Buss Cask

Contact Info

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Visual Editor Consultants

Awards

1989 Westinghouse Signature Award of Excellence – Awarded by Westinghouse Hanford Company.

1990 Information Systems Advisory Council Award -- Awarded by Westinghouse Hanford Company.

1992 Information Systems Advisory Council Award -- Awarded by Westinghouse Hanford Company.

1997 Tri-Cities Engineer of the Year – Awarded by the Washington Society of Professional Engineers.

2000 Environmental Technology Division Outstanding Performance Award – Awarded by Pacific Northwest National Laboratory.

2001 Entrepreneurial award – Awarded by Battelle.

2003 Entrepreneurial award – Awarded by the Richland Rotary Club.

History

Randy began development of the Visual Editor in 1992 with Dr. Lee Carter. In 2001, he formed the company Visual Editor Consultants to further develop the Visual Editor on a full time basis. Alysia joined the company in 2002

Visual Editor Consultants has been awarded and has successfully completed six Small Business Innovation and Research (SBIR) grants from NASA and DOE since 2001.

Randy has over 20 years of experience doing nuclear calculations, shielding, reactor physics, data visualization, and graphical user interface development.

Alysia has over 20 years of programming expertise specializing in database and data structure programming to manipulate large data sets.

Grant Titles

- Modification to the Monte Carlo N-Particle Visual Editor to Read in Computer Aided Design (CAD) Files (Phase 1 and Phase 2)

- Conversion of Input Data between KENO and MCNP File Formats for Computer Criticality Assessments (Phase 1)

- Visualization of Output Data from Particle Transport Codes (Phase 1)

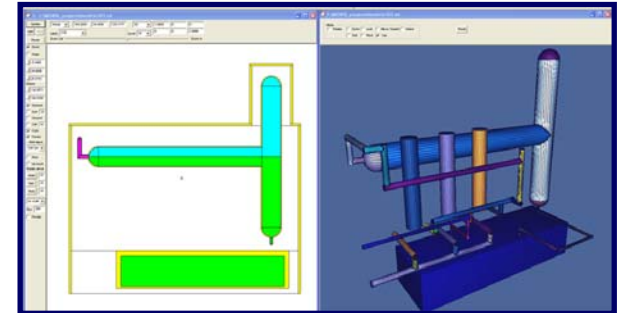- Graphical User Interface for High Energy Multi-Particle Transport (Phase 1 and Phase 2)
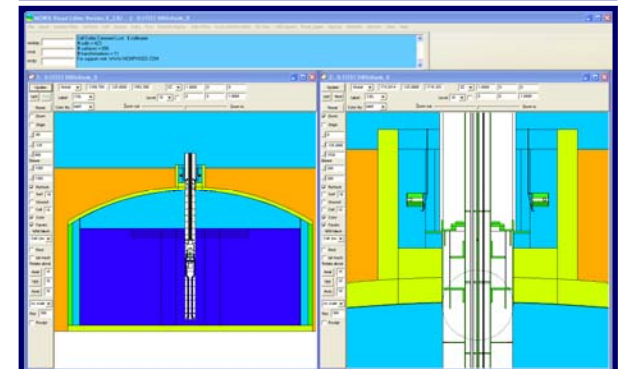
Visual Editor Consultants
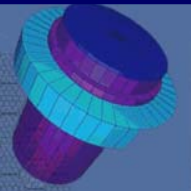
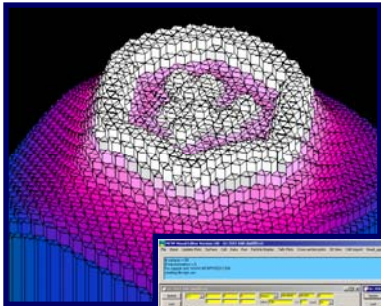# Consulting Services for the Nuclear Community
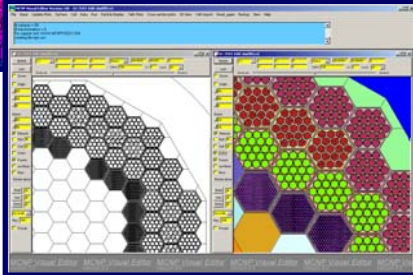
Glovebox Design
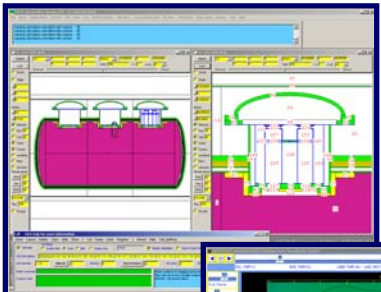
101SY Mixer Pump

Reactor Physics

Data Visualization of flux in a reactor
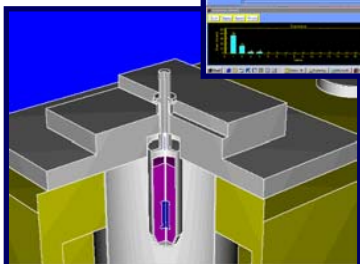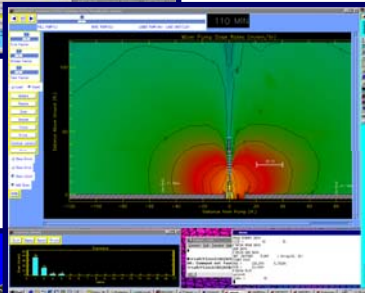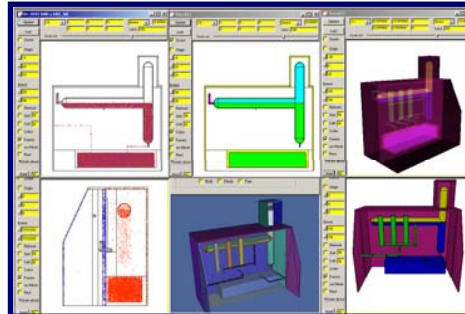
Experimental FFTF core

Waste Cleanup

Tank car for holding waste.

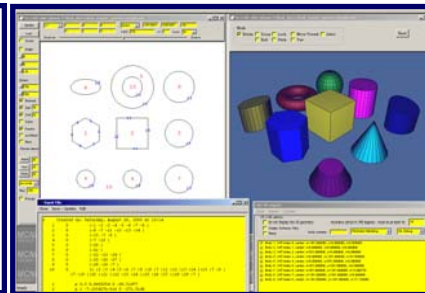ALARA tool for a pump coming out of a riser
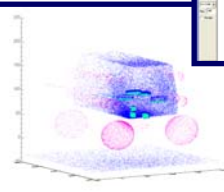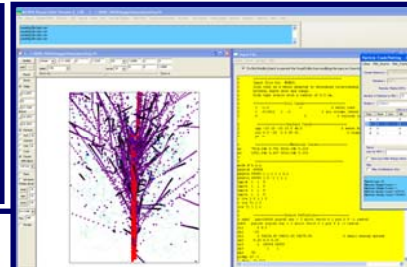
Tank Waste Sampler

Graphical User Interface

Visual Editor

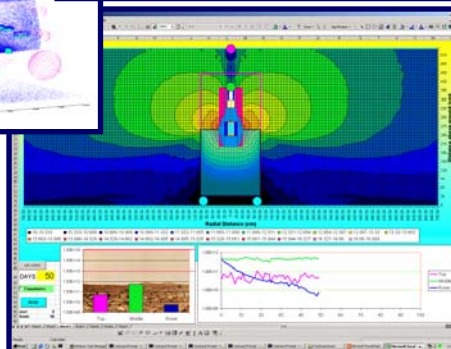CAD objects imported into MCNP using the CAD to MCNP converter

Data Visualization

Right: Iron on Water

Below: Collisions in a Glove Box

Using Excel to Plot MCNP Data

Technical Skills

Randy Schwarz
Entrepreneur
- Successfully bid for and managed 6 grants for Visual Editor Consultants.

Reactor Physics and Shielding Design
- Performed shielding and reactor physics calculations for the Fast Flux Test Facility.
- Created a program to monitor decay heat at the Fast Flux Test Facility.
- Performed core design calculations for light water reactors.
- Developed a revised ORIGEN-2 cross section database for K-Basin fuel.
- Responsible for the shielding chapters on several Safety Analysis Reports for Packaging for transportation casks.
- Made numerous shielding calculations for WHC for Hanford Operations.
- Created an ALARA tool for planning the removal of a mixer pump form tank 101-SY.
- Performed shielding calculations for Hanford risers.

Data Visualization
- One of the primary developers of the graphical user interface for MCNP
- Created a tool to import CAD geometries into MCNP
- Created an ALARA tool for Radio isotopic Thermoelectric Generators
- Created a tool to read MCNP data into a spreadsheet.

Alysia Schwarz:
Software Development
- Programming of the Visual Editor graphical user interface using Microsoft Visual Studio 2008 in C++.
- Design, development, deployment, and ongoing support for a production database since June 2002.
- Programming in C (both UNIX based and Visual C++), VBA, Pascal, and FORTRAN.
- Experience with Access, Outlook, Word, Window (Scripting) and SQL Server Object Models for Automation
- Web design using Microsoft Expression Web II. Currently webmaster for several sites:
- Graphic design using Photoshop CS3 and Publisher.
- Context sensitive Help authoring.

Engineering/Control Systems
- Development of control system user interface using Citect SCADA package.
- Design of logic for control of fire protection water system.
- Design of automated testing system for validation of control systems.