

APPENDIX: GLOSSARIES AND ACRONYMS

GLOSSARIES

Extensive glossaries of GIS terminology can be found at the following sources:

Books

Arlinghaus S L 1994 *Practical handbook of digital mapping terms and concepts*. Boca Raton, CRC Press
 Burrough P A, McDonnell R A 1998 *Principles of geographical information systems*, 2nd edition. Oxford, Oxford University Press
 Clarke K C 1997 *Getting started with geographic information systems*. Upper Saddle River, Prentice-Hall
 DeMers M N 1996 *Fundamentals of geographic information systems*. New York, John Wiley & Sons Inc.
 McDonnell R A, Kemp K 1995 *International GIS dictionary*. Cambridge (UK), GeoInformation International
 Padmanbhan G, Leipnik M R, Yoon J 1992 *A glossary of GIS terminology*. NCGIA Technical Papers Series 92–13, Santa Barbara, NCGIA
 Worboys M F 1995 *GIS: a computing perspective*. London, Taylor and Francis

World Wide Web sites

There is a huge range of online GIS glossaries, including:
<http://www.geo.ed.ac.uk/agidict/welcome.html>
<http://www.esri.com/base/users/glossary.glossary.html>
<http://www.lib.berkeley.edu/EART/abbrev.html>

ACRONYMS

AACR Anglo-American Cataloguing Rules
 AAG Association of American Cartographers
 ABS Australian Bureau of Statistics
 ACIC Automated Cartographic Information Center
 ACID Atomicity; Consistency; Isolation; Durability
 ACM Association of Computing Machinery
 ACMLA Association of Canadian Map Libraries and Archives
 ACSM American Congress on Surveying and Mapping

ADL Alexandria Digital Library
 ADT abstract data type
 AEC Australian Electoral Commission
 AGI Association for Geographic Information
 AGILE Association of Geographic Information Laboratories in Europe
 AGNPS agricultural non-point source
 AI artificial intelligence
 ALA American Library Association
 ALE Association Liègeoise d'Electricité
 AM/FM automated mapping/facilities management
 AML Arc Macro Language
 ANC African National Congress
 ANN artificial neural network
 ANSI American National Standards Institute
 ANZLIC Australia and New Zealand Land Information Council
 API application programming interface
 AR augmented-reality/arc routing
 ARMGS autonomous route management and guidance system
 ASAP All-hazard Situation Assessment Programme
 ASPRS American Society of Photogrammetry and Remote Sensing
 ATCS advanced travel conditions system
 ATKIS Amtliches Topographisch-Kartographisches Informations-system
 ATM asynchronous transfer mode
 ATOS advanced travel orientation system
 ATPS advanced trip planning system
 ATSR Along-Track Scanning Radiometer
 AUSLIG Australian Surveying and Land Information Group
 AVDS Automatic Vehicle Dispatch System
 AVHRR Advanced Very High Resolution Radiometer
 AVI automatic vehicle identification
 AVIRIS advanced visible and infrared imaging spectrometer
 AVLS automatic vehicle location system
 AVMS automatic vehicle monitoring system
 AVNS automatic vehicle navigation system

AZP	automated zone design problem	CI	computational intelligence
BCS	British Cartographic Society	CIS	Customer Information System
BEAR	base-wide environmental analysis and restoration	CLI	Canadian Libraries Initiative
BEV	Bundesamt für Eich- und Vermessungswesen (Austria)	CMLS	chemical movement through layered soils
BFKG	Bundesamt für Kartographie und Geodäsie	CNES	Centre National d'Etudes Spatiales
BIH	Bureau International de l'Heure	CNIG	Comité de l'Information Géographique
BLG	binary line generalisation (tree)	COBOL	common business-oriented language
BLPU	(British Standard) basic land and property unit	CODASYL	Conference on Data Systems and Language
BMDP	BioMedical Data Processor	COGO	coordinate geometry
BMS	Battlefield Management System	COM	common object model
BPI	bits per inch	CORBA	common object request broker architecture
BRDF	bidirectional reflectance distribution function	COTS	commercial-off-the-shelf
BSI	British Standards Institution	CPD	Central Postcode Directory
BSP	binary space partitioning	CPGIS	Chinese Professionals in GIS
BT	British Telecommunications	CPR	Continuing Property Records
CAD	computer-aided design	CPS	Collaborative Planning System
CADD	computer-aided design and drafting	CPU	central processing unit
CAG	Canadian Association of Cartographers	CRC	class, responsibilities, and collaborators
CAM	computer-aided mapping	CRESP	crisis and response prototype (NATO)
CAPDU	Canadian Association of Public Data Users	CRT	cathode ray tube
CARL	Canadian Association of Research Libraries	CSCW	computer-supported cooperative work
CASE	computer-assisted software engineering	CSEP	cumulative seasonal erosion potential
CBRED	Central Board for Real Estate Data (Sweden)	CSIR	Council for Scientific and Industrial Research (S Africa)
CCD	census collector district	CSIRO	Commonwealth Scientific and Industrial Research Organisation
CD-ROM	compact disk, read-only memory	CSR	complete spatial randomness
CDV	cartographic data visualiser	CTI	compound terrain index
CEM	comprehensive emergency management	C3I	command control and communication information
CEN	Comité Européen de Normalisation	CTS	conventional terrestrial reference system
CEOS	Committee on Earth Observation Systems	DBTG	database task group
CERCO	Comité Européen des Responsables de la Cartographie Officielle	DBMS	database management system
CGA	colour graphics adapter	DCDB	digital cadastral database
CGIA	California Geographic Information Association; also Center for Geographic Information and Analysis	DCM	digital cartographic model
CGIS	Canadian Geographic Information System	DCP	distributed computing platform
CHEST	Combined Higher Education Software Team	DCW	digital chart of the world
CHGIS	critical history of GIS	DED	district electoral division
		DEM	digital elevation model
		DEMON	digital elevation model networks
		DGIWG	Digital Geographic Information Working Group
		DGPS	differential global positioning system
		DIF	directory interchange format
		DIGEST	digital geographic information exchange standard

DIME	dual independent map encoding	FAO	Food and Agriculture Organisation (United Nations)
DLG	digital line graph	FDDI	fibre distributed data interface
DLI	Data Liberation Initiative	FDLP	Federal Deposit Library Program
DLL	dynamic link library	FEMA	Federal Emergency Management Agency (US)
DLM	digital landscape model	FEPD	Forum for Effective Planning and Development (S Africa)
DN	digital number	FGDC	Federal Geographic Data Committee (US)
DoD	Department of Defense (US)	FHWA	Federal Highway Administration
DOE	Department of Environment (UK)	FINDAR	facility for interrogating the National Directory of Australian Resources
DOP	dilution of precision	FIPS	Federal Information Processing Standard
DOS	disk operating system	FMV	fuzzy membership value
DOT	Department of Transportation	FOIA	Freedom of Information Act
DPI	dots per inch	FORTTRAN	formula translation
DPW	digital photogrammetric workstation	FRAMME	facilities rule-based application model management environment
DSP	depository services programme	GADS	geodata analysis and display system
DSS	decision support system	GAM	geographical analysis machines
DTM	digital terrain model	GAP-tree	generalised area partitioning
DXF	digital exchange format	GATT (1994)	General Agreement on Tariffs and Trade, 1994
EASD	Empowerment for African Sustainable Development	GBF/DIME	geographic base file/dual independent map encoding
ECDIS	electronic chart display	GCEM	geographical correlates exploration machine
ECU	European currency unit	GCM	global circulation model
ED	enumeration district	GCP	ground control point
EDA	exploratory data analysis	GDF	geographic data files
EDAMS	Electoral Distribution and Mapping System	GDIS	geodemographic information system
ED-50	European Datum 1950	GENIE	Global Environmental Network for Information Exchange (UK)
EDIS	economic development information system	GFS	geo-facilities information system
EEA	European economic area	GGI&S	Global Geospatial Information and Services
EGA	enhanced graphics adapter	GIC	geospatial information community
EIA	environmental impact assessment	GICC	Geographic Information Coordinating Council (North Carolina)
EIS	executive information system (European standards)	GILS	Government Information Locator Service
ENV	Earth observing system	GISDK	GIS developers kit
EOS	erosion productivity impact calculator	GISRUK	GIS Research UK
EPIC	erosion productivity impact calculator	GISy/GISc	subdivisions of GIS: systems/science
EPZ	emergency planning zone	GKS	graphics kernel system
ERA	entity–relationship–attribute	GLEAMS	groundwater loading effects of agricultural management systems
ERS	European resource satellites (of the European Space Agency and of Japan)	GLIS	global land information system
ERTS	Earth resources technology satellite		
ESDA	exploratory spatial data analysis		
ESRI	Environmental Systems Research Institute Inc.		
ESTDM	event-based spatio-temporal data model		
ETRS	European terrestrial reference system		
EU	European Union		
EUROGI	European Umbrella Organisation for Geographic Information		
FACC	feature and attribute coding catalogue		

GNU	Government of National Unity (South Africa)	IERS	International Earth Rotation Service
GOTS	government-off-the-shelf	IETF	Internet Engineering Task Force
GPAC	Government Performance Audit Committee (US, North Carolina)	IFLA	International Federation of Library Associations
GPO	Government Printing Office (US)	IFOV	instantaneous field-of-view
GPS	global positioning system	IGBP	International Geosphere Biosphere Programme
GRASP	greedy randomised adaptive search procedure	IGES	Initial Graphic Exchange Standard
GRASS	geographic resource analysis support system	IGN	Institut Géographique National
GRE	ground resolution element	IHO	International Hydrographic Organisation
GRIA	global regional interchange algorithm	Imap	intelligent mapping, accounting, and provisioning
GRIDS	geographic roadway information display system	IP	Internet Protocol
GRSA	GIS-relevant spatial analysis	IRMC	Information Resources Management Commission (US; formerly the Information technology Council)
GSDI	global spatial data infrastructure	ISBD	international standards for bibliographic description
GUI	graphical user interface	ISBN	international standard book number
GVD	generalised Voronoi diagram	ISDN	integrated services digital network
HARN	statewide high accuracy reference network	ISM	industry structure model
HAS	highway analysis system	ISO	International Standardisation Organisation
HCI	human computer interaction	ISPRS	International Society for Photogrammetry and Remote Sensing
HDT	hierarchical Delaunay triangulation	ITA	interactive territory assignment
HIPSS	health information for purchaser planning system	ITS	intelligent transportation system
HIRIS	High Resolution Imaging Spectrometer	ITU	International Telecommunications Union
HMD	head-mounted display	JERS	Japanese Earth Resources Satellite
HMLR	Her Majesty's Land Registry	KA	knowledge acquisition
HPC	high performance computing	KB	kilobyte
HPF	highly parallel FORTRAN	KBLIMS	knowledge-based land information management system
HRTF	head-related transfer functions	KHz	kilohertz
HRV	high resolution visible	LAI	leaf area index
HSR	hidden surface removal	LAN	local area network
HTML	hypertext markup language	LANDSAT	LAND resources assessment SATellite system (US)
http	hypertext transmission protocol	LAPC	Land and Agriculture Policy Centre
ICA	International Cartographic Association	LDBS	land data bank system
ICT	information and communication technology	LEACHM	leaching and chemistry estimation
IDGIS	interactive distributed geographical information system	LGMB	Local Government Management Board
IDNDR	International Decade for Natural Disaster Reduction	LIDARS	light detection and ranging system
IDW	inverse distance weighted interpolation	LIS	land information system
IEC	International Electrotechnical Commission	LISA	local indicators of spatial analysis
IEEE	Institute of Electrical and Electronics Engineers	LISS	linear imaging self-scanning system

LOD	level of detail management algorithm	NAPA	National Academy of Public Administration
LP	linear programming	NRSA	National Remote Sensing Agency
LP/IP	linear programming/integer programming	NASA	National Aeronautical and Space Administration (US)
LUNR	land use and natural resource inventory (State of New York)	NASDA	National Space Development Agency (Japan)
LWIR	long wavelength infrared	NATO	North Atlantic Treaty Organisation
MAGI	Maryland automated geographic information	NATSGO	national soil geographic database
MAN	metropolitan area network	NAVSTAR	navigation satellite timing and ranging system
MAP	map analysis package	NCGA	National Computer Graphics Association
MAPS	Montana agricultural potential system	NCGIA	National Center for Geographic Information and Analysis
MARBI	machine-readable bibliographic information	NCIH	North Carolina Information Highway
MARC	machine-readable cataloguing	NC-REN	North Carolina Research and Education Network
MAUP	modifiable areal unit problem	NCSA	National Centre for Supercomputing Applications
MB	megabyte, or mbyte	NDVI	normalised difference vegetation index
MBR	minimum bounding rectangle	NESPAL	National Environmentally Sound Production Agriculture Laboratory (US)
MBS	minimal bounding sphere	NFM	network flow model
MC&G	mapping, charting, and geodesy	NGDF	national geospatial data framework
MCE	multicriteria evaluation	NGS	National Geodetic Survey
MCNC	Microelectronics Center of North Carolina	NISO	National Information Standards Organisation (US)
MEL	Master Environmental Library	NLIS	national land information system
MERIS	medium resolution imaging spectrometer	NLS	National Land Survey
MESSR	multispectral self-scanning radiometer	NMA	National Mapping Agency
MHZ	megahertz	NMAS	national map accuracy standards
MIMD	multiple instruction, multiple data	NMCA	National Mapping and Cadastre Agency
MIPS	million instructions per second	NMO	National Mapping Organisation (Netherlands Standardisation Organisation)
MIS	management information system	NNI	National Nutrition and Social Development Programme (S Africa)
MISR	multi-angle imaging spectrometer	NNWG	Natal Nutrition Working Group
MIT	Massachusetts Institute of Technology	NOAA	National Oceanographic and Atmospheric Administration (US)
MLRA	major land resource area	NP-Hard	non-deterministic polynomial-hard
MODIS	moderate resolution imaging spectrometer	NPR	national performance review
MOPTT	Ministry of Post and Telecommunications (Saudi Arabia)	NRIS	national resource information system
MOS	marine observation satellite	NRSA	National Remote-Sensing Agency (India)
MPI	message passing interface	NSF	National Science Foundation (US)
MPO	multi product operations	NSDI	national spatial data infrastructure
MPP	massively parallel processor	NTF	national transfer format
MSC	Mapping Science Committee	OCLC	online computer library centre
MSR	Microwave Scanning Radiometer		
MSS	multispectral scanner		
MST	minimum spanning tree		
MVA	multiple view angle		
NAD-27	North American Datum 1927		
NAD-83	North American Datum 1983		
NAFTA	North American Free Trade Agreement		

ODMG	Object Database Management Group	PR	proportional representation
OECD	Organisation for Economic Cooperation and Development	PRN	pseudo random noise
OEEPE	(European Organisation for Experimental Photogrammetric Research)	PROM	programmable read-only memory
OGC	Open GIS Consortium	PSNP	primary school nutrition programme
OGDC	Office of Geographic Data Coordination	PSS	planning support system
OGIS	open geodata interoperability specification	PSTN	public standard telephone network
OGM	open geodata model	QA/QC	quality assurance/quality control
OHD	'off the head' display	QTM	quaternary triangular mesh
OID	object identifier	RAM	random access memory
OLE	object linking and embedding	RDBMS	relational database management system
OLE/COM	object linking and embedding/ component object model	RDP	Reconstruction and Development Programme (S Africa)
OMB	Office of Management and Budget (US)	RFP	request for proposals
OMG	Object Management Group	RICS	Royal Institution of Chartered Surveyors
OMT	object modelling technique	RIN	realtors information network
ONS	Office of National Statistics (UK)	RINEX	receiver independent exchange
OODB	object-oriented database	RMSE	root mean square error
OODBMS	object-oriented database management system	ROM	read-only memory
OOP	object-oriented programming	RS	remote sensing
OOPL	object-oriented programming language	RSG	regular square grid
OO2VD	ordered order-2 Voronoi diagram	RST	regulated spline with tension
OpenGIS	Open Geodata Interoperability Specification	RUSLE	revised universal soil loss equation
OPS	optical sensor	RVIS	reliability visualisation tool
ORNL	Oak Ridge National Laboratory	SA	selective availability
OS	operating system	SAIF	spatial archive and interchange format (Canadian)
OS (GB)	Ordnance Survey (Great Britain)	SAR	synthetic aperture radar
OS (NI)	Ordnance Survey (Northern Ireland)	SAS	statistical analysis system
OSM	OGIS Services Model	SBC	Santa Barbara climate
O2VD	order-2 Voronoi diagram	SCADA	supervisory control and data acquisition
OVD	ordinary Voronoi diagram	SCDF	spatial cumulative distribution function
OVP	ordinary Voronoi polygon	SDA	spatial data analysis
PACE	prediction and coverage estimation	SDE	spatial data engine
PAIS	Prototype Allied Command Europe Intelligence System	SDSS	spatial decision support system
PC	personal computer	SDTS	spatial data transfer standard
PCT	personal construct theory	SERDP	strategic environmental research and development program
POES	polar orbiting environmental satellite	SFWMD	South Florida Water Management District
POLDER	polarisation and directionality of the Earth's reflectances	SIGMOD	special interest group on the management of data
POST	Parliamentary Office for Science and Technology	SIMD	single instruction, multiple data
PPS	precise positioning service	SINES	spatial information enquiry service
		SLC	spatial location code
		SLM	structure line model
		SLOSH	sea, lake, and overland surge from hurricane

SLR	satellite laser ranging	UNDRO	Office of the United Nations Disaster Relief Coordinator
SMI	Strategic Mapping Incorporated	UN ECE	United Nations Economic Commission for Europe
SMMT	Society of Motor Manufacturers and Traders	UNESCO	United Nations Economic, Social, and Cultural Organisation
SMSA	standard metropolitan statistical area (US)	UNIDROIT	International Institute for the Unification of Private Law
SNR	signal-to-noise ratio	UNITAR	United Nations Institute for Training and Research
SOC	soil organic carbon	UPRN	unique property reference numbers
SOHO	small office/home office	URISA	Urban and Regional Information Systems Association
SoLIM	soil land inference model	URL	uniform resource locator
SPA	shortest path analysis	USBC	United States Bureau of Census
SPOT	Satellite Pour l'Observation de la Terre	USGS	United States Geological Survey
SPS	standard positioning service	USMARC	United States machine-readable cataloguing
SPSS	statistical package for the social sciences	UCT	universal time coordinated
SQL	structured query language	UTM	universal transverse mercator
SRAM	static random access memory	UTMS	urban transportation model system
SSC	Swiss Society of Cartography	VAR	value added reseller
SSM	system status management	VE	virtual environment
STAC	space-time attribute creature	VET	virtual environment theatre
STATSGO	State soil geographic database (US)	VGIS	virtual geographical information system
STEP	standard for the exchange of product model data	ViSC	visualisation in scientific computing
STV	single transferable voting	VLBI	very long baseline interferometry
SWIR	short wavelength infrared	VNIR	visible and near-infrared radiometer
TAZ	traffic analysis zone	VOA	Valuation Office Agency
TIGER	topologically integrated geographic encoding and referencing	VR	virtual reality
TIMS	transportation information management system	Vro	vehicle routing
TIN	triangulated irregular network	VRT	variable rate treatment
TM	thematic mapper	VTIR	visible and thermal infrared radiometer
TLP	Telefones de Lisboa e Porto	WAN	wide area network
TPS	thin plate spline	WCED	World Commission on Environment and Development
TRIPS	trade-related aspects of intellectual property rights	WGS-84	World Geometric System 1984
UCC	uniform commercial code	WIM	worlds in miniature
UCGIS	University Consortium for GIS	WIMP	windows, icons, mice, and pointers
UDMS	Urban Data Management Society (Europe)	WLS	weighted least squares
UGISA	University Geographic Information System Alliance	WOFOST	World Food Studies
UKMARC	United Kingdom machine-readable cataloguing	WTO	World Trade Organisation
UNCRD	United Nations Centre for Regional Development	XGA	extended graphics adapter
		ZDES	zone design system
		ZIP	zone improvement plan