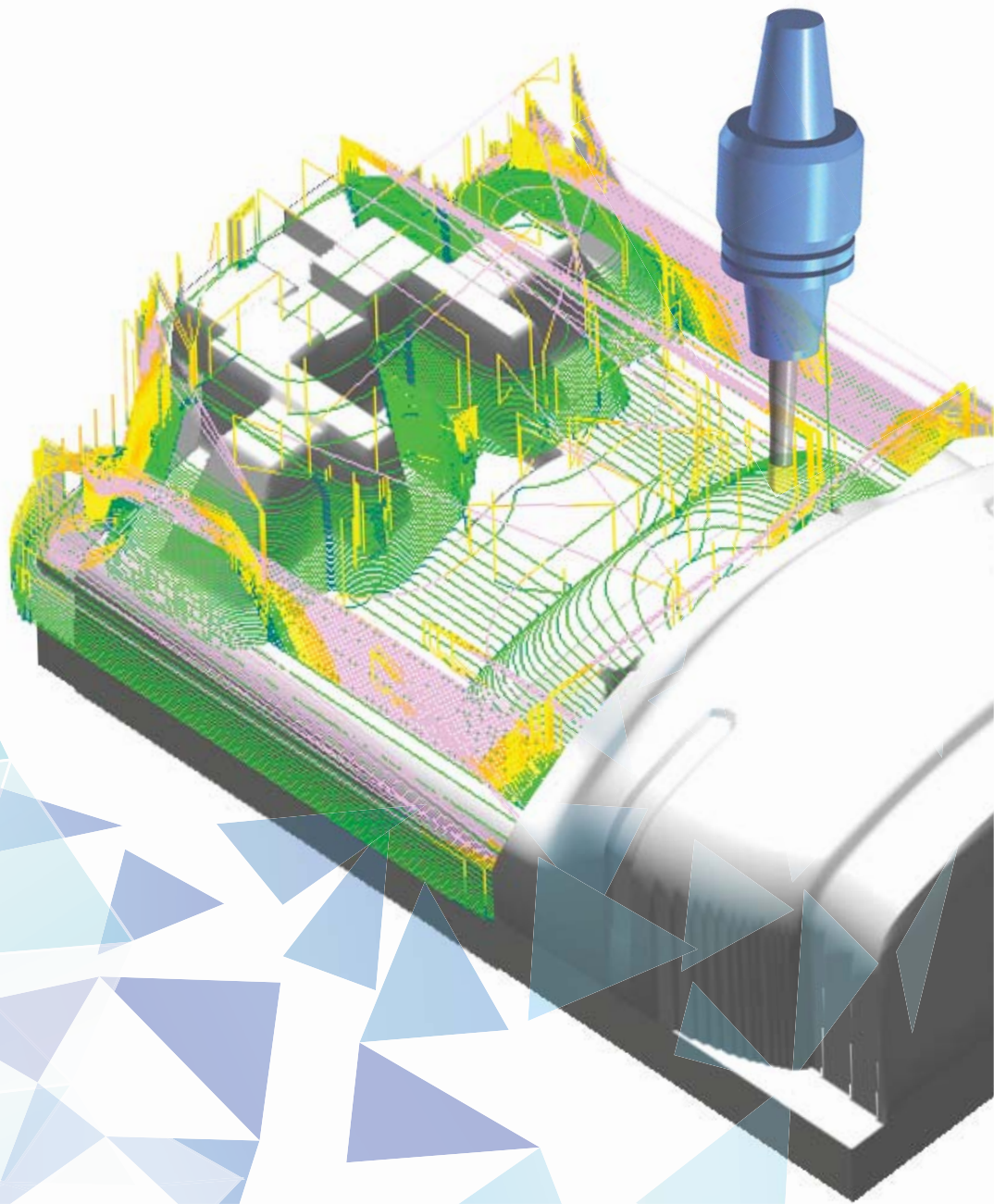


ENGLISH

# **NCBRAIN**

Top-Notch Standard Solution

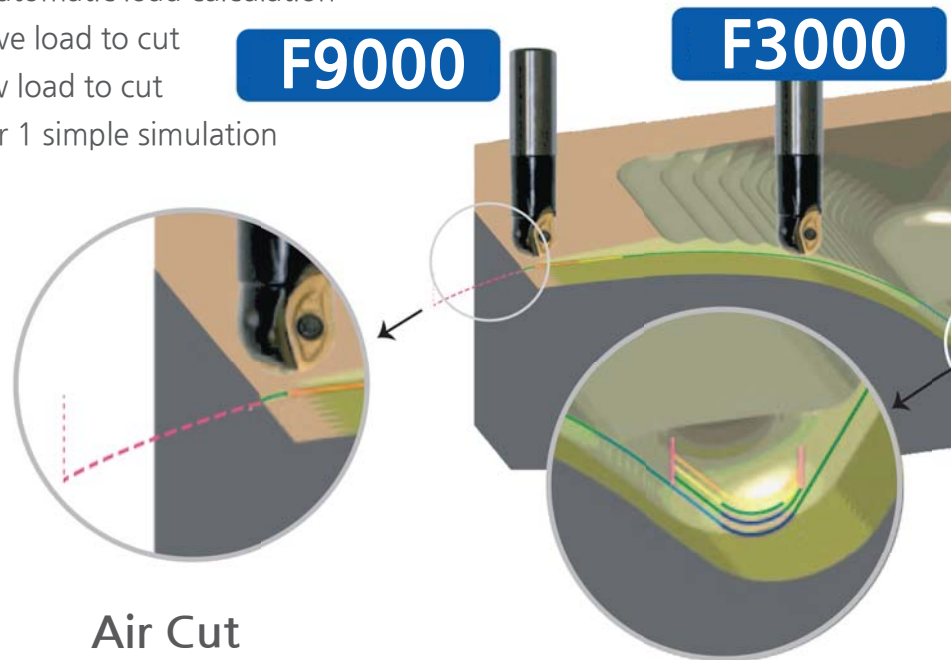


## Effectiveness of NCBrain

- Reduction of machining time by optimized terms & upward run@rate by continuous ATC use
- Prevention of tool breakage & easy process control by optimized machining information
- Quick ROI & easy, immediate manipulation

## Function of NCBrain

- Best ideal database for NC machining by various tools specification
- Automatic feedrate & RPM control by automatic load calculation
- Automatic toolpath addition for excessive load to cut
- Automatic aircut delete for empty & few load to cut
- More than 30 functions authorized after 1 simple simulation



Air Cut  
Delete

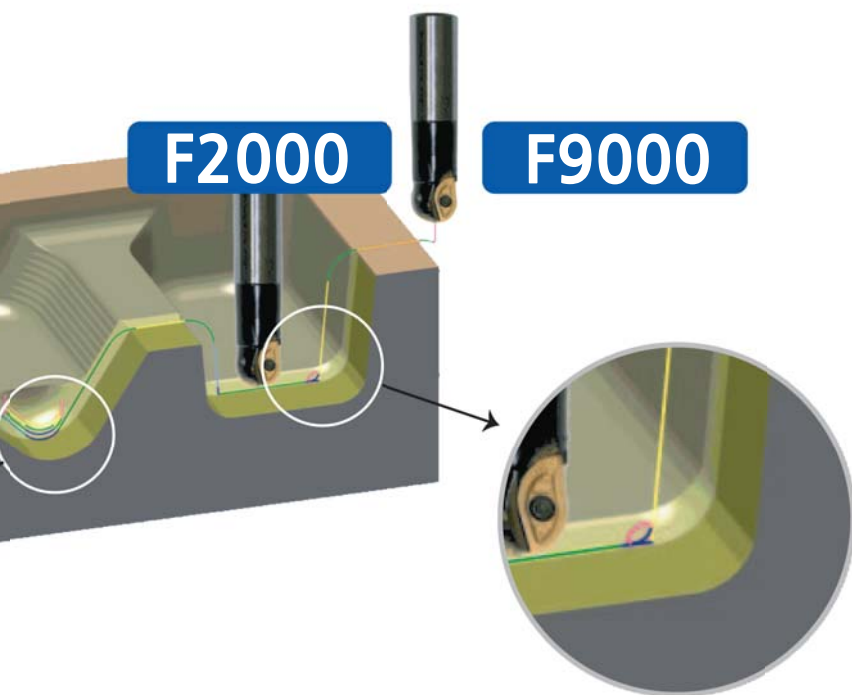
Automatic Path  
Creation on  
Overload Area

# *The SPEED*



## Optimization

NCBrain builds the best database considering cutting condition of machine specification, tools, stocks, and items. NC data will be regenerated into the best data by simulation of existing NC data. The optimized NC data make the safest and the fastest machining at all times without any accident considering feedrate control, tool path addition on overload area, and automatic aircut delete.



Load Control by  
Corner 3D Peaking

*you never imagine*

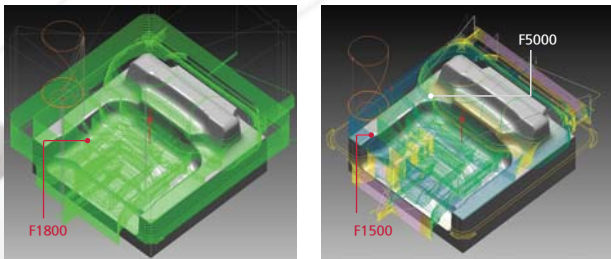




## » Efficiency you never imagine

### Feed control

Save machining time and prevent tool breakage by cutting load which is continuously changing along the work shape.

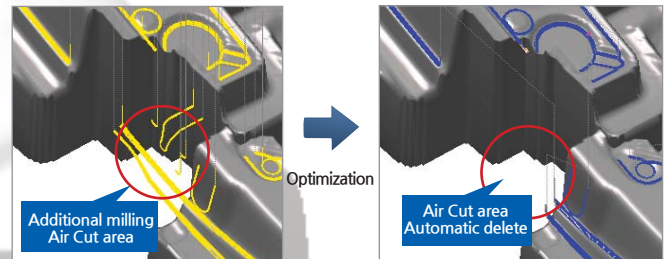


Original Data

Optimized Data

### Delete aircut path

NCBrain deletes unnecessary aircut path automatically, and make easy CAM job accordingly.

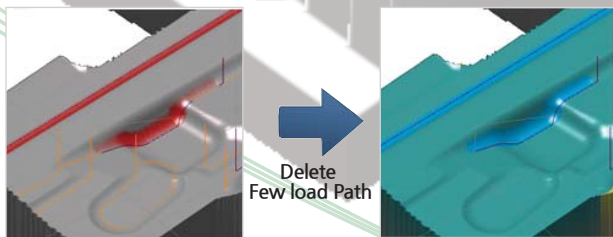


Original Data

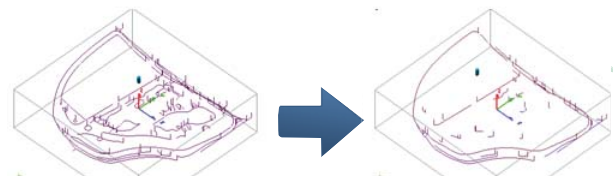
Optimized Data

### Delete few load path

This function makes rapid machining on few load area automatically. The small remained load will be cut later by necessary process.

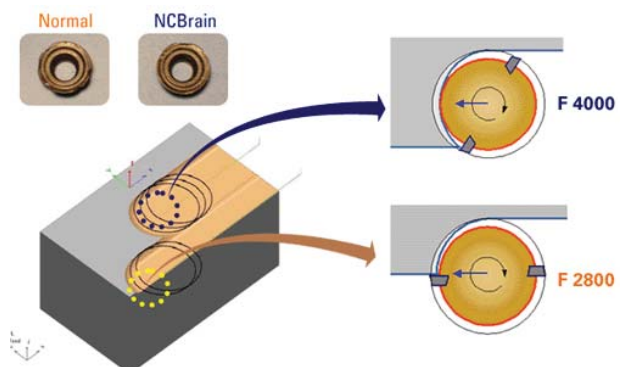


Delete Few load Path



### Bull-nose feed rate control

According to entry and location, feed rate of bull-nose should be controlled like an example below. This can reduce time and make tool life longer.

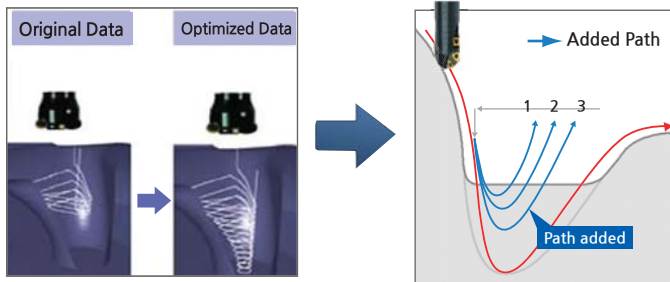


**No** Efficiency  
Money!

## »Stability you never imagine

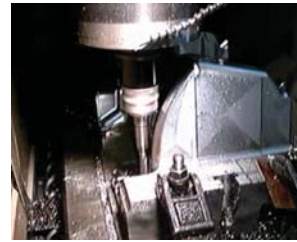
### Tool path addition on overload area

Overload area can cause tool breakage, low quality, and over cutting. But NCBrain can handle these problems with self-creating tool path on extremely loaded area.

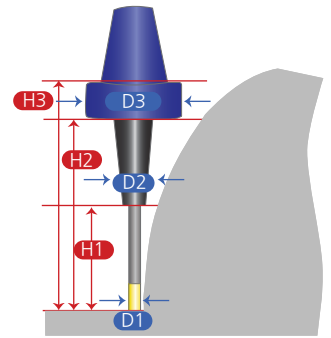


### Best tool length information

NCBrain shows optimal length information after 1 simulation. So, fast and safe machining can be done simply.

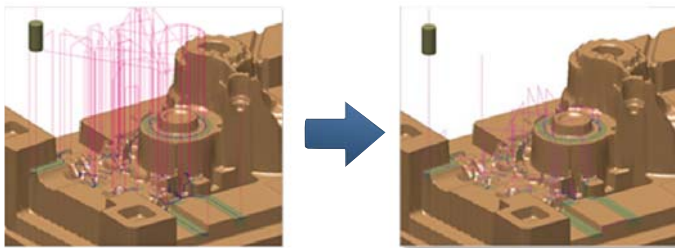


InPanel Slide Core



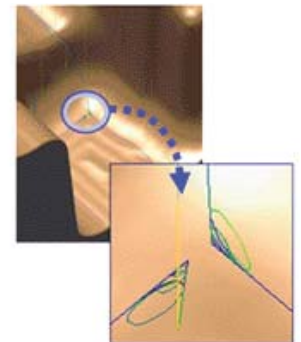
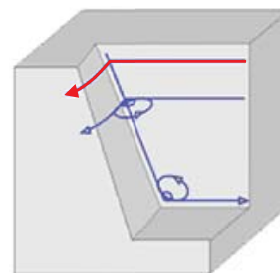
### G0 height control

Along the shape and height of stock, G0 rapid motion shall be controlled for higher efficiency.



### 3D peaking

The sensitive section is the corner. NCBrain creates 3D peaking path, not a direct way. It offers much more stable and smooth machining.



# No Stress Any More!

## » Applications

### Machining efficiency

NCBrain can reduce time through optimization with toolpath addition, toolpath deletion and control feedrate.

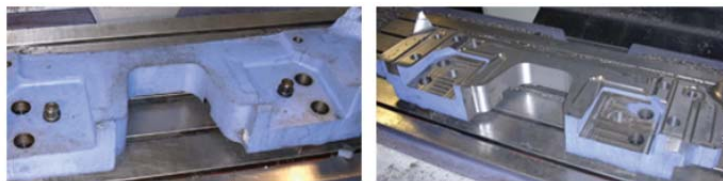
Order	NC file	Tool size	Length	Machining time	Effect
1	ncb-1	D80R8-WC-Rough	235	6:50:29	15%
2	ncb-2	D80R8-WC-Rough	235	6:52:57	15%
3	ncb-3	D80R8-WC-Rough	280	3:40:08	18%
4	ncb-4	D80R8-WC-Rough	537	16:05:0	13%
5	ncb-5	D80R8-WC-Rough	190	2:08:03	21%
6	ncb-6	D80R8-WC-Rough	550	5:23:58	16%
Total machining Time				41:06:05	15%



### Innovative machining pattern for press die

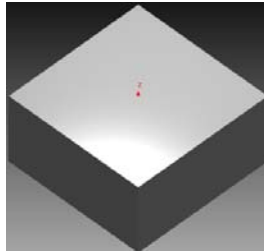
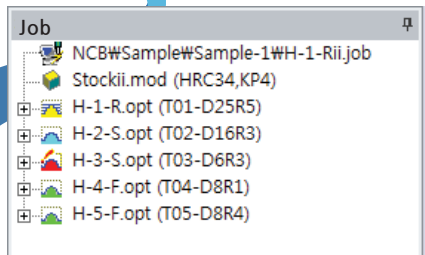
NCBrain makes possible to do faster and safer machining through new machining pattern with only 5 tools.

Order	NC file	Tool size	Machining time
1. Rough	OMO101.opt	D50 R8	1:26
2. Semi-F	OMO201.opt	D50 R5	0:39
3. Semi-F on Corner	OMO301.opt	D50 R1	0:23
4. Finish	OMO401.opt	D50 R3	2:44
5. Rest	OMO501.opt	D50 R4	1:15
Total machining Time			6:28



Casting material size : 1130,0 x 338,5 x 195,0 / weight : 227,0kg -> 203,3kg

## » What is NCBrain?

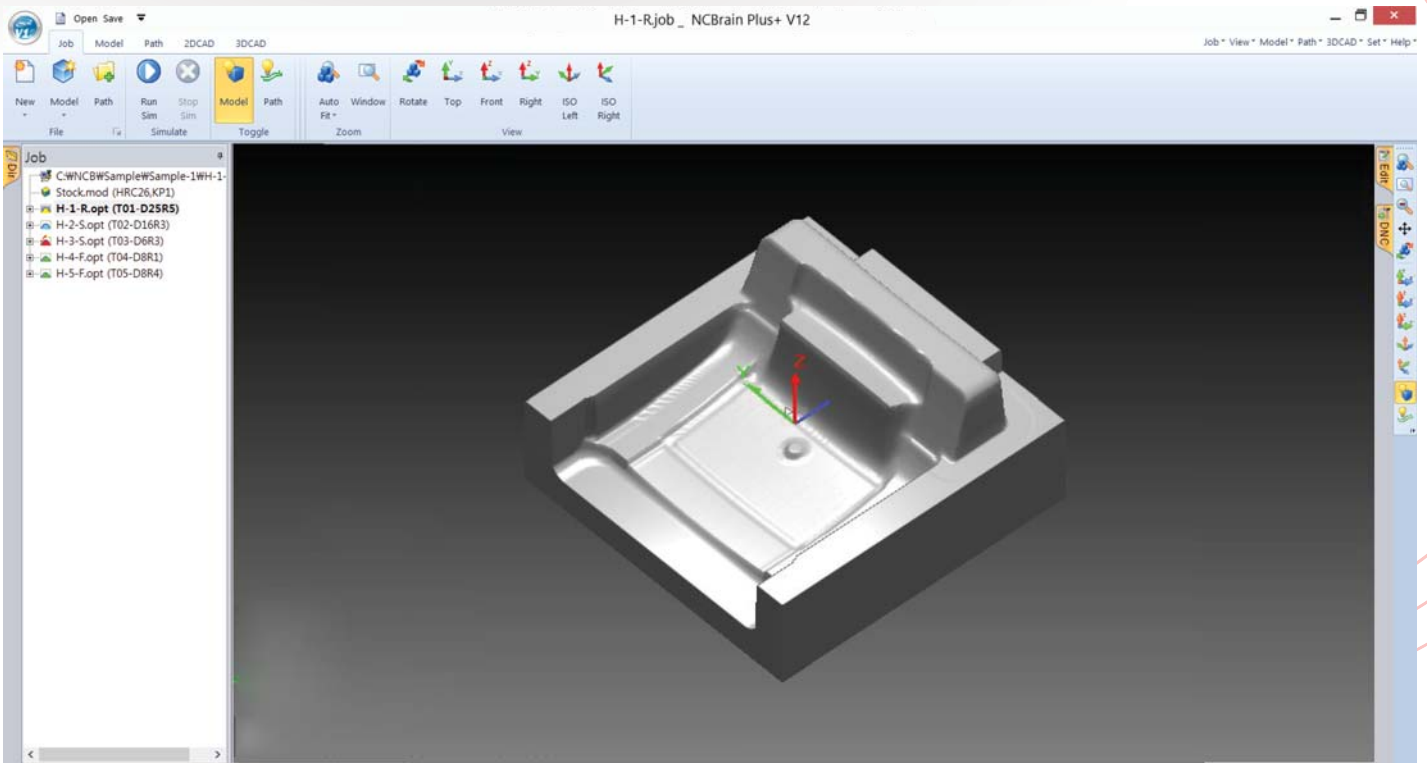


Spindle and Feed Setting for special Tool, CENAL

Type	Material	Diameter	Comment	Length	Spindle	Depth	FeedLoad	FeedMax	AdSPath	Path	Tool
rough	cuttle	50.0	3.0	200.0	1000	0.5	4800	6000	1.0		
rough	cuttle	50.0	3.0	200.0	1000	0.5	4800	6000	1.0		
rough	cuttle	50.0	3.0	200.0	1000	0.5	4800	6000	1.0		
rough	cuttle	33.0	3.0	132.0	1800	0.4	5000	6000	0.8		
rough	cuttle	33.0	3.0	132.0	1800	0.4	5000	6000	0.8		
rough	cuttle	33.0	3.0	132.0	1800	0.4	5000	6000	0.8		
rough	cuttle	26.0	3.0	104.0	2200	0.3	4600	5520	0.6		
rough	cuttle	26.0	3.0	104.0	2200	0.3	4600	5520	0.6		
rough	cuttle	26.0	3.0	104.0	2200	0.3	4600	5520	0.6		
rough	cuttle	26.0	3.0	104.0	2200	0.3	4600	5520	0.6		

Key: Tool

Just  
3  
Button!





## User List



## Product List



- Build D/B for optimal cutting condition by Machine, Tool and Stock
- Automatic Feedrate & RPM control by automatic load calculation
- Automatic toolpath addition for excessive load to cut
- Automatic aircut delete for empty & little load to cut
- 30 functions of NCBrain just with one simulation



- Verification, optimization and simulation by cutting D/B
- Solve machining problem by 1 simulation
- Same with NCBrain major functions



- Prevention of collision
- Optimized and Standardize cutting condition
- Manage tool abrasion
- Checking geometry of stock, tool and holder
- Checking geometry from machine
- Analyze run@rate



- The beginner can do drawing and edit easier as conversational mode CAD
- The CAM of conversational mode can reduce programming time and can earn more faster
- NCBrain Mill will do fastest and safest machining by simulation

# What's Next ?



NCB co., ltd.,  
Ojeong Dong 758-5, Ojeong Gu, Bucheon, Gyeonggi  
Republic of Korea 421-170  
TEL. +82-32-681-9952 | FAX. +08-32-681-9950  
[www.ncbrain.com](http://www.ncbrain.com)