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# PSYLOGIC COMPANY PROFILE

2019

PSYLOGIC INC.

## ■ COMPANY PROFILE

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1. COMPANY : PSYLOGIC INC (SINCE 2008. 1. 2)
2. CEO : Ph.D. TAEHWI LEE.
3. ADDRESS : Psylogic Building 5F, 41, Jungbodae-ro 447,  
Youngtong-gu, Suwon-si, Gyeonggi-do, SOUTH KOREA
4. CARRIER : AUTOMOTIVE TESTING  
DIGITAL SIGNAL PROCESSING  
NVH APPLICATIONS  
SYSTEM DESIGN  
SOFTWARE ENGINEERING  
(VISUAL C++, LABVIEW)

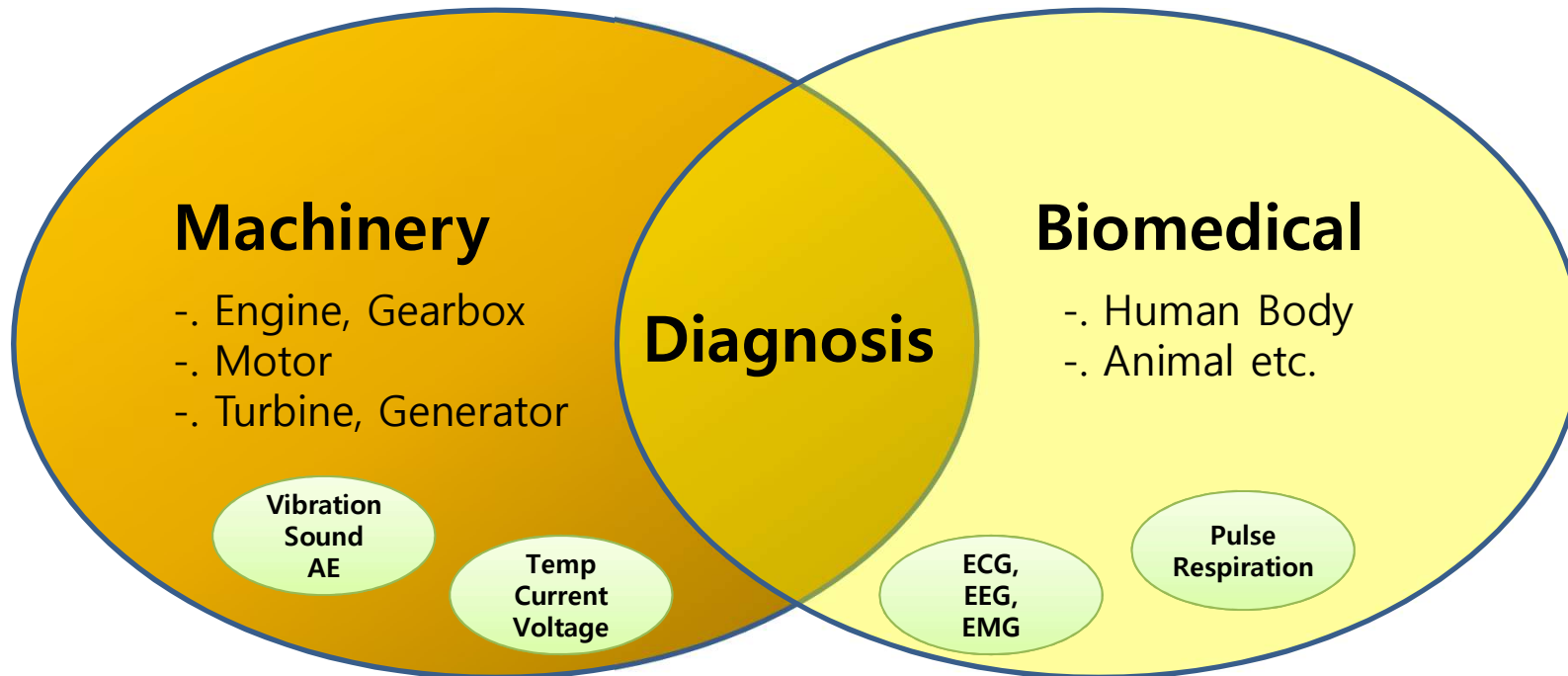


# ■ BUSINESS MODEL

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## Mechanical Engineering

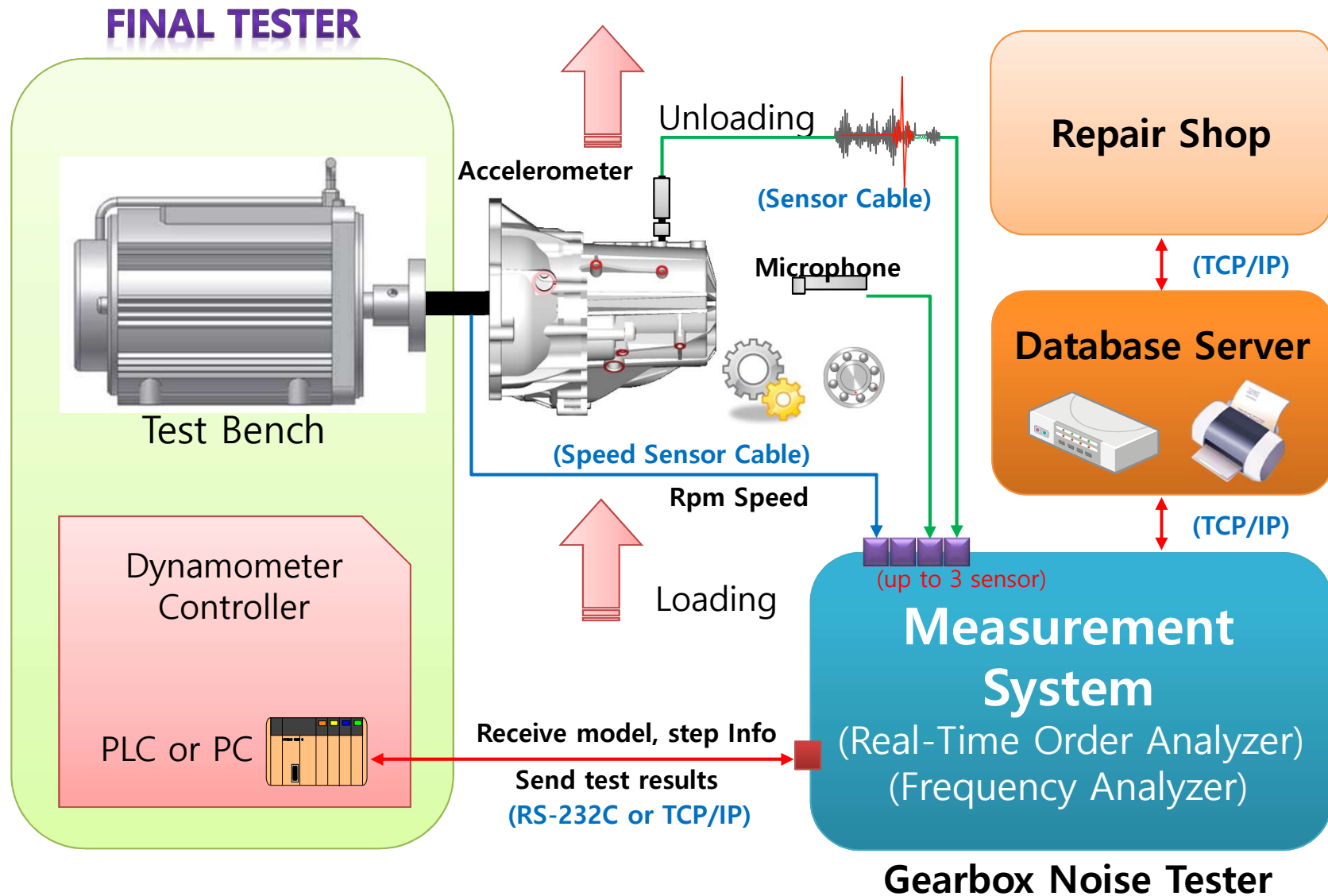
## Biomedical Engineering



- (1) Sound & Vibration Measurement System
- (2) **Engine, T/M, Motor, Wind Turbine**
- (3) Vibration Monitoring System

- (1) Biomedical Signal Measurement(ECG, EMG, EEG)
- (2) Magnetic Resonance Elastography

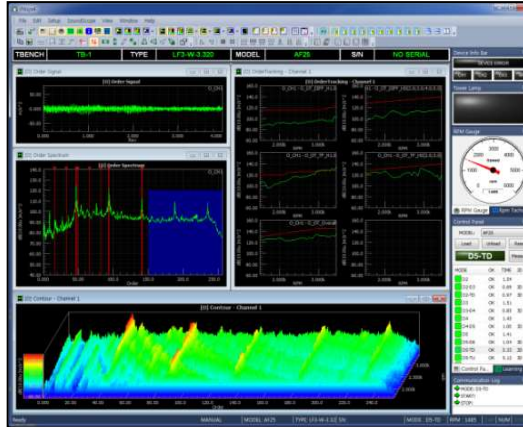
# [1] Inline NVH Inspection System (iNisys)



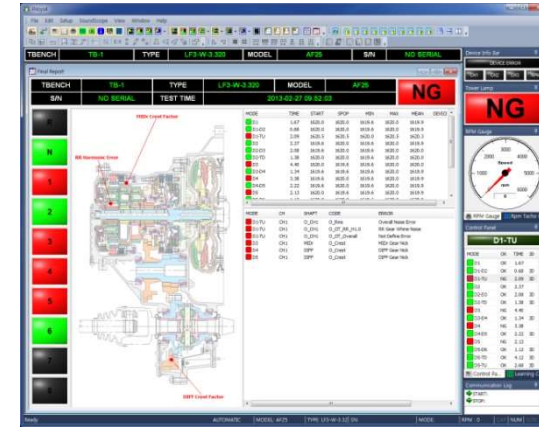
# [1] Inline NVH Inspection System (iNisys)



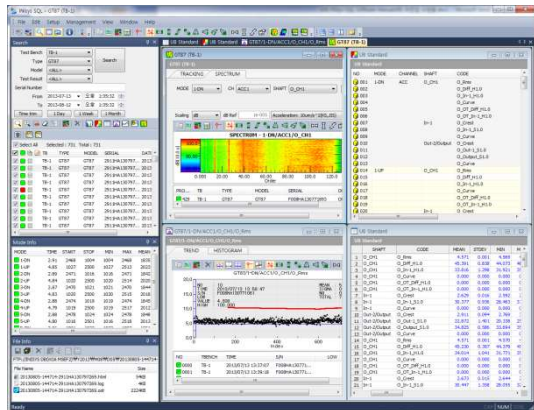
Revolution Synchronous Averaging Method



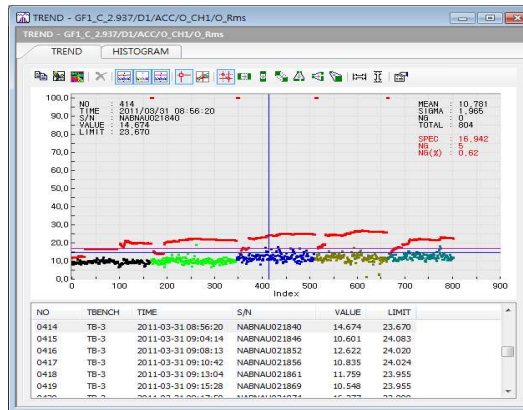
Order Tracking (whine noise)



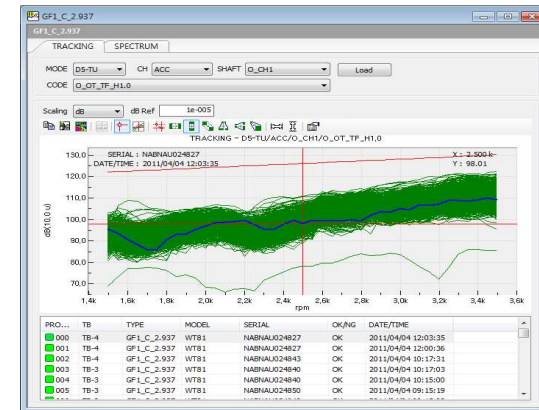
NG Position Display



Database Application (MS-SQL, Statistics)



Trend & Histogram



Overlap Analysis (Order Tracking, Spectrum)

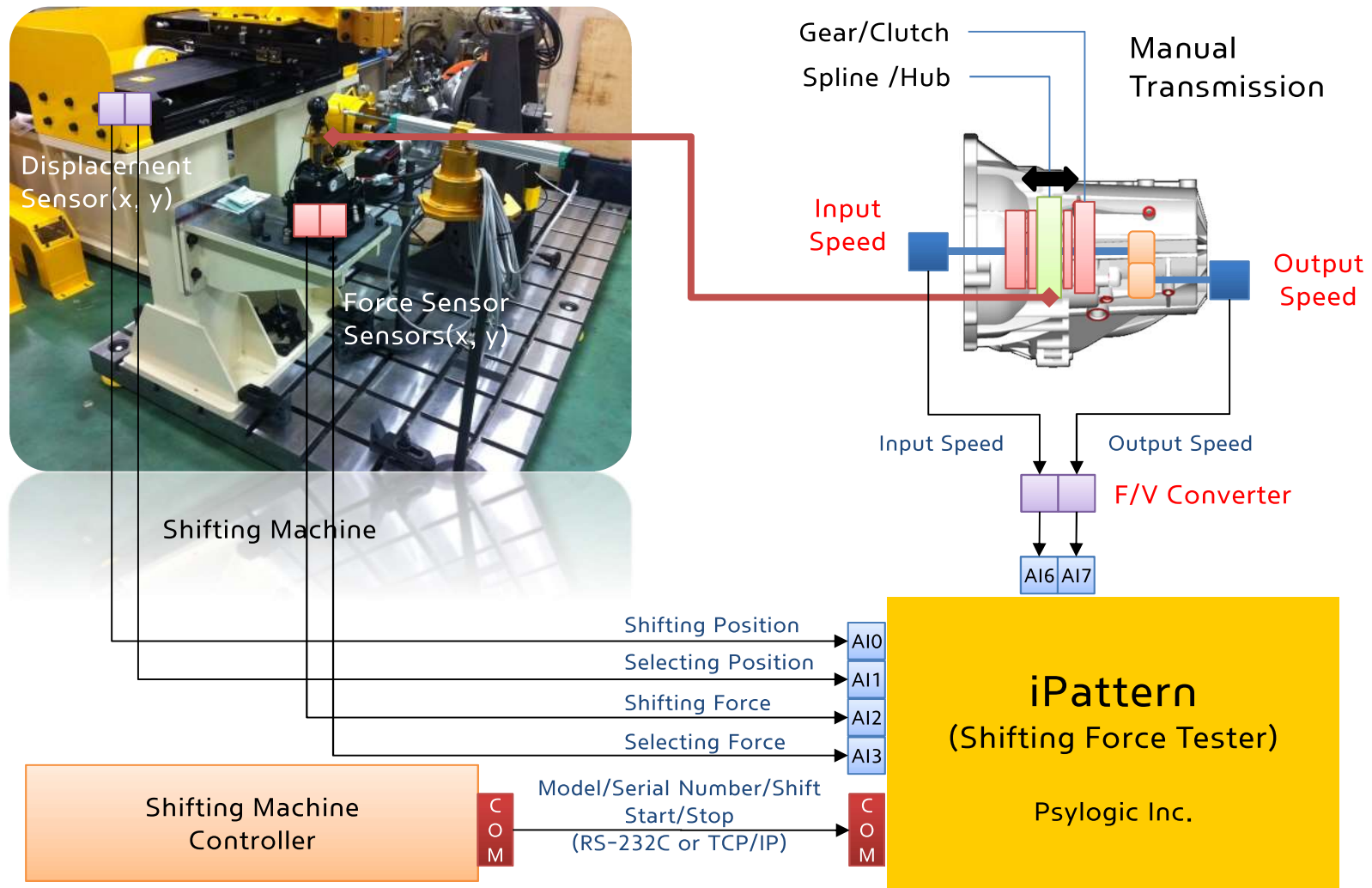
# [1] Inline NVH Inspection System (iNisys)

- 6 country, over 90 Sites, over 300 systems installed
- Korea, USA, China, India, Czech, Mexico, Australia

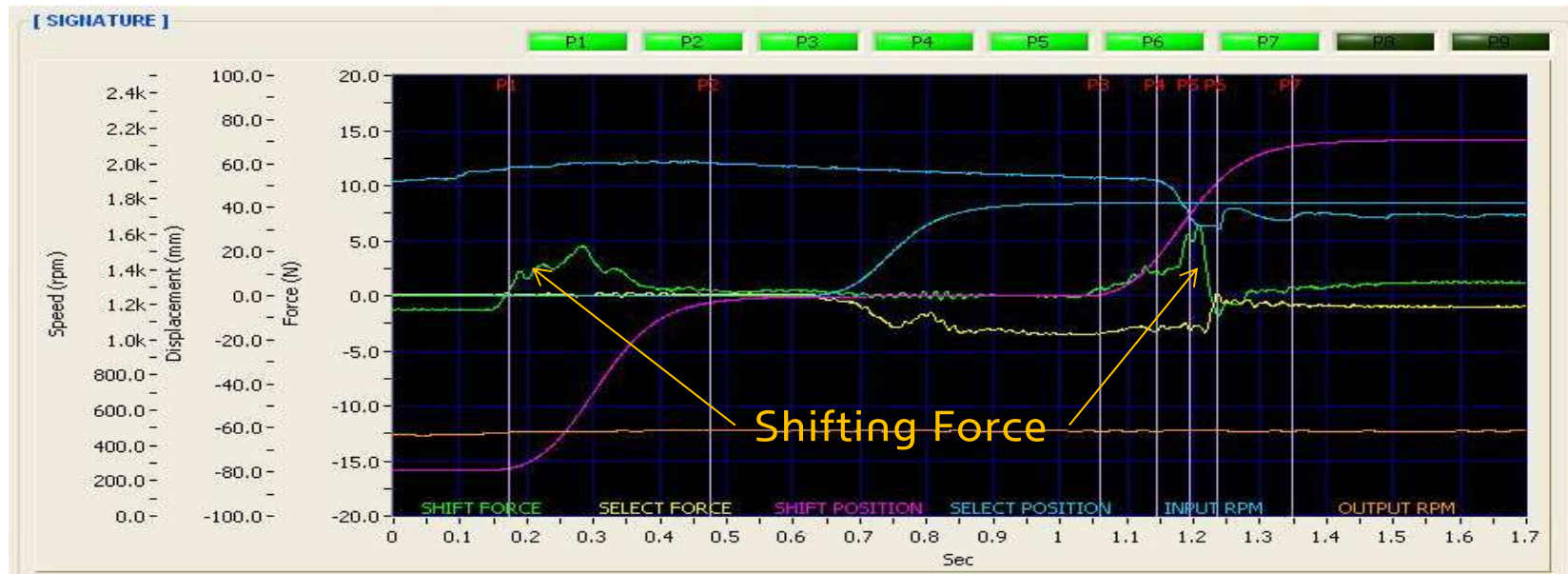
## Psylogic's Customer



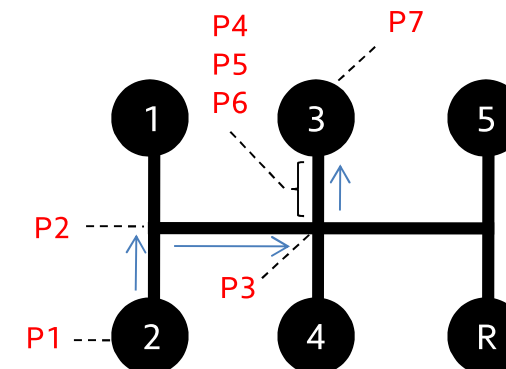
## [2] Synchro Test Machine (Manual Transmission)



## [2] Segmentation Definition

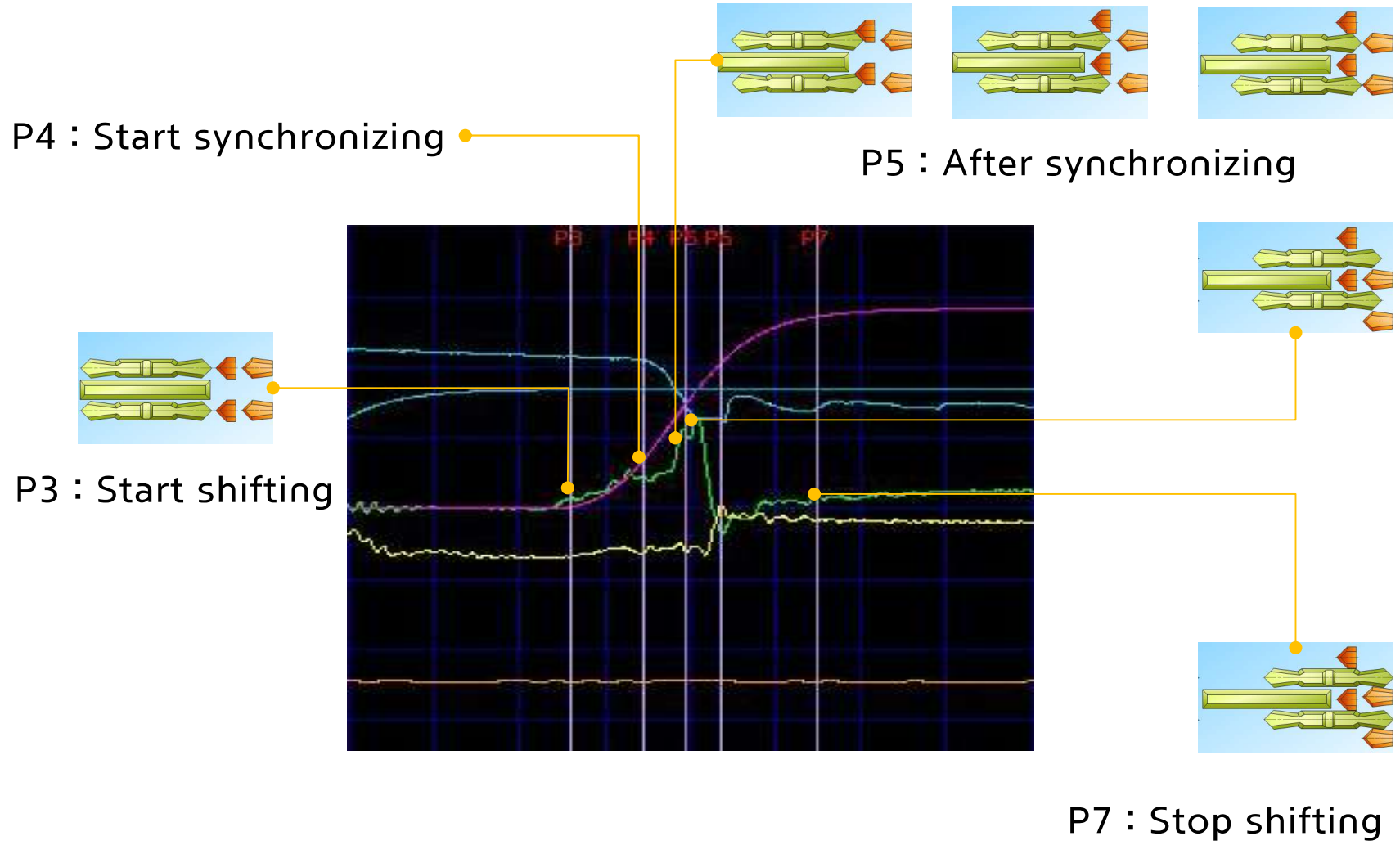


Period	Description
P1	Previous Shifting Step
P2	First Neutral Position
P3	Second Neutral Position
P4	Starting Position for Synchronization
P5	Speed Synchronization Position
P6	Shifting Process Complete
P7	Shifting End Position





# [2] Shifting In Force



## [2] Test Functions (2) - Envelop

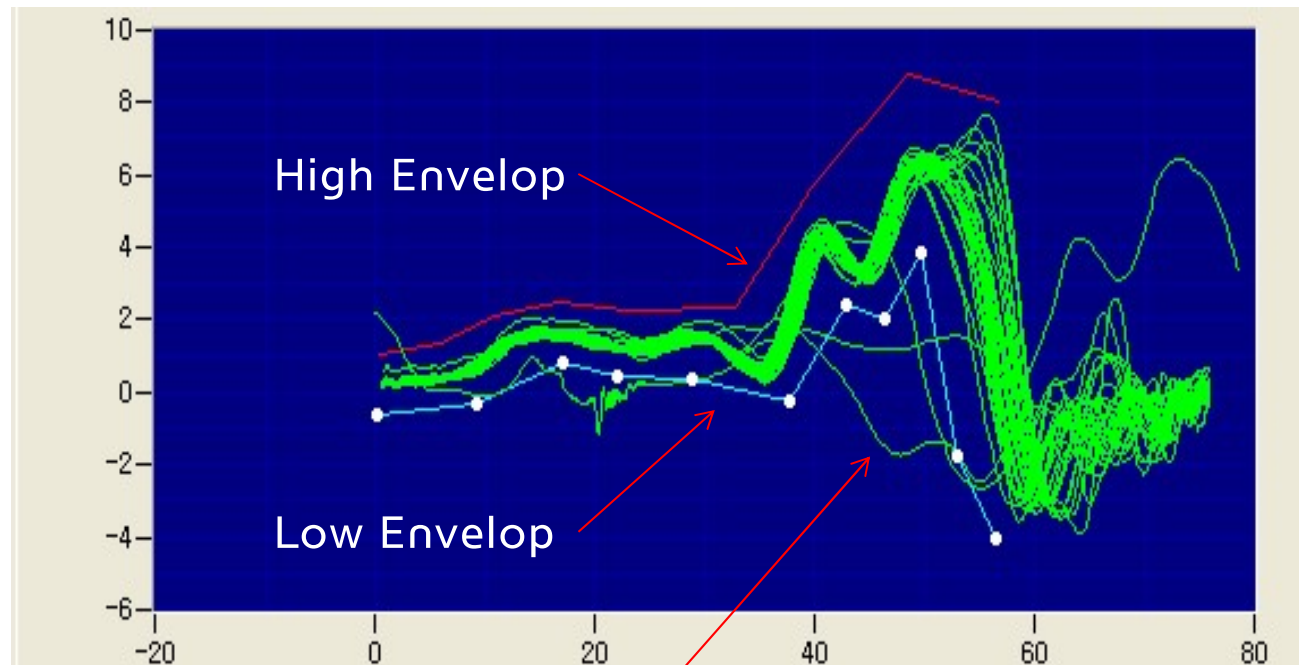
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### (4) Envelop Test

P1~P2 : Shift Out Force Envelop

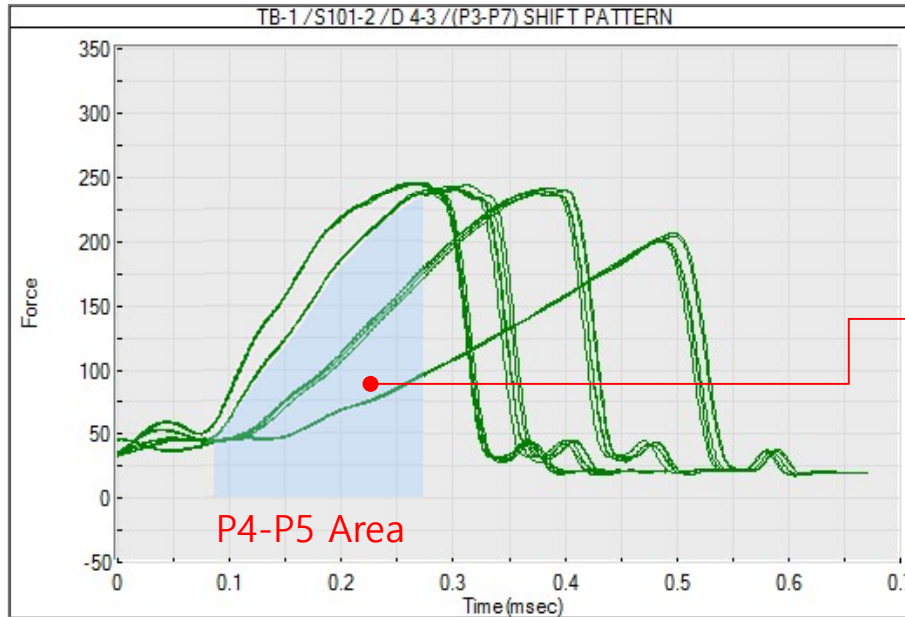
P2~P3 : Select Force Envelop

P3~P7 : Shift In Force Envelop



Defect Syncromesh Mechanism

## [2] Test Functions (3) - Impulse Analysis

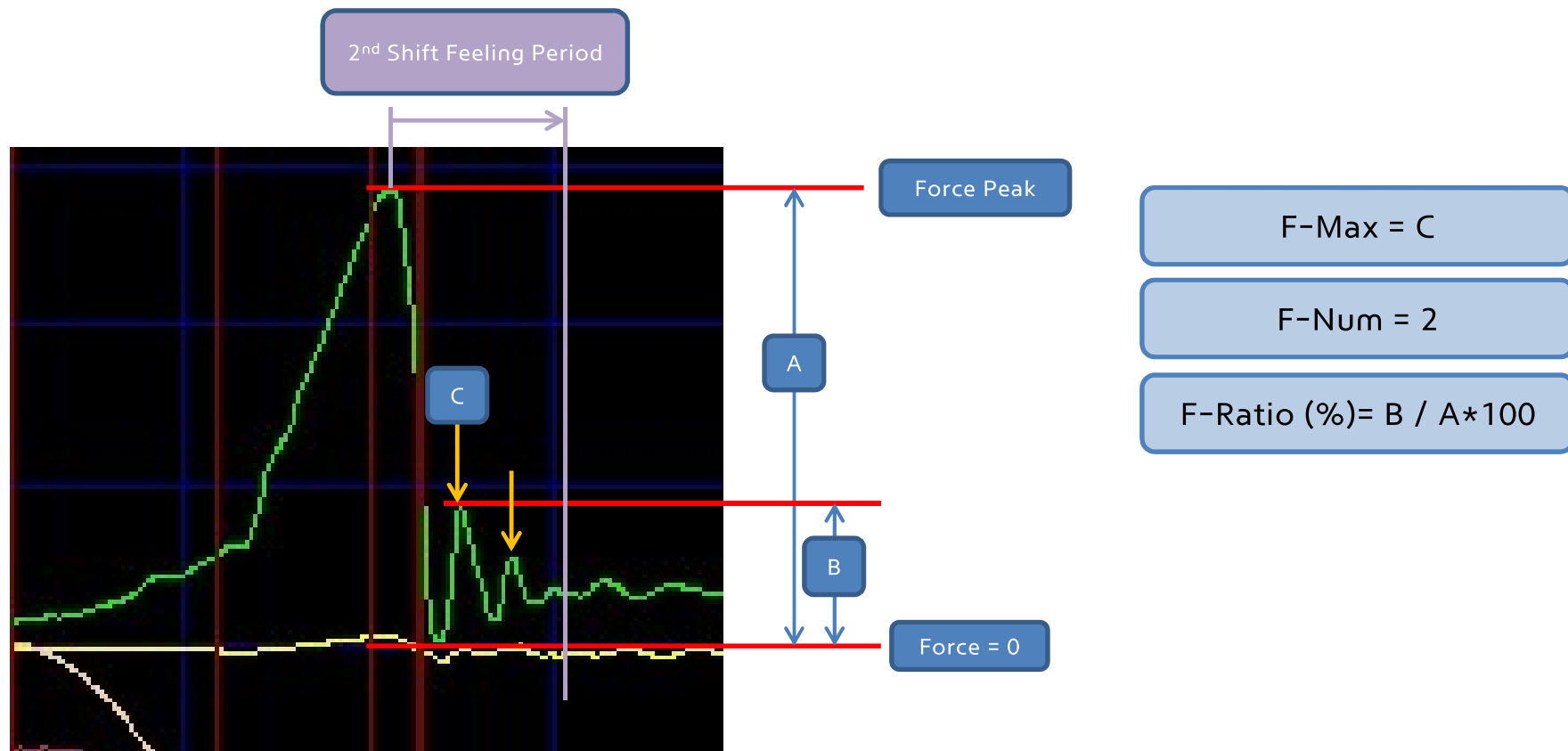


$$\text{Impulse Area} = \int F dt$$

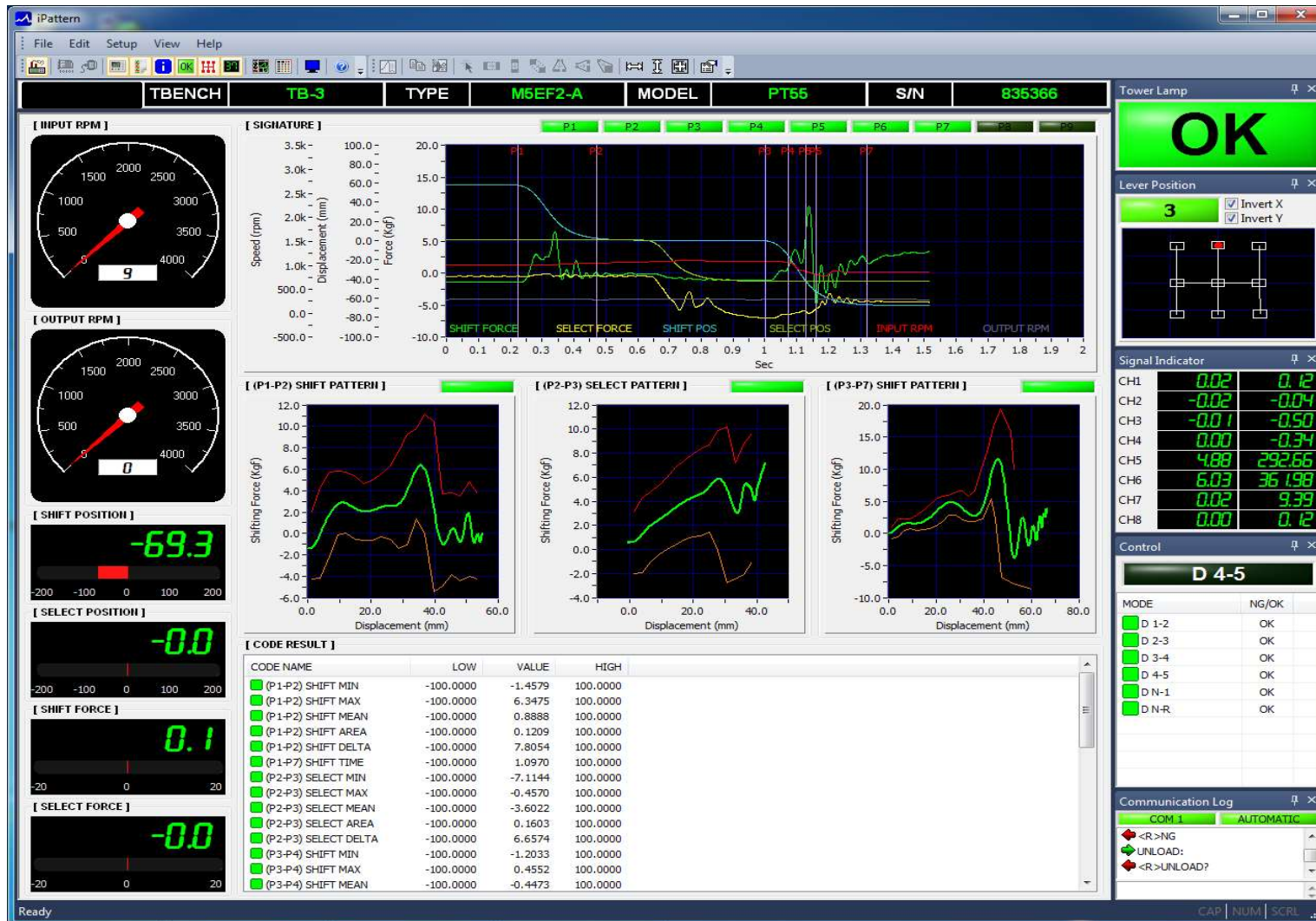
Velocity (mm/sec)	380	280	180	100
D4-3	25.8	28.2	28.3	20.5

## [2] Shift Feeling Measurement

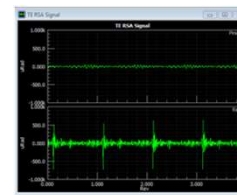
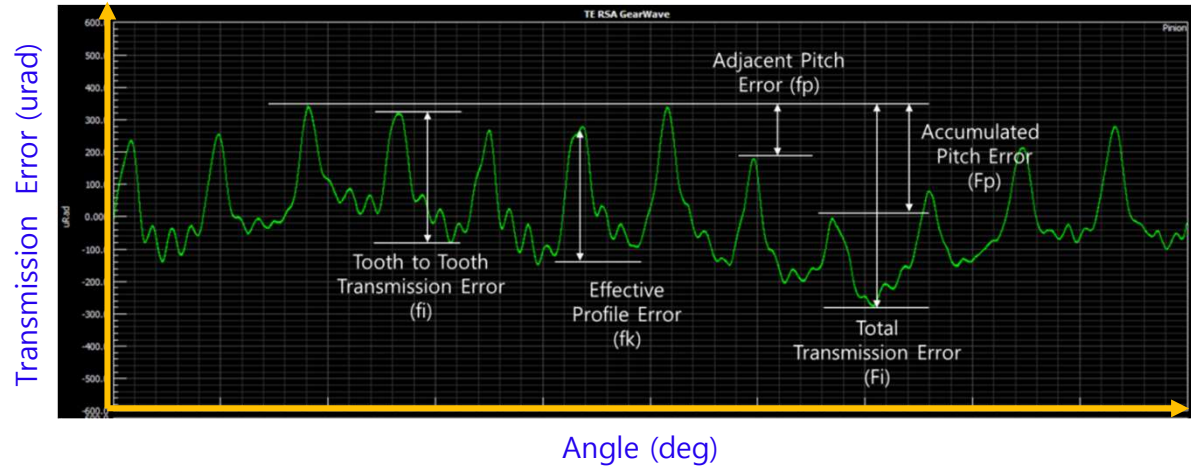
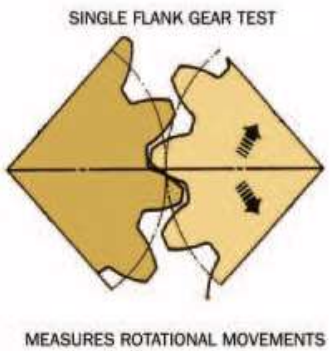
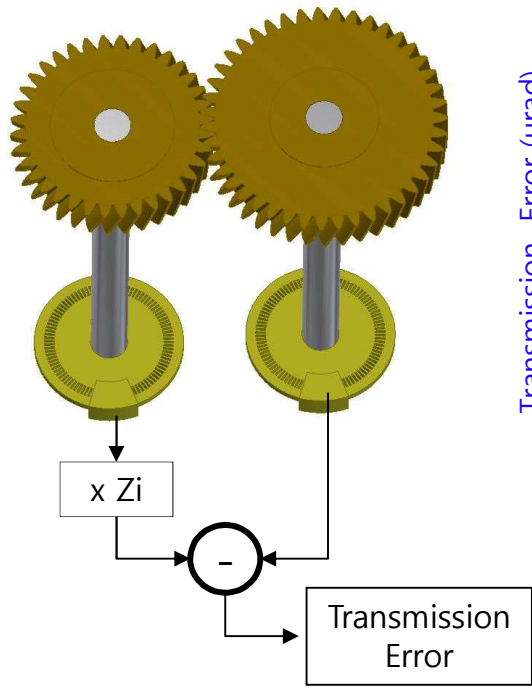
- F-Max (Feeling Max)
- F-Num (Feeling Number)
- F-Ratio (Double Bumping Ratio)



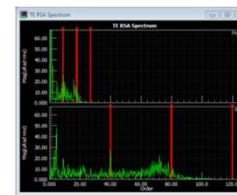
# [2] Windows Applications



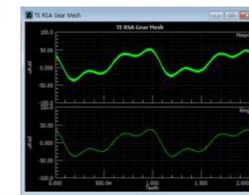
# [3] Transmission Error Measurement System (Gear Test Machine)



[TE RSA Signal]



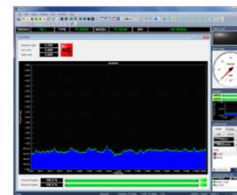
[오더분석]



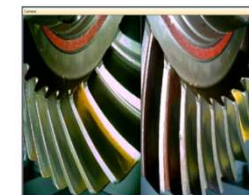
[기어 치 형상]



[피치, 런아웃]

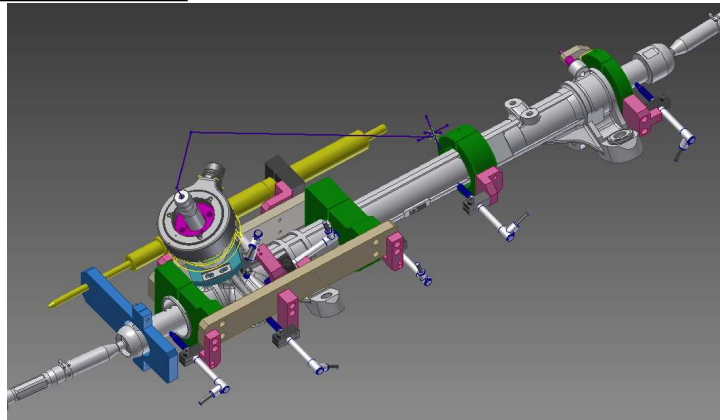
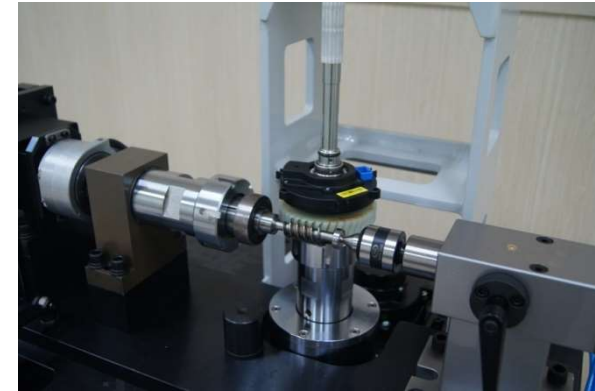
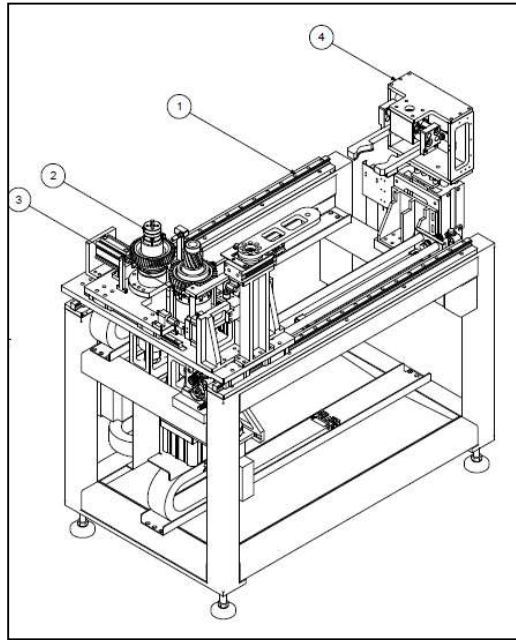


[백래쉬]



[패턴 카메라]

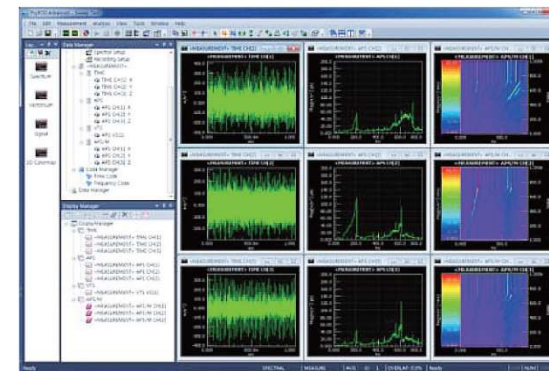
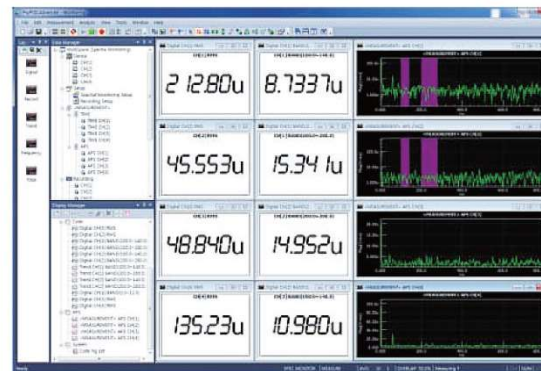
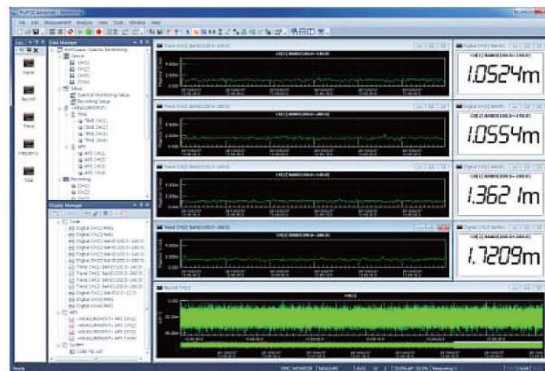
# [3] Transmission Error Measurement System



# [4] Monitoring Systems (PC or Stand Alone)

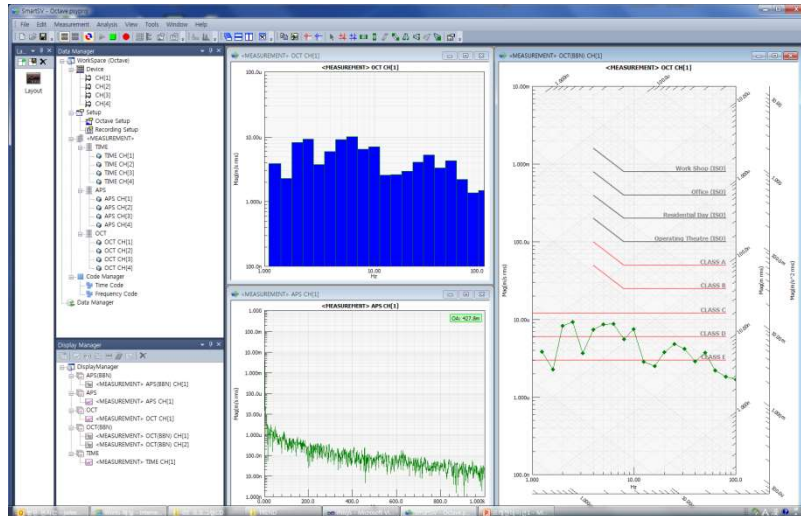


sb-RIO



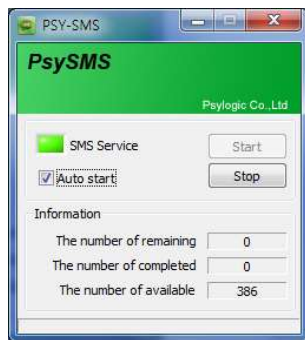


# [4] Monitoring System



- 0.1Hz Octave Analysis
- Vibration Nomograph

- Trigger Vibration Monitoring



- SMS send

