The European Organisation for Astronomical Research in the Southern Hemisphere (ESO) is the foremost intergovernmental astronomy organisation in Europe and the world’s most productive ground-based astronomical observatory. ESO carries out an ambitious programme focused on the design, construction and operation of powerful ground-based observing facilities enabling astronomers to make important scientific discoveries.

ESO operates three unique world-class observing sites in northern Chile: La Silla, Paranal and Chajnantor (home to ALMA and APEX), and the ESO Headquarters are located in Garching, near Munich, Germany.

At Paranal, ESO operates the Very Large Telescope, the world’s most advanced visible-light astronomical observatory. ESO is a major partner in ALMA, the largest astronomical project in existence. And on Cerro Armazones, ESO is building the 39-metre Extremely Large Telescope (ELT), which will become “the world’s biggest eye on the sky” and whose operations will be fully integrated into the Paranal Observatory.

For its Science Operations Software Department (SCS), within the Directorate of Engineering (DoE) at its Headquarters in Garching, near Munich, Germany, ESO is advertising the position of

**Software Development Engineer in Test**

We are looking for a software engineer to join our Software Engineering and Quality group in the Science Operations Software (SCS) department of the Directorate of Engineering. The Software Engineering and Quality Group (SCSEQ) provides the SCS development groups with software engineering services, including the provision of an environment and tools to define and support the software life cycle, Software Quality Assurance, and the management of the configuration control process.

**Main Duties and Responsibilities:**

Your primary assignment will be the verification and validation of a subset of the VLT/ELT Dataflow System (DFS) applications. Most of these client-server components are designed and developed using object-oriented technology and relational databases, running on Linux. You will analyse requirements for consistency, correctness, uniqueness, and testability. You will be responsible for defining, implementing and manually or automatically executing test cases to ensure that user requirements have been met and that the behaviour under abnormal or extreme conditions is acceptable. Test data will have to be defined and maintained, test plans written and reviewed within the project teams, and test reports produced, according to DFS Software Quality Assurance standards. Finally, you will contribute to the Data Flow System application support activities, software configuration management issues, and to the continuous improvement of SCSEQ’s test methodology and process.

**Reports to:**

Head of the Software Engineering and Quality Group.
Key Competence and Experience

Essential:

- Experience in testing and integration of complex distributed software applications running on UNIX platforms is required, including the testing of APIs, and Web or desktop GUI applications.
- Knowledge of standard test design techniques and inspection methods.
- Proven track record of coding automated tests.
- Experience with relational databases (Sybase, Oracle or equivalent).
- Proficiency with Java development and experience in Python, JavaScript or other scripting languages.
- Ability to take over responsibility, to take decisions, and to coordinate activities related to verification and testing.
- Experience with an agile, iterative, incremental development process, with periodic test cycles.
- Willingness to proactively improve the verification and test methodologies and their implementation.
- Capability to identify the key issues, examine options and propose the way ahead. Timely recognize critical issues and raise the attention of the concerned people.
- Demonstrated initiative in requirements consolidation.
- Flexibility in planning, setting and adjusting priorities in agreement with the supervisor and the stakeholders.
- Capability to provide clear, concise and timely oral and written communications.
- Self-discipline in monitoring own progress and delivering to agreed deadlines and standards.
- Ability to work for different projects and with different teams in a matrix structure, also in parallel.
- Motivation, flexibility and capacity to learn quickly the existing system and the underlying problem domain.

Desirable:

- Proficiency in the development of functional, regression and performance test procedures.
- Experience with dedicated software testing tools (test drivers, capture replay, testing frameworks – specifically for testing web user interfaces) and software engineering tools (build and continuous integration systems).
- Experience with standard software engineering practices.
- ISTQB certification.

Qualifications:

University degree in computer science, electronic engineering, physics or equivalent.

Language Skills:

Excellent command of the English language.

Remuneration and Contract:

We offer an attractive remuneration package including a competitive salary (tax free), comprehensive pension scheme and medical, educational and other social benefits, as well as financial help in relocating your family and the possibility to place your child/children in daycare.
The contract is for a fixed term duration of three years, and is subject to successful completion of the probation period. There is a possibility of extension(s) subject to individual performance and organisational requirements, and as defined in the applicable policies and staff rules and regulations. For any further information, please visit ESO's conditions of employment. Please note that the contract policy and in particular the regulations concerning fixed-term and indefinite contracts are currently under review which may lead to changes in the contractual conditions applicable to the position.

**Duty Station:**

Garching near Munich, Germany with occasional duty trips to all ESO sites in Chile.

**Career Path:**

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**Application:**

If you are interested in working in areas of frontline science and technology and in a stimulating international environment, please visit [http://www.eso.org](http://www.eso.org) for further details.

Applicants are invited to apply online at [https://recruitment.eso.org](https://recruitment.eso.org). Applications must be completed in English and should include a motivation letter and CV. Within your CV, please provide the names and contact details of three persons familiar with your work and willing to provide a recommendation letter upon request. Referees will not be contacted without your prior consent.

**Deadline for applications is 29 February 2020**

Interviews are expected to start soon after this date.

No nationality is in principle excluded, however, recruitment preference will be given to nationals of Australia, Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Poland, Portugal, Spain, Sweden, Switzerland, the United Kingdom and Chile irrespective of gender, age, disability, sexual orientation, race or religion.