

# 3D E-filing System in KIPO



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## I. Background

## I. Background

### - Context of Industrial Design Practice

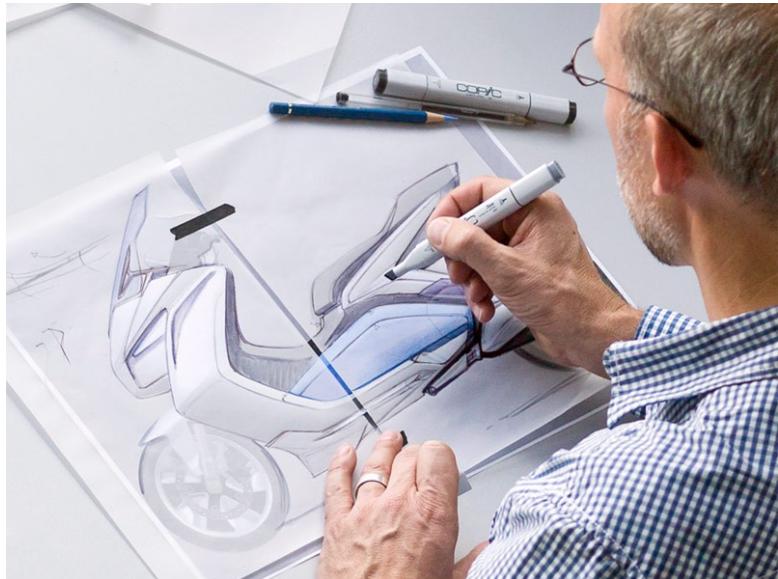


Image courtesy: [carbodydesign.com](http://carbodydesign.com)



## I. Background

### - Context of Industrial Design Practice



Image courtesy: netcarshow.net

## I. Background

### - Drawing Requirement of Design Filing



Image courtesy: Kwon, sunhan

## I. Background

### - Benefits of 3D CAD format application

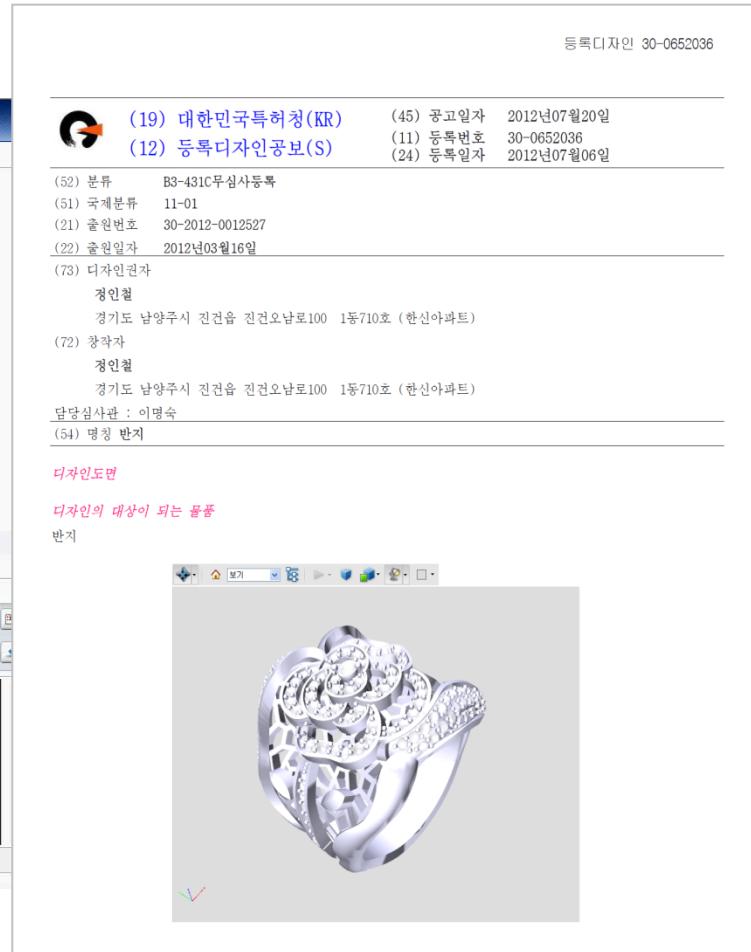


*“from filing to disclosure, digitally and seamlessly”*

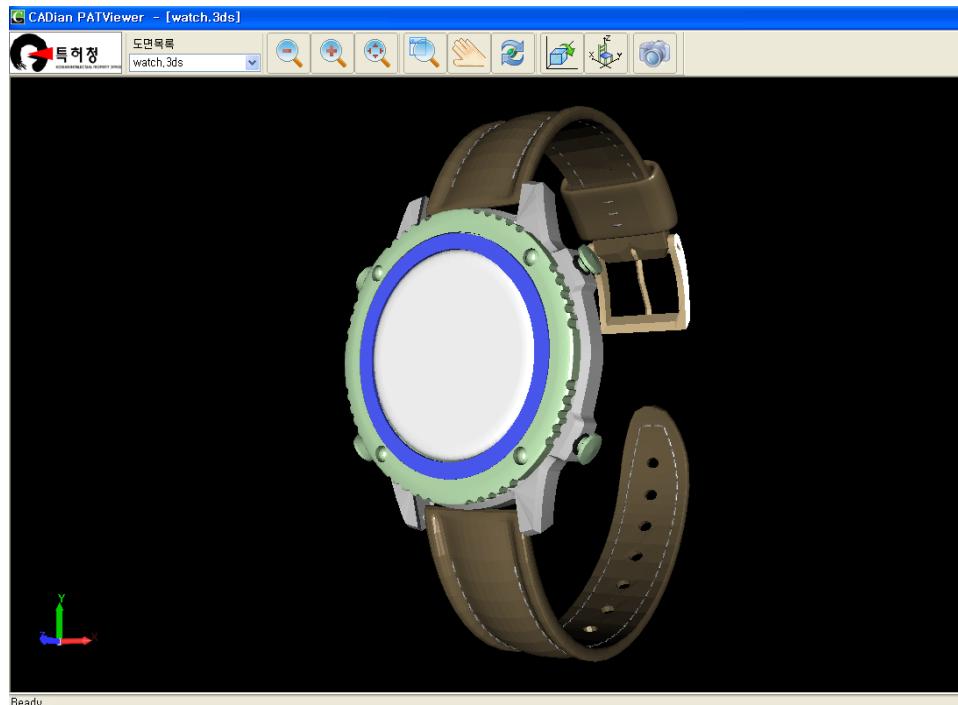
*“convenient, efficient and user-friendly”*

## I. Background

### 3. Benefits of 3D CAD format application



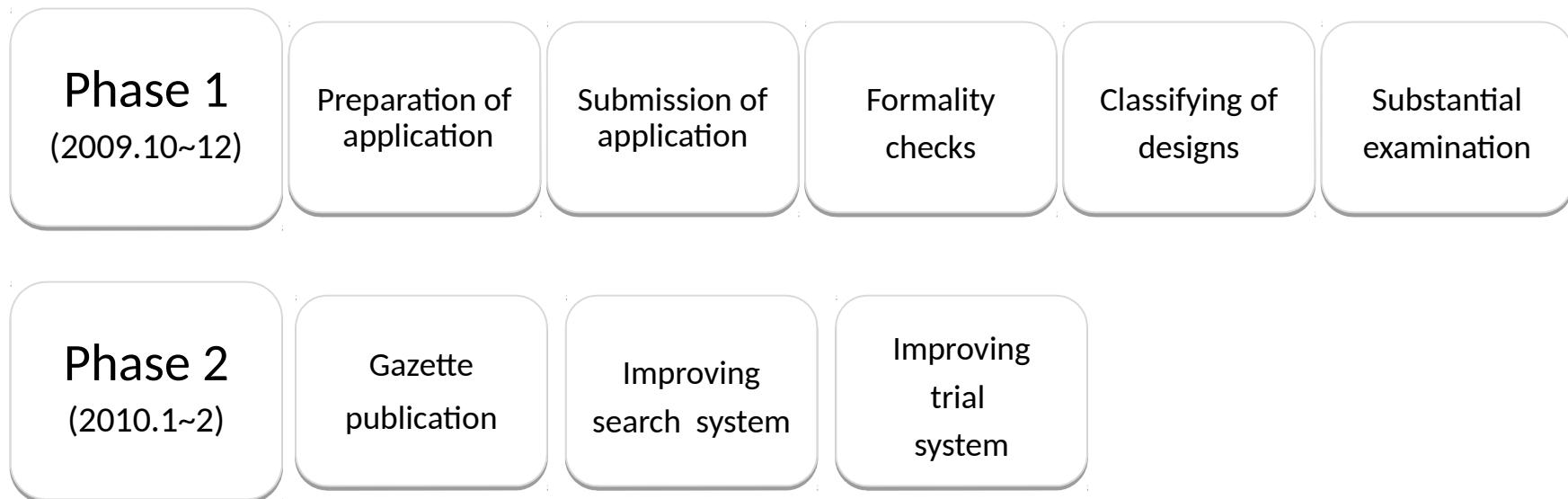
### 3. Benefits of 3D CAD format application



## II. System Development

## II. System Development

### - Development of 3-D Modeling System



**Budget for system development: total 523 million won (28,500,000 RUB)**

- Phase 1: 100 million won (approx. 5,000,000 RUB)
- Phase 2: 423 million won (approx. 23,500,000 RUB)

## II. System Development

### 2. Partial Revision of the Enforcement Regulations

#### Acceptance of 3-D modeling files

KIPO accepts the submission of 3-D modeling file formats, including 3DS, DWG, DWF and IGES, as drawings. The aim of this is to alleviate the inconvenience of having to prepare extra drawings solely for filing the application.

#### Changing regulations for the preparation of applications

This allows for the filing of a 3-D design application with at least one drawing which clearly specifies the creative content and overall shape of the design, it is no longer obligatory to submit 2-D drawings.

### 3. User Training & PR

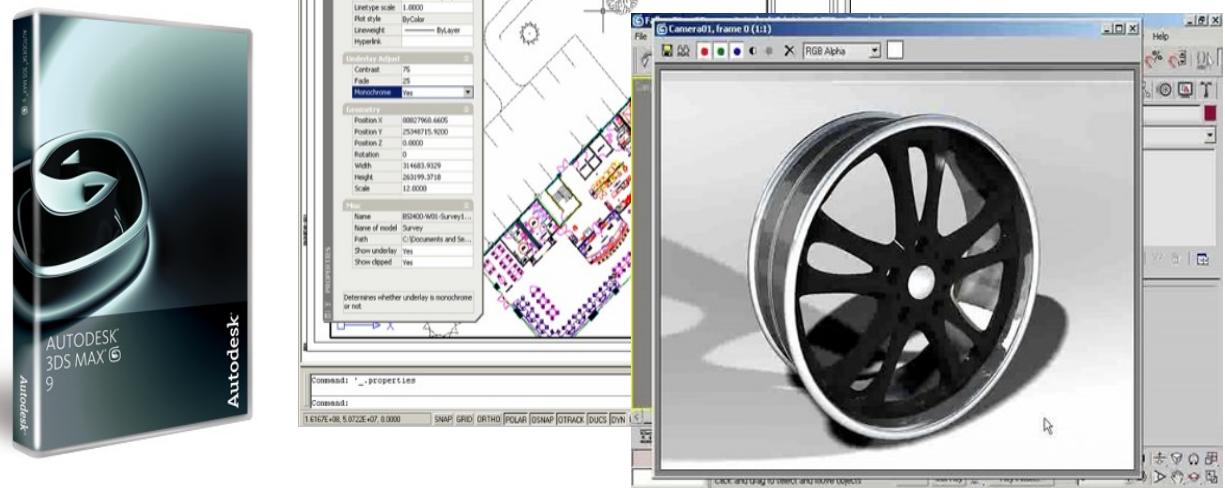
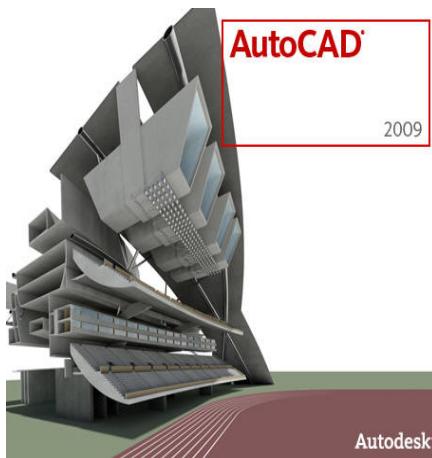
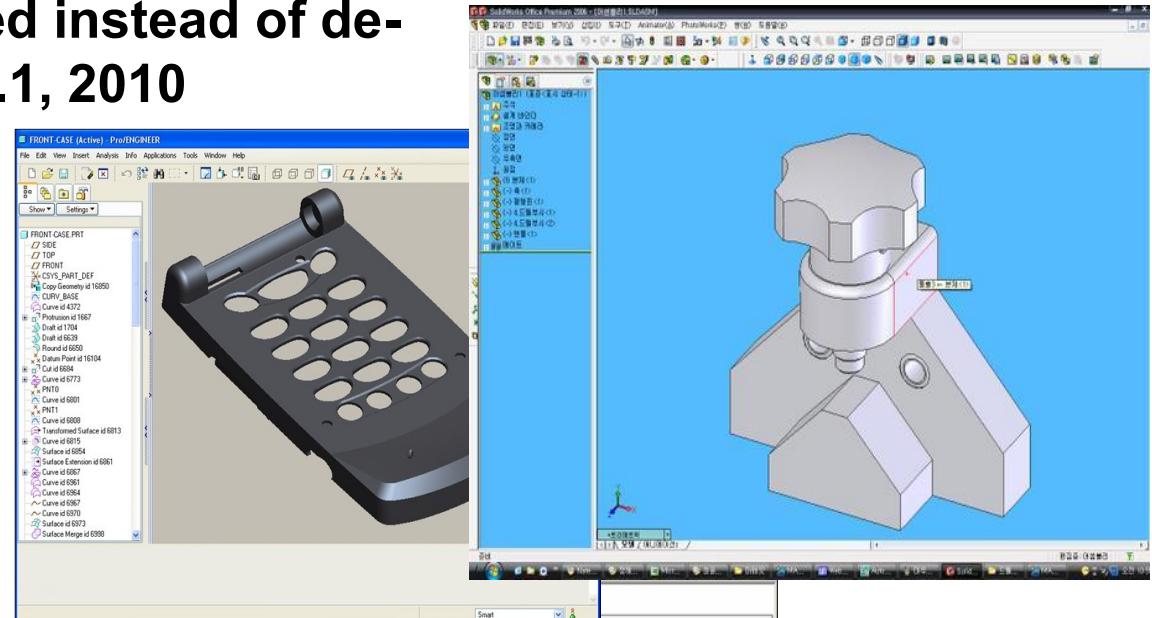
### **III. Statistics**

# 1. Popular 3D Modeling Software programs for product design

- 3D file can be submitted instead of design drawing from Jan.1, 2010

- Available 3D programs

- ✓ Auto CAD
- ✓ 3DS Studio MAX
- ✓ ALIAS studio
- ✓ Rhino ceros
- ✓ Pro/ENGINEER
- ✓ Solidworks



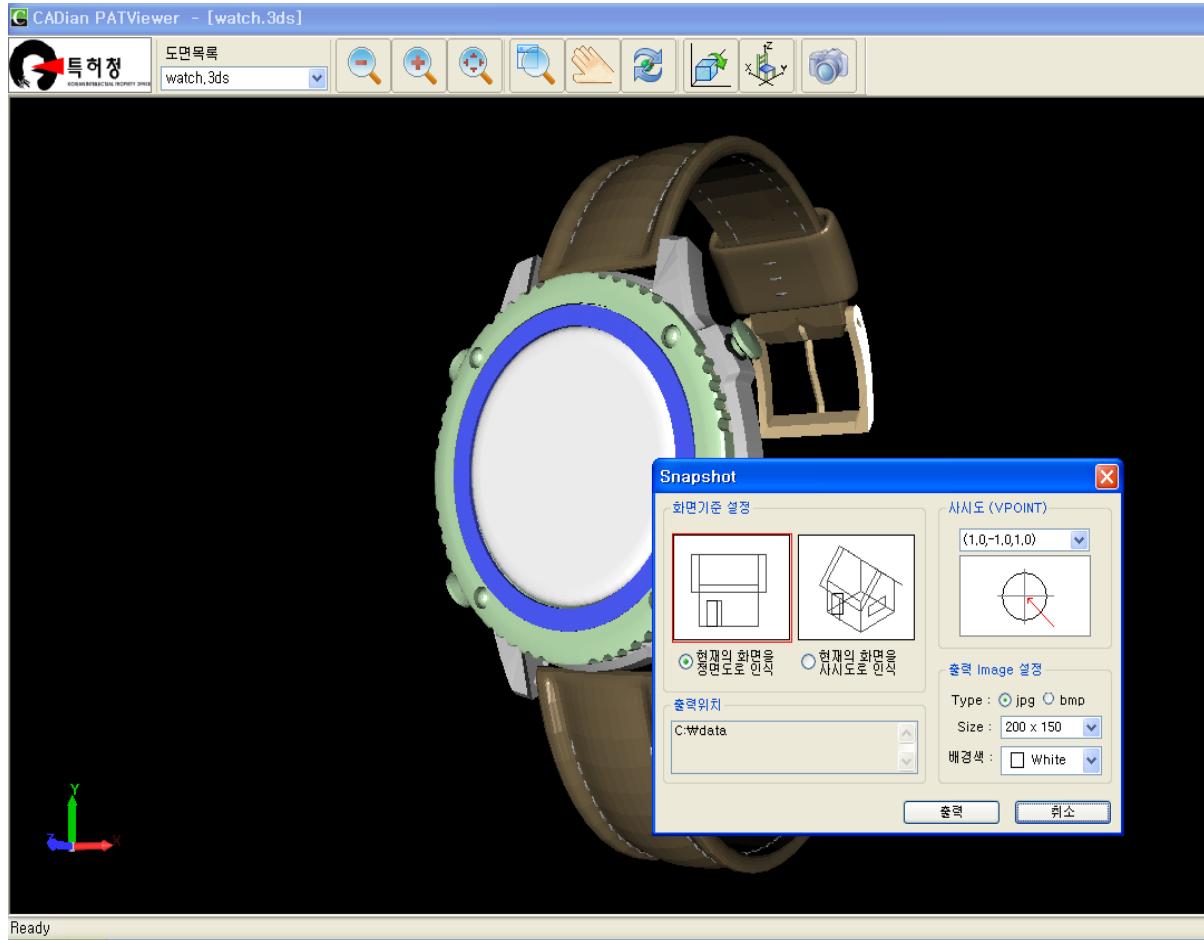
## 2. Applicable file format

- File format '**dwg**', '**dwf**' '**3ds**' supporting over 70% of design file used in Korean design industry.
- **E-filing system Supporting 3ds**(3D studio), **dwg**(2D/3D CAD Drawing) , **igs(iges)** (Initial Graphics Exchange Specification), **dwf**(Drawing web format), **3dm**(3 Dimensional modeling) file format

	3DS	DWG	DWF	IGES	3DM	Total
2011	713	416	81	378	-	1,588
2012	1,485	315	5	588	-	2,393
2013	868	182	31	626	239	1,946
2014	831	364	36	858	304	2,393
2015	648	545	13	1,470	534	3,210
2016	556	409	11	1,275	961	3,212
2017	489	377	18	1,348	1,124	3,356

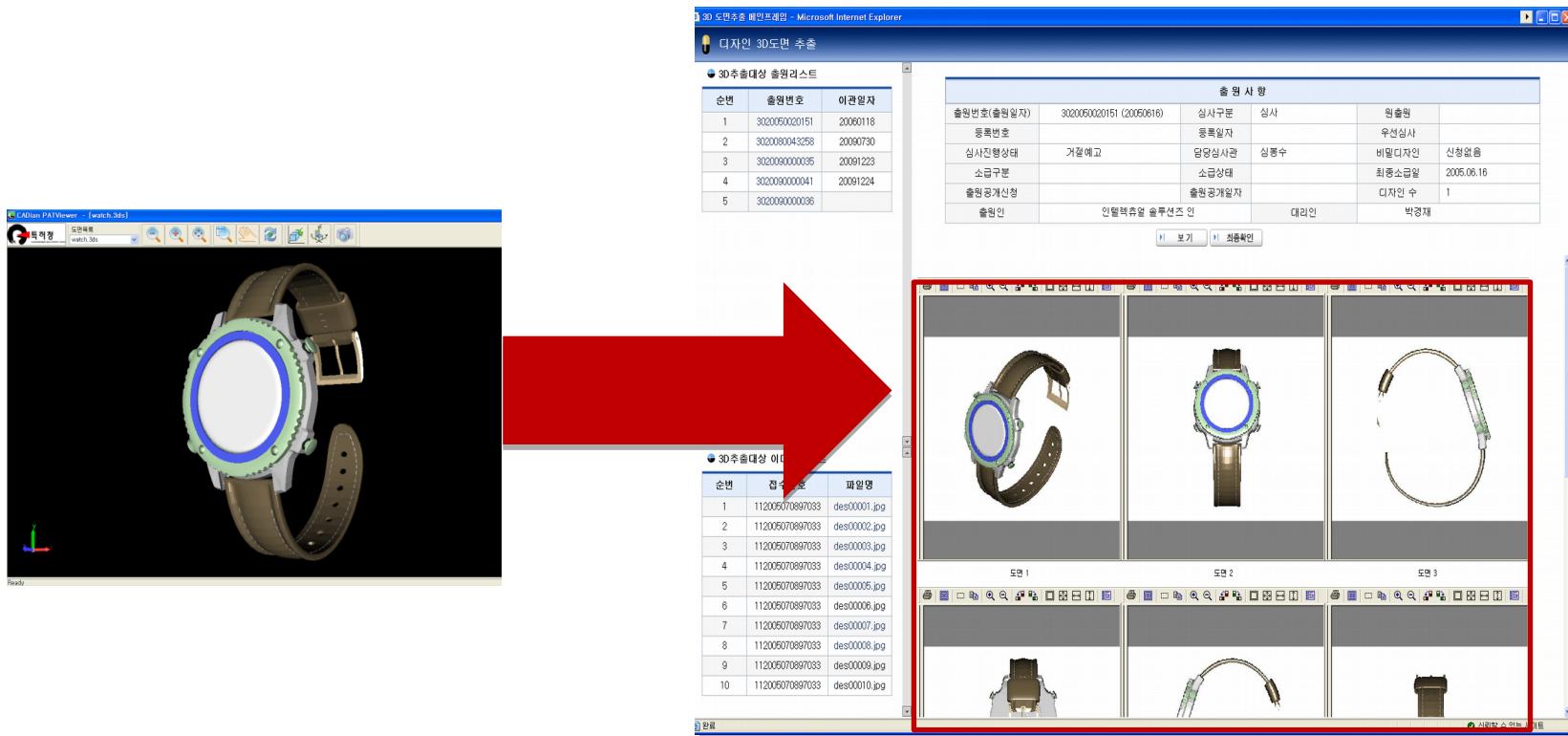
### 3. Substantive examination

- identify the characteristic figures with enlarge, reduce, move, and rotate 3D image through **CADian viewer**
- The design Examination process is the same as the usual design Examination.



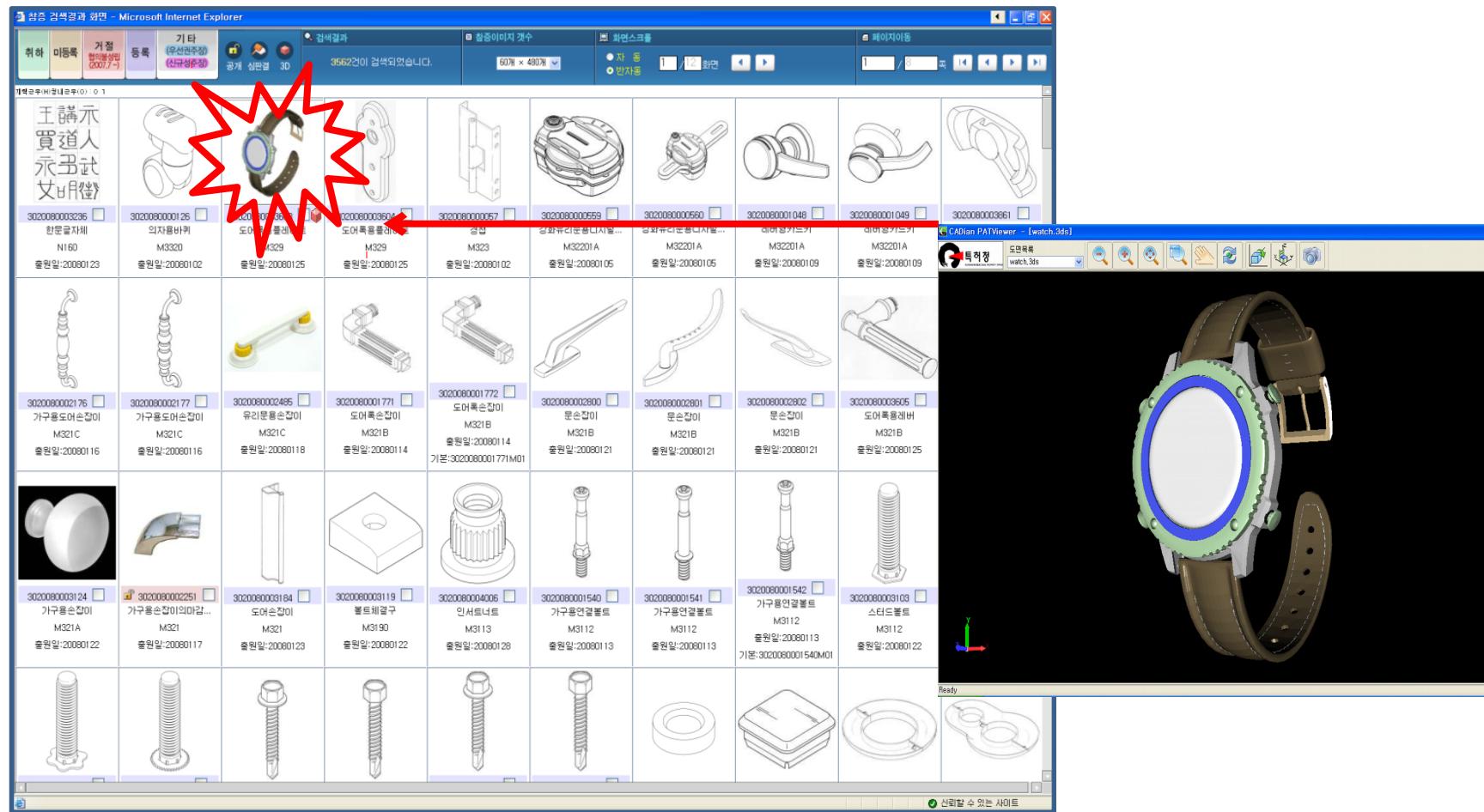
## 4. 2D drawing Auto-extraction & Snapshot

-  extract 2D reproduction from 3d-file with snapshot viewpoint assigned.



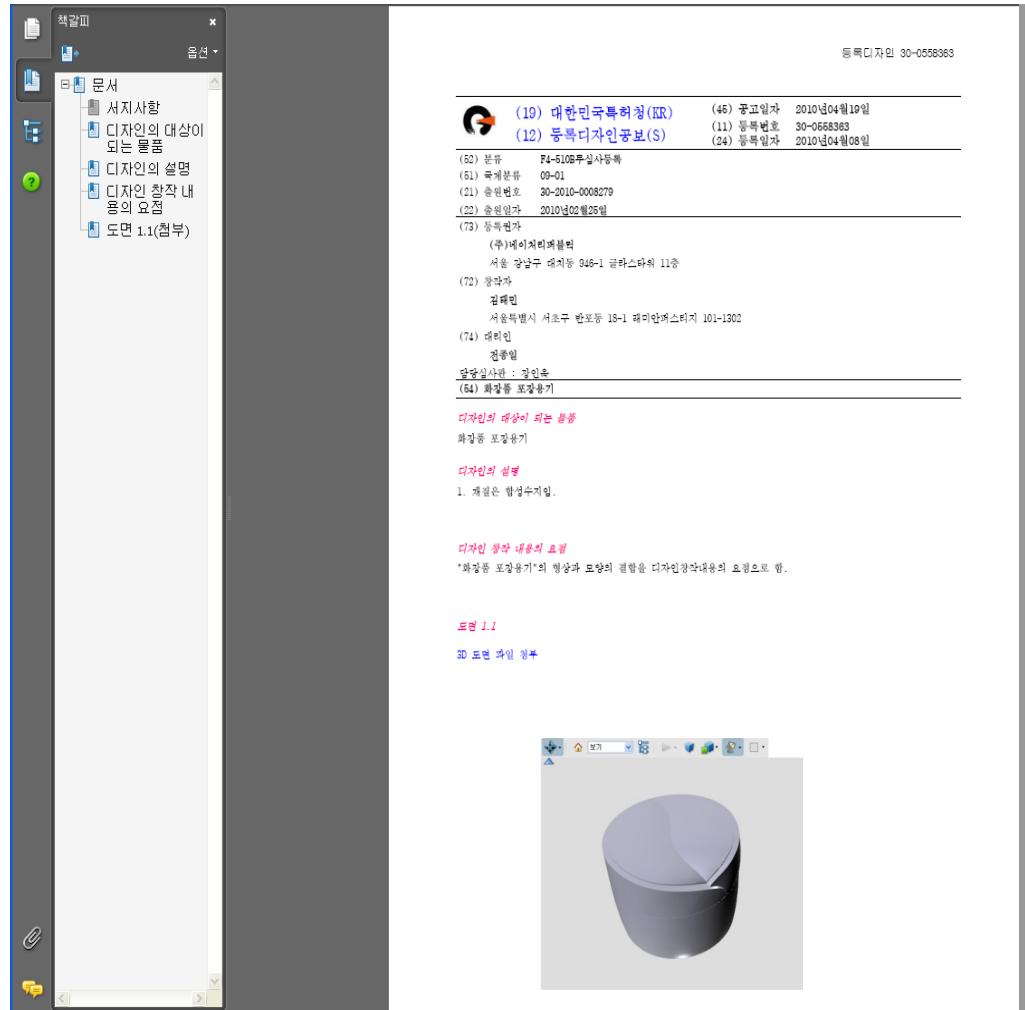
## 5. Search system

- After registration, Uploading the 2D reproduction(perspective, 6views) data to the search DB



## 6. 3D PDF Gazette

- Gazette including 3D re-production possible using ezPDF viewer applying the 3D PDF technology

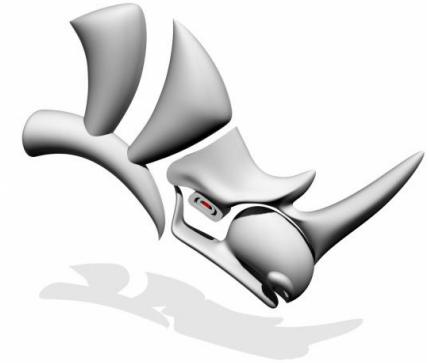


## **IV. Way to go**

- 1. Compatibility**
- 2. Amendment Issue**
- 3. Priority**

## IV. Way to go

### 1. Compatibility



**Rhinoceros®**  
NURBS modeling for Windows

#### IV. Way to go

##### 2. Amendment of Documents

initial

**3D**

amending

**2D**



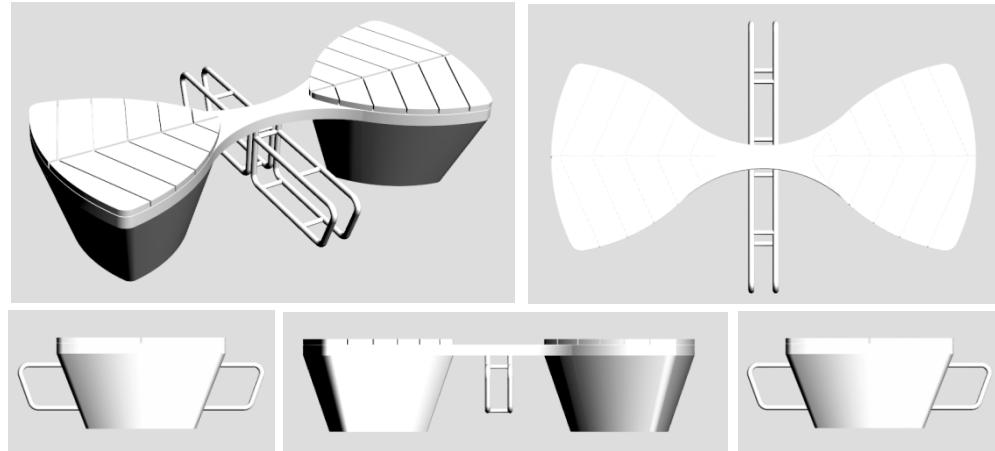
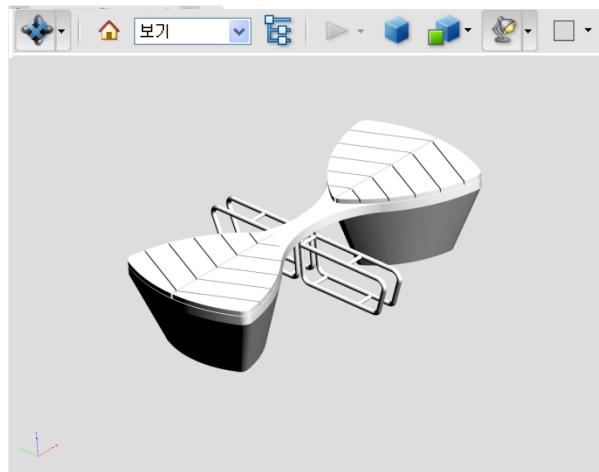
**2D**

**3D**



## IV. Way to go

### 3. Priority



Korean Intellectual  
Property Office

**“3D”**



**“2D”**

## IV. Way to go

### 3. Priority

Issue Number : 5-5-2011-028161282

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대한민국 특허청  
KOREAN INTELLECTUAL PROPERTY OFFICE

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This is to certify that the application annexed to this document contains a two-dimensional image derived from the original three-dimensional image in accordance with the procedures outlined in Appendix 1 of the Enforcement Decree of the Design Act. The original application records can be found on the Web site of the Korean Intellectual Property Office.

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출원인 : (주)네이처리퍼블릭  
NATURE REPUBLIC CO., LTD.

2011년 05월 18일

특허청  
COMMISSIONER



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