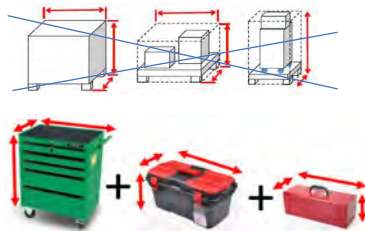
Shortly before the competition we heard about a rumor, that WorldSkills thinks about merging Skill 06 and Skill 07 again. None of us knew about anything and we all felt left out in a decision making. This cloud shadowed our ambition to WorldSkills. When we first met in Lyon, I asked the group to NOT let this "sword of Damocles" influence our current competition. WSI will decide - without consulting us - and we will at the end accept their decision...whatever it will be.

Prior to the competition I asked Mastercam if they would be willing to share their development

and explain to the experts what "the future" in CAM programing will be. I wanted to take advantage of the fact that experts from around the world are together - So lets have a small "seminar" on CNC programming. Gladly they accepted and a very nice presentation was given to us.

After Leonberg, Lyon 2024 was the 2nd competition where we had ONE Workshopmanager for 2 Skills ( 06 and 07 ). Remember Tobias ? But after the competition he admitted - 2 such big skills is too much for one Workshopmanager, even with one assistant per skill - this was just too much. Leonberg was small .. 11 machines - Lyon on the other hand - 30 Machines. I am happy that Agnes ( our Workshopmanager-Assistant and our Chief Expert took on a very high part of setting up and preparing the shop - it would have been a disaster without their ambition.

Sustainability - Since 2015 we restricted the [shipping box dimensions](#). Starting now, it is the [toolbox dimension](#) that is restricted to 1,2m³. ( By the way - we had one competitor very close to the limit - 1,17m³ :-)



I am sure you remember the difficulties with the Infrastructure-List. Many items were missing - or delivered very late - and we had to improvise. Remember that we did not have enough Toolboys ? At Familiarization we had 4 Toolboys for 14 Workstations - So competitors had to arrange for this insufficient setup. Also the Testprojectmaterial and other things were delivered in the last second. So we received Tool cart-shelving and the missing toolboys on C-1 in the Afternoon - and Agnes and Quentin were mounting it all afternoon. They finished just in time to go to the opening ceremony - in their work cloths and safety shoes - What a dedication of those two ( bravo )



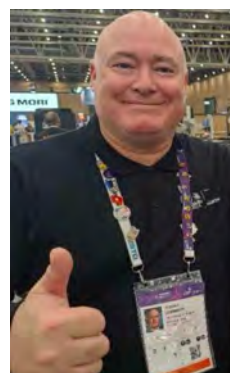
The secret heroes of Lyon - Skill 06  
Great respect to Quentin and Agnes



International inspection Team :-)



Skill out for hard working experts ( and interpreters ) :-)



Remember Tobias ?  
A Workshopmanager for 2 skills - but he had to stay on the "dark side" because of many problems there. Luckily we had Agnes and Quentin in Skill 06. Tobias was also the Workshopmanager at the Special Edition :-)



# What happened in Skill 06 since 1999 ?

## About the Skill

About the TD - changes :  
 Amongst some minor things, the major changes for the next TD included "implementing a surprise tool" and including CNC files as an option.  
 Also, more clarification in the document "Project Design Criteria for Skill 06" - on some tools to bring. I think the option of providing a CNC file is a great addition - this happens in industry a lot !

## General happenings

Sadly the Experts from EG and ET, as well as the competitor from EG could not come to the competition because of VISA issues .

The Team-Challenge Medals were designed and manufactured by Quentin ( CE ) and Agnes ( Workshop Manager Assistant ) - Really nice Job :-)

After the Familiarization we found that it was safer to "exclude" 2 competitors from the competition. We had 2 very nice female participants, but their level of experience on such machines was just not enough to work safely. The girls from Kenya and Ethiopia were excluded, but Mastercam and DMG Technicians gave them training lessons, so at least they could go home with a positive learning experience.

Our Chief Expert, together with Ilia from DMG organized our traditional Expert evening - and again we invited the "dark side" - Skill 07 to join us - we are so nice :-). Christian ( Mexico ) had to pass the "Baby Expert Test" hihi..

Did you notice ? We had 5 female competitor registrations. Wow ... the Girls are coming - watch out boys :-)

Our Ladies in 2024 :-)



ET  
 KE  
 ZA  
 MX  
 SG



Do you remember the museum visit ? This was our skill 100 years ago :-)



Even though Kenya was excluded from the competition, after learning sessions she could participate in the team - challenge - look how happy she was.

The Team Challenge this year was the "Ariane" Rocket. The prototype was build by several Experts around the world - each got a "single" part to make - but nobody knew the completed project - that remained a surprise :-)



The Chief proudly presents his family - His wife and baby came to visit. Remember - The baby was born right after the Special Edition 2022. The wife was home expecting the child any

minute - while our Chief Expert was on duty in Leonberg - what an excitement :-)



Hard work - but let's admit it, but we had fun :-)



# What happened in Skill 06 since 1999 ?



I liked it that many experts did bring example parts for the audience to see :-)  
Do you remember the sterling engine from Mr. Song ? - Wow, beautiful



Jörg - main Sponsor and former expert



Clint Smith - Teaching M-Cam



The famous Swiss cowbell in Skill 06



very concentrated Inspection :-)



William, the inventor of the Baby Expert Test



Ähhhh ....  
What ? Experts are vacuum cleaning the competitor workstations every evening ?





# What happened in Skill 06 since 1999 ?



Our busy inspection teams :-)



The proud medal winners



Look - ALL Members - Team CNC 06 - 2024



Harra Harra

Skill 06 Results 2024

## 06 CNC Turning WorldSkills Scale Results WorldSkills Lyon 2024



Name	Member	Result	Award
Junsu Kim	Korea	739	Gold
Daimu Tazawa	Japan	734	Silver
Manbing Chen	China	734	Silver
Paramin Phakutlo	Thailand	733	Silver
João Lucas Gomes Guimarães	Brazil	732	Silver
YONG-XUAN LIN	Chinese Taipei	731	Bronze
Cu Duc Hieu	Vietnam	722	Medallion for Excellence
Saif Alhefeiti	United Arab Emirates	718	Medallion for Excellence
Thomas Eric Veidt	Switzerland	712	Medallion for Excellence
Julian Gelo	Germany	711	Medallion for Excellence
Nyambayar Amgalan	Mongolia	701	Medallion for Excellence
Oscar Dahl Nielsen	Denmark	699	
Ajaya Sethi	India	695	
Lucas PERRET	France	693	
Itzel Aketzalli Treviño Nuñez	Mexico	691	
Dominik Kovarik	Austria	689	
Alexey Mirakhimov	Kazakhstan	687	
Arvid Winberg	Sweden	683	
Jia Xin Low	Singapore	677	
Brayan leonardo Vasquez dimate	Colombia	671	
Nthabiseng Mnisi	South Africa	653	
Aram Castro Poblete	Chile	640	



Our main Sponsors



The Baby - Expert Test  
What a bonding evening  
we had - Thanks to Quentin  
for organizing - Thanks to  
DMG - for sponsoring :-)



# What happened in Skill 06 since 1999 ?

## Shanghai 2026 .... in the works



This next competition drags the taste of Covid along.

After the Postponement, and the Special Edition, we finally will carry out our competition in Shanghai.

Let's do our best to make it again a great competition for us and our competitors :-)

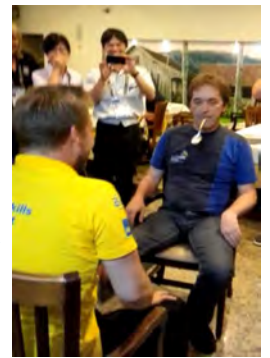
### About the Skill

We have some proposals to discuss for the next competition.

Issues like space, toolbox size, use of energy, Implementing Artificial Intelligence, maybe even a merge of the 2 CNC Skills etc. will be on our agenda to discuss for the future competitions in Skill 06.

I am sure we will have some fruitful discussions.

*Jia-Hsing - I do not quite remember when William and I implemented the "Baby-Expert-Test" - but I know for sure, **YOU** and **I** are not Baby-Experts" and will not have to take this test :-)*



Baby-Expert Test

*Notice - Oskar ( SE ) once was the Baby-Expert :-)*

My friend Jia-Hsing , 2026 is when we all hopefully meet again in good health , and then we show everybody that the **OLD DINASOURS** still have the Spirit ... **We are Skills ....**

we are ...

# Harra Harra



# What happened in Skill 06 since 1999 ?

## How we changed the key-procedures in skill 06 over the years

- 1999 This is how we started our journey
- Every competitor has his/her own machine.
  - Mastercam was an option for the competitor.
  - We had ONE 4-day Assembly Project.
  - Design of Project .... I have no idea.
  - The written program ( Text ) was evaluated.
  - No sustainability in the marking scheme.
  - All dimensions measured on the CMM.
  - Only the Chief and Deputy were involved in marking.
- Then I was appointed as Chief, and I changed some things :-)
- 2001
- Modular Project Design
  - Document "Project Design Criteria".
  - Design of Project : All experts bring a TP proposal, then experts vote 4 best suited projects.
  - New marking scheme :
    - only product and sustainability is evaluated, not the CNC program.
    - Judgmental marking included
    - Surface measurement included
    - Split in Main- and Secondary dimensions
  - Not all measurements on CMM -
    - Experts are now part of the marking teams.
  - The "blind marking" system.
- We needed a bandsaw to cut all voted projects to size.
- 2003
- Shift Rotation System ( safe % Space and machines )
  - Mastercam is not an option anymore, it now is obligatory.
  - I changed the project time ( 4 projects x 5 hours )
- 2007 The marking system changed. We had 100 points per module, now we have 100 points for all modules together.
- I changed the project time ( 4 projects x 4,75 hours )
- 2009 WorldSkills changed to 3,5 days competition, therefore I implemented the :
- Team Challenge on day 4
  - Change from 4 Modules to 3 Modules
  - I changed the project time ( 3 projects x 4,5 hours )
- We started the tradition of the "Skill 06 Expert Evening",
- 2011
- I implemented the use of Life Tooling ( milling ).
- 2013
- I implemented Privacy Filters ( to avoid photos for the 2nd shift ).
- 2015 External Testproject Designer was implemented
- I changed the project time ( 3 projects x 4 hours )
  - Sustainability : the Shipping Box Volume was restricted in our skill.
  - "CE" and "DCE" stamp for changing marking documents.
- No need for a bandsaw to prepare TP's after the vote.
- 2017 Change of structure ... I was appointed to "Skills Competition Manager".
- To adapt to industry procedures I implemented new Modul options :
- MASS PRODUCTION
  - REWORK
  - CUSTOMER CHANGE
  - ASSEMBLY
  - We do NOT tell the competitors the detailed, materials - only a range of materials.
- We now test the ability of Experts to measure the Testprojects.
- 2019
- I implemented the use of STEP files for the competitor
  - We now allow Machines with Y-Axis ( because of machine-embargos we couldn't have it )
- 2022 The Special Edition - a loooong competition ( we had to work with 4 groups of competitors )
- Our first competition with the use of the Y-Axis
- No Team Challenge because of limited resources
- 2024
- Sustainability - We do not restrict the shipping box, anymore, we restrict the toolbox size.
- 2026 We expand our range of work-procedures according again - adapt to industry procedures.
- Now we can use many modules and combinations :
- Single part
  - Mass production
  - Rework
  - Customer Change
  - Assembly
  - NEW : Surprise Tool
  - NEW : Not only STEP files, but also a Modul with finished CNC files.



# What happened in Skill 06 since 1999 ?

## Experts - 2024 Lyon



Gernoth Dolinar  
11th competition  
SCM



DK 1st competition  
Lars Emil Dollerup Roos



MX 1st competition  
Christian Armando Rodriguez Montezco  
Competitor 2022



FR 4th competition  
Quentin Osterroth  
Competitor 2011  
Chief Expert



EG 1st competition  
Azza Ali

Could not participate because of Visa :-)



SE 5th competition  
Oskar Jonsson  
Team Leader



AT 4th competition  
Dieter Geisberger  
Expert Lead



ET 1st competition  
Gezae Mebrahtu Beyene



SG 2nd competition  
Siok Khing Lim



BR 6th competition  
Jeferson Tangerino  
Expert Lead



IN 1st competition  
Vinay Kishore



TH 2nd competition  
Kittinan Sornsongkhram  
Competitor 2015



CL 1st competition  
Hernan Peña



JP 1st competition  
Ryuta Sakai  
Competitor 2015



TW 11th competition  
Jia Hsing Shen



CH 5th competition  
Simon von Moos  
Team Leader



KE 1st competition  
Alfred Juma Kim



UAE 2nd competition  
Alexandre de Aviz  
Team Leader



CN 7th competition  
Fangzhi Song  
Team Leader



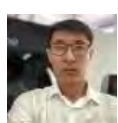
KR 5th competition  
Jin Woo Kim



VN 1st competition  
Nguyen Xuan Thai  
Competitor 2022



CO 1st competition  
Carlos Javier Briceño Castellanos



KZ 2nd competition  
Nurbolat Abdullayev



ZA 3rd competition  
Pierre Palm



DE 1st competition  
Boris Satarov  
Competitor 2017



MO 4th competition  
Oyunbat Gansukh



Team Challenge Medal  
Designed and produced  
by Quentin and Agnes :-)



CNC Turning 2024 - What a Team :-)



Team Challenge :-)

# What happened in Skill 06 since 1999 ?

## Experts - 2022 Leonberg



Gernoth Dolinar  
Skills Competition  
Manager



FI  
Jukka Marttinen



SG  
Siok Khing Lim



FR  
Quentin Osterroth  
Competitor 2011  
Chief Expert



IN  
Ganapathy Murugan



TH  
Kittinan Sornsongkham  
Competitor 2015



CA  
Brandon Walker



JP  
Haruki Abe  
Competitor 2011



TW  
Jia Hsing Shen



AT  
Dieter Geisberger



KR  
Yungi Ha



UAE  
Alexandre de Aviz



CH  
Simon von Moos



KZ  
Nurbolat Abdullayev



VN  
Phan Van Quoc  
Competitor 2019



CN  
Fangzhi Song



MO  
Oyunbat Gansukh



ZA  
Pierre Palm  
participated as guest



DE  
Hanno Hapke



MX  
Jesus Abdiel Juarez Ortega  
Competitor 2017



DK  
Kasper Moesgaard



SE  
Oskar Jonsson



Our Dream-Team in Leonberg :-)



After the competition ;-)



# What happened in Skill 06 since 1999 ?

## Experts - 2019 Kazan



Gernoth Dolinar  
Skills Competition  
Manager



DK  
Henrik Nielsen  
( *Silverfox* )



NO  
Tobias Alm  
Competitor 2017



CA  
Susan LeFort  
Chief Expert



FI  
Jukka Marttinen



OM  
Saravanan Veerasamy



RU  
Ilya Tonkikh  
Deputy Chief Expert



FR  
Quentin Osterroth  
Competitor 2011



SE  
Oskar Jonsson



AT  
Dieter Geisberger



ID  
Farkhan Farkhan



SG  
John Tan Boon Joon



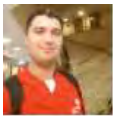
BR  
Jeferson Tangerino



IN  
Kollusu Vijay Kumar



TH  
Preecha Maniwongrungrot  
Competitor 2013



BY  
Aritsom Rybak



JP  
Yusuke Ishii  
Competitor 2013



TW  
Jia Hsing Shen



CH  
Simon von Moos



KR  
Yungi Ha



UK  
Adam Youens



CN  
Fangzhi Song



KZ  
Azat Shegirov



VN  
Hoang Kim Diep



CO  
Oscar Agudelo



MO  
Oyunbat Gansukh



ZA  
Pierre Palm



DE  
Hanno Hapke



NL  
Jeffrey Wiecherink

Experts listed to the  
best of my memory



2 former competitors  
FR + JP  
Now Experts :-)



# What happened in Skill 06 since 1999 ?

## Experts - 2017 Abu Dhabi



Gernoth Dolinar  
Skills Competition  
Manager



DE  
Hanno Hapke



NO  
Andreas Slaaen Hernandez



CA  
Susan LeFort  
Chief Expert



DK  
Henrik Nielsen  
( Silverfox )



RU  
Ilya Tonkikh



CH  
Simon von Moos  
Deputy Chief Expert



ES  
Javier Fondevila



SE  
Oskar Jonsson



AT  
Dieter Geisberger



FR  
Quentin Osterroth  
Competitor 2011



SG  
John Tan Boon Joon



AE  
Abdulla Al Hamad



IN  
Kalaiselvi Gopalakrishnan



TH  
Teeranun Choppanid  
Competitor 2011



BR  
Jeferson Tangerino



IR  
Seyedjavad Norbakhsh



TW  
Jia Hsing Shen



BY  
Aritsom Rybak



JP  
Akira Fujimoto  
Competitor 2007



ZA  
Louis Carelse



CN  
Fangzhi Song



KR  
Jin Woo Kim



CO  
Oscar Agudelo



MX  
David Gomez de la Rosa

Experts listed to the  
best of my memory





# What happened in Skill 06 since 1999 ?

## Experts - 2015 Sao Paulo



AT  
Gernoth Dolinar  
Chief Expert



DE  
Jörg Harings



NO  
Kenneth Berget



FR  
William Brunie  
Deputy Chief Expert



DK  
Henrik Nielsen  
( Silverfox )



RU  
Ilya Tonkikh



AE  
Kareem Ragab



ES  
Igor Larrañaga



SE  
Oskar Jonsson



CA  
Susan LeFort



IN  
Dayanand Vishwaksenan Nair



SG  
Yeong Teck Nah



BR  
Jeferson Tangerino



JP  
Akira Fujimoto  
Competitor 2007



TH  
Teeranun Choppanid  
Competitor 2011



BY  
Aritsom Rybak



KR  
Jin Woo Kim



TW  
Jia Hsing Shen



CH  
Simon von Moos



KZ  
Sabit Sartbayev



UK  
Christopher Cooper



CN  
Fangzhi Song



MO  
Oyunbat Gansukh



ZA  
Louis Carelse



CO  
Julian Eduardo Belalcazar



MX  
Juan Angel Ibarra Salazar

Experts listed to the  
best of my memory



What a family we are :-)



# What happened in Skill 06 since 1999 ?

## Experts - 2013 Leipzig



AT  
Gernoth Dolinar  
Chief Expert



DE  
Hanno Hapke



NO  
Kenneth Berget



SE  
Henrik Wolf  
Deputy Chief Expert



DK  
Henrik Nielsen  
( Silverfox )



SG  
Yeong Teck Nah



AE  
Kareem Ragab



FI  
Pekka Suominen



TH  
Korrakot Nitanchai  
Competitor 2007



CA  
Susan LeFort



FR  
William Brunie



TW  
Jia Hsing Shen



BR  
Jeferson Tangerino



IN  
Dayanand Vishwakshen Nair



UK  
Christopher Cooper



CH  
Simon von Moos



JP  
Masanori Miyashita  
Competitor 1999



US  
Guy Hart  
( Gandhi )



CN  
Fangzhi Song



KR  
Jin Woo Kim



CO  
Julian Eduardo Belalcazar



NL  
Frank Frietman

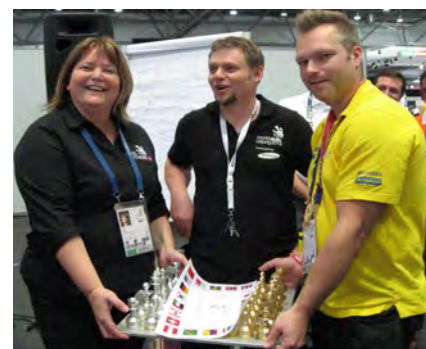
Experts listed to the  
best of my memory



Our competitors 2013 with the Teamchallenge



competitor Yusuke ( Bronze )  
Later ( 2019 ) Expert



Marcel Boeke, the WS-manager receives the  
present



# What happened in Skill 06 since 1999 ?

## Experts - 2011 London



AT  
Gernoth Dolinar  
Chief Expert



DE  
Jörg Harings



NO  
Ole Aannestad



SE  
Henrik Wolf  
Deputy Chief Expert



ES  
José Luis Huertas



SG  
Yeong Teck Nah



BR  
Jeferson Tangerino



FI  
Pekka Suominen



TH  
Korrakot Nitnanchai  
*Competitor 2007*



CA  
Susan LeFort



FR  
William Brunie



TW  
Jia Hsing Shen



CH  
Walter Fricker  
*( Wôlti )*



IN  
Koluvi Vijay Kumar



UK  
Paul Green



CN  
Fangzhi Song



JP  
Norihiko Shiina



US  
Guy Hart  
*( Gandhi )*



CO  
Omar Henoc Parrado Garay



KR  
Jin Woo Kim

Experts listed to the  
best of my memory



Bob Horton, the WS-manager receives the  
Team Challenge - present

# What happened in Skill 06 since 1999 ?

## Experts - 2009 Calgary



AT  
Gernoth Dolinar  
Chief Expert



DK  
Henrik Nielsen  
(Silverfox)



MX  
Alejandro Gonzalez Castañeda



SE  
Henrik Wolf  
Deputy Chief Expert



FI  
Pekka Suominen



NL  
Jouke de Vries



BE  
Michael Robas



FR  
William Brunie



SG  
Kim Kwong Cheung



BR  
Jose Mario Fernandes Paiva



IR  
Abolfath Bastami



TH  
Tsutomu Imagawa



CA  
Stéphane Jacques



JP  
Masaki Amano  
Competitor 1997



TW  
Jia Hsing Shen



CH  
Walter Fricker  
(Wolti)



KR  
Hea Do Hwang



UK  
Craig Endicott



DE  
Jörg Harings  
Global Industry Partner



LU  
Greg Barbier

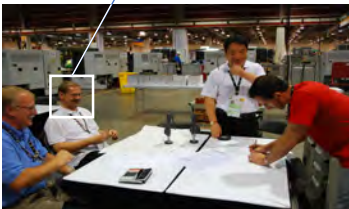


US  
Guy Hart  
(Gandhi)



DE  
Hanno Hapke supported us as "Guest-Expert"

Experts listed to the best of my memory





# What happened in Skill 06 since 1999 ?

## Experts - 2007 Shizuoka



AT  
Gernoth Dolinar  
Chief Expert



FI  
Pekka Suominen



NO  
Kjetil Sel



CH  
Walter Fricker  
Deputy Chief Expert



FR  
William Brunie



SE  
Henrik Wolf



HR  
Mladen Hršak



IR  
Mohamed Reza Darvish



SG  
Chai Pui Mok



BE  
Giuseppe Di Troia



JP  
Masaki Amano  
*Competitor 1997*



TH  
Tsutomu Imagawa



BR  
Vladimir Turatti Durval



KR  
Pan Dong Chung



TW  
Jia Hsing Shen



DE  
Jörg Harings

Experts listed to the best of my memory



Mr. Shen young with a lot of hair ;-)



Competitor ( Gold )  
Akira Fujimoto  
Later Expert :-)



Most of our Team 2007



Chief and Deputy 2007



2022 ( Walter came to visit me in Austria )





# What happened in Skill 06 since 1999 ?

Former competitors - Later Experts ..... They came back to our family :-)

The year of his competition in parenthesis



Akira Fujimoto ( 2007 - GOLD ), Teeranun Choppanid ( 2011 - GOLD ), Gernoth - SCM, Korrakot Nitanchai ( 2007 - SILVER )



Masaki Amano ( 1997 )



Masanori Miyashita ( 1999 )



Haruki Abe ( 2011 )



Quentin Osterroth ( 2011 )



Preecha Maniwongrungrat ( 2013 )



Abdulla Al Hamad ( 2015 )



Kittinan Sornsongkhram ( 2015 )



Ryuta Sakai ( 2015 )



Tobias Alm ( 2017 )



Jesus Abdiel Juarez Ortega Abe ( 2017 )



Boris Satarov ( 2017 )



Phan Van Quoc ( 2019 )



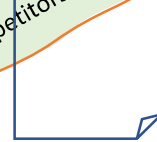
Nguyen Xuan Thai ( 2022 )



Christian Montezco ( 2022 )



Jin Woo Kim ( 1991 )



1st Competitors - then Experts :-)

in 2001 the Goldmedal-winner ( AT ) and the Silvermedal-winner ( USA ) became friends ..... 15 years later they meet again :-)



Seoul 2001 - Michael Blum ( AT ) GOLD + AJ Rowe ( USA ) - SILVER



15 years later - the get together in Austria to remember old times...

## The CNC Turning Hall of Fame - Gold Medals since 1999 :-)

Montreal	1999	TW	Huang Ching Feng
Seoul	2001	AT	Blum Michael
St. Gallen	2003	JP	Toru Koide
Helsinki	2005	--	-----
Shizuoka	2007	JP	Akira Fujimoto
Calgary	2009	AT	Poredos Benjamin
		KR	Jo Jaewoo
		TH	Chaiprasian Nathaphon
London	2011	JP	Abe Haruki
		TH	Choppanid Teeranun
		KR	Oh Sun Jic
Leipzig	2013	TH	Maniwongrungrat Preecha

Sao Paulo	2015	TH	Sornsongkhram Kittinan
Abu Dhabi	2017	BR	Mateus Moriel
Kazan	2019	CN	Xiaocheng Huang
Leonberg	2022	CN	Hongyu Wu
Lyon	2024	KR	Junsu Kim
Shanghai	2026	?	?

# What happened in Skill 06 since 1999 ?

## Machine ( and Control ) Evolution 1999 - 2024

Montreal 1999



FEMCO  
HL-15B



Seoul 2001



Hwacheon  
HI-ECO 10



St. Gallen 2003



EMCO  
PC Turn 345 II



Shizuoka 2007



Mori Seiki  
Duraturn 2050



Calgary 2009



Mori Seiki  
Duraturn 2050



London 2011



Mori Seiki  
NLX 2500MC



Leipzig 2013



DMG Mori  
CTX alpha 300



Sau Paulo 2015



ROMI  
GL 240 M



Abu Dhabi 2017



DMG Mori  
CTX alpha 500





# What happened in Skill 06 since 1999 ?

## Machine ( and Control ) Evolution 1999 - 2024

Kazan 2019



DMG Mori  
CTX 310 Ecoline




Leonberg 2022



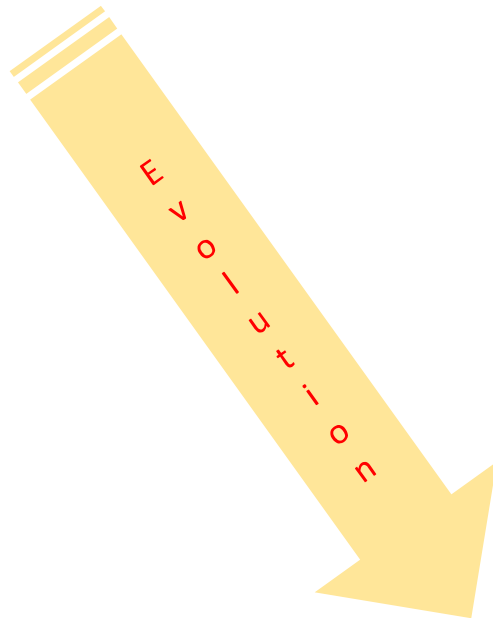

DMG Mori  
CLX 350 V4



Lyon 2024



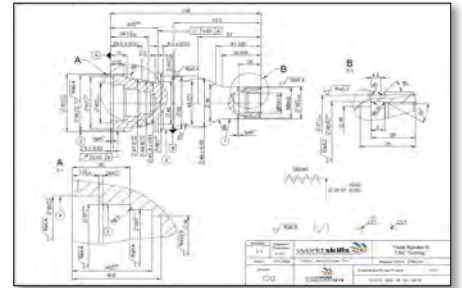
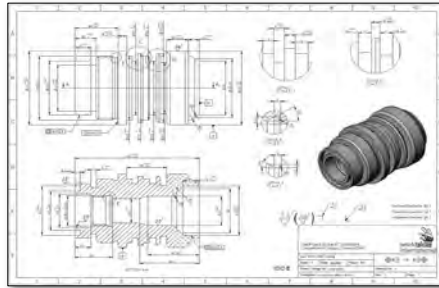
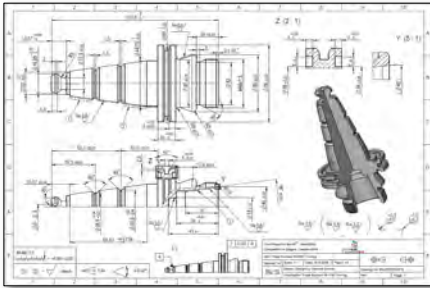
DMG Mori  
CTX 350 V4



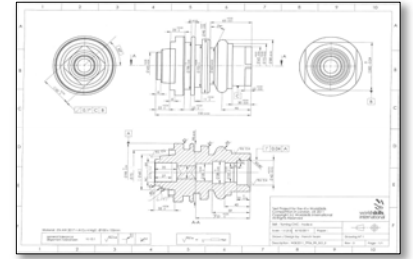
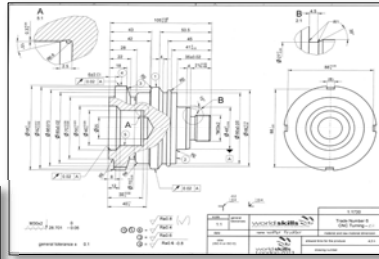
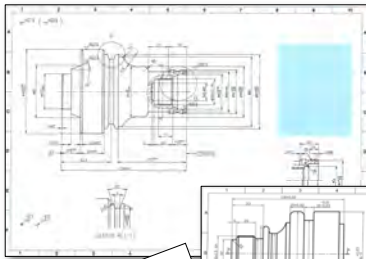
# What happened in Skill 06 since 1999 ?

## Look - I found some "old" Project Drawings :-)

2009 - Calgary



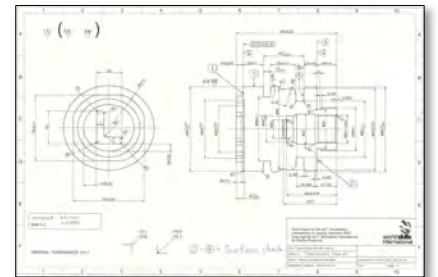
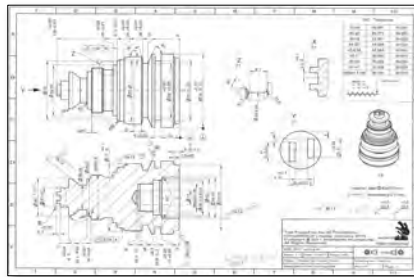
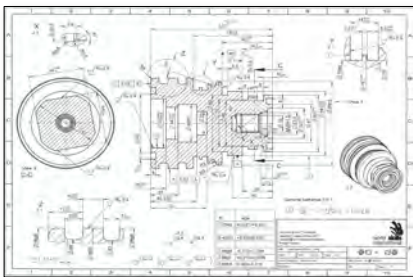
2011 - London



Assembly Project

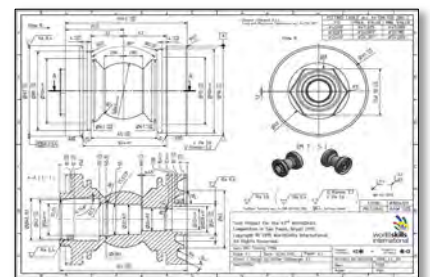
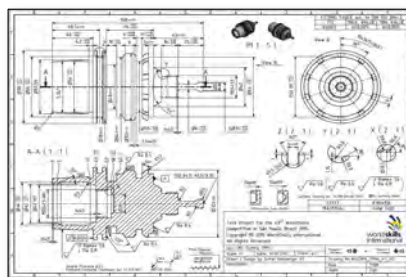
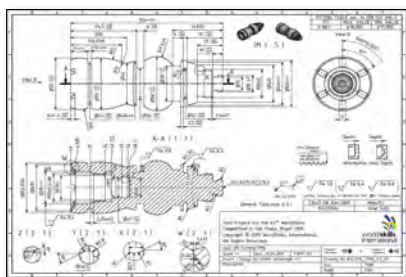
life tooling for the 1st time ( very simple )

2013 - Leipzig



life tooling ( milling ) is now standard - still "simple" features

2015 - Sao Paulo



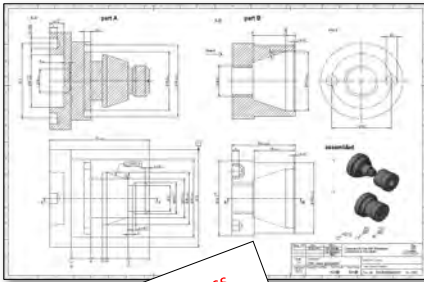
The 1st competition with an INDEPENDANT EXTERNAL DESIGNER



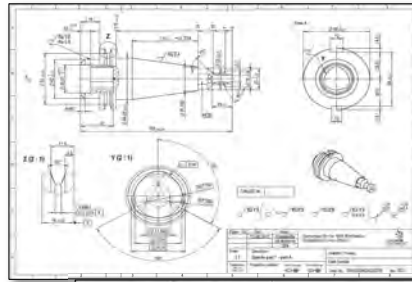
# What happened in Skill 06 since 1999 ?

## Look - I found some "old" Project Drawings :-)

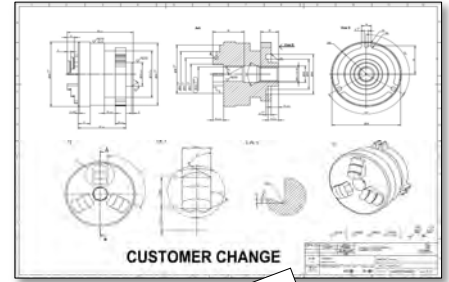
2017 - Abu Dhabi



our 1st mass production

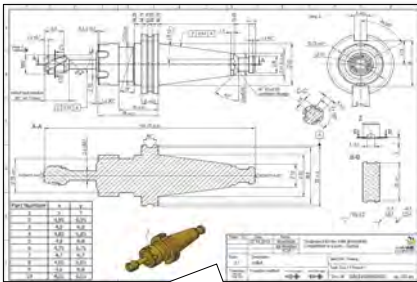


Milling a Polygon - Assembly project

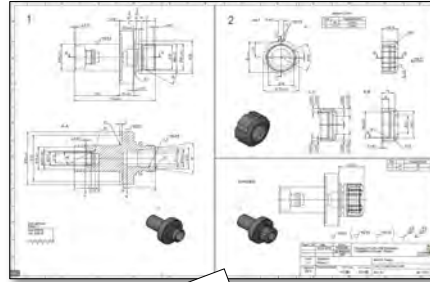


Our 1st Customer Change Project

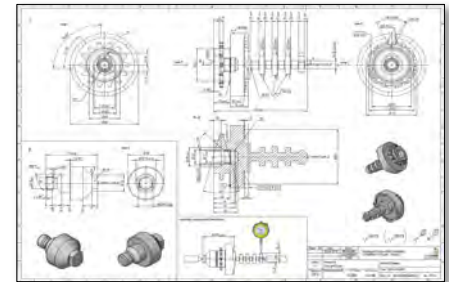
2019 - Kazan



Mass Production with changing dimensions

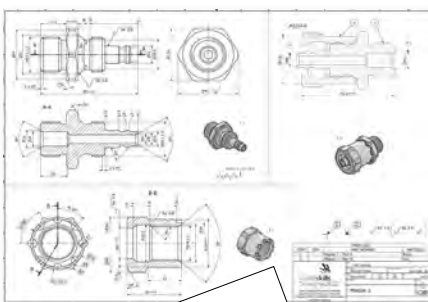


Turning OFF CENTER Assembly Project

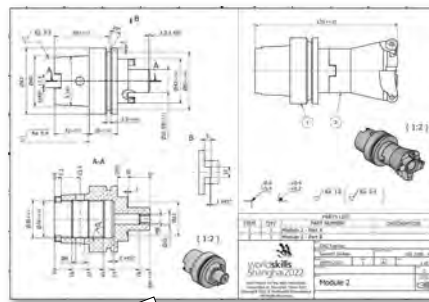


Cam Shaft and Sprocket gear and assembly

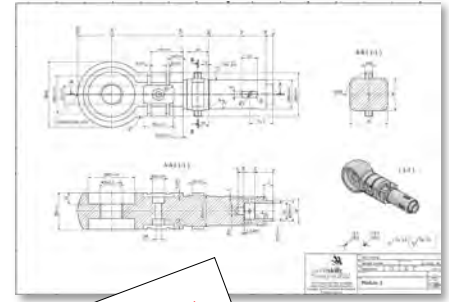
2022 - Special Edition in Leonberg



mass production combined with assembly



Assembly Project HSK Milling Head

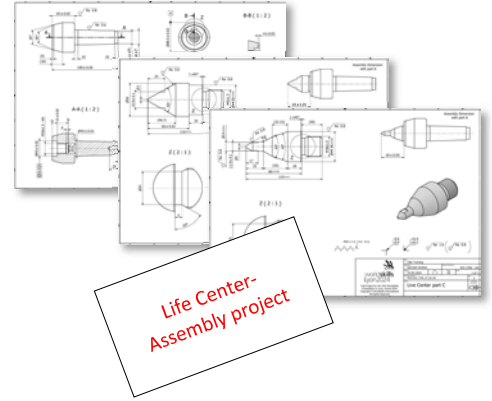
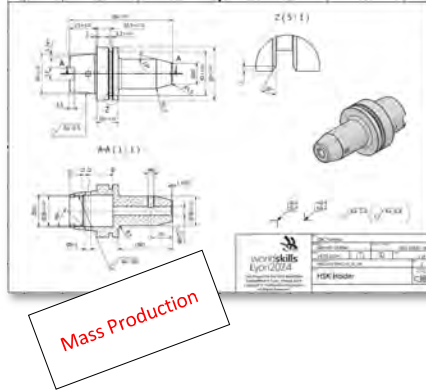
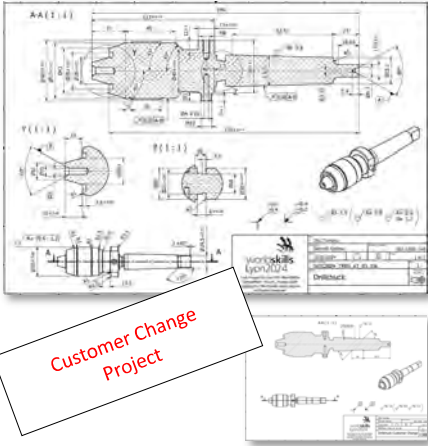


Spherical Joint

# What happened in Skill 06 since 1999 ?

## Look - the "newer" Project Drawings :-)

2024 - Lyon



2026 - Shanghai

