

## 1 Personal Data

- Josep Sanz Campderrós.
- Born in Barcelona on December 7, 1976.
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## 2 Academic training

- Computer Engineer (UPC).
- Degree of Computer Applications Development.
- Technician in Telecommunications Electronics.

## 3 Other courses and seminars

- AutoCAD basic course
- Driving license B1
- Seminar on computer network security
- Distributed Java Programming with CORBA
- ALTERA's FPGA Seminar
- Seminar Echelon - LonWorks
- Law enforcement Seminar on Data Protection (Spanish LOPD).

## 4 Other data of interest

- Throughout my professional career, I have almost always carried out R+D+i tasks (Research, Development and Innovation).
- In the Wide Spectrum Software Solutions business project, I directed the [SaltOS](#) and [RhinOS](#) projects, as well as their release under the GPL-3.0 license, currently I continue developing on these projects.
- I have been a member of the board of directors of CatPL, the association of Catalan Free Software Companies, and I have given talks on free software.
- I have worked in research environments such as the Institute of Space Studies of Catalonia and the Technical University of Catalonia at Dept. of Applied Physics.
- In the last years I have carried out tasks of optimization and automation of processes in the logistics sector, using algorithms such as STRIPS and languages such as PDDL.

- I have published a repository at [github.com/josepsanzcamp/gralla](https://github.com/josepsanzcamp/gralla) with a web of scores and audios for gralla at [gralla.josepsanz.net](http://gralla.josepsanz.net)
- I have also contributed to free software projects such as phpMyAdmin, Mroonga, MuseScore, PHP, jQuery-UI, jquery-timepicker, TCPDF, WarnockPDF, root-ro, handsontable, masonry, hhvm, jGrowl, sqlite-for-piwik, webapp-xul-wrapper, php-osx, jsmin-php, jquery-grab-bag, pdf.js, Columnizer-jQuery-Plugin

## 5 Key words

- Operating systems: GNU/Linux, Unix Solaris, HP-UX, Slackware, Centos, Debian, Ubuntu, RedHat, Fedora, LAMP, Microsoft, Raspbian
- Databases: MySQL, PostgreSQL, Oracle, SQLServer, MariaDB
- Services: Samba, Apache, FTP, HTTP, SSH, Crontab
- Programming: Visual Basic, Visual C++, C, GTK, PHP, TCSH, TCL/TK, Latex, Embedded Visual C++, Shell Scripts, Python, C++, .NET, XSLT, ANSI C, MONO, WEB, HTML, JavaScript, CSS, Ajax
- Programs: Wordpress, EzPublish, VLC, Snort, GIS, Adobe OnSiteView, TomTom, JQuery-UI, Bootstrap, TinyMCE, CKEditor
- Embedded: PLC, FPGA, Altera, TETRA, PDA, NIOS, Xilinx, MicroBlaze, LEON3, Firmware, Raspberry PI, RTOS
- Projects: SaltOS, RhinOS, OpenROCS
- Licenses: GPL, MIT, BSD, Open Source, Free Software
- Logistics: CitasWEB, Maps, Rutas, Transfers, Tracking, Última milla, Entregas, Logística inversa, Recogidas, B2B, B2C, C2C, Orders, Parcels, IA, Call Center, ERP, CMS, OCR, QR, Codebar
- Protocols: TCP/IP, UDP/IP, SSL, WebService, REST, SNMP, NMEA, RFID, DMA, SOAP, DHCP, API, SMS, Email
- Integration: CSV, Excel, XML, Bytes, EDI, PDF, JPEG, TIFF, XML, RSS, ATOM, JSON
- Technologies: Bluetooth, GPS, Ethernet, GRPS, WIFI, RS232
- Quality: Unit test, Validation test, Cantata, Bazaar, Subversion, Git, phpcs, phpunit, phplloc, phpmnd, phpdoc
- Astronomy: Vaisala, INDI, Rain detector, Previstorm, Cloud Sensor, Davis Weather Station, PbCd-Comm, XmCCD, IndiCCD, Andor, Finger Lakes Instruments, APOGEE, APC, ROS, SBIG, Meade Telescope, Baader Dome, Allsky
- Others: Reports, Real Time, Oscilloscope, LOPD, Frontend, Backend, Parser, MVC, Mailing, Online, E-Learning, SDK, Auditoria, DoS

## 6 Professional experience

### 6.1 Independent professional (Since 2022)

Developments for GNU/Linux and evolutives in the SaltOS and RhinOS projects:

- RhinOS and SaltOS evolutions to run on PHP 8.2 + third-party library updates.

- Development of the new SaltOS v4 framework, the improvements compared to the previous version are the following: backend developed in PHP and frontend developed in JavaScript, the communication between the layers is done through the new API based on SaltOS REST and JSON requests.
- Migration of SaltOS Server from CentOS 7 to Debian 11.

## 6.2 AB Custom Transports & Logistics, S.L. (2019-2022)

Developments for GNU/Linux environments and integration of SaltOS in all business areas:

- Route optimization using AI and online appointment automation.
- Integration of SaltOS in all the business areas of the company.
- SaltOS connection with the company's old ERP (SQLServer).
- Documentation recognition systems using OCR, bar codes and QR codes.
- Automation of processes using embedded systems based on Raspberry PI.

## 6.3 Institute of Space Studies of Catalonia (2011-2019)

Developments for GNU/Linux environments to control robotic telescopes:

- Development of OpenROCS 2.0 (GPL-3.0 license), control software used by the TJO and SQT telescopes.
- Development of the [www.oadm.cat](http://www.oadm.cat) for the divulgation of the TJO telescope, the [www.ice.csic.es](http://www.ice.csic.es) for the ICE and the [www.ieec.cat](http://www.ieec.cat) for the IEEC.
- Development of the MUR application: an online software for sending astronomical proposals.
- Fork of the IndiCCD project to allow the control of multiple Andor cameras.
- User interface and control system for the SQT telescope, the Allsky camera and the IEEC-CSIC telescope.

## 6.4 Wide Spectrum Software Solutions (2007-2011 in R+D Dept.)

Developments for GNU/Linux, MONO, Firmware, PDAs and web environments:

- Development of the SaltOS and RhinOS projects released under the GPL-3.0 license.
- Project for the NTE/ESA to do some parts of the unit-test of the LISA Pathfinder project.
- Project for the IEEC to make improvements in the GOLD-RTR project (v2 and v3).
- Multiple web projects (portals and online shops) to different customers.

## 6.5 Enfasystem (2006-2007 in R+D Dept.)

Developments for WEB using LAMP environments (Linux+Apache+MySQL+PHP):

- Improvement of the 'admin' control panel
- Development of the 'mecano' project
- Development of the DBMailer project

- Several collaborations with IEEC for the PARIS and GOLD-RTR projects

## **6.6 Information Engineering, IN2 (2005-2006 as team's chief)**

Software development for GNU/Linux and Windows CE.

- Use of security tools like Snort.
- Programming of mobile devices using EVC++ 3.0 for PDA devices
- Programming in C, PHP, .NET
- Use of DBMS such as MySQL, ORACLE

## **6.7 Institute of Space Studies of Catalonia (2001-2005)**

Development of software for UNIX environments.

- Design and implementation of hardware and drivers.
- Planning and implementation of software for various projects.
- Programming in C with GTK, Tcl/Tk on Unix tcsh.

## **6.8 Universitat Politècnica de Catalunya, Dept. of Applied Physics (1999-2001)**

Administration of Unix Systems and Microsoft Windows

- Implementation of network security systems (SSL)
- Security audits for the computer systems of the department
- Software development and maintenance of the department's intranet
- Software development for the Generalitat de Catalunya (SIGMA and NivAval)
- Collaborations with the WAFAE association.
- Support to users, and so on.

## **6.9 INCOSE, ingeniería de contrataciones y servicios (1997-1999)**

Installation and maintenance of industrial equipment.

- Programming of PLC's for industrial applications.
- Installation of electrical boards and waste treatment systems.

## **6.10 GESTHOS, gestión técnica hospitalaria (1996-1997)**

Assembly and maintenance of electromedical equipment.

- Repair of medical equipment.
- Specification and implementation of equipment for technical tests.