

*Visual and Intuitive Management  
by 3D Video GIS*

*- Active Link Vision -*

*Mar, 2008*

*Revision 2.1*

# *Contents*

- Introduction P.2
- Overview of 3D Video GIS P.3
- All Surrounding Video Image P.4
- 3D Asset / Information Management P.5
- 3D Scene Simulation P.6
- 3D Measurement and others P.7
- Variation : Maps, Videos P.8
- Application : Tree Management P.9
- Application : Road Management P.10
- Application : Design Management P.11
- Application : Data Management P.12
- Server Specification P.13
- Client - Server Diagram P.14
- About Iwane Laboratories, Ltd. P.15

# Introduction

- Product Name : *Active Link Vision*
- Type of System : *3D Video GIS*

## What is *3D Video GIS*?

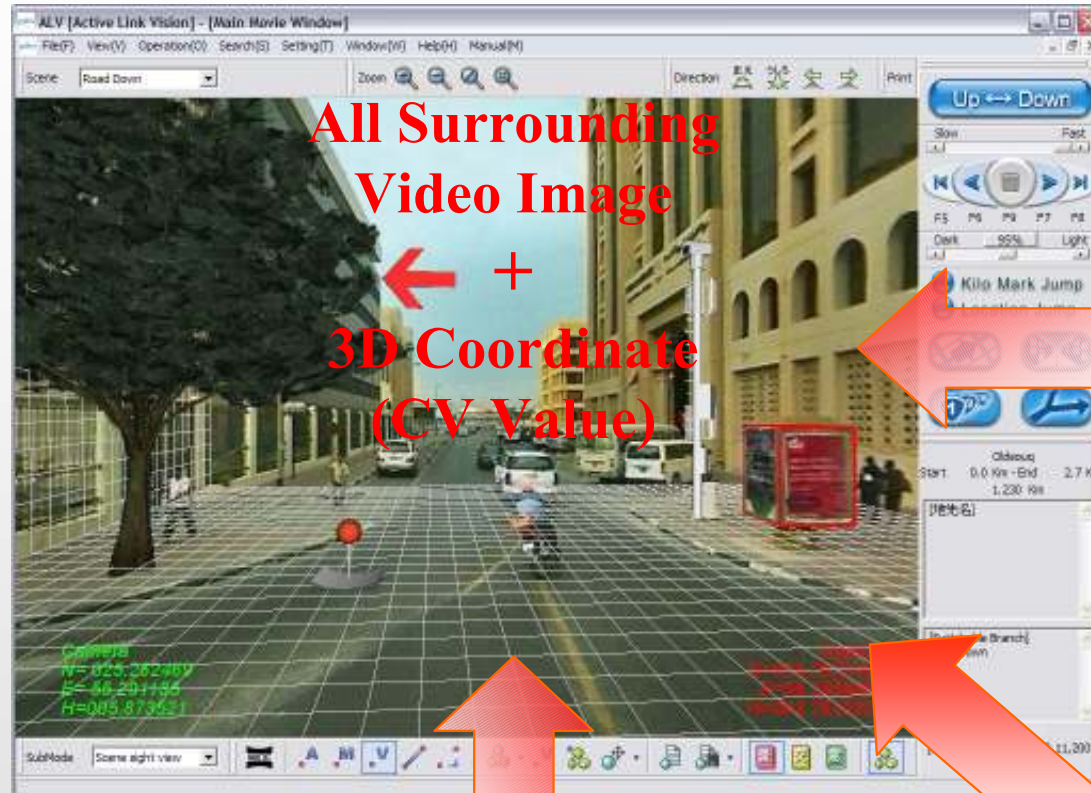
Different from the general GIS, the special 360 degrees video image can be seen at any point. So you can see the real image anywhere and from any angle as you wish.



System consists of the full 3 dimensional coordinates. So you can manage every information (e.g. public asset, road object and advertising etc...) linked with the real objects or 3DCG in the video.

# Overview of 3D Video GIS

## Active Link Vision



All Surrounding Video Image

← +  
3D Coordinate (CV Value)

## 2D GIS

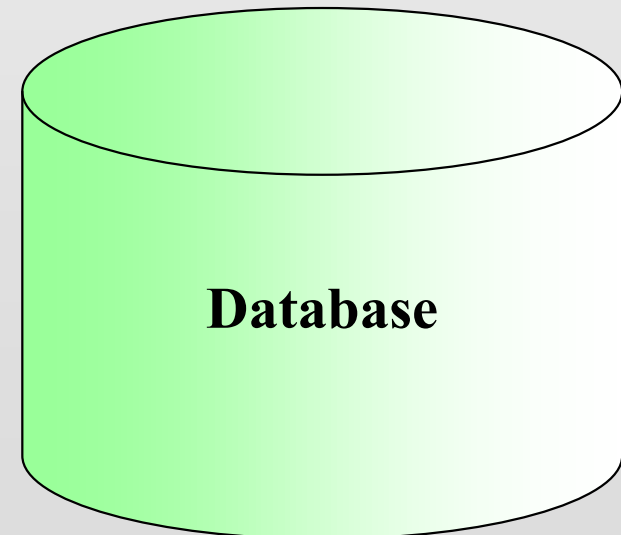


Synchronized

## Feature

- Asset Management
  - Scene Simulation
  - 3D Measurement
  - Security
- And more...

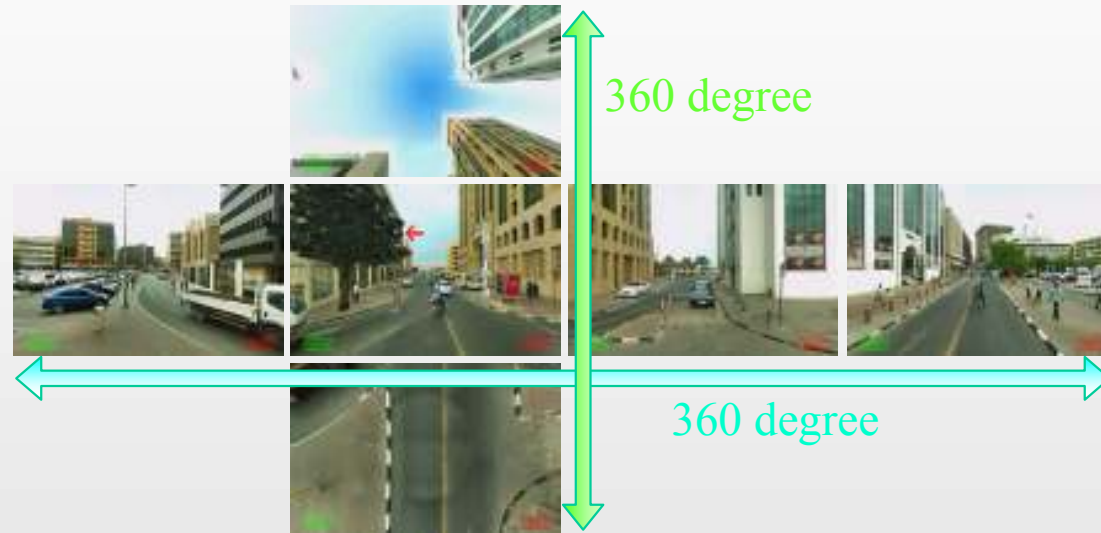
## RDBMS



# All Surrounding Video Image

- **Complete surrounding video Image**

The scene can be seen from **Any angle of view**



- **No Dead Angle by the roof of the car**

Original Image



No Dead Angle Image



Processing

# 3D Asset / Information Management

- Management with **Real Image**

The real situation can be checked around the target object.

- Management with **3D coordinates and shape**

Target Object : Any kind (Tree, Light, Signboard, manhole, etc...)

- Management **linked with Any kind of data / system**

Data : Document, Image, URL, etc...

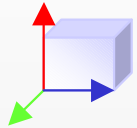
System : Specialized database system, Another software



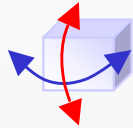
# 3D Scene Simulation

- **3DCG can be composed in Real Image**

Move



Rotation



Scaling



Result can be checked from **any frame of the video**.



Building & Tower



Many kinds of CG prepared as you want

Tree, Bench, Fence, Signboards, Sidewalk, etc...

**High Accurate Positioning and Easy User Interface**

Tracking Mode



Grid Mode



# 3D Measurement and others

- **3D Measurement in the video image**

Measurement in each frame and beyond frames



Measurement in each frame



Measurement beyond frames



- **Comparison between the different time**

Past



Present



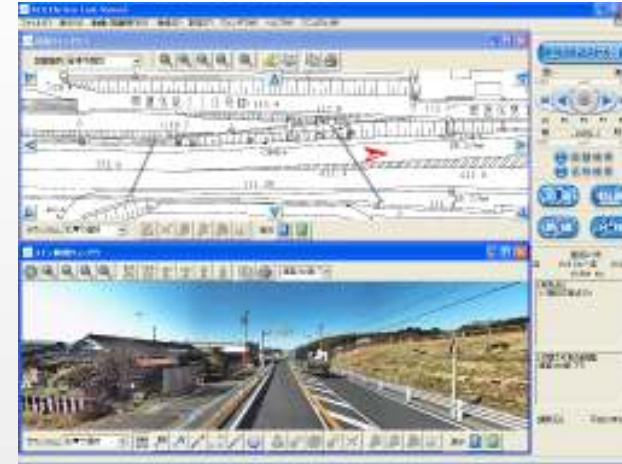
# Variation

- Maps (Aerial Photo, Drawing, and other...)

**Aerial  
Photo**



**Drawing**



- Videos (Sidewalk, Aerial, River, Walking and other...)



**Sidewalk**



**River**



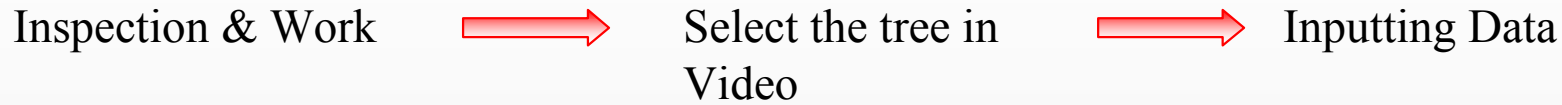
**Aerial**



**Walking**

# Application : Tree Management

- Registration of the data



- Usage

Search & Check of the data

Search Dialog



Target Image and Data



Work Management

Work Order



Attachment of files

Image



# Application : Road Management

- Registration of the data

Public Opinion & Traffic Accident



Put CG in the Video



Inputting Data



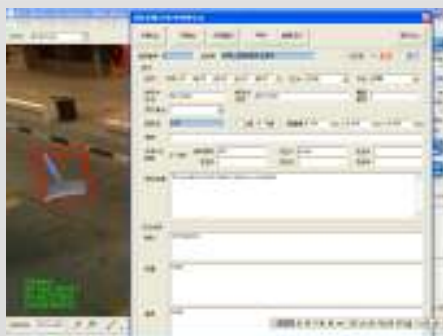
- Usage

Search & Check

Search Dialog

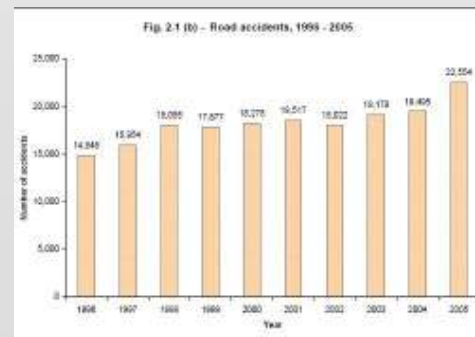


Target Image and Data



Research & Analysis

Statistics



Output

Report



# Application : Design Management

- Registration of the data

Signboard, Terrace,  
Dustbin & Others



Select the object in  
Video



Inputting Data



- Usage

Search & Check

Search Dialog



Target Image and Data



Attachment of files

Image



Checking of the position

Measurement



# Application : Data Management

- Registration of the data

Lands & Buildings



Select the object in Video



Inputting Data

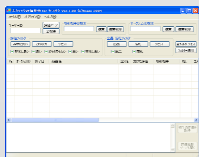


NO	DESCRIPTION	UNIT	QTY	PRICE	TOTAL
001	...	...	...	...	...
002	...	...	...	...	...
003	...	...	...	...	...
004	...	...	...	...	...
005	...	...	...	...	...
006	...	...	...	...	...
007	...	...	...	...	...
008	...	...	...	...	...
009	...	...	...	...	...
010	...	...	...	...	...
011	...	...	...	...	...
012	...	...	...	...	...
013	...	...	...	...	...
014	...	...	...	...	...
015	...	...	...	...	...
016	...	...	...	...	...
017	...	...	...	...	...
018	...	...	...	...	...
019	...	...	...	...	...
020	...	...	...	...	...
021	...	...	...	...	...
022	...	...	...	...	...
023	...	...	...	...	...
024	...	...	...	...	...
025	...	...	...	...	...
026	...	...	...	...	...
027	...	...	...	...	...
028	...	...	...	...	...
029	...	...	...	...	...
030	...	...	...	...	...
031	...	...	...	...	...
032	...	...	...	...	...
033	...	...	...	...	...
034	...	...	...	...	...
035	...	...	...	...	...
036	...	...	...	...	...
037	...	...	...	...	...
038	...	...	...	...	...
039	...	...	...	...	...
040	...	...	...	...	...
041	...	...	...	...	...
042	...	...	...	...	...
043	...	...	...	...	...
044	...	...	...	...	...
045	...	...	...	...	...
046	...	...	...	...	...
047	...	...	...	...	...
048	...	...	...	...	...
049	...	...	...	...	...
050	...	...	...	...	...
051	...	...	...	...	...
052	...	...	...	...	...
053	...	...	...	...	...
054	...	...	...	...	...
055	...	...	...	...	...
056	...	...	...	...	...
057	...	...	...	...	...
058	...	...	...	...	...
059	...	...	...	...	...
060	...	...	...	...	...
061	...	...	...	...	...
062	...	...	...	...	...
063	...	...	...	...	...
064	...	...	...	...	...
065	...	...	...	...	...
066	...	...	...	...	...
067	...	...	...	...	...
068	...	...	...	...	...
069	...	...	...	...	...
070	...	...	...	...	...
071	...	...	...	...	...
072	...	...	...	...	...
073	...	...	...	...	...
074	...	...	...	...	...
075	...	...	...	...	...
076	...	...	...	...	...
077	...	...	...	...	...
078	...	...	...	...	...
079	...	...	...	...	...
080	...	...	...	...	...
081	...	...	...	...	...
082	...	...	...	...	...
083	...	...	...	...	...
084	...	...	...	...	...
085	...	...	...	...	...
086	...	...	...	...	...
087	...	...	...	...	...
088	...	...	...	...	...
089	...	...	...	...	...
090	...	...	...	...	...
091	...	...	...	...	...
092	...	...	...	...	...
093	...	...	...	...	...
094	...	...	...	...	...
095	...	...	...	...	...
096	...	...	...	...	...
097	...	...	...	...	...
098	...	...	...	...	...
099	...	...	...	...	...
100	...	...	...	...	...

- Usage

Search & Check

Search Dialog

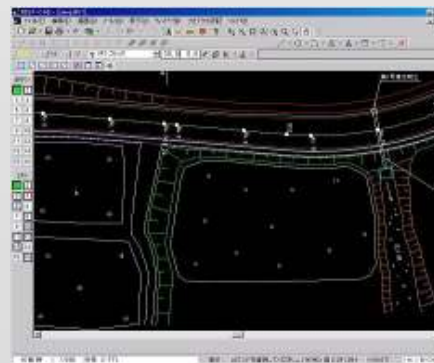


Target Image and Data



Link with CAD software

CAD



Scene Simulation

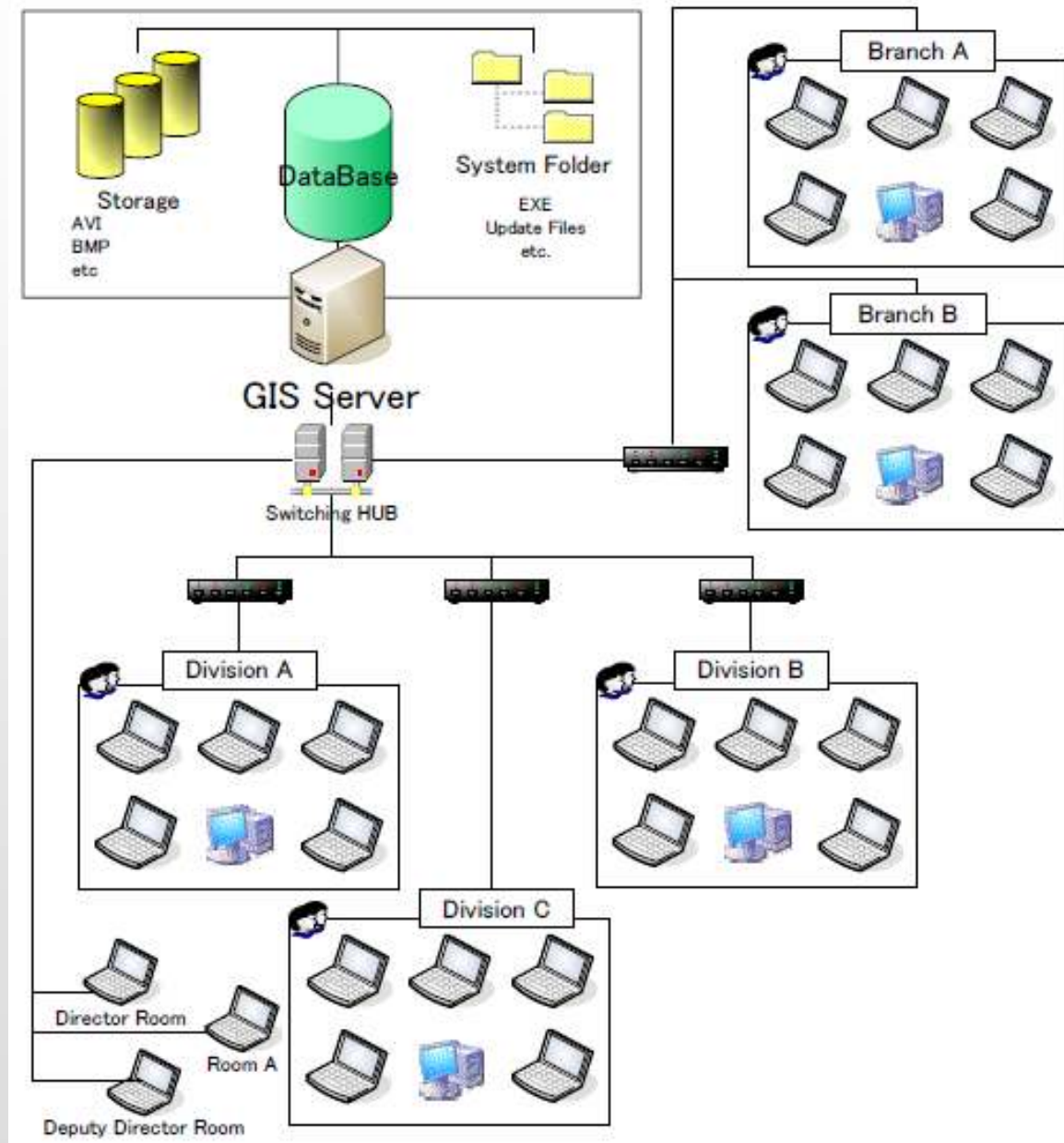
3DCG



# ***Server Specification***

- CPU:
  - Xeon 3.0GHz and above
  - 1CPU and above
- Memory:
  - 2GB
- HDD:
  - RAID5, 7200RPM
- CD / DVD-ROM drive
- USB2.0
- VRAM:
  - 32MB and above
  - 1024x768 Full Color
- OS:
  - Windows2003 Server, Standard

# Client - Server Diagram



# ***About Iwane Laboratories, Ltd.***

- Location

Head Quarter                      7-8-3 Maruyamanishi-machi, Chuo-ku, Sapporo Japan

AI Center                            7-3-25 Maruyamanishi-machi, Chuo-ku Sapporo Japan

Tokyo Office                        6-19-21-2002 Tsukiji, Chuo-ku Tokyo Japan

Toya Center Research Institute

Iwane Laboratories (Thailand), Ltd. (Partner Company)

- Board of Director

CEO                                  Mr. Waro Iwane

MD                                    Mrs. Yoshiko Iwane

Director                            Mr. Ryuichiro Tsuruse

Director                            Mr. Masaki Akiyama

- Founded                            11<sup>th</sup> April 1979

- Registered Capital    30 Million Yen

- Employee                         35 Person

- Main Clients                      MOT, Self-governing body, Japan Highway Public Corporation  
Trading Company, Main Electric Manufacturer