Seascape Surveyor

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INSIDE THIS ISSUE

David Edwards
Chief Surveyor

Welcome

Hi everyone…

Apologies for the delay in publishing this 7th edition of the Seascape Surveyor - everyone has been extremely busy, but we hope this edition fills you in on what has been happening over this busy period for Seascape Surveys.

Our management summary is from our Chief Surveyor, Mr. David Edwards - usually we call him "Pak Dave" - who has working hard from first edition till our seventh edition of the newsletter.

We also extend our welcome to our many new employees, 2 persons based in Thailand and 6 persons based in Indonesia.

The 2nd Indonesian Survey Company Gathering was held on 1st August 2009 in Wiladatika Recreational Park Cibubur, with 10 companies and almost 200 people participating in the event. Seascape Surveys was again successful, winning 2 cups this year.

Please keep sending in your photos and news, so we can keep everyone informed about the latest happenings at Seascape Surveys. Have a safe day all…

Management Summary

First of all, I'd like to congratulate everyone at Seascape Surveys on an excellent year to date. The last few months in particular have been extremely busy for everyone both onshore and offshore, and the Seascape Surveys team have responded to the demands of the growing business extremely well.

The last few months have seen big projects being won and completed by Seascape Surveys. World class international clients such as Conoco Phillips, Chevron and Exxon Mobil are recognizing the level of skill, knowledge, service and professionalism that exists within Seascape Surveys, and that is something everyone should be proud of.

However, we should not rest on what we have achieved to date…there are always ways that we can improve our skills, knowledge and procedures, and we should aim to offer the latest technology and best service possible to our clients. I believe that Seascape Surveys is a business built around providing high quality services to our clients, and that by providing quality and professionalism we will continue to grow and succeed.

We should not simply follow "the way we did before", or put up with using outdated equipment or procedures. We should always be looking for ways to improve what we do, and provide innovative services to our clients.

The work that has been done developing the IRIS Inspection System is a great example of innovation by Seascape Surveys people. IRIS has now been used very successfully on a number of projects and is gaining the attention of major oil companies in the region as a solution to many of their subsea inspection and data management issues.

Other innovative ideas being put into action include development of the web based equipment tracking database, and plans to improve barge management positioning operations using WiMax technology, based on ideas from our surveyors.

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Always ask yourself

"Is there a better way to do it?"

In everybody's area of work - whether you are offshore on onshore - there are opportunities to improve our effectiveness and efficiency. Always ask yourself, "is there a better way to do it ?"

Is there a better way to do it, that might lead to higher quality results, faster service, safer operations, less waste, better communications, or reduced cost ? If there is something that you think can be improved, then it is likely that it affects other people also, and by improving the system you will benefit many people, not just yourself.

If you see an opportunity to improve the way we operate, don't wait for someone else to do something about it – act upon it yourself. By continuously seeking to improve the way we operate, we will advance from a being just a good company, to becoming an outstanding company at the forefront of technology and expertise in our field.

COPI 2009 IRM CAMPAIGN SAFETY WORKSHOP

Towards the end of 2008 the ConocoPhillips Indonesia (COPI) 2009 Natuna Sea IRM program came out to tender and PT Seascape Surveys Indonesia identified this as a key target project. The scope of work (ROV inspection of jackets and pipelines, and pipeline Freespan rectification) was considered to be ideally suited to the assets, personnel, abilities and experience of the combined Seascape Surveys and Mermaid Offshore Services group of companies. A lot of time and effort went into submitting not only a commercially competitive proposal, but also a high quality technical proposal. PT SSI passed the technical review, and when commercial envelopes were opened PT SSI was also announced as the lowest price proposal, of the 6 contractors that passed the technical review stage.

In order to assist COPI achieving project deadlines, PT SSI prepared the required pre-mobilisation project and HSE documentation during the contract award approval process. Formal Contract Award was received in mid-April 2009.

The Project Execution Plan is based completely on in-house Assets, equipment and personnel from Seascape Surveys and Mermaid Offshore Services (MOS).

MOS supplied the DP2 ROV Support Vessel "Binh Minh" (which is under long term charter from PTSC in Vietnam), a SMD Quasar Compact work class ROV, a Seaeye Panther Plus observation class ROV, the ROV personnel, offshore management personnel (Donnie Cameron and Mark McGirr) and onshore vessel/ROV management (Tim Hartley). PT SSI supplied all the Survey and Inspection personnel and equipment, all data processing and reporting services, overall project management (Peter Reichlmeier), HSEQ management (overseen by David Edwards) and the required Logistics (customs, immigration, crew changes, purchasing, supply etc.) overseen by Ibu Margaretta Retno.

The vessel and ROV / inspection was mobilized at Map Ta Phut (south of Pattaya), Thailand. As part of the mobilisation a safety presentation was held in the conference room of a nearby hotel, Purimas Beach Hotel – Rayong

The safety presentation took place from 08:00hrs to 14:00hrs (with a late lunch) before mobilisation of the marine spread continued.

The safety presentation was deemed to be an integral and very necessary part of the overall project. The Safety presentation was extremely well attended with the entire onboard marine and project team in attendance, along with senior COPI management personnel (Iain McMillan - engineering excellence, Bp. Herrisman - Project Manager, Bp. Refamikanuma - Project HSE Manager), MOS management (Tim Hartley - ROV Manager, Mark Shepherd - Executive Director and Johannes Tietze - HSE Manager) and Seascape Surveys (Bp. Yusnandar - Operations manager, Peter Reichlmeier - Project Manager, and David Edwards (Chief Surveyor and HSEQ manager).

The session was chaired by David Edwards with presentations by Iain McMillan, Peter Reichlmeier, Bp. Refa, Johannes Tietze, Mark Shepherd and David Edwards. The Safety policy and culture of COPI, MOS and Seascape Surveys was presented along with a detailed review of the project Risk Assessment in which all present were involved and encouraged to participate.

The safety presentation was deemed a success and of great benefit. Following the presentation COPI representatives visited the vessel and performed and general safety audit (BPMIGAS and third party marine audits for the project had been previously completed). A punch list of minor audit action items was closed-out prior to sailing.

"Binh Minh" sailed directly to the first work location (Belida Field) on 4th June. On arrival, customs and immigration formalities, and also on-hire tests were performed. The marine spread was deemed on hire on 6th June.

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Project Update

Mermaid Commander
Mermaid Offshore Services (MOS) was contracted to sail the DSV Mermaid Commander to Brazil for work with Global Industries on behalf of Petronas.
After a long steam from Thailand via South Africa our surveyors joined the vessel in Brazil.
The initial scope of work was standard survey positioning support to diving operations. Following a month of diving work the Mermaid Commander was then used to perform a high-specification 3-cameras digital video ROV pipeline inspection.
After the exhaustive process of clearing the inspection spread and personnel into Brazil the inspection work scope was performed.
Seascape Surveys had an 11-man survey and subsea inspection team onboard with a Visualsoft 3 camera digital acquisition system, data processing, eventing and onboard reporting and charting.
Mermaid Commander returned to Thailand after the Brazil work and in late September started diving / subsea work for CUEL/CHEVRON in the Gulf of Thailand. Seascape Surveys are once again onboard providing positioning and survey support.

Team Siam
Team Siam will remain in the Middle East region for the foreseeable future. Various projects have been performed for a number of clients which include NPCC and Acergy.
Seascape Surveys surveyors and reports coordinators have been onboard throughout these projects providing support to diving operations.
Currently Team Siam is working for NPCC offshore Qatar.

Binh Minh
Binh Minh has been performing the ConocoPhillips 2009 Natuna Sea IRM program since June 2009. Seascape Surveys was awarded the Contract in April 2009. Project management and logistic support has been provided by PT Seascape Surveys Indonesia Jakarta office.
The work scope coversROV inspection of platforms and pipelines, also freespan rectification. The project is expected to de-mobilise in late October 2009. Seascape Surveys has maintained survey, positioning and inspection equipment and personnel onboard for full project fieldwork duration including Visualsoft and IRIS digital video inspection spreads with onboard digital reporting and charting.
The project has run smoothly, with Binh Minh, MOS ROV's, and Seascape Surveys personnel and equipment have performing at an commendably high level. The project has achieved a great HSE performance and all work as been performed within planned schedule and budget.

Global Industries, DLB Comanche
Seascape Surveys was contracted by Global Industries to provide survey and positioning support onboard the DLB Comanche during the 2009 CUEL/Chevron pipeline and jacket installation program in the Gulf of Thailand. The project mobilized in Batam, Indonesia in June 2009 and fieldwork is expected to complete in late-November 2009.
Seascape Surveys is providing barge positioning, barge/AHT management system, USBL ROV tracking, jacket positioning and installation support survey and positioning services.

Pelangi / BP Pipeline repairs
Seascape Surveys provided survey and Positioning services to PT Pelangi Mitra Niaga International for their BP ONWJ pipeline repair project, using the diving/crane barge "Ewis Lady" and the ROV support vessel "Singosari".
Seascape Surveys provided barge positioning and barge management system (BMS) onboard "Ewis Lady" and associated AHT. Seascape Surveys provided surface and subsea (USBL) positioning to support ROV works onboard "Singosari". The ROV support vessel was used to locate and identify pipeline sections in need of repair and the diving barge "Ewis Lady" used to undertake the required pipeline repairs.

Budhyarto and Daniel onboard the DLB Comanche

Seascape Surveys Team for COPI project in Thailand

COPI and Seascape Surveys Management during Binh Minh vessel inspection

Mermaid Commander Surveys and Inspections Team in Brazil

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Safety Training Update

Seascape Surveys Indonesia provided manual handling training during June 2009. There were 15 participants - 10 field staff and 5 office staff. The objectives of this training was to enhance the awareness of safe lifting techniques, and to remind participants about potential hazards associated with manual handling. The training was well received by all, and we plan to offer this training again in future.

All participants looking very serious in the class

Azis and Yusa in practical of lifting

Safety Observation Card Awards

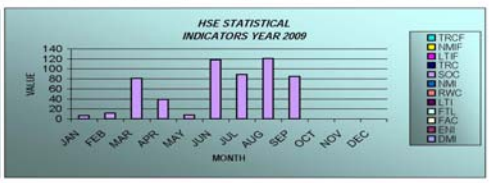
Seascape Surveys recently awarded the winner of the best Safety Observation Card (SOC) for the period January-June 2009. Cahyadi Widyatmoko and William Ridsdill won the award for the best SOC – this is the first time that Seascape Surveys gave award for two persons. We congratulate Cahyadi and Will for his outstanding attention to safety, and participation in the SOC program.

Fahrudin Arif received the lucky draw prize for submitting SOC's. Remember, every SOC you submit gives you one chance to win the prize. Winners received Digital Camera for their prizes.

All the winners (Cahyadi, Fahrudin and Will Ridsdill) receiving their prizes.

HSE STATISTICAL INDICATORS
YEAR 2009
Office, Workshop And Offshore Personnel

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Man-hrs Worked	7,792	9,368	14,748	12,196	12,140	25,728	26,712	22,432	21,197				152,313
DMI	0	0	0	0	0	1	1	0	0	0	0	0	2
ENI	0	0	0	0	0	0	0	0	0	0	0	0	0
FAC	0	0	0	0	0	0	0	0	0	0	0	0	0
FTL	0	0	0	0	0	0	0	0	0	0	0	0	0
LTI	0	0	0	0	0	0	0	0	0	0	0	0	0
RWC	0	0	0	0	0	0	0	0	0	0	0	0	0
MTC	0	0	0	0	0	0	0	0	0	0	0	0	0
NMI	0	0	0	0	0	0	0	1	1	0	0	0	2
SOC	7	12	81	39	8	118	89	121	85	0	0	0	560
FAC	0	0	0	0	0	0	0	0	0	0	0	0	0
LTIF	0	0	0	0	0	0	0	0	0	0	0	0	0
NMIF	0	0	0	0	0	0	0	1	1	0	0	0	2
TRCF	0	0	0	0	0	0	0	0	0	0	0	0	0



Seascape Surveys HSE Statistical period Jan-Sept 2009

"Our goal : no loss or harm to people, or the environment"

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The ROV inspection scope of work included inspection of platforms in Belida Field, Belanak Field, Kerisi Field and Mobile Gas Production Unit "Hang Tuah". The ROV pipeline inspection scope of work included infield and export pipeline lines in Belida Field, Belanak Field, Kerisi-Anoa, "Hang Tuah"-Duyong and the WNTS pipeline. COPI had previously undertaken some sidescan sonar pipeline surveys to identify locations of major pipeline freespans."Binh Minh" was used to perform detailed ROV inspection of these freespans.

By the end of September all ROV inspection scope of work had been completed and freespan rectification operations began. Completion of fieldwork is estimated at end of October.

During the course of the fieldwork execution, COPI has frequently called on the marine spread to perform additional ROV intervention tasks.

The project has been very successful to date. The ROV inspection program was performed to schedule, with all data requirements met. HSE performance has been commendable. The logistics of working in the Natuna Sea can be demanding, but all involved have handled this extremely well, including excellent communications interface between COPI and PT SSI. Numerous planned port calls to Batam, Matak and Singapore have all gone to plan.

PT SSI management would like to thank all personnel and departments from COPI, Seascape Surveys and Mermaid Offshore Services, who have contributed to making this a successful and enjoyable project.

COPI 2009 IRM Safety Workshop on June 2009

Singapore News

Seascape Surveys Singapore recently took delivery of a new delivery van. The vehicle will be a great asset for transporting all the survey and inspection equipment that continually passes in and out of the Singapore office.

Thailand News

Seascape Surveys would like to thank you to Khun **Thanatchaya K. (Poopae)** who take over as Administrator for Khun RuD since July 2009, It's was very nice to know you as partner in Seascape Surveys family.

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Sydney Water Delivery Alliance
Seascape Surveys were contracted by Water Delivery Alliance, in Sydney Australia to provide survey and positioning services during the installation of twin 56" pipelines in Botany Bay, Australia. The project involved simultaneous pipe lay of 2 x 56" subsea pipelines to deliver water from a newly commissioned desalination plant in Sydney, Australia. The pipeline installation was performed from the custom built pipe lay barge DLB Nebula, in shallow water (0-10m). The project also involved simultaneous dredging and trenching works, and was subject to strict environmental controls because of the location.

Allied Marine and Equipment (AME)
Seascape Surveys continues to provide survey and positioning support onboard the DSV Allied Conquests. Recent operations have involved diving and ROV works, on behalf of Petronas, in East Malaysia.

Exxon Mobil
Seascape Surveys continue to provide survey and positioning services onboard the DP3 Semi-submersible drilling rig West Aquarius, drilling deepwater wells in the Makassar Strait, Indonesia and currently drilling in water depths of over 1800m in southern Phillipines.

Others
Seascape Surveys has recently completed bathymetric survey projects for a range of clients in West Java and East Kalimantan, associated with pre-engineering and construction of proposed load-out facilities.

Seascape Surveys Charity

An earthquake measuring 7.3 on the Richter Scale struck West Java, Indonesia on Wednesday, 2nd September 2009.

The earthquake epicenter was located in Tasikmalaya, but the effects were also felt in our office in Jakarta for almost 2 minutes.

The village of Cikelet is the home town of one of our surveyors - Ristiana Rusyan – and was severly damaged during the quake. Seascape Surveys raised money and gave donation to families in the village who were victims of the earthquake.

Another large earthquake (7.6 on Richter Scale) struck Padang, West Sumatra on 30th September 2009, also causing widespread damage to buildings, and loss of life. The family of one of our staff was directly affected by the quake, and Seascape Surveys also donated money to the victims of this devasting earthquake.

Rusyan surveys the damage in his village of Cikelat, following the earthquake on September 2nd, 2009.

"Our goal : no loss or harm to people, or the environment"

Personnel signing on May-Oct 2009

Ari Ahmad Riyadh

Surveyor (Indonesia)

Eko Prasetyo

Surveyor (Indonesia)

Lylla Hamid

Project Cost Control Admin. (Indonesia)

Tono Permana

Workshop Logistics (Indonesia)

Agustono

Geophysicist (Indonesia)

Brian Wilson

Tendering Manager (Indonesia)

WinYoo Mekchat

Workshop & Logistics (Thailand)

Jeerasak Nakhamart

Surveyor (Thailand)

1

2

3

Seascape wedding …

On 14th June 2009 there was a wedding of Yuda Agung Nugroho and Risa Virgosita in Jogyakarta. Seascape Surveys representatives are Ade, Rizky and Tunjung (Rizky's wife). Management and Staff would like to say Good luck to you. We wish you all the best and God's blessing for your families. **Congratulations Yuda and Risa!**

Seascape Surveys Babies born

1. On 4th April 2009 : 1st child of *Adhitya & Liana Kelli* baby's girl name is **Humaira Syifa Adiputri (Maira)**
2. On 30th April 2009 : 1st child of Noufiya Rahman and Tono Permana baby's boy name is **Rafa Muzaffar Athayya (Rafa)**
3. On 20th July 2009 : 1st child of Neeranuch Boontanawong (Rud) and Rondacha Tabprasit baby's boy name **Rachaphak**

"Our goal : no loss or harm to people, or the environment"

Seascape Surveys Snapshots



Rafting @ Citatih on April 2009, Participants are pak Peter, Dave, Ovie, Santi, Saras, Didit, Franky, Narwan and Suyanto.

Dave's birthday party at his house on 19th June 2009

Break Fasting with full participants on 10th September 2009




2nd Survey Company Gathering 1st Aug 2009 at Recreational Park Wiladatika, Cibubur, held by PT MGS with 10 companies participants. PT Seascape Surveys Indonesia only won two cups from this event.

Electrical Safety Procedure

Electrical instrument is main part of Seascape Surveys equipment, consider about this every personnel should know and aware about safe working areas for electricians. Every one can work safely on electrical equipment with today's safeguards and recommended work practices. In addition, an understanding of the principles of electricity is gained. Ask supervisors when in doubt about a procedure. Report any unsafe conditions, equipment, or work practices as soon as possible.
Electrical shock occurs when a person comes in contact with two conductors of a circuit or when the body becomes part of the electrical circuit. In either case, a severe shock can cause the heart and lungs to stop functioning. Also, severe burns may occur where current enters and exits the body.

It's not the voltage but the current that kills. The real measure of a shock's intensity lies in the amount of current (in milliamperes) forced through the body. Currents between 100 and 200 milliampere (0.1 ampere and 0.2 ampere) are fatal. Anything in the neighborhood of 10 milliamperes (0.01) is capable of producing painful to severe shock.
As the current rises, the shocks becomes more severe. Below 20 milliamperes, breathing becomes labored; it ceases completely even at values below 75 milliamperes. As the current approaches 100 milliamperes ventricular fibrillation occurs. This is an uncoordinated twitching of the walls of the heart's ventricles.

Prevention is the best medicine for electrical shock. *Respect all voltages*, have acknowledged of the principles of electricity, and follow safe work procedures. *Do not take chances*.
Always make sure portable electric tools are in safe operating condition. Make sure there is a third wire on the plug for grounding in case of shorts. The fault current should flow through the third wire to ground instead of through the operator's body to ground if electric power tools are grounded and if an insulation breakdown occurs.

Always make sure portable electric tools are in safe operating condition. Make sure there is a third wire on the plug for grounding in case of shorts. The fault current should flow through the third wire to ground instead of through the operator's body to ground if electric power tools are grounded and if an insulation breakdown occurs.
There is procedure that should follow when you will install or uninstall electrical device.

1. Lockout/Tagout

Electrical power must be removed when electrical equipment is inspected, serviced, or repaired. To ensure the safety of personnel working with the equipment, power is removed and the equipment must be locked out and tagged out. Lockout is the process of removing the source of electrical power and installing a lock which prevents the power from being turned ON. Tagout is the process of placing a danger tag on the source of electrical power which indicates that the equipment may not be operated until the danger tag is removed.

A danger tag has the same importance and purpose as a lock and is used alone only when a lock does not fit the disconnect device. The danger tag shall be attached at the disconnect device with a tag tie or equivalent and shall have space for the worker's name, craft, and other required information. A danger tag must withstand the elements and expected atmosphere for as long as the tag remains in place, there a rule that should follow, there are:

a. Lockouts and tagouts do not by themselves re move power from a circuit. An approved procedure is followed when applying a lockout/tagout. Lockouts and tagouts are attached only after the equipment is turned OFF and tested to ensure that power is OFF. The lockout/tagout procedure is required for the safety of workers due to modern equipment hazards
b. A lockout/tagout shall not be removed by any person other than the person that installed it, except in an emergency. In an emergency, the lockout/tagout may be removed only by authorized personnel. The authorized personnel shall follow approved procedures.

2. Clothing and Personal Protective Equipment:
The Clothing and PPE should follow the rules of safety procedure, and use nonconductive material.

3. In-House Training
A select group of personnel (if not all personnel) should be acquainted with all Electrical safety procedure in a work area.

Electrical injuries
Electrical injuries can be caused by a wide range of voltages but the risk of injury is generally greater with higher voltages and is dependent upon individual circumstances. There are:

1. Electric shock
A voltage as low as 50 volts applied between two parts of the human body causes a current to flow that can block the electrical signals between the brain and the muscles. This may have a number of effects including:
a. Stopping the heart beating properly
b. Preventing the person from breathing
c. Causing muscle spasms

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IT Knowledge

Tera will help you..

Good Day Everyone!

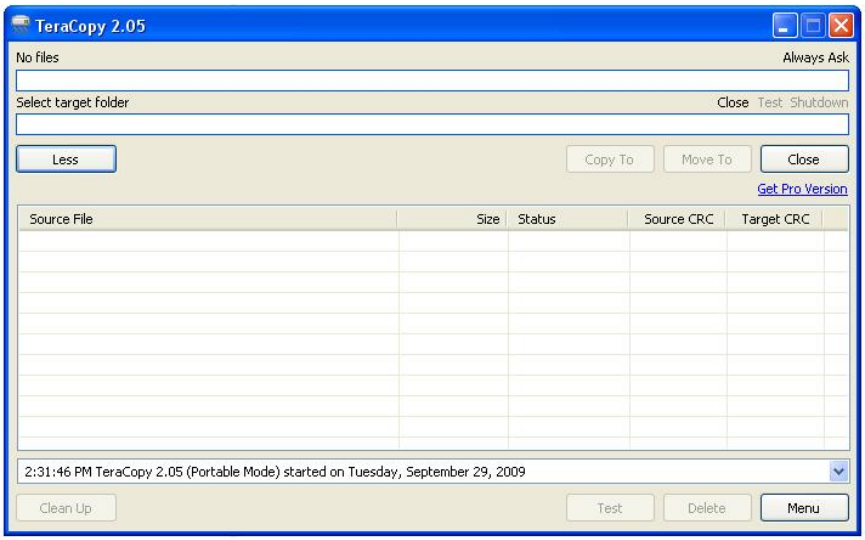
I would like to share another tool that can make our life easier.

Have you ever need to copy some big files? or Much data, say 1 Gigs or so ? Then, have you ever failed when copying those data? I am sure you know that , if something is wrong, the copy process will stop and you need to redo again the copy process as most of the time you are not sure where the error is, and what files already copied or not.

This would be very irritating of the number of files are huge.. Example you are copying field data from computer to backup hard disk or to server.

To save the day, now we have small tools which will help us a lot in copy large data and files.

It called : **Tera Copy**



To have yourself a copy you can ask me or you can download from here :

http://www.codesector.com/teracopy.php

Take a copy to the field for easier copying process for project data without afraid missing any files.

For detailed info, don't hesitate to contact me! (Hedwig@seacapesurveys.com)

This free little tool can help you avoid all of that.

Here are some feature of it :

- **Copy files faster.** TeraCopy uses dynamically adjusted buffers to reduce seek times. Asynchronous copy speeds up file transfer between two physical hard drives.
- **Pause and resume file transfers.** Pause copy process at any time to free up system resources and continue with a single click.
- **Error recovery.** In case of copy error, TeraCopy will try several times and in the worse case just skips the file, not terminating the entire transfer.
- **Interactive file list.** TeraCopy shows failed file transfers and lets you fix the problem and recopy only problem files.
- **Shell integration.** TeraCopy can completely replace Explorer copy and move functions, allowing you work with files as usual.
- **Full Unicode support.**
- **Windows 7 x64 support.**

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The exact effect is dependent upon a large number of things including the size of the voltage, which parts of the body are involved, how damp the person is, and the length of time the current flows. Electric shocks from static electricity such as those experienced when getting out of a car or walking across a man-made carpet can be at more than 10,000 volts, but the current flows for such a short time that there is no dangerous effect on a person. However, static electricity can cause a fire or explosion where there is an explosive atmosphere (such as in a paint spray booth).

3. **Electrical burns**

When an electrical current passes through the human body it heats the tissue along the length of the current flow. This can result in deep burns that often require major surgery and are permanently disabling. Burns are more common with higher voltages but may occur from domestic electricity supplies if the current flows for more than a few fractions of a second.

4. **Loss of muscle control**

People who receive an electric shock often get painful muscle spasms that can be strong enough to break bones or dislocate joints. This loss of muscle control often means the person cannot 'let go' or escape the electric shock. The person may fall if they are working at height or be thrown into nearby machinery and structures.

5. **Thermal burns**

Overloaded, faulty, incorrectly maintained or shorted electrical equipment can get very hot, and some electrical equipment gets hot in normal operation. Even low voltage batteries (such as those in motor vehicles) can get hot and may explode if they are shorted out. People can receive thermal burns if they get too near hot surfaces or if they are near an electrical explosion. Other injuries may result if the person pulls quickly away from hot surfaces whilst working at height or if they then accidentally touch nearby machinery. A single low voltage torch battery can generate a spark powerful enough to cause a fire or explosion in an explosive atmosphere such as in a paint spray booth, near fuel tanks, in sumps, or many places where aerosols, vapours, mists, gases, or dusts exist.

FIRST AID FOR ELECTRIC SHOCK:

Once it has been determined that the victim has a shock or breathing has stopped, the person nearest the victim should start the artificial ventilation without delay and send others for assistance and medical aid, but *MAKE SURE* the victim are free from contact with the electricity in the quickest, safest way. This step, while it must be taken quickly, must be done with great care; otherwise, there may be two victims instead of one.

In the case of portable electric tools, lights, appliances, equipment, or portable outlet extensions, the victim should be freed from contact with the electricity by turning off the supply switch or by removing the plug from its receptacle. If the switch or receptacle cannot be quickly located, the suspected electrical device may be pulled free of the victim. Other persons arriving on the scene must be clearly warned not to touch the suspected equipment until it is reenergized.

The injured person should be pulled free of contact with stationary equipment (such as a bus bar) if the equipment cannot be quickly reenergized or if the survival of others relies on the electricity and prevents immediate shutdown of the circuits. This can be done quickly and easily by carefully applying the following procedures:

1. Protect yourself with dry insulating material.

2. Use a dry board, belt, clothing, or other available nonconductive material to free the victim from electrical contact. Do NOT touch the victim until the source of electricity has been removed.

Once the victim has been removed from the electrical source, it should be determined whether the person is breathing. If the person is not breathing, a method of artificial respiration is used.

Article by Raymond Parningotan Hutabarat
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Comments and Suggestions

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