

Due to the diversity of the radiation domain, our nuclear engineering experts operate as much in the field of radiation protection as in the study of systems behavior in a nuclear environment.

■ Your needs

- MC / Installation design in nuclear and medical environment
- Workstations optimization subject to radiative constraints
- Maintenance or decommissioning operation security
- Nuclearization of electronic systems and materials evaluation

■ Our solutions

1. In design or modification phase

- Design of nuclear / medical buildings or facilities
- Design of radiological protection
- Energy deposition calculation (radiolysis, ozone production)
- Study of the activation problematic

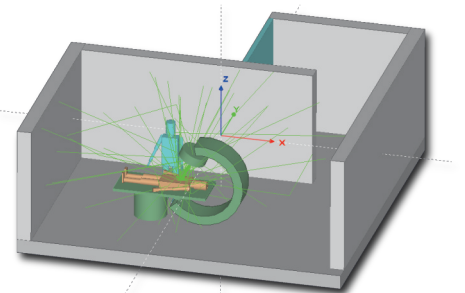
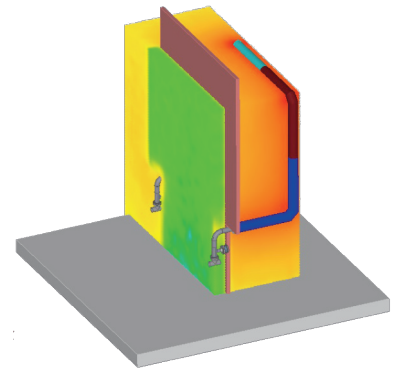
2. In operational phase - Radiological risks analysis

In nominal - incidental - maintenance – decommissioning situation

- Dose calculation - external and internal contamination
- Radiological zoning calculation - 3D dose mapping
- Workstation study – ALARA approach

3. In systems reliability phase (Electronics & Materials)

- Dose calculation on sensitive elements level
- Test system characterization in radiative environment
- Effects determination and lifetime estimation
- Nuclearization solutions



Our added value : RayXpert®

Developed by TRAD Tests & Radiations, Rayxpert is a radioprotection software by Monte Carlo - See details on the reverse side

Our expertise

- 20 years experience in radiation
- RayXpert® software developer
- A global solution : Engineering & Test

**For more information: www.trad.fr
Trainings at TRAD or at your location**





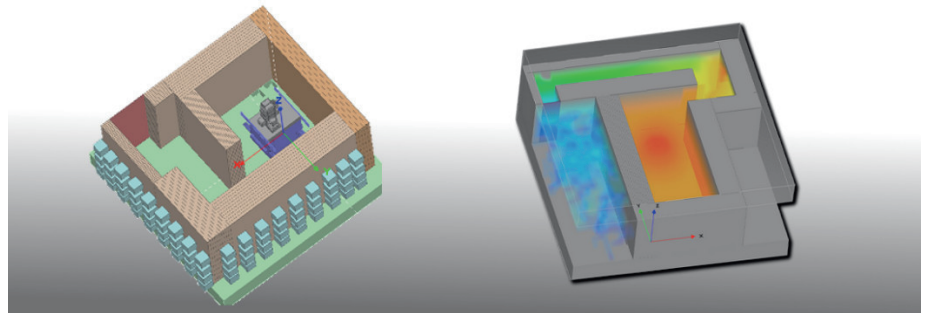
RayXpert®

Monte Carlo Radioprotection Software

Thanks to its strong experience in software development in the field of radiations, **TRAD Tests & Radiations** offers a unique solution dedicated to nuclear applications: **RayXpert®**, a 3D modeling software that calculates photons and electrons dose rate by Monte Carlo method

Your radioprotection needs

- Dosimetry calculation
- 3D cartography
- Radiological protection optimization
- ALARA approach
- Sizing of nuclear buildings
- Energy deposition calculation



Our solution

3D Import & Design: Direct use of standard CAD models in format STEP.

Material & isotope definition: Pre-defined libraries, NIST, EAF & JEFF.

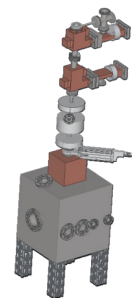
Types of sources available: Gamma decay spectra, electron/photon beam.

Calculation by Monte Carlo: photon, electron & positron transport.

Calculation options: Multi-sources, multi-detectors, automatic biasing, multi thread.

Your benefits

- *Great time saving by importing your 3D geometries*
- *Friendly interface, easy handling*
- *Accuracy of Monte Carlo method*
- *Powerful decision-support tool*



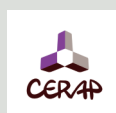
Trainings

At TRAD premises or at your location

Our experts offer you a one-day training session, allowing you to be completely autonomous on all your radiation projects.

They trust us:

AIRBUS SAFRAN
LAUNCHERS



h e d s
Haute école de santé
Genève



For more information: www.rayxpert.com

