



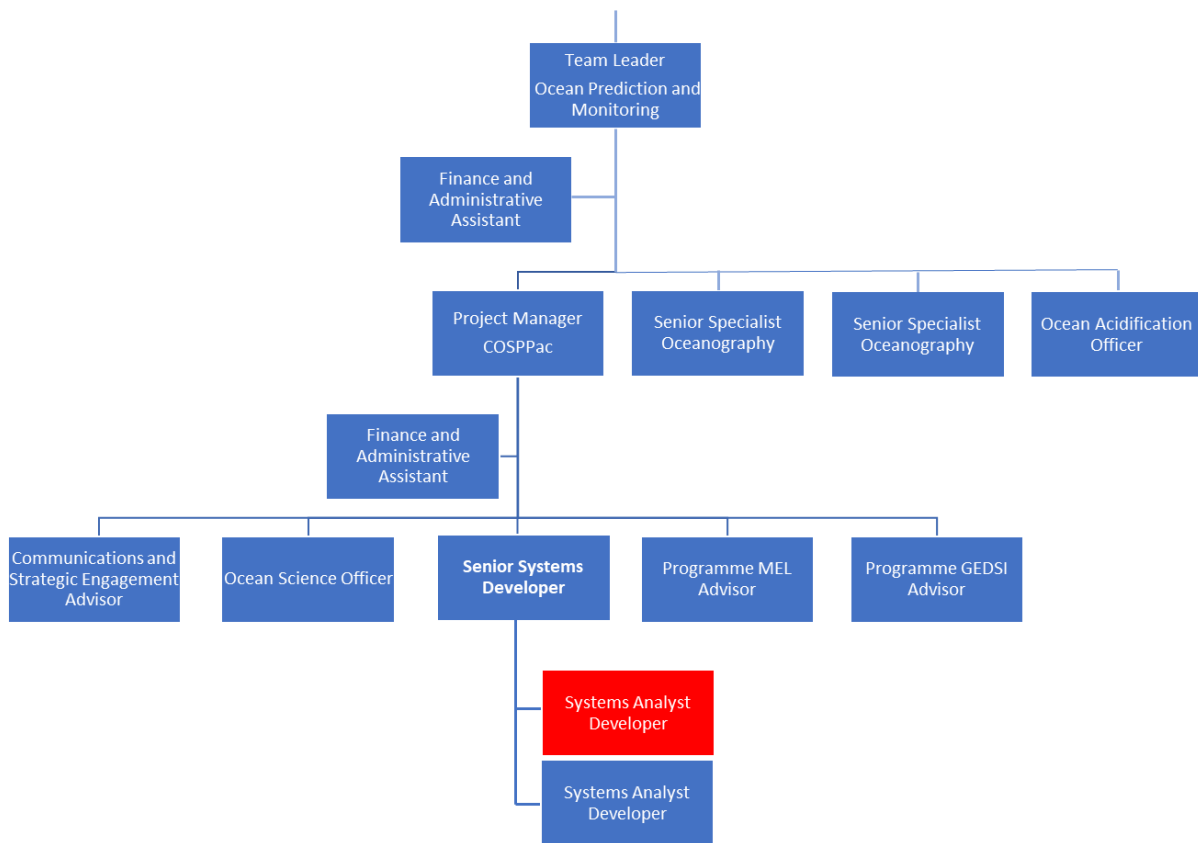
JOB DESCRIPTION

Job Title:	Systems Analyst Developer
Division/Programme:	Geoscience, Energy and Maritime (GEM) Division / Oceans and Maritime Programme (OMP)
Location:	Suva, Fiji
Reporting to:	Senior Systems Developer
Direct Reports:	Nil
Purpose of Role:	The OMP is developing several cutting-edge web-based, desktop and mobile device systems and tools to visualise and analyse ocean and hazard risk information in support of in-country decision making processes. The position is a software analyst and engineering position, reporting to the Senior System Developer within the Geoscience Energy and Maritime (GEM) Division. The position is responsible for designing, developing, upgrading and maintaining science-based open-source decision support tools and platforms, as well as supporting OMP's geospatial and time series data management and scientific computing facility.
Date:	July 2024

Organisational Context and Organisation Chart

The GEM Division has three work programme areas: Oceans and Maritime (OMP), Energy and Georesources and Disaster and Community Resilience. Its services to SPC's members include assessments of the potential of ocean and onshore mineral resources, maritime boundary data collection, coastal protection and management, geo-hazard assessment, and strategic and technical advice and assistance in the areas of water and sanitation, disaster management and building community and environmental resilience including adaptation action to climate change and mapping and surveying (including GIS and remote sensing).

SPC is the Pacific Island region's principal technical and scientific organisation. It delivers technical, scientific, research, policy and training support to Pacific Island countries and territories in fisheries, agriculture, forestry, water and sanitation, geoscience, transport, energy, disaster risk management, public health, statistics, education, human rights, gender, youth and culture. For more information, visit www.spc.int



Key Result Areas (KRAs):

1. Design, development and life-cycle support of geospatial, planning and risk-based decision support tools, websites and systems.
2. Implementing sound data management and curation methodologies within oceans, hazards and risks space.
3. Information management, training and knowledge sharing for member countries.

The performance requirements of the Key Result Areas are broadly described below

Jobholder is accountable for	Jobholder is successful when
<p>KRA 1: Decision support systems (60%)</p> <ul style="list-style-type: none"> • Design, develop, document and maintain science-based open source decision support tools • Monitor performance and use of the system and continuously improve tools 	<ul style="list-style-type: none"> • Decision supporting tools developed are tailored to project and country needs • Decision supporting tools are maintained regularly and kept fully functional • System documentation is accessible and up to date. • Continuous improvements are identified, planned and implemented
<p>KRA 2: Data management (20%)</p> <ul style="list-style-type: none"> • Support geospatial and time series data management systems 	<ul style="list-style-type: none"> • Datasets are integrated into the Pacific Data Hub (PDH) • Data management processes are streamlined and adopted

<ul style="list-style-type: none"> • Enable holistic data dissemination and facilitate open access to information and data • Support Linux-based high end scientific computing facility 	<ul style="list-style-type: none"> • Systems, databases, portals and registers are monitored and use-cases are documented • Linux-based systems are working efficiently, and software packages are optimally compiled and functional • Linux user are advised on optimised and tailored solutions to increase work efficiency • Support development and review of Linux based tools and utilities (Bash Scripting, Python, C/C++ Compilation, GPU/Cuda-oriented task-flows) • Monitoring data are analysed and reports are submitted
<p>KRA 3: Capacity building (20%)</p> <ul style="list-style-type: none"> • Train national staff in the use of ocean data • Share knowledge and provide assistance for bespoke applications • Fulfil requests by partners and member countries 	<ul style="list-style-type: none"> • Training workshops are conducted and supported • Contributions to regional meetings and reports are made • Countries have a high level of support for requests of applications and use of data • Applications and requests are documented in support of continuous learning and training

The above performance requirements are provided as a guide only. The precise performance measures for this job will need further discussion between the jobholder and supervisor as part of the performance development process.

Most Challenging Duties Typically Undertaken (Complexity):

<ul style="list-style-type: none"> • Engaging with diverse technical and non-technical stakeholders across GEM programmes and PICTs projects • Understanding the core needs and requirements of technical work programmes and delivering appropriately • Organising and conducting workshops and training to participants with diverse skill sets • Maintaining operational systems in member countries

Functional Relationships & Relationship Skills:

Key internal and/or external contacts	Nature of the contact most typical
<p>External</p> <p>Key external contacts are:</p> <ul style="list-style-type: none"> • PICTs project partners • International and regional scientific and technical partners • Crop agencies 	<ul style="list-style-type: none"> • Requirements gathering • Systems design and analysis of existing platforms • Enforcing data management practices and recommendations • Capacity building • Remote and on-site support

<ul style="list-style-type: none"> • PICTs ministries e.g.: Lands, Environment, NDMO and Climate Change, Met Offices 	<ul style="list-style-type: none"> • Presenting at regional and international science and technology conferences
<p>Internal</p> <p>Key internal contacts are:</p> <ul style="list-style-type: none"> • Senior System Developer • Ocean Prediction and Monitoring team • COSPPac manager and Team • Team Leader Disaster Risk and Team • Manager PDH and Team • PCCOS head and team 	<ul style="list-style-type: none"> • Requirements and needs assessments • Collaborating in systems design, development and maintenance • Progress and formal reporting • Support development strategy of tools and systems

Level of Delegation:

Routine Expenditure Budget: 0

Budget Sign off Authority without requiring approval from direct supervisor: 0

Personal Specification:

This section is designed to capture the expertise required for the role at the 100% fully effective level. (This does not necessarily reflect what the current position holder has.) This may be a combination of knowledge / experience, qualifications or equivalent level of learning through experience or key skills, attributes or job specific competencies.

Qualifications

Essential:	Desirable:
<ul style="list-style-type: none"> • Tertiary degree in information technology or related field 	<ul style="list-style-type: none"> • Qualification in developing science based open-source solutions (web, mobile, desktop based)

Knowledge/Experience

Essential:	Desirable:
<ul style="list-style-type: none"> • At least 3 years of experience in systems and tool development • Proven programming skills in multiple languages including Python • Strong understanding of Git/GitHub • Experience in working with the client to get their information system requirements • Good communication skills • Ability to work and travel in a multicultural and multilingual environment • Good knowledge of networking, computing hardware and Linux operating systems 	<ul style="list-style-type: none"> • QGIS plugin development (PyQGIS, PYQT) • Working knowledge of C/C++/Fortran and MatLab • Advance-level QGIS experience • Understanding of GIS concepts and methodologies • Cross-platform mobile application development • Offline tool and utilities development for data processing and analytics • Web-based tool development • Experience with using docker • Experience with cloud computing

Key Skills/Attributes/Job Specific Competencies

The following levels would typically be expected for the 100% fully effective level:

Expert level	<ul style="list-style-type: none"> • Development of tools and systems • Enabling large-scale data processing and analysis
Advanced level	<ul style="list-style-type: none"> • Unix/Linux Environment • Git source control management and collaboration
Working knowledge	<ul style="list-style-type: none"> • Data management, system analysis and capacity building • Cloud-based infrastructure management
Awareness	<ul style="list-style-type: none"> • Familiarity with regional challenges at a technical and decision-making level. • Regional ICT needs and requirements

Key Behaviours

*All employees are measured against the following **Key Behaviours** as part of Performance Development:*

- Change and Innovation
- Interpersonal Skills
- Teamwork
- Promotion of Equity and Equality
- Judgement

Personal Attributes

- High level of professional integrity and ethics
- Friendly demeanor
- Demonstrated high level commitment to customer service

Change to Job Description:

From time to time it may be necessary to consider changes in the job description in response to the changing nature of the work environment – including technological requirements or statutory changes. Such change may be initiated as necessary by SPC. This Job Description may also be reviewed as part of the preparation for performance planning for the annual performance cycle.