Frequently Asked Questions (FAQs)

ABOUT CCTV CAMERA

1. **What is CCTV? Why is there a need for CCTV?**

CCTV is the abbreviation for Closed Circuit Television. It is a visual surveillance technology system designed to monitor the desired surrounding environment and its activities. In recent years, the role of CCTV has grown to unprecedented levels. Originally used to deter crime and 'anti-social behavior such as minor offenses like littering, urinating in public and etc. CCTV now plays a more important role, assisting the police and security organizations in their investigations.

2. **What size monitor should I be using?**

The correct size monitor is dependent on its use e.g. the number of images to be displayed at any given time, the viewing distance and the available space.

3. **What is Digital CCTV?**

Digital CCTV, or Digital Closed-Circuit Television, is the technology used in modern surveillance systems. Traditional, VCR, CCTV pictures are sent via CCTV cameras to a closed area, e.g. a CCTV Monitor, this type of CCTV is likely to produce lower resolution images and have to be displayed via cabling in the workplace. Modern Digital CCTV Systems can be operated remotely via a pc or mobile phone, can monitor various locations and can be monitored from wherever there is internet or GPRS Access.

A History of CCTV Systems

The saving of CCTV footage has changed in the last 5 years. The industry move has been away from analogue to Digital CCTV Systems:

Analogue CCTV

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In the past, all CCTV Cameras were attached to a Multiplexor (A device that will split multiple camera pictures onto an individual CCTV Monitor). The Multiplexor then sends the analogue camera images to a Time Lapse Video Player. These are special CCTV recording devices that can record up to 960 hours of footage on three hours Video Cassette. This method is still used today for simple CCTV installations but the quality of recording is usually very low (1 Frame Per 12.8 Seconds).

Digital CCTV

Currently the majority of CCTV systems use Digital technology. Digital CCTV Surveillance uses current PC technology to digitize the CCTV camera images and compress them into a PC friendly format. These digital images can then be stored on a PC's Hard Disk Drive. As the digital CCTV images are stored on computers Hard Drives it is possible to save digital CCTV footages and access them speedily and easily. Digital CCTV also has the advantage over Analogue CCTV systems that the image is of a far higher resolution.

There are two types of Digital Surveillance Systems:

Digital Video Recorders

A Digital CCTV Video Recorders, (DVR), are stand-alone units that are capable of saving digital CCTV images to a PC. DVR look similar to a standard Video Cassette Recorders (VCR's).

CCTV Cameras are connected to the back of the unit via standard CCTV Camera connection referred to as BNC. By connecting a CCTV Monitor or standard Television to the DVR you are able to view your CCTV Cameras in different screen divisions (single camera, 2x2, 3x3 etc) and also playback footage at the touch of a button.

Some DVRs can have built in Motion Detection Technology. This means that digital footage is only recorded when someone or something walks in front of your CCTV Camera.

It is also possible with some DVRs to view your cameras remotely via an ADSL (Asymmetric Digital Subscriber Line).

PC Based Digital Video Surveillance Capture Cards

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PC Based Digital CCTV Surveillance systems are a reasonably new technology in the CCTV Industry. This type of Digital CCTV system works in two stages. You then install the digital CCTV surveillance card and software on to your PC. This Software (or program) will allow you to view your Digital CCTV Cameras, search through previously recorded footage, backup footage to CD/DVD, control PTZ Cameras either on the PC system or remotely and much more.

Cameras are attached to the back of the Geo-vision PCI Card using the standard BNC connection used in all CCTV Cameras.

Geo-vision Surveillance cards come in a variety of formats depending on 1) The number of cameras required (2-16)

The Frame Rate per Second (FPS) Quality required (16 FPS - 400 FPS)

Frame Rate is important, as the higher the Frame Rate, the higher the quality of recording and the more Real Time your CCTV recording will be.

Real Time Recording for 1 camera is 25 Frames Per Second (PAL). In order to capture 16 cameras in Real Time, you would need:

25 FPS x 16 Cameras = 400 Frames Per Second PCI Surveillance Card

4. How to choose a CCTV Camera?

Choosing the correct CCTV Camera for your digital surveillance system is very important. The Digital CCTV Camera, together with a CCTV Lens, uses a CCD (Charge Coupled Device) sensor that captures the image and turns it into a signal that is sent to the monitor or surveillance system.

You will need to decide the following when choosing a CCTV camera & lens for a digital CCTV system:

The Digital Camera Location: Will the camera be situated Indoors / Outdoors

The amount or variance of light conditions for the digital CCTV camera: Will the camera have to record in low-light conditions such as at night?

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The Field of View required for the camera: How wide or narrow an angle of vision is required

The Focal Length - How far away objects you wish to record will be from the camera

5. How do I choose the correct camera for my application?

This in general is a comparatively difficult decision. Many aspects of the installation must be taken into consideration in order to obtain the correct performance that meets your requirements.

A high-resolution camera should be considered where greater detail of scene is required. E.g. Color 460 TVL, Monochrome 570 TVL. Choosing a more sensitive camera will improve reproduction in poorly lit areas. The sensitivity of a camera is indicated by the minimum amount of light in order for the camera to produce a usable picture. e.g. Color 1.0 Lux at F1.2.

A conventional camera produces a pale backdrop when an object is shot against a bright background. BLC (Back Light Compensation) will counter strong light sources retaining picture quality.

Concentrated light sources directed towards the camera (e.g. car head lamps) can be inverted by an optional peak white inverter or an eclipse function. This has the effect of bringing detail to areas and making an object clear, that would otherwise be shadowed.

6. What is CCTV DVR?

DVR is abbreviation for Digital Video Recorder, it main function is to compress images recorded from the cameras into a particular image compression format and store them.

7. How many days/weeks of recording can I store?

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This depends on the size of your hard drive, the number of cameras, which recording mode (on motion, on alarm, continuously, etc.), what type of video compression you are using, quality of resolution used. Please contact our technical support directly for assistance on the calculation.

8. What is the difference between a simplex DVR and a duplex DVR?

A simplex DVR only performs one task at a time. The DVR cannot playback recorded videos when it is recording, it can only do so when the recording is stopped.

A duplex DVR is able to playback recorded footages without having to stop recording. Recording is uninterrupted and taking place concurrently as you playback the recorded videos.

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ABOUT SOFTWARE DEVELOPMENT

1. **Do I need to be tech-savvy to cooperate with you and order a software application?**

You certainly do not have to be a software development expert, that's what we're here for :) We welcome your experience in that matter if you happen to have any, but are prepared to guide you through the whole process and explain everything. Focus on your needs and we'll deliver what you require.

2. **How much time will it take for you to make my Website/app?**

To give you a precise answer we must prepare a project scope and create a budget. We shall tell you how much of that scope can be completed within the budget and we'll be able to estimate how long will it take after at least a month of work. Don't worry, if you're not happy with our work after two weeks you can retract from the project with no penalties, this is our trial period and we believe that any reliable software house should give you one.

3. **How do you guarantee product quality?**

We evaluate the result after every two weeks, we test our work (we conduct both development and acceptance tests), we present it to you, we apply your feedback so you know you get what you are paying for.

4. **Want to be involved in the app development process, do you have a problem with that?**

Not at all! We want you to be sure you'll receive the product you desire. From the planning stage to each finished version, we invite you to evaluate and improve our work. Our philosophy is to work with the client, not merely finish given tasks. We are always ready to listen and communicate.

5. **Why should I choose you and not hire my own software development team?**

Hiring your own software developers can be a really smart choice, however, recruitment process is time-consuming and the costs of keeping an in-house programming team are very high. You'll probably need

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to employ your own software engineers sooner or later but hiring us can help you save a lot of money and time (which is basically the same in a business project)

6. Can the software be upgraded in the future as new technology becomes available?
   Of course! We are always happy to improve, upgrade and further develop our work.

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ABOUT NETWORKING

1. **What is a Network?**

A network is a set of devices connected to each other using a physical transmission medium.

Example: A Computer Network is a group of computers connected with each other to communicate and share information and resources like hardware, data, and software across each other.

In a network, nodes are used to connect two or more networks.

2. **What are Routers?**

The router is a network device which connects two or more network segments. The router is used to transfer information from the source to destination.
Routers send the information in terms of data packets and when these data packets are forwarded from one router to another router then the router reads the network address in the packets and identifies the destination network.

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4. **What are the different types of a network? Explain each briefly.**

There are 4 major types of network.

Let's take a look at each of them in detail.

• **Personal Area Network (PAN)**: It is a smallest and basic network type that is often used at home. It is a connection between the computer and another device such as phone, printer, modem tablets etc

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• **Local Area Network (LAN)**: LAN is used in small offices and internet cafe to connect a small group of computers to each other. Usually, they are used to transfer a file or for playing the game in a network.

• **Metropolitan Area Network (MAN):** It is a powerful network type than LAN. The area covered by MAN is a small town, city etc. A huge server is used to cover such a large span of area for connection.

Wide Area Network (WAN): It is more complex than LAN and covers a large span of area typically a large physical distance. The Internet is the largest WAN which is spread across the world. WAN is not owned by any single organization but it has distributed ownership.

5. **Why networking is crucial to your company?**

Computer networks allow the user to access remote programs and remote databases either of the same organization or from other enterprises or public sources. Computer networks provide communication possibilities faster than other facilities. Because of these optimal information and communication possibilities, computer networks may increase the organizational learning rate.

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ABOUT GRAPHIC DESIGN & PRINTING

1. What do you design?

Our design studio produces a variety of work in all kinds of formats; Digital, Print, Video, Signage, Branding to name a few. Some examples of work we have produced include Websites, Packaging, Brand Identities, Exhibition stands, Books, Annual Reports, Car Signage, Event Flyers, Infographics, Email campaigns, the list goes on! A job could be as small as a website or as large as graphics for a national billboard campaign (all fun, nonetheless).

2. How do you come up with a design?

For larger projects we follow a design process which involves, brainstorming, gathering inspiration and creating mood boards to set the direction of the project. Generally, we develop around 2-3 concepts which we present to the client. From there, we refine the concept and produce a first draft which goes back to the client for approval.

3. How much time can you take on my designs?

Well, it depends on the designs and the moment we receive the order, but we usual try our best to get it done as soon as possible.

Approval:
Approved by:
Name: ……….
Signature: ……………………………………………   Date: ……………………………………………………

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