

EXHIBIT C

Wayne B. Norris, Chief Scientist, Norris Associates Technologies



Because Accuracy Matters

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27 April 2022

USA VS RANIERE

THIRD-PARTY REVIEW OF DR. JAMES RICHARD KIPER

FORENSIC COMPUTER ANALYSES

BY

WAYNE B. NORRIS

By: _____

Wayne B. Norris, REVIEWER



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EXECUTIVE SUMMARY

My name is Wayne B. Norris. I have had a long career in information technology, software development, computer forensics, nuclear research, and aerospace engineering, with service in the legal, commercial, military, aerospace, and national security communities, and have been a software developer since 1959. I have served as an expert witness in more than 100 technology related cases in federal, state, and municipal courts since 1986.

In my practice, I perform expert witness work in the areas of digital forensics, software intellectual property, engineering, and physics, and I make use of multiple forensic tools including FTK and FTK Imager from AccessData and Autopsy from The Sleuth Kit. I have served in approximately five cases involving alleged digital evidence tampering by civilians since 2003, all of them in civil. I have never been involved in, and indeed, have never previously heard of, any credible allegations of evidence tampering by any law enforcement agency under United States jurisdiction.

I was asked by individuals working for the Defense in the appeal of the case of USA vs Keith Raniere, *et al* to perform two related reviews of data relating to that case.

- The first review is referred to in this document as the **TECHNICAL REVIEW**. It consists of my review of the evidence analysis in the Raniere case that was prepared by the principal expert witness for the Defense, Dr. James Richard Kiper, and to comment on his analysis and his findings. Specifically, I was asked to state whether I agreed or disagreed with his analysis and findings.
- The second review is referred to in this document as the **MANAGEMENT REVIEW**. It consists of an estimate the scope of work required to produce the data alterations initially discovered in the Government's evidence by Dr. Kiper and listed in his report, as mentioned above.

For both reviews, I relied on the following resources:

- [Affidavit_with_Reports_04-25-2022.pdf](#) [59 pages].
- [DX 945.pdf](#)



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- [DX 960.pdf](#)
- A forensic image in E01 format of files relevant to the case. This image did not contain any images suspected to be contraband;
- Data tables from the document [GX 521A.pdf](#) [36 pages]. This is a report by the Government dated 4/11/2019 that contains summaries of files from an evidence file image in dd form with the DISPLAY NAME NYC024299.001; and
- Data tables from the document [GX 521A-Replacement.pdf](#) [231 pages]. This is a report by the Government dated 6/11/2019 that contains summaries of files from the LEXAR CF 2 GB CARD. The ID NUMBER of the data image file is NYC024299_1B15a.E01.

NOTE 1: The E01 image and the documents beginning with the letters GX are subject to nondisclosure of their contents. No part of those documents that was subject to non-disclosure was disclosed by me to any party as a result of this work.

NOTE 2: I did NOT personally receive a copy of the CF card image. Those files are analyzed in [GX 521A-Replacement.pdf](#).

I was NOT asked to duplicate Dr. Kiper's findings. Rather, I was asked to verify the underlying data, review his findings, and comment on it.

DISCLAIMER: In his [Affidavit_with_Reports_04-25-2022.pdf](#) report, Dr. Kiper discussed what, in his opinion as a retired FBI digital forensic examiner, were significant shortcomings in the internal handling of digital evidence from multiple storage media by agents and technicians assigned to this case. While I have worked in digital forensics for several decades and have always personally followed evolving industry best practices in this regard, I have never served as a law enforcement officer, and thus, I am not qualified to comment on Dr. Kiper's observations in this matter concerning internal FBI practices.



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TECHNICAL REVIEW

In his [Affidavit_with_Reports_04-25-2022.pdf](#) report, Dr. Kiper identified in his “Summary of Technical Findings,” what he referred to as seven **Key Findings**. He concluded that these findings were the result of evidence tampering, at least some of which occurred while the media were in the custody of the FBI.

I compared the data he used in his report with the data I obtained independently from the E01 image provided to me, after performing an FTK ingestion of those files. Where I had data to compare, I agree that his description of this data matches the data I viewed.

This is difficult for me to discuss, since my own family proudly includes multiple law enforcement officers dating back approximately a century.

Below, I discuss Dr. Kiper’s findings and its relation to the data I obtained from FTK.

GENERAL NOTES:

- The files in question are all *.JPG files, where “*” represents “any text sequence” and is referred to as a “wild card character” after that term’s use in card games. Files of interest are restricted to those with names of the form “IMG_0XXX”, where “X” may be a digit from 0 to 9.
- The mechanism of file recovery dictates that some files may bear names of the form “!IMG” rather than “IMG”, but this may be ignored.
- *.JPG files exist with names containing the term “carved”. These are file fragments created and analyzed by FTK from the original *.JPG files and are not material to the present analysis.
- Other file types exist, including *.EXIF.HTML files with the same principal name as the *.JPG files, but which contain metadata for the JPG files, in human-readable form.

KIPER FINDING 1

- Dr. Kiper’s first and second of five bullet points in FINDING 1 are that four photos, named IMG_0093.JPG, IMG_0094.JPG, IMG_0096.JPG, and IMG_0097.JPG were



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listed in the FBI's WD HDD forensic report, but NOT on the CF Card report generated on 4/11/2019, despite the HDD allegedly having been a backup of the CF card. Surprisingly, those files were present in a second image of the CF card, made 6/11/2019, apparently having been added to the card in the interim.

- Dr. Kiper's third of five bullet points in FINDING 1 is that the subjects of the photos represent a different individual between the two versions of the CF card reports, based on comparisons between the thumbnails and the photos [available only on the 6/11 version]. Since these were both images of the same Evidence Item, they should not have differed in any way.
- Dr. Kiper's fourth of five bullet points discloses that the thumbnail images on the files mentioned above are actually identical to four DIFFERENT files, IMG_0180.JPG thru IMG_0183, respectively.
- Dr. Kiper's fifth and final bullet point points out that these discrepancies cannot be the result of any process other than intentional alteration, and that this alteration left behind a mistake in the thumbnail files, which allowed the alteration itself to be detected. I agree with him.

KIPER FINDING 2

- Dr. Kiper's Finding 2 contains 7 bullet points.
- His bullet points 1 thru 4 describe that a pair of FTK examinations of the same data, with the same version of FTK, would not report different file contents. I agree with this statement. I've never seen it in my own experience.
- His bullet point 5 lists six discrepancies between the files on the two CF card reports and those that should match, on the HDD, with the observation that those discrepancies could only be the result of evidence tampering. I agree with those bullet points.
- Dr. Kiper's bullet points 6 and 7 discuss the lack of consistency of the files on the 6/11/19 CF card image and the implications of that inconsistency. I examined his



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logic in great detail and concur with his conclusions that there exists no innocent explanation I can think of for the inconsistency.

KIPER FINDING 3

- This Finding contains three bullet points, all addressing the fact that the Accessed Dates for all the active files were 9/19/2018, indicating the device was accessed without a Write Blocker. I agree that this is what that finding indicates.

KIPER FINDING 4

- This Finding contains three bullet points, all inconsistencies in the EXIF file metadata dates of the files. Dr. Kiper's observation is that these inconsistencies cannot reasonably accounted for by any process other than human intervention, and, moreover, that the apparent purpose of the intervention was to make the file dates conform to Daylight Savings Time. However, that intervention contained a mistake that allowed it to be detected. As with his FINDING 2 above, I examined his logic in great detail and concur with his conclusions that there exists no plausible innocent explanation for these inconsistencies other than mistakes made during deliberate alteration of dates to support the government's narrative.

KIPER FINDING 5

- This Finding contains five bullet points, all addressing inconsistencies in the EXIF file metadata of the file IMG_0175.JPG along with its MODIFIED DATE and the name assigned to its CARVED file counterpart. Specific mention is made of the EXIF CreatorTool metadata entry, "Photoshop Adobe Elements 3.0." Again, as with his FINDING 2 and FINDING 4 above, I examined his logic in great detail and concur with his conclusions that the data, frankly, was manipulated, and not in a casual or innocent fashion, but in such a way as to coincide with the Government narrative regarding the files in question.



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KIPER FINDING 6

- This Finding contains seven Bullet Points, all addressing inconsistencies in the names given to folders containing the files. The apparent intention was to create folder names that appeared to be machine generated and thus lend credence to the manipulated file dates mentioned earlier.
- In Bullet Points 1 and 2, the Government's narrative was that the upper-level folders were human-generated and approximate but implied the lower-level folders were computer-generated and exact and corroborated the timestamps on the photos on the WD HDD.
- In Bullet Points 3 and 4, Dr. Kiper points out that the names could not have been created automatically, since the times are inconsistent with the way they were created in experiments he performed.
- In Bullet Point 5, Dr. Kiper points out that the timing between supposed auto-generated time stamps could not possibly be correct, since a 2-second difference between timestamps is impossibly small for this scenario.
- In Bullet Point 6, he discussed inconsistencies between the contents of **Thumbs.db** files and the actual contents of directories, indicating tampering.
- In Bullet Point 7, Dr. Kiper summarizes the lack of ability to rely on metadata to determine the creation dates of the photos in question.

I examined his logic in the above seven bullet points in great detail and concur completely with his conclusions in the case of these bullet points. Specifically, while the upper layer folder structure is credible, the anomalies relating to regarding the lower-level name structures and time stamps do not match any natural or automated behavior I have ever seen in my own experience. The anomalies noted in the Thumbs.db files are also very clear indications of data tampering [not with contents of files themselves, but with the file contents of folders]. And Dr. Kiper's bullet point regarding the reliability of



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metadata to determine creation dates of photos is also completely consistent with my own experience.

KIPER FINDING 7

- This Finding also contains seven Bullet Points, all of them discussing the extreme anomalies of the dates and contents of the subject files in the presence of an intermediary computer, including improbable and contradictory file system dates and the absence of common expected files during backups. As before, with his FINDING 2, FINDING 4, FINDING 5, and FINDING 6 above, I examined his logic in great detail and concur with his conclusions that the likelihood for an innocent explanation is nil.

CONCLUSIONS

I believe based on what I have reviewed that Dr. Kiper is correct in his assessments that no plausible explanation exists for the anomalies in the Government's exhibits other than intentional tampering on the part of the Government.

I have served as an Expert Witness in more than 100 cases over 35 years, and I have worked in positions of great trust, supporting both civilian and also military segments of the United States Government. I have never personally witnessed tampering of digital evidence by any law enforcement agency, and I am personally disturbed by what I have learned in this case.



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MANAGEMENT REVIEW

I was asked by Defendant's counsel to estimate the scope of work required to produce the data alterations initially discovered in the Government's evidence by Dr. Kiper.

I divided this analysis into two parts, described as "PROJECTS" so as to use the terminology of the Project Management community.

- In the first Project, I analyzed a possible scenario for the creation of altered data on the CF Card [1B15a].
- In the second Project, I analyzed a possible scenario for the creation of altered data on the WD HDD [1B16].

It should be noted that these two Projects actually occurred in the reverse time order of my presentation here. Dr. Kiper used this time order in order to make the most logical sense of the actual forensic results. I analyzed them in this same order so as to match the order used by Dr. Kiper in his analysis.

As with any such report, this one is based on assumptions driven by:

- Examination of artifacts;
- Analysis of schedules;
- Analysis of testimony; and
- Considerations of technologies.

The assumptions upon which this analysis and estimate are based are classified by artifact, as listed below.

MY ANALYSIS SHOWS A TOTAL ESTIMATED POTENTIAL EFFORT OF 128 HOURS BY INDIVIDUALS WITH FOUR DIFFERENT SPECIALTIES.

PROJECT 1. Lexar CF ["Compact Flash"] Card 1B15a also cataloged as GX 524 [alternatively referred to in Dr. Kiper's reports as an "SD" or "Secure Digital" Card]



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This is an evidence item, cataloged as 1B15a or GX 524, consisting of an SD card that had been removed from a Canon camera, with abbreviated name SD Card. Below is a brief timeline of events pertinent to this analysis:

On 3/27/18, the CF card was seized, along with the camera and other devices, including the WD HDD.

From 7/10/18 to 7/27/18, Case Agent Rees had custody of the device, outside of Evidence Control. From 9/19/18 to 9/26/18, Case Agent Lever had custody of the device, during which time the CF card was altered (see Technical Finding #3 in Dr. Kiper's Technical Report). Thus, during 24 calendar days when the CF card was checked out of Evidence Control, and in the custody of Case Agents, it was modified. This was several months before the SD card was checked into CART, on 2/22/19, and imaged and analyzed by FE Flatley. (see Dr. Kiper's Process Findings.)

From 2/22/19 to 6/7/19, Flatley held the CF card. For the subsequent three days up until Booth received and then re-cloned the SD card, which arrived to him in an unsealed cellophane bag (see Dr. Kiper's Process Findings), three FBI personnel had custody of the CF card: SA McGinnis, SA Mills, and FE Booth. Based on the technical findings, it is likely that additional alterations took place by this time.

Question Posed to Me: I was asked to examine the hypothetical work needed to convincingly yield the artifacts described above. I identified only a single subtask.

Assumptions:

I made working assumptions that anyone doing this work was trained on standard computer subjects and on evidence handling, and that they had an expectation of "medium level" scrutiny for the evidence, a level below that of a highly skilled forensic investigator.

I also made a working assumption that anyone doing this work would attempt to minimize the amount of data alteration performed, since each alteration added risk of detection during an intensive search.



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Based on the evidence, I further assumed that the Government had deleted the errors made in the fabrication of the WD HDD, which occurred chronologically earlier, and thereby a decision was made to manipulate data on the CF card so as to make the data on the WD HDD appear more credible. Given that the purpose was to essentially “clean up” what could be cleaned up on the HDD, and that the schedule available for it was very limited, this work was likely undertaken under time pressure. I attribute the errors made during the alteration that allowed Dr. Kiper to discover the alteration to time pressure and lack of access to the HD.

Discussion

This process subsumes KEY FINDINGS 1, 2, and 3 by Dr. Kiper. His findings 4, 5, 6, and 7 are the subject of the second analysis in this report, below.

PROJECT 1 ESTIMATED TOTAL HOURS:

32 HOURS by a SENIOR FORENSIC INVESTIGATOR

PROJECT 2. WD HDD 1B16 also cataloged as GX503 [ORIGINAL]

At the outset there existed an evidence item, cataloged as 1B16 and also as GX 503, consisting of a Western Digital hard drive, with abbreviated name WD HDD.

Question Posed to Me: I was asked to examine the hypothetical work needed to convincingly add CP files to a version of WDD HDD 1B16 / GX 503 during the 134 days between the date it was taken into custody until it was transferred to FET VD.

Assumptions:

I made the same working assumptions for this Project as for the one above, including time pressure as a significant constraint.

As a consequence of these working assumptions, I analyzed a scenario in which:



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- A. The drive was first analyzed, as a precaution, to determine the presence of deleted files, hidden files, file fragments, or other items whose content should be known prior to alteration of evidence. This could be done with either FTK, the tool used by the FBI itself, the freeware tool AUTOPSY, or other forensic tool such as ENCASE.
- B. CP files were acquired, or non-CP files were altered to make them CP [for example, by altering dates.]
- C. The files mentioned above were added to the WD HDD 1B16 drive

TASK 1: ANALYZE THE DRIVE PRIOR TO ALTERATION OF EVIDENCE

This would consist of a study of the existing drive for feasibility and content.

ESTIMATED EFFORT:

- **16 Hours by a STAKEHOLDER**
- **16 Hours by a TECHNICAL SUPERVISOR**

TASK 2: ACQUIRE AND PREPARE THE CP FILE CANDIDATES

Selection of CP file candidates would include choosing ones of the appropriate size, other metadata, and conformity with adjoining files.

ESTIMATED EFFORT:

- **24 HOURS by a DATA ENGINEER.**

TASK 3: PERFORM THE ACTUAL CREATION OF THE ALTERED DRIVE

This task consists of actual alteration of their EXIF metadata as needed, deletion of the files they would replace, copying them into the working drive, and then imaging the resulting drive back to the original unit. File date alteration apparently included files outside the 22-file range of the added files, for the appearance of continuity.



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ESTIMATED EFFORT:

- **40 HOURS BY A DATA ENGINEER**

PROJECT 2 ESTIMATED TOTAL HOURS:

96 HOURS BY 3 DIFFERENT PARTIES

Discussion

This process subsumes KEY FINDINGS 4, 5, 6, and 7 by Dr. Kiper. His findings 1, 2, and 3 were the subject of the first analysis in this report, above.

- A. In KEY FINDING 4, Dr. Kiper reported irregularities of file dates that could not have been the result of any innocent process
- B. In KEY FINDING 5, Dr. Kiper reported that irregularities in the EXIF headers of several files exist that could not be the result of any innocent process.
- C. In KEY FINDING 6, Dr. Kiper reported that the names of folders were apparently arbitrary, belying their state origins as computer-generated.
- D. In KEY FINDING 7, Dr. Kiper reported that the alleged CP were possibly planted and had dates altered to give the appearance they had been sourced from a 2009 backup.

The inclusion of detectable data manipulation errors that were detected by Dr. Kiper and confirmed by myself and by Mr. Abrams raises an obvious question of how such errors were not detected by the person or persons doing the data manipulation prior to their introduction into the FBI's system. Possibilities include lack of quality control, incorrect assumptions that the evidence would never be inspected as thoroughly as it has been by Dr. Kiper, myself, and Mr. Abrams, inadequate calendar time to complete the work efficiently, lack of skill by the full team, or some combination of those items. It seems likely that all four may have played a role.



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NOTES ON ESTIMATION

As is well known in Project Management, creating overall estimates for project cost and schedule is extremely challenging:

- Once a task has been identified, that task may be estimated by comparing it with similar tasks from a Body of Knowledge of prior tasks, a process known as Parametric Estimation. Often, of course, the challenge is identifying the specific task.
- Further challenges arise because a task that is new to the individual performing it may take longer than it would for someone who's done it before.
- Still further challenges arise from task-to-task dependencies, the need to stop and start during task completion, and the likelihood that tasks may arise that were not foreseen at the start of the effort.
- The estimates I provided represent my best judgment based on my experience and the information provided to me, subject to the factors described above.

COMMENTARY

It causes me great disappointment to be aware of this situation, as I have the highest regard for law enforcement. I am well aware of the potential significance and ramifications of the analysis I present here, and for obvious reasons, do not make any such statements without significant study. Regrettably, based on the information available to me, and upon significant review, I cannot envision a plausible explanation for the discrepancies noted by Dr. Kiper and reviewed by myself and Mr. Abrams, aside from intentional alteration. This is not a conclusion I am pleased to make.

RESERVATION OF RIGHTS

I reserve the right to amend or augment my opinions and discussions in the above report based on any new information that may come to light, including but not limited to information brought by participants in this case, subsequent research of my own, or information from other reliable and legally proper sources. I further reserve the right to modify the scope of this or other communications I may have in conjunction with this matter, based on information then available.



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DISCLAIMER

I am not familiar with the non-technical details of this case, other than having been minimally aware that a case of this nature was in process at the time it was taking place. I have no knowledge of or relationship to any of the participants.

I have provided my credentials in other documents in this case, and I incorporate them into this document by reference.

I am not an attorney, and thus, I have not, and will not, offer opinions of law.

I declare under penalty of perjury, under the laws of California, that the foregoing is true and correct.

Dated: April 27, 2022, at Santa Barbara, California.

WAYNE B. NORRIS

EXHIBIT C1

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WAYNE B. NORRIS CURRICULUM VITAE



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QUALIFICATIONS Per FRCP 26(a)(2)(B)

I have fifty-three years of professional experience in management, business, finance, accounting, engineering, software development, and scientific research.

1. I hold a Bachelor of Arts degree in Physics from the University of California, Santa Barbara, and have taken graduate courses in advanced physics and CPA accounting.
2. I formerly served as the Vice President of an international software development firm for 5½ years, as the President and Chief Financial Officer of an international software development firm with 130 employees and 3 offices on 2 continents I took public, for 2 years, as the Interim President and Chief Financial Officer of an Internet domain name registrar for 6 months, as the Chief Scientist of a military research and development company for 5½ years, and as the CEO of an expert witness company during the first half of 2017.
3. I have been awarded 6 patents in detection of conventional and nuclear explosives using neutron and gamma ray sensing, one patent in smart small caliber ammunition design, and have 6 provisional patents in securities options trading technology and one provisional patent in mobile device geolocation technology.
4. Currently I am an independent management and technology consultant and an expert witness in fields in which I am qualified to serve.
5. I have served as an expert witness in technology matters, including the valuation of technology, in more than 100 cases before federal, state, and local courts.
6. I served as the President and Chief Financial Officer of a publicly traded software firm with 130 employees and 3 offices on 2 continents.
7. I began costing, valuing, and managing software projects in 1986, and in the subsequent years, have performed technical and financial management of more than 100 software development projects and programs for civilian, government, and military customers.
8. I have been writing software for 62 years, with some breaks.
 - 8.1. I wrote my first computer program in April of 1959, just one month after my 12th birthday, on a Librascope LGP-30 computer at Cerritos Junior College in California, courtesy of my friend's older brother who was a student there. The computer had no RAM and no disk, only a magnetic drum. I wrote a numerical solution for the equation of motion of a yo-yo.
 - 8.2. I began writing software professionally in 1969 while working as a physicist at Rockwell Science Center in Thousand Oaks, CA, in support of an analysis of moon rocks returned by Apollos 11 and 12 and of microwave analysis of earth's



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ocean temperatures and the atmospheric composition of Jupiter and Saturn. I wrote software in FORTRAN and assembly language on the CDC 6600 and RECOMP III computers.

- 8.3. Over the years, I wrote software on approximately 35 different operating systems and hardware platforms in numerous languages, many now legacy, including FORTRAN, ALGOL, COBOL, PL/1, APL, Pascal, LISP, PLM, c, c++, Visual Basic, Access, SQL, JavaScript, HTML / CSS, Java, Macromind Lingo, and assembly languages for the CDC 6600 / 6400 CPU and PPU units, CDC RECOMP III, AN/UYK-6, IBM 7044, IBM 7094, IBM 360, SDS 910/920/930 series, the SIGMA series, the Burroughs B-3500, the VAX 11/70 series under VMS, the PDP-11 series under RSX-11m, the Intel 8080, 8088, and 8086 chipsets, the Motorola 6502 chipset, Xerox printer chipsets, and early versions of the Intel BIOS. In addition to machine-specific operating systems, I've worked under Linux, SCO Unix, most versions of Windows, and earlier "numbered" Macintosh operating systems.
- 8.4. I have written approximately 150,000 lines of code personally, on media including 8-bit ASCII punched paper tape, 7-bit Baudot partially punched paper tape, plugboards, IBM cards, 1/2" magnetic reels, multiple formats of floppy disks, modern hard drives, PROM chips, and optical media. I have written software in the areas of accounting, nuclear weapons simulations, stress analysis, bookkeeping, finance, video games, animations, 3D modeling, accounting, device drivers, robotic applications, vibration engineering, computerized test vector generation, oil spill simulation, compilers, parsers, inertial navigation systems, armored vehicle simulations, air quality simulations, Monte Carlo codes, electromagnetic scattering, finite element codes, cryptographic codes, and intelligence community applications.
- 8.5. I began managing software projects in 1986, and in the subsequent years, have managed more than 100 software development projects and programs for civilian, government, and military customers. I hold the designations of Microsoft Certified Professional [MCP], Project Management Professional [PMP], and Certified Scrum Master [CSM].
9. I have held the office of CEO, President, Vice President, Chief Financial Officer, Chief Scientist, and Board Member for multiple firms.



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Career Highlights

- Expert Witness in more than 100 cases in the areas of digital forensics, software code review for compliance with best practices, GPS, software copyright infringement and valuation, technology and technology business valuation, aircraft crash investigation, and related cases.
 - Lead software development expert witness for the Internal Revenue Service in the \$1.7 billion *Microsoft et al v Commissioner of Internal Revenue*.
- Manager of more than 100 projects and programs since 1978, with budgets to \$7.5 million and headcounts to 38. PMP and CSM certified. Projects included software development, cybersecurity, manufacturing, research and development, environmental planning, and civil aviation. Environments included commercial, military, aerospace, and national security communities. Instructor in Project Management for the US Navy. Santa Barbara Chapter President, Project Management Institute.
- Project Manager, US Navy, Port Hueneme, Cybersecurity, DEVOPS, and Support.
- CEO, Precision Simulations, Incorporated [Grass Valley, CA] – Expert witness firm specializing in video and audio evidence analysis and forensic animation.
- Independent consultant:
 - 3d Flash LiDAR / super resolution in mining and aerial surveys
 - Secure military CANBUS encryption and hardening
 - Mobile device geolocation technology; Co-Inventor of a Provisional Patent
 - Sublethal handgun ammunition; Sole Inventor of a Pending Patent
 - Development of short-term securities options trading instrument. Sole Inventor of 6 FINTECH Provisional Patents
- Chief Financial Officer of an Internet Domain Name Registrar firm
- Chief Scientist / Co-Founder, SEDS, LLC [Redwood City, CA / Troy, MI / Santa Barbara, CA / Washington, DC / Oak Ridge, TN], a neutron physics counterterrorism research laboratory focusing on remote detection of improvised conventional and nuclear explosive devices and medical applications of thermal neutron technologies.



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Principal inventor of 6 Granted Patents. Chief engineer for millimeter microwave weapons detection systems installation at Cheyenne Mountain Complex.

- President and Chief Financial Officer, Offshore Creations, Inc. [Colorado Springs, CO / Santa Barbara, CA / Kiev, Ukraine / Simferopol, Crimea] – 160-person International software development firm. Took the company public before the SEC.
- Research and Development Manager, Biopac Systems, Inc. [Goleta, CA] Manufacturers of biomedical equipment
- Product Manager, 3DStockCharts.com, Inc. [Santa Barbara, CA] – a real-time stock data reporting and software development firm
- Vice President, Emulation Systems, Inc. [Santa Maria, CA] – makers of FAA approved simulators for light aircraft, helicopters and the F-18 Hornet.
- Director of Government Services, ExperTelligence, Inc. [Goleta, CA] – an Artificial Intelligence software firm supplying the US intelligence community,
- Chief Scientist, Morton Associates [Santa Barbara, CA] – An environment firm that created federally mandated Oil Spill Contingency and Emergency Plans [OSCEPs] and personnel training curricula for offshore and onshore oil drilling platforms, pipelines, production facilities, and storage facilities. Developer of air pollution management software for Unocal.
- Contract software developer, Anacapa Associates [Santa Barbara, CA] – Developer of a Human Terrain Modeling system used for tracking domestic terrorist groups and organized crime groups.
- Physicist, Member of Technical Staff, General Research Corporation [Santa Barbara, CA / Washington, DC] – Researcher and software developer in electromagnetic scattering, nuclear weapons effects, computerized polygraphy, military operations, and other classified topics. Project Manager for robotic software development.
- Contract Software Developer, multiple firms including Control Data Corporation, Raytheon Electromagnetic Systems, Edwards AFB, McDonnell Douglas, Vandenberg AFB, and GM Delco Electronics. Subjects included the AN/SLQ-32 shipboard fire control system, missile test autodestruct systems, AGM-86 / AGM-109 cruise missile test flyoffs, M1-Abrams tank simulations.
- President and Chief Pilot, Norris Airways [Santa Barbara, CA] – A charter airline under FAR Part 135, fixed base operator flight school under FAR Part 61, and Cessna



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dealership. 1,000 hours of flight instruction given. Personally graduated 35 pilots from Private Pilot to Airline Transport. Personally hold FAA Airline Transport Pilot [ATP], Senior Parachute Rigger, and Advanced / Instrument Ground Instructor certificates; formerly Certificated Flight Instructor, Airplane Single and Multi-Engine, Instruments [CFII/ASMEI].

- President and Founder, Gasohol, Inc., the first retail and wholesale automotive alcohol fuel firm west of the Mississippi River in modern times, with retail sales and bulk sales to the US Navy.
- Staff Associate Physicist, Rockwell Science Center [Thousand Oaks, CA] – Researcher / software developer for studies of moon rocks from Apollos 11 and 12 using Mössbauer Spectroscopy. Researcher in planetary atmospheres and liquid water analysis of terrestrial clouds.
- Laboratory Technician, Rockwell Space Center [Downey, CA] – Worked building the Apollo Command Module
- Laboratory Technician, Advanced Kinetics Corporation [Seal Beach, CA] – Laboratory simulation the earth's solar winds and the Van Allen Radiation Belts soon after they were discovered.
- Student software developer [La Mirada, CA] – Wrote simulation software for rotational dynamics on a Librascope LGP-30 in April 1959.
- Have written approximately 100,000 lines of software in approximately 38 computer languages.



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APPENDIX A – WAYNE B. NORRIS CURRICULUM VITAE

Wayne B. Norris has acted as an expert witness in more than 100 cases in federal, state, and local venues over the last several decades, including:

- Software Copyright infringement, Abstraction / Filtration / Comparison [code analysis and damages / appraisal computations]
- Computer Security and Forensics / Industry Best Practices, Defects / Failure Analysis
- Software Contract Performance, Paternity and Valuation
- Software Outsourcing, with emphasis on Russia and Ukraine
- Engineering Best Practices
- Management Best Practices
- Software Taxation Issues
- Software Industry Appropriate Compensation
- Patents, Patent validity, Patent Infringement
- Copyright issues
- Trade Secrets
- General Engineering and Physics
- General aviation aircraft operations and skydiving operations
- Fiduciary duties of corporate officers
- Hazardous materials, oil spills, and industrial safety, including radiological safety
- Aviation safety, best practices, and pilot error

Mr. Norris personally holds 6 granted patents in nuclear instrumentation. He has 6 pending patents in online securities trading, 1 filed patent in cell phone geolocation, 1 pending patent covering novel ballistic projectiles, and has authored a 14th patent in real estate escrow processes.

He has been the CEO of an expert witness firm, the Vice President of a Russian-American software company and the President and Chief Financial Officer of a Ukrainian-American software company he took public on US markets.

He has testified on approximately 27 occasions, spanning both court testimony and depositions, and has authored approximately 80 expert reports.

Mr. Norris specializes in explaining extremely complex concepts to general audiences in accessible and understandable ways. He has 49 years of professional service and 59 years writing and managing the development of computer software, beginning in 1959.



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List of Testimonies, 2013 - 2022, per FRE 26

- Pilton v Novell, Los Angeles County Civil Court, Case in Progress – For Plaintiff's Counsel – Email analysis
- People v Daniel Garcia, et al, Riverside County, California, Case in Progress – For Defendant's Counsel – Corruption of computer data
- Blogspiration v Mobile Computing, LLC, Los Angeles County Civil Court – For Plaintiff's Counsel – Software development contract performance
- Muzeit v Bytedance, US Trademark Court – For Defendant's Counsel – Technology analysis of Trademark claims
- Christian Cardoso v ASAP Drain Guys and Plumbing, San Diego, California County Superior Court – For Plaintiff's Counsel – Validation of video surveillance data
- People of the State of California vs Nikolov, Los Angeles County Superior Court – For Defendant's Counsel – Valuation of stolen credit card numbers obtained by hacking
- Live Face on Web vs Integrity -- US Federal District Court, Denver, Colorado -- For Defendant's Counsel – Valuation of allegedly inappropriate copyrighted software code
- Doe vs Corona Norco Unified School District, Riverside County, CA Superior Court – For Plaintiff's Counsel – Adequacy of school district software security
- Live Face on Web vs Moreno -- US District Court, Western District of Texas, San Antonio Division -- For Defendant's Counsel – Valuation of allegedly misappropriated copyrighted software code
- Felix v Ramirez -- Superior Court of Los Angeles County, CA -- for Defendant's counsel -- defendant prevailed on all counts, won counter-suit – Valuation of Internet URLs
- Paccione vs Albert -- Los Angeles County Superior Court – for Defendant's Counsel -- Analysis of text message records in a criminal contempt of court hearing as part of a divorce proceeding
- People of the State of California vs Keith Johnson -- Shasta County, CA Superior Court – for Defendant's Counsel – Analysis of potentially available forensic records from multiple sensors in a child molestation case
- Marriage of Jensen – Los Angeles County Superior Court – Analysis of email records for evidence of tempering.



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- Naroditskiy vs Eon Reality – Orange County Superior Court – for Defendant's Counsel – Valuation of Russian-American software representation contracts
- People of the State of California vs Creech – Los Angeles County Superior Court – For Defendant's Counsel – Analysis of prosecution's use of animations in a high profile death penalty case



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MOST RECENT CASES INCLUDE:

- Analysis of tampered digital evidence in a high profile murder case, involving legacy mobile devices and storage appliances.
- Appraisals, valuations, and damages in very difficult cases that no other experts will touch, based on multiple valuation approaches and consolidation of results, including stolen credit card numbers offered for sale on the Dark Web
- “Should-Cost” valuations of software in piracy cases and engineering contract performance
- Unjust enrichment in trade secret theft cases
- Forensic analysis of JavaScript code in a copyright infringement / copyright validation case, including Abstraction / Filtration / Comparison [AFC] tests
- Forensic analysis of metadata in a case of alleged international fraud
- Forensic analysis of email trails in a case of alleged forgery
- Forensic analysis of text message records in a criminal case
- Investigation of damage mechanisms to a computer system
- Forensic analysis of alleged Dark Web disclosures of Personally Identifiable Information [PII]
- Forensic analysis of alleged online slander
- Forensic analysis of cell phone photos in an alleged child pornography case
- Procedure analysis of sheriff’s investigators in an alleged case of lewd photography of under aged minors
- Appropriate compensation in the software industry
- Valuation of software in a copyright infringement case
- Appropriate commission structure in a US-Russian software business
- Physics analysis in patent infringement cases

PROFESSIONAL SUMMARY:

Chief Executive Officer of Precision Simulations Inc., the leading provider of forensic / scientific documentation, analysis, and visualization services, including 3D laser scanning, animation, forensic video, photogrammetry, and testifying expert witness services for legal proceedings.

President and Chief Financial Officer of Offshore Creations, Inc. [OFSC.PK], a 130-person publicly traded international software company.

Chief Scientist of SEDS, LLC, a government contracting R&D firm working in counterterrorism; holder of 6 patents in nuclear technology, gamma ray sensing, and conventional and nuclear explosives detection using thermal neutron beams and pixelated gamma ray spectrometers. Specialist in millimeter microwave based weapons detection systems, profiling, ballistics, Munroe Effect penetrators, and explosives effects. Installed first millimeter microwave detection system at Cheyenne Mountain Complex. Analysis of Human Terrain Modeling with focus on bomb making.



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PROFESSIONAL SUMMARY (continued):

Principal, Norris Associates, Environmental Consultants, an environmental and engineering consulting firm. Projects included residential developments, the MX missile rail garrison plan, a proposed nuclear plant in Omaha, a sewage system in Los Angeles, oil drilling offshore Orange County, CA, and fuzzy set simulation of governmental decision making.

Consulting Physicist and Computer Systems Analyst, Jet Propulsion Laboratories, Vandenberg AFB, Edwards AFB, Kirtland AFB, GM Delco Division, McDonnell Douglas, Raytheon, Hughes Aircraft, AlliedSignal Corporation, ExperTelligence Corporation: Technology development for aerospace, domestic police, organized crime gang and terrorism human terrain modeling, national defense, intelligence community, and commercial projects.

Chief Scientist, Morton Associates, Santa Barbara, CA, corporate author of federally mandated Oil Spill Contingency and Emergency Plans [OSCEPs] for the Chevron platforms in the Santa Barbara Channel, the KLMR pipeline from Bakersfield to Los Medanos, the Estero Bay Marine Terminal, Estero Spur, Gosford Production Facility, Chevron Cavern Point Unit, and Phillips Marine Terminal. Lead author of the Commercial Fisheries Handbook for Proposed Exploratory Drilling Operations, Cavern Point Unit. Software developer, fugitive emissions reporting system, Unocal refineries. Financial analyst and appraiser, Unocal Huntington Beach onshore oil drilling, pipeline, and production facilities.

Founder, CEO, and Chief Pilot Norris Airways, Santa Barbara, CA Municipal Airport, an aircraft fixed base operation ("FBO"), FAR 135 Air Taxi, and Cessna dealership with 14 employees, including 9 pilots, 3 departments, and 11 aircraft.

Co-Founder and CEO, Gasohol, Incorporated, Santa Barbara, CA, the first modern wholesale/retail gasohol company west of the Mississippi River. Wholesale customers included the U.S. Navy.

Physicist, General Research Corporation, investigator in electromagnetic scattering, neutron transport, nuclear weapons effects, counterterrorism, computer assisted polygraphy / electrophysiology and facial gesture recognition, and the Strategic Defense Initiative.

Physicist, Rockwell Science Center, investigator on lunar samples from Apollos 11 and 12, planetary atmospheres, cosmic background temperature, and terrestrial atmospheric liquid water content for environmental analysis and environmental impact statements and reports.

Financial Analyst / Business Plan Author, Consultant – Holder of 6 Provisional Patents in financial options trading.

Patent advisor, Consultant



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Advisor to Multiple Initial Coin Offerings [ICOs]

Expert witness for issues in Technology, Intellectual Property, Valuation, and Conduct of Corporate Officers in Federal and State courts.

EDUCATION AND CERTIFICATIONS:

- University of California, Santa Barbara: B.A. Physics
- University of California, Santa Barbara: Post-graduate work in Advanced Mathematics and Physics, Human Factors, and Ergonomics, and CPA accounting
- Microsoft Certified Professional + Internet [MCP+I] designation
- Project Management Professional [PMP] designation
- Certified SCRUM Master [CSM] [Agile project management] designation
- University of Texas, Austin: Professional Certificate, Oil Field HAZOPS and Risk Management
- Security Management Certificate, Defense Industrial Security Clearance Office. Honolulu, HI
- Classified Warheads and Ballistics Seminars, US Naval Postgraduate School, Monterey, CA
- Former California State General Building Contractor, B-1 licensee
- FAA Airline Transport Pilot, Senior Parachute Rigger, Former CFII/ASMEI, Ground Instructor

AFFILIATIONS:

- Institute of Electrical and Electronics Engineers [IEEE] – Life Member
- International Right of Way Association [IRWA]
- Association of Old Crows [AOC] [Electronic and cyber warfare professional organization]
- Project Management Institute [PMI] – Santa Barbara Chapter Director
- SCRUM Alliance [Agile project management]
- Santa Barbara Science and Engineering Counsel
- Association of the United States Army [AUSA] Life Member
- American Association for the Advancement of Science [AAAS]



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SELECTED COMMUNITY EXPERIENCE:

- President, Board Chair, Mothers Against Drunk Driving Santa Barbara: Created a pioneer vehicle donation program and created 34 radio and TV commercials and bilingual sober driving literature.
- Santa Barbara County Deputy Sheriff for Search & Rescue
- Member, Santa Barbara County Grand Jury, Sheriff's/Seniors Committees

PUBLICATIONS:

"Time-Resolved Emission Spectroscopy in Acetylene/Oxygen Explosions", Combustion and Flame Journal, February 1970 (with R.J. Oldman and H.P. Broida)

"The Brightness Temperature of the Terrestrial Sky at 2.69 GHz", Journal of the Atmospheric Sciences, 29:1210 (with W.W. Ho, G.M. Hidy, M.J. Van Melle, W. Hall, H. Wang)

Chevron Fisheries Handbook for the Cavern Point Unit (with Prof. Milton, Love, Ph.D.)

PATENTS:

Mr. Norris currently hold 7 granted patents and 7 provisional patents, and has acted as an expert in numerous patent cases, including against Microsoft, Logitech, Pelican Research, and Analog Devices, Inc.

US 7,573,044 B2 *Remote Detection Of Explosive Substances* GRANTED 8/11/09 - Priority 7/18/06

US 8,080,808 *Remote Detection Of Explosive Substances* (CIP 7,573,044) GRANTED 12/20/2011

US 8,288,734 *Remote Detection Of Explosive Substances* CIP GRANTED 10/16/2012

US 8,357,910 *Background Signal Reduction In Neutron Fluorescence Applications Using Agile Neutron Beam Flux* GRANTED 1/22/2013

US 8,410,451 *Neutron Fluorescence with Synchronized Gamma Detector* GRANTED 4/2/2013

US 8,785,864 *Low-Cost, Organic-Scintillator Compton Gamma Ray Telescope* GRANTED 6/22/2014 [with K.N. Ricci, B. Paden]

US 11,226,185 *Multipurpose Projectile Having Preformed Pieces and a Variable Impact Deployment System* GRANTED 1/18/2022

US 62305645 *Method and System for Trading Low Priced Short Term Securities Option Contracts That Exhibit Specified Behaviors*, PENDING 3/9/2016

US 62307986 *Securities Trading Exchanges To Support the Sale and Exercise of Low Priced Short Term Securities Option Contracts That Exhibit Specified Behaviors*, PENDING 3/14/2016



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US 62307999 *Method and Process To Support the Sale and Exercise of a Series of Low Price Securities Option Contracts To Achieve Specified Premium Price Values*, PENDING 3/14/2016

US 62378833 *Method and Process To Support the Interactive Sharing of Securities Trading Activities*, PENDING 8/24/2016

US 62378846 *Method and Process To Support the Positioning of Advertisements in a Securities Trading Platform*, PENDING 8/24/2016

US 62378858 *Method and Process for Combining Trades of Securities into a Lottery-Like Environment*, PENDING 8/24/2016

US 62/353,466 *US Method for Verifying Player Location in Online Lottery System*, PENDING 9/22/2016.

EXPERT WITNESS EXPERIENCE DETAILED DISCUSSION:

Mr. Norris has testified on approximately 27 occasions, spanning both court testimony and depositions, and has authored approximately 80 expert reports.

Mr. Norris specializes in explaining extremely complex concepts to general audiences in accessible and understandable ways. He has 49 years of professional service and 60 years writing and managing the development of computer software, beginning in 1959.

Mr. Norris was the US Government's expert witness for software development issues in the multi-year case of Microsoft Corporation versus Commissioner of Internal Revenue [US Tax Court Docket Number 16878-96], the largest tax case ever litigated by any jurisdiction in history. He authored four expert witness reports that were admitted into the record, and testified for approximately 7 hours, including *voire dire*, direct, cross, redirect, and recross.

Mr. Norris was the principal architect of the Government's technical approach toward interpretation of IRC 927(c) in the case of software. The Government won the case at trial, and his arguments were incorporated into the Court's opinion. He advised IRS attorneys on strategies for the examination of Microsoft expert witnesses.

Mr. Norris specializes in explaining very complex issues to the Court and Jury in accessible language.

He has recently developed a knowledge area with the trademarked name the Internet of Evidence™, [<http://InternetOfEvidence.com/>] a term he uses to refer to the vast and ever growing array of sensors and data recorders that can be used by the legal community to determine time lines, identities and intentions of actors, accuracy of alibis, external and environmental conditions, and who knew what and when they knew it. He delivered a Webinar for CLE credit on this topic on April 24 of 2014 under the auspices of Technical Advisory Services for Attorneys [TASA]. The webinar was attended by 132 attorneys nationwide.



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The following year, 2015, Mr. Norris presented a similar webinar for CLE credits titled The Internet of Things Thieves - What Data Security Lawsuits In the Very Near Future Will Look Like!

Mr. Norris has worked as an expert witness in several modes, including depositions, testimony in court, and preparation of expert witness reports and strategy documents.

Due to confidentiality rules and stipulations, many are not able to be shared. Sharable information is shown below.

EXPERT WITNESS CASES

SOME CASES ARE LISTED UNDER MULTIPLE HEADINGS FOR EASE OF ACCESS:

Animations and Simulations

- People of the State of California vs Creech, Los Angeles County Superior Court - Analysis of prosecution's use of animations

Appraisals and Valuations

- People of the State of California vs Nikolov, Los Angeles County Superior Court
- Live Face on Web vs Integrity -- US District Court, Denver, Colorado -- For Defendant's Counsel
- Live Face On Web vs Moreno et al, ongoing - for Defendant's Counsel
- Live Face on Web vs Integrity Systems, ongoing, for Defendant's Counsel
- Live Face on Web vs Puerto del Sol Condominiums, for Defendant's Counsel
- Naroditskiy vs Eon Reality, ongoing - for Defendant's Counsel
- People of the State of California vs Georgi Nikolov, for Defendant's Counsel
- Mitchell and Manhattan Software vs Jean Kasem, Little Miss Liberty, et al, - Superior Court of Los Angeles County, CA – case settled - for Plaintiff's Counsel
- Felix v Ramirez – Superior Court of Los Angeles County, CA – defendant prevailed on all counts, won counter-suit - for Defendant's Counsel
- Clark-Martin vs Yahoo US District Court – negotiated settlement - for Defendant's Counsel
- Microsoft vs Richter, OptInRealBig, et al – US District Court, Seattle, damages – defendant plead guilty to reduced charges - for Defendant's Counsel
- Young vs GFOS, Inc., San Diego Superior Court, case settled - for Plaintiff's Counsel
- Feltman v Otlavaro, et al - for Plaintiff's counsel – case settled – US Bankruptcy Court, Southern Florida
- Multiple others, cases sealed



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Forensic Analyses of Electronic Media

- People vs Garcia, Riverside County, California, for *in pro per* homicide defendant
- People vs Frazier, Los Angeles County Court, for Defense Counsel
- Live Face On Web vs Five Boro Mold et al - Superior Court of the State of New York - Case settled - for Plaintiff's Counsel
- Microsoft Corporation vs Commissioner of Internal Revenue - Victory by Defendant [IRS], US Tax Court, Seattle, WA and Washington, DC. [Court testimony; 7 hours; direct, cross, redirect, recross] - for Defendant's Counsel
- Weininger vs Weininger – online slander and reputation management - case settled
- Multiple cases in progress involving metadata, email authentication, spoofing, and damage to electronic media
- Riffle vs Hyde & Hyde, Northern California – case settled - for Plaintiff's Counsel
- People of the State of Wyoming vs Robinson – POS system tampering - guilty verdict - for Defendant's Counsel
- People of the State of California vs Threlkeld – Riverside County Superior Court forensic recovery from cell phones and hard drives – Defendant convicted and sentenced
- People of the State of California vs Keith Johnson – analysis of potentially available forensic records from multiple sensors in a child molestation case – Not Guilty Verdict – Shasta County, CA Superior Court [Court testimony; 2 hours; direct, cross, redirect] - for Defendant's Counsel
- Paccione vs Albert – Analysis of text message records in a criminal contempt of court hearing as part of a divorce proceeding – charges dropped – Los Angeles county Superior Court [Court testimony; 1 hour; direct, cross, redirect] - for Defendant's Counsel
- Offshore Supply Systems, LLC vs CS Industries, Inc. - Superior Court of Orange County, CA - case settled - for Defendant's Counsel
- Marriage of Jensen – Los Angeles County Superior Court - analysis of email records for evidence of tampering.

Software Intellectual Property

- Microsoft Corporation vs Commissioner of Internal Revenue - Victory by Defendant [IRS], US Tax Court, Seattle, WA and Washington, DC. [Court testimony; 7 hours; direct, cross, redirect, recross] - for Defendant's Counsel

Patentability of Software

- In re Mitchell, Los Angeles US District Court – advisory to Court



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Technology Infringement

- Dolby Digital v General Satellite Research & Development, Ltd., San Francisco Federal District Court, for Defendant's Counsel
- Interlam vs Modular Arts, US District Court, Western District, Washington State, Seattle, WA, case settled [Deposition] - for Plaintiff's Counsel
- Young vs GFOS, Inc., San Diego Superior Court, settled - Plaintiff's Counsel

Patent Infringement Cases

- Jordan Spencer Jacobs v. Microsoft Corporation, Logitech, Inc., Pelican Accessories, and Analog Devices, Inc. - case settled, US District Court, Central Florida [Deposition] - for Plaintiff's Counsel
- Sequent Technologies vs Insight Video Net - US District Court, Los Angeles, CA - case settled - for Plaintiff's Counsel
- VOS Systems, Inc. vs Voice Signal Technology, Inc. – US District Court, San Diego, CA – case settled - for Plaintiff's Counsel
- Microsoft vs Comptek Plus, US District Court, Los Angeles, CA – case settled – for Defendant's Counsel
- Other cases settled under seal

Software and Hardware Quality and Performance Cases

- Allen & Schack vs Worldwide Environmental Products - settled, Superior Court of Ventura County, CA [Deposition] - for Plaintiff's Counsel

Software Copyright Infringement Cases

- Mitchell and Manhattan Software vs Jean Kasem, Little Miss Liberty, et al, – Superior Court of Los Angeles County, CA – case settled prior to trial - for Plaintiff's Counsel
- Other cases settled under seal, US District Court, Honolulu, Hawaii
- Live Face on Web, Inc. vs Moreno et al, ongoing, for Defendant's Counsel

Software Piracy

- People vs Joan Huang, US District Court, Los Angeles, CA – defendant plead guilty to a reduced charge - for Defendant's Counsel

Software System Operational Integrity

- People vs Mraz, Superior Court of Sheridan, WY – defendant convicted - for Defendant's Counsel

Software Licensing

- qad vs Ingersoll Rand – Los Angeles US District Court – case settled - for Plaintiff's Counsel



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Misappropriation of Trade Secrets

- Entertainment Printing Enterprises, Inc. vs CreativeMob, TicktBox, et al – Superior Court of Los Angeles County, CA – case settled prior to trial - for Plaintiff's Counsel
- Mitchell and Manhattan Software vs Jean Kasem, Little Miss Liberty, et al, – Superior Court of Los Angeles County, CA – case settled prior to trial - for Plaintiff's Counsel
- Lynch Communications, Inc. v Irish Communications, Inc, David O'Keefe, et al. – Superior Court of Riverside, CA - case dropped - for Plaintiff's Counsel

Software Industry Appropriate Compensation

- Feltman vs Otalvaro, et al – case settled – US Bankruptcy Court, Southern Florida – for Plaintiff's Counsel
- Smith, Dodson, Steele, Port, et al vs Kaiser Permanente [class action], US District Court, Northern California, case settled - for Plaintiff's Counsel
- Tan vs CSAA [class action], US District Court, Northern California, case settled - for Plaintiff's Counsel
- Langille vs EMC [class action], US District Court, Northern California, case settled – for Plaintiff's Counsel
- Delmare vs Sungard [class action], US District Court, Northern California, case settled - for Plaintiff's Counsel
- Apple vs Walsh [class action], US District Court, Northern California, case settled - for Plaintiff's Counsel
- Williams et al vs Lockheed Martin, US District Court, Southern California, case settled [Deposition] - for Plaintiff's Counsel

Software Security Industry Best Practices

- Doe vs Corona Norco Unified School District, Riverside County, CA Superior Court – For Plaintiff's Counsel

Fiduciary Duties of Corporate Officers

Lynch Communications, Inc. v Irish Communications, Inc, David O'Keefe, et al. – Superior Court of Riverside, CA - case dropped - for Plaintiff's Counsel

Other cases settled under seal

Illegal Use of Business Name in HTML Metatags for SEO

- Life Alert Emergency Response, Inc. vs ConsumerAffairs.com, Inc. – Los Angeles County
- Superior Court - case settled - for Plaintiff's Counsel



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Software Contract Performance

- Alliance Manufacturing Software, Inc. vs Typhoon Software, Inc. – Santa Barbara Superior Court – [Deposition] - Judgement for Plaintiff - for Defendant's Counsel
- Wilmar Group vs Mastech Systems Corp. – Court of Common Pleas – Allegheny County, PA – case settled - for Plaintiff's Counsel

Genealogy of Software Source Code to Determine Branching

- Norton vs Norton, Los Angeles Family Court – case settled - for Defendant's Counsel

Professional Conduct Among Scientists – Defamation

- Watts vs Synolakis – US District Court - Juneau, Alaska - case settled - for Defendant's Counsel

Evaluation of Private Pilot Dangerous Conduct

- Lima vs Foster, Los Angeles Family Court – case settled

Airline Liability

- Case sealed

Building Lighting Liability

- Gordon vs Pacific Properties – Santa Barbara, CA – case settled - for Plaintiff's Counsel

Aerial Law Enforcement

- People of the State of California vs Stevenson, Santa Barbara County Superior Court – reduced misdemeanor sentence [Court testimony; 1 hour; direct, cross] - for Defendant's Counsel

SUMMARY OF EXPERT WITNESS AREAS

- Computer software development issues, practices, responsibilities, financing, responsibility, defects, failure analysis, and valuation
- Patent, Copyright, and Trade Secret issues, including infringement and misappropriation, including audits of computer source code
- Outsourcing, including domestic and international
- General physics, dynamics, engineering, technology, and mechanics
- Software industry appropriate compensation
- Engineering and software industry standards and contract performance, including industry best practices Management practices in engineering, science, research & development, and technology
- General aviation aircraft operations [FAA rated Airline Transport Pilot, former Flight Instructor, Ground Instructor, and Parachute Rigger]



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- Fiduciary duties of corporate officers
- Hazardous materials, oil spills, radiological and industrial safety

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