

T R A C K E R

Integrated Solution for Dosimetry Laboratories

<http://www.dositracker.com>



Have you lost track of your dosimeter inventory?

Do you spend a lot of time managing dosimeter assignments?

Do you find it increasingly difficult to manage your clients?

Do you spend countless hours building dose reports?

If the answer is YES to any of the above questions you should consider **DOSITRACKER**, our all-in-one solution for your dosimetry laboratory.

We have built **DOSITRACKER** using the expertise of physicists amounting over 30 years of work in the field of dosimetry. Our objective is to cover all the needs of a dosimetry laboratory with a WELMEC compliant solution.

**DOSITRACKER** is independent of dosimetry system; it is designed to work equally well with TLD or Film based dosimetry.

## DOSITRACKER features

- **Dosimeter lifecycle management** - follow dosimeters from acquisition to end of life.
- **Dosimeter tracking** - permanent information on dosimeter location and status.

[View history](#)

Status	Status date	User	Tray	Position	Comments
Annealed	13/01/2015 12:23:12	Ruxandra Toma	M021	1	valid dose
Read	13/01/2015 12:09:22	system	M021	1	close batch Read
Returned	13/01/2015 10:57:41	Ruxandra Toma	M021	24	returned
In use	13/01/2015 09:46:33	system			departure
Assigned	18/12/2014 10:00:02	Ruxandra Toma	M093	38	Panasonic assign
Annealed	17/12/2014 16:30:32	system	M093	38	close batch Delete
Free	14/12/2014 19:23:26	system			initial import Field

7 items found, displaying all items.1

- **Customer management** - organizational structure, contact details, personnel, mailing details.

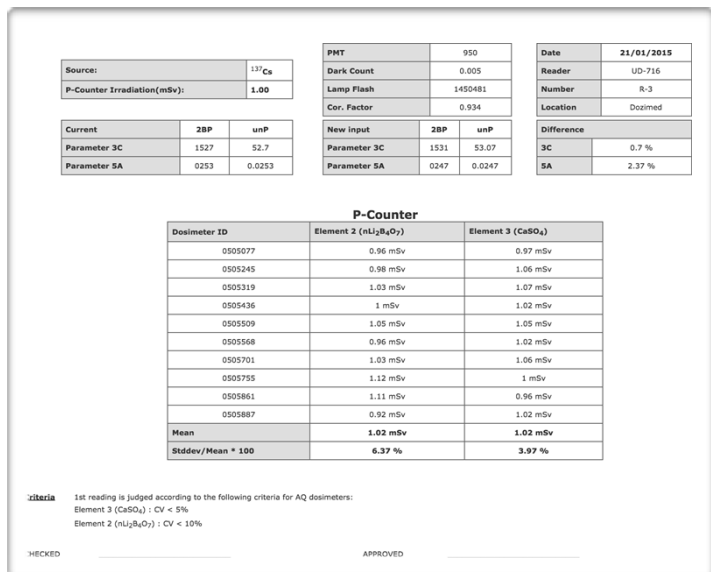
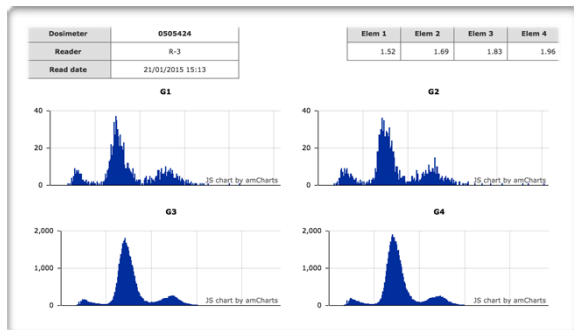
- **Dosimetry details at customer level** - measurement types, activity field, types of radiation exposure.

➕ Add personnel

Person name	CNP	Added by	Add date	Exposed to	Status
BUCHI OCTAVIAN	15:0319400051	Margareta Cherestes	10/12/2014	Gamma/Neutrons/	✓
COMAN RAZVAN VALENTIN	18:0529460063	Margareta Cherestes	10/12/2014	Gamma/Neutrons/	✓
CUCIUREAN CEZAR	17:0620333319	Margareta Cherestes	10/12/2014	Gamma/Neutrons/	✓
IONITA ALEXANDRU	15:0428400121	Margareta Cherestes	10/12/2014	Gamma/Neutrons/	✓
MARIN FLORIN	17:0818173163	Margareta Cherestes	10/12/2014	Gamma/Neutrons/	✓
MIHAI LAURIAN	15:0905400223	Margareta Cherestes	10/12/2014	Gamma/Neutrons/	✓
PODOLEANU PETRE CALIN	16:1023123141	Margareta Cherestes	10/12/2014	Gamma/X	✓
STEFAN IULIAN	16:0523221160	Margareta Cherestes	10/12/2014	Gamma/Neutrons/	✓

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Export options: [Excel](#)

- **Dosimeter assignments** - automatic, based on client dosimetry details, manual for special cases.
- **Dose calculation** - automatic dose calculation using parameterized algorithms or manual dose input; dose assignments to monitored subjects.
- **ECF** (for suitable TLD systems) - manage the workflow and necessary calculations; store and use ECF in dose algorithms; warn on ECF expiry.



- **System sanity checks** - automation of hardware checks and parameters settings; restrictions on the use of systems depending on check results.
- **Dosimetric reports** - available for clients and authorities in PDF/ Excel formats.

- **Audit trail for all operations** - user/date information is saved for all system actions.
- **Web-based client module** - provide clients with direct access to reports and statistics.

## DOSITRACKER software architecture

DOSITRACKER is built aiming for high levels of scalability, security and performance. Software architecture and deployment infrastructure is based on the latest Oracle technology.

- web application developed with **Java® Enterprise Edition** with **JSP/JSTL** front-end. **Bootstrap** responsive layout with **Jquery** plugins.
- database schema and PL/SQL module on **Oracle® 11g Express Edition**.
- **Oracle's GlassFish® 4.1 J2EE** application server.
- **Python** module for serial data acquisition.

DOSITRACKER is based on high-end technology, however there are no licensing costs for a small/medium setup.

Oracle 11g Express Edition is a free version of Oracle Database. For the task at hand it is a good fit, allowing for tens of millions of records and providing all of the relevant Oracle features present in Enterprise or Standard Edition. For growing setups it is always possible to migrate to a fully licensed Oracle version with no changes in code - 100% upward compatibility.

Glassfish application server is a no cost solution offered by Oracle on a dual license CDDL/ GNU.

J2EE and Python are free to use.

## DOSITRACKER implementations

DOSITRACKER is currently used in the biggest Romanian laboratory - DOZIMED S.R.L.

It manages over 11.000 measurements per month of various types - whole-body, extremities, crystallin, environment, workplace.

DOZIMED S.R.L. currently has in place three different dosimetric systems - Panasonic TLD, Harshaw TLD and Film.

## CONTACT US

<http://www.dositracker.com>

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