

## التطبيقات الأساسية للتصميم بالحاسبات

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Plugins

Resources

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CNC

.Robots

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Rendering

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Mask

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Pixel

Vectors

RGB

HSL

CMYK

.vector

bitmap

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Scanner

Pixel

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Animation

. Packages

random shapes

## التطبيقات البرمجية الجرافية

Apple Mackintosh

Windows

Mac Paint

Image Processing

Image enhancement

Image Restoration

Image compression

Modeling and simulation

Interactive simulations

3D Animations

Morphing

Animation

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Gif

### Image processing

Image processing

:

**improve**

-

enhancement

restoration

**extract information**

-

analysis

recognition

**change their structure**

-

image editing

compression

electro-optical (photonic)

, X-rays

. infrared or ultraviolet

, radar

. Ultra sonic (sonar).

blur

Contrast

Image restoration

- geometric distortions

- noise )  
(defocusing

Blur

geometric distortion

)

. orientation

outline shape

(CNC

PhotoShop

.Toolbox

: Color correction

:Contrast and brightness

Image / Adjust /

Level

pixels

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Auto

Sliders

Brightness/ Contrast

Color Balance

Image / Adjust / Color Balance

Midtones , highlights , shadows

:

Image / Adjust / Hue- Saturation

CMYK

RGB

: Variations

: Curves

Image / Adjust / Curves

Eyedropper

: Filters

. Filters

Plug\_ins

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**InDesign**

. (Adobe InDesign)

Quark Express

.Mac

PC

Pamphlet

Booklets

InDesign

ME

Brochures

Posters

**Soft Image**

(SoftImage)

(SoftImage)

(Actor model)

(UV)

(Paint)



imageready Photoshop CS  
photoshop illustrakor in imgeready photoshop  
PSD  
Dither Gif  
PNG Image Ready . 24-bit Alpha Channel  
HTML Image Ready . PAN  
IMAGE PhotoShop LINKS SCRIPT JAVA  
ACTION UNDO READY  
PSD GIF IMAGE READY  
**COREL XARA**  
Corel DRAW! COREL Corel Xara  
raster images  
corel xara CORELDRAW  
image ready  
corelxara . macromedia fireworks adobe  
PNG JPEG GIF  
CorelXara  
CorelXara .  
8-bit  
CorelXara . JPEG

Raster vector

Jpeg Dither GIF

PNG GIF Core Xara Photoshop

HTML Corel Xara Vector

URL % Browsers Corel Xara

**Debabelizer Pro 4,5**  
Debabelizer Pro

Raster

Action Arrow Debabelizer Pro Super Palette JAVA Scriprs Debabelizer Pro Scripts Scripts Scripts Debabelizer Pro

Drag and play Scripts Debabelizer Pro

title Bar Action Arrow

Debabelizer Pro 8bit BNG JPEG GIF Mask Dither

JPEG JPEG GIF Debabelizer Pro

Debabelizer Pro

Debabelizer Pro

GIF

Debabelizer Pro

Photoshop

HTML

Debabelizer Pro

. JAVA Scripts

HTLM Code

Debabelizer Pro

### GIF Animator

Animation

resolution

Animation GIF GIF . JPEG

Dither

. GIF

### MACROMEDIA FIREWORKS

Macromedia Fireworks

bitmaps

Macromedia Fireworks CorelXara .

Layers

Vectors

Gradients

Macromedia Fireworks

Macromedia Fireworks

. Macromedia Xtras Photoshop

Vectors

PNG

Macromedia CorelD RAW! Illustrator

Photoshop

PSD

Freehand

Macromedia Fireworks .  
Alpha Channels  
Export  
GIF  
Macromedia Fireworks  
PNG  
JPEG  
Macromedia Fireworks  
JPEG  
URL  
HTML  
GIF  
Macromedia Fireworks .  
( )  
Tweening  
Macromedia Fireworks  
Macromedia Fireworks' JAVAScript GIF  
URL  
Macromedia Fireworks . URL .  
CMYK  
Raster  
**MAS Media Utility 1.20b**  
MAS Media Utility .  
..  
user interface  
24-bmp  
GIF 256 GIF  
bit-Depth GIF  
MAS Media Utility .  
. TIFF GIF JPEG HTML

MAS Media Utility .  
MAS Media . Default Indexed  
Utility  
256 16 2 )  
MAS Media Utility PNG ( .  
PNG 1.21  
MAS .  
Media Utility  
**NetGraphics Studio 2.0**  
NetGraphics  
NetGraphics Studio Herma Technologies Studio  
Wizard  
NetGraphics Studio  
JPEG GIF NetGraphics Studio ..  
photoshop  
NetGraphics Studio HVS photoshop  
GIF Wallpaper  
Bit-Depth  
JPEG GIF .  
PNG .  
GIF GIF photoshop .

## الرسوم المتحركة بالحاسب

(In Between Frames)



( Cels )

:Optical Effects .

( Optical Effects )

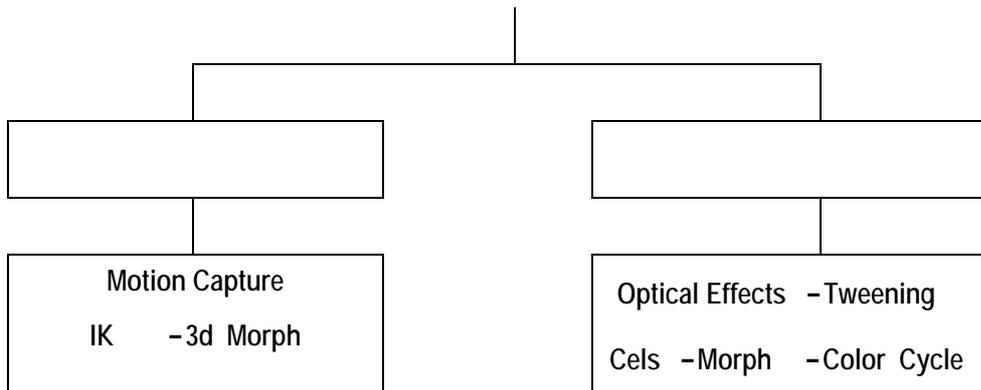
. ( Scale Down )

In Between )

: Tweening & Morphing .

. ( Frames

: Color Cycling .



. ( Render Quality )

( 3D)

( D )

)

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( Polygon Modeling )

( Spline Modeling )

(2D)

( Material Librery )

. ( Corel Draw , Kodak ) :

( IK ) ( Inverse Kinematics )

## Morphing

Morphing

Morph

Morph

(Cross Fading)

:

( Morph )

: Transition Morph -

:Distortion Morph -

. Warping

( 3D Morph)

2D Morph

-:

-

-

-

( 3D Morph)

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( Plug-Ins )

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الرسوم المتحركة ثلاثية الأبعاد

( 3D )

( 3D )

)

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(

Polygon Modeling

Spline Modeling

2D

.Viewpoint , Zygote Acuris

Material Librery

. Corel Draw , Kodak

Inverse Kinematic ( IK )

-:

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.Render Quality

-:

. (Animator Pro) -

(Axa) -

. (Corel Move) -

. (Animator Studio) -

. (Soft Image 3D)

(Toonz)

-( 3D)

(Soft Image) -

(Alias / Wave Front) -

. (Autodesk 3ds Max) -

. (Autodesk Maya ) -

. ( Light Wave) -

. ( Solid works) -

. (Electric Image) -

. (Electric Gig) -

-( 2D Morph )

. (Electric Reality) -

. (Black Box)

(Morph) -

. (Photo Morph) -

تصميم المنتجات بالحاسب

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(gear)

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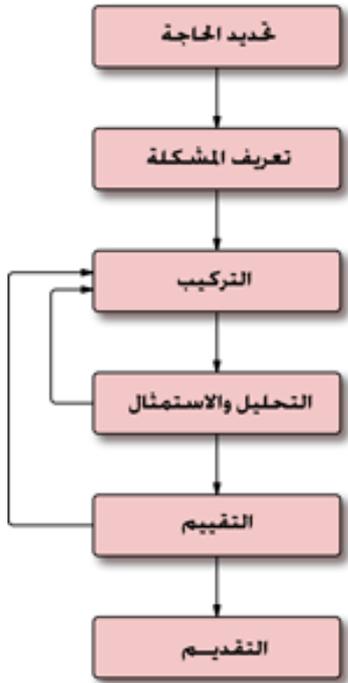
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(Shigley)

1. Recognition of Need	( )
2. Definition of Problem	( )
3. Synthesis	( )
4. Analysis and Optimization	( )
5. Evaluation	( )
6. Presentation	( )

(Prototype model)



(Computer Aided Design)

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CAD

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(CAD)

(Interactive Computer Graphics: ICG) :

(software)

(hardware)

(monitor)

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Geometric Modeling	( )
Engineering Analysis	( )
Design Review and Evaluation	( )
Automated Drawing	( )

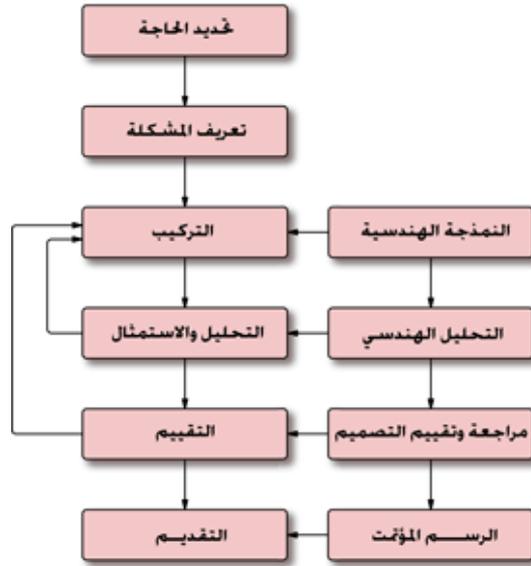
(Shigley)

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(Finite Element Method)

( )

(nodes)

(Kinematics tests)

CADD

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Computer-Aided Design And

CADD

.Drafting

3D

Models

( )

(Synthesis)

(Prototype)

(Finite elements)

CNC)

(Machines

( )

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(wireframe model)

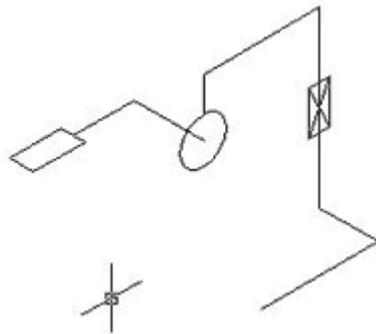
(surface model or mesh)

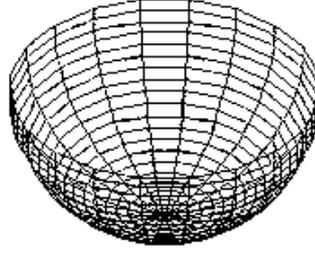
(solid model) ( )

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(polyline D )

(spline)





(Box)

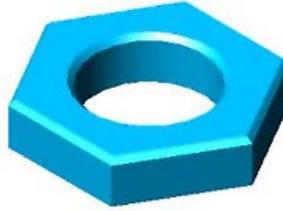
(Donut)

(Wedge)

(Sphere)

(Cylinder)

(Cone)



بين النمذجة والمحاكاة

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**:Simulation**

. interacting components

.Real Time

nonlinear

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3D

model output

computer animation

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