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## 2.2 USER CATALOGUE

The User Catalogue below describes the major and direct related duties and responsibilities of the administrative and operational staff (except the directorate grade staff) for the proposed Digital Map and Land Record Data Dissemination System (DDS) of the Land Information Centre (LIC) and for the Building, Lot and Road Centreline Common Spatial Unit (CSU) Dissemination, Manipulation and Provision within the Survey and Mapping Office (SMO) of Lands Department (LandsD).

In the context of DAM, LandsD plays the roles of Data Agent, Data Owner and Data User in each of the 3 CSUs.

Job Category	Major Duties and Responsibilities
Senior Land Surveyor (SLS) (Land)	<ol style="list-style-type: none"> <li>1. Carry out all types of title surveys, mapping and miscellaneous surveys within the sub-division</li> <li>2. In charge of the Survey Record Section, the Title Survey Section, the Topo Survey Section, the Air Survey Section, the Geodetic Survey Section, the Land Information Centre and the General Registry</li> <li>3. Liaise with senior officers of Lands Administration Office on all survey matters relating to land sales, resumption, surrender and government land allocation</li> <li>4. Deploy staff within sub-division</li> <li>5. Prepare estimates of equipment and staff requirements</li> <li>6. Responsible for the efficient and effective operation of all survey activities</li> <li>7. Ensure uniformity of the various survey activities, calculation and plan preparation</li> <li>8. Ensure that a good management/staff relation is maintained</li> <li>9. Responsible to Chief Land Surveyor and Government Land Surveyor for formulating staff development and office development programmes with a view to improve the performance of the whole Branch</li> <li>10. Supervise the work of all staff in the corresponding section</li> <li>11. Supervise and conduct marketing activities</li> <li>12. Monitor the production program, quality, resources and research on future development</li> <li>13. Analyse the sales, orders and requests statistics for digital map data dissemination and produce marketing strategic plan to meet the demands for digital map data from other Government departments, private sector and general public</li> <li>14. Review pricing structure of digital map products, copyrights, management of business partners and digital map resellers</li> </ol>

Job Category	Major Duties and Responsibilities
	15. Prepare and execute a license agreement, when applicable
Land Surveyor (LS) (Land)	<ol style="list-style-type: none"> <li>1. Responsible for the establishment and maintenance of the Hong Kong Geodetic System, the definition of all land boundaries, the maintenance of land records and surveys for mapping and charting of Hong Kong</li> <li>2. For Geodetic Surveying                         <ul style="list-style-type: none"> <li>• Provide and maintain horizontal and vertical survey control which provides the framework for all land and engineering surveying work, and all topographical mapping in Hong Kong</li> </ul> </li> <li>3. For Title Surveying                         <ul style="list-style-type: none"> <li>• Undertake Title (or Boundary) surveys to define or re-define all land boundaries for the purpose of Sale, Grant, Lease, Surrender, or for any other purposes of land in Hong Kong</li> <li>• Survey Village House Lots in the New Territories</li> <li>• Maintain a complete and up to date record of all land parcels</li> <li>• Check all Land Proposal Plans prior to submission to Land Conference</li> <li>• Implement town planning proposals and road widening schemes by interpretation of the intention of relevant control plans</li> <li>• Check major public works to ensure that they do not encroach on to private land or land allocated for other purposes</li> <li>• Prepare all plans/maps for Land Conference, Land auction/sale etc.</li> <li>• Prepare all maps/plans associated with any legislative process</li> </ul> </li> <li>4. For Topographical Surveying                         <ul style="list-style-type: none"> <li>• Initiate or supervise topographical surveys for mapping purposes, or for the preparation of site surveys of development areas</li> </ul> </li> <li>5. For Air Survey and Photogrammetry                         <ul style="list-style-type: none"> <li>• Provide aerial photography for mapping purposes, and for engineering project design work</li> <li>• Provide photogrammetric plotting for the production of maps and plans and for the volumetric calculation of quarries and reservoirs, and to meet other environmental study requirements</li> </ul> </li> <li>6. For Land Information Centre                         <ul style="list-style-type: none"> <li>• Collect data for, and monitor the operation of the Computerized Land Information System (CLIS)</li> <li>• Foster the use of computer technology, and promote the application of modern survey equipment</li> <li>• Administer and control all the mapping and</li> </ul> </li> </ol>

Job Category	Major Duties and Responsibilities
	<p>computer system, including all hardware, software, networking, peripheral and the associated supplies</p> <ul style="list-style-type: none"> <li>• Draft technical instructions, formal training courses program and materials</li> <li>• Train survey technicians, and supervise in the professional development of Land Surveyor trainees</li> <li>• Devise, draft, maintain and oversee quality control cartographic specifications, spatial and tabular databases for all standard map/plan/chart series</li> <li>• Provide technical advice and support to the corresponding section</li> <li>• Provide technical advice and support for subordinate staff and customers as requested</li> <li>• Assist the SLS in the efficient operation of map sale and information services</li> <li>• Analyse the volumetric statistics of mapping request from customers</li> <li>• Supervise the activities of sales and promotion of digital map</li> <li>• Manage the sale of digital map to private sector, general public, trading fund and autonomous organisations</li> <li>• Organise and conduct marketing activities</li> </ul>
Senior Cartographer	<ol style="list-style-type: none"> <li>1. Serve as Government's advisor on all cartographic and reprographic matters and assists formulation of mapping policy</li> <li>2. Co-ordinate cartographic and reprographic procedures, methods, equipment and materials in the cartographic offices of all departments and ensures that proper cartographic standards are maintained</li> <li>3. Provide technical advice and support to the Cartographic Group and corresponding section</li> <li>4. Advise on design and format of spatial database structure, cartographic visualisation, all maps and plans and encourages standardisation of presentation and specification</li> <li>5. Monitor the production program, quality, resources and research on future development</li> <li>6. Organise public sale of maps and liaise with the Government Publications Centre to check the progress of sales and the demands from members of the public</li> <li>7. Recommend the copyright charges to be imposed on publishers in respect of the reproduction of maps and plans in publications</li> <li>8. Acquire data for and write general information, introductory notes, typical excursions etc. for guide, tourist and leisure maps</li> </ol>

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	<ol style="list-style-type: none"> <li>9. Organise the overall reprographic specialist service available to all government offices</li> <li>10. Organise staff posting and redeploy them as necessary in the light of workload commitments and staff distributions of the various divisions and sections</li> </ol>
Cartographer	<ol style="list-style-type: none"> <li>1. Implement and assist in the formulation of policy on the production of maps, plans and charts</li> <li>2. Administer and control all the mapping and LIS computer system, including all hardware, software, networking, peripheral and the associated supplies</li> <li>3. Devise, draft, maintain and oversee quality control of cartographic specifications, spatial and tabular databases for all standard map/plan/chart series</li> <li>4. Devise and initiate graphic presentations for special map products, exhibits and other graphic media as requested</li> <li>5. Vet and approve all colour map printing</li> <li>6. Devise and evaluate new cartographic and reprographic methodology, techniques, material, equipment, computer hardware and software</li> <li>7. Draft technical instructions, formal training courses program and materials</li> <li>8. Compile, moderate and mark examination papers for promotion/recruitment examinations</li> <li>9. Assist Senior Cartographer in copyright matters, map sales, gazetting of street names</li> <li>10. Monitor the main map sales centres and liaise with the Government Publications Centre and other book stores on supply and demand of mapping products</li> <li>11. Provide technical advice and support for subordinate, seconded staff and other government departments as requested</li> <li>12. Monitor the progress of work in various cartographic units</li> </ol>
Principal Technical Officer (PTO) (Cartographic)	<ol style="list-style-type: none"> <li>1. Accept all carto/repro work from whatever source, assess the requirement and allocate to the relevant section with instructions as necessary for prompt production</li> <li>2. Organise the preparation of basic land record sheets according to current policy and ensure they are accurate, up-to-date and unambiguous</li> <li>3. Act as production manager and CIS manager</li> <li>4. Supervise the maintenance of the computer system</li> <li>5. Oversee the utilisation of disk storage and backup graphic files</li> <li>6. Undertake overall quality control of the computerised plan products</li> <li>7. Assist in designing new mapping series and devise production procedures</li> </ol>

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	<ol style="list-style-type: none"> <li>8. Assist in drafting mapping specifications for standard map series</li> <li>9. Draft estimates for materials and equipment and assist in preparing draft specifications for special expenditure items</li> <li>10. Assist in the administration of Map Sales and Distribution and liaise with Government Publication Centre</li> </ol>
<p>Senior Technical Officer (STO) (Cartographic)</p>	<ol style="list-style-type: none"> <li>1. Design for routine maps, plans, indexes and progress charts</li> <li>2. Maintain maps and plans production schedules and records</li> <li>3. Supervise the operation of the computer system for input and output of graphical data and the performance of plan production</li> <li>4. Maintain the conversion quality of graphical data to the computer system and the production of computerised plan products</li> <li>5. Ensure completeness and accuracy of all records in plan and documentary form</li> <li>6. Supervise the sales and distribution of maps, plans and air photographs</li> <li>7. Provide information on availability and content of maps and plans and SMO photo-repro services to officials and public</li> <li>8. Undertake experiments and trial for new products and in new methods of image presentation</li> <li>9. Design organisational and miscellaneous charts</li> <li>10. Support enquiry for other Government departments in using the digital map data</li> <li>11. Assist in organising various marketing activities</li> <li>12. Maintain the data conversion program</li> <li>13. Support technical enquiry in using the digital map data</li> <li>14. Maintenance of inventory of hardware, software and manuals</li> <li>15. Monitor the process of uploading the updated digital map data from DSO to LIC</li> <li>16. Maintain the Customer Profile and Sales Database and updating of publicity materials</li> <li>17. Handling of enquiries from customers and compiling of monthly workload reports</li> <li>18. Conduct quality control of the DSO digital map data before store in the central mapping library of LIC</li> <li>19. Monitor and checking of data return from Government departments, business partners, Value Added Resellers (VARs), map resellers, Internet Map Permittees, general public and academics</li> </ol>
<p>Technical Officer</p>	<ol style="list-style-type: none"> <li>1. Draw, scribe or digitise map details and contours to strict</li> </ol>

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(TO) (Cartographic)	<p>specifications</p> <ol style="list-style-type: none"> <li>2. Prepare index and progress charts for various maps, plans and photographs</li> <li>3. Extract data from engineering/architectural/town planning drawings for plan preparation</li> <li>4. Operate computer system for input of graphic and textual data into the LIS and Mapping Databases</li> <li>5. Produce plots and reports of land information from the computer output devices according to instructions</li> <li>6. Write computer programmes to facilitate processing in the Mapping System and LIS</li> <li>7. Carry out user maintenance of computer equipment and updating of manuals assigned under guidance</li> <li>8. Carry out pre-processing of data before input</li> <li>9. Prepare digital data for other Government departments</li> <li>10. Advise public and officials at Sales Counter, and by telephone, on availability, usage and cost of maps, plans and air photographs</li> <li>11. Keep relevant accounts of map sales transactions, make out bills, accept payments including cash and assist with all Sales and Distribution work</li> <li>12. Operate CAD system for the production of 3D plans/maps for planning/architectural/landscaping analysis</li> <li>13. Undertake data conversion for the master set data format in CLIS to the commonly used data formats</li> <li>14. Maintain the data conversion program and data dictionaries</li> <li>15. Extract and store the requested digital map data into user requested media</li> <li>16. Update the content of Surveying and Mapping Office (SMO) homepage on Internet</li> <li>17. Support technical enquiry in using the digital map data</li> <li>18. Assist in carrying out various marketing activities and customer support services</li> <li>19. Support for Chinese fonts and respectively internal codes</li> <li>20. Maintenance of inventory of hardware, software and manuals</li> <li>21. Maintain and monitor the process of uploading the updated digital map data from DSO to LIC</li> <li>22. Conduct quality control of the DSO digital map data before store in the central mapping library of LIC</li> <li>23. Process mapping data collected from Government departments, business partners, VARs, map resellers, Internet Map Permittees, general public and academics</li> <li>24. Conduct sampling testing for the converted data before storage in the requested media</li> </ol>

Job Category	Major Duties and Responsibilities
General Grade Staff (ACO, CA and M.O.)	<ol style="list-style-type: none"> <li>1. Undertake administrative work for mapping request from private sector and general public</li> <li>2. Support general clerical duties which include receive and dispatch of mailing and documents, records keeping, filing and word processing</li> <li>3. Maintain and update the customer database; prepare and update the digital map user license and agreement</li> <li>4. Liaise with accounts office for payment arrangement</li> <li>5. Support general enquiry about ordering digital map</li> <li>6. Assist in carrying out marketing activities</li> </ol>
DAM Manager	<ol style="list-style-type: none"> <li>1. Oversee the implementation of DAM and the future DAF</li> <li>2. Enforce the specification of CSU</li> <li>3. Assign and maintain CSU IDs</li> <li>4. Administer dataset ownership</li> <li>5. Liaise with bureau and PDs in all matters relating to DAM</li> <li>6. Ensure the requirements in respect of data privacy, security and confidentiality are conformed</li> </ol>
DAM Coordinator	<ol style="list-style-type: none"> <li>1. Develop and maintain datasets that are shared with other PDs in the context of CSU</li> <li>2. Prepare the relevant CSU data (under their ownership jurisdiction) to the CSU specification</li> <li>3. Ensure the completeness and accuracy of its datasets</li> <li>4. Make the CSU data timely available for sharing</li> <li>5. Respond to Data Owners/Data Users requests for enquiries on features</li> <li>6. Ensure that the data obtained from the respective Data Owners through the Data Agent is for the purpose stipulated in the license agreement</li> </ol>