OUR WORK
CREATING USEFUL TECHNOLOGY
and SUPPORTING OUR USERS

Geo-Enabled Systems
Esri
GEO SPATIAL CLOUD
ArcGIS
ArcGIS
Integrates All Types of Data

Creating a Common Language
ArcGIS Supports Three Fundamental Systems

System of Insights (Analytics)

System of Record (Transactions)

System of Engagement (Apps and Maps)

Real-Time Measurement (Field / IoT / Remote Sensing)

Bringing Together Systems, Workflows and Content
ArcGIS Capabilities Are Advancing
MANY NEW INNOVATIONS
ArcGIS Includes Content
A Living Atlas of the World

Over 7,000 Ready-to-Use Maps and Datasets

Transportation
Environment
Weather
Landscape
Infrastructure
Basemaps
Boundaries
Land Cover
Soils
Utilities
Historical
Imagery
Observations
Hazards
Hydro
Elevation
Oceans
People
Demographics

... And Millions of Maps, Layers and Datasets Shared by Users
ArcGIS Content Is Continuously Improving
Many New and Updated Services

SSURGO Soils
OpenStreetMap
Protected Areas (PADUS)
Real-Time Observations
Customizable Vector Tile Basemaps
Updated Land Cover (NLCD)
US Demographics
Updated Imagery
CropScapes
NGS Basemap

Biodiversity
Urban Change
Growing and Changing on a Daily Basis…

Integrating Community Content Shared by Our Users
Fast Performance WebGL
Data-Driven 3D
Dynamic Clustering
3D Point Extrusion
Multivariate
Dynamic and Data-Driven Mapping
Vector Feature Tiles
Smart Mapping — Enabling Everyone to Make Amazing Maps
Directional Mapping
Exploratory Mapping
Predominance Mapping
Graduated Symbols
StoryMaps  A Whole New Way to Tell Stories

Exponentially Growing
• Over a Million Stories
• 3,000+ / Day
• Millions of Views / Week

Next Generation

Nice Map
Integrated Mapping
Express Map

New

Easier
Mobile Optimized

The Surprising State of Africa’s Giraffes
Mapping and Cartography  Improved Tools and Technology

Symbology, Annotation & Processing
- Reference Grids
- Powerful Arcade Expressions
- Symbol Layer Masking
- Clip to Shape
- Symbol Effects
- Generalization
- Dynamic Binning
- Equal Earth Projection
- Customizable Vector Tiles (Style Editor)

Production Mapping & Charting
- Topographic
- Aeronautical
- Bathymetry
- Nautical
- Maps for Adobe Creative Cloud
- Seattle Times
- Shoal Biased Contouring
Field Operations - Location-Enabling All Aspects of Field Work

New Capabilities

- Tracking
- Offline Workflows
- Preplanned Routes

Planning and Management

Location Tracking

Navigation

Data Capture

Maps & Mark Up

Workforce Dashboard

Collector Survey 123 QuickCapture

Explorer

Tracker
Tracker for ArcGIS – What is Location Tracking?

Tracker Mobile app (iOS, Android)
- Simple, schedule-driven tracking experience
- Supports offline use
- Optimized for low battery consumption
- Requires an add-on license*

Track Viewer Web app
- Display and manage users and their location history
- See only the users that you have access to
  (Feature Service views, OBAC)

New Organizational Capability
- Enable location tracking in their organization
- Single service for storing and managing location tracks
- Requires the **spatiotemporal big data store**
Tracker Mobile App

- Mobile user in control
  - Turns on/off tracking
  - Set reminders/schedule to start or stop tracking
- Collect Tracks
  - Tracks are collected using movement with mobile Core Motion and Fitness APIs
- Tracks are uploaded every
  - 10 mins (60 secs if device is being charged and battery is > 20%)
- LKL (Last known location) are uploaded every
  - 60 seconds but configurable to 30 seconds
- Supports offline use
  - Tracks stored locally if connectivity is lost
- Licensing
  - Premium app that works with Viewer+ user type
  - Included with Field Worker user type
Editing and Data Management

Advancing Tools, Workflows and Data Models

Improved Editing Tools
- Rubber Sheeting
- Workflow Management
- QA / QC Tools
- Attribute Rules
- Contingent Values

Offline Workflows
- Pre-Planned Offline Map Areas
- Offline Vector Tiles

Stronger Industry Models
- Roads and Highways (LRS)
- Pipelines
- Parcels
- Utilities
- Airports

Autodesk Integration
- AutoCAD
- Infraworks
- Civil 3D
- Revit

Comprehensive Data Management
- Cloud
- ArcGIS
- Amazon
- Azure
- SQL Server
- Oracle
- Netezza
- PostgreSQL
- Teradata
- SAP HANA
- Informix
- Db2
- SQLite
- Traditional DBMS
3D Visualization

New and Improved
- 3D Smart Mapping
- Mobile
- Point Clouds
- BIM Support
- Symbology

• Smart Mapping
• Mobile
• Point Clouds
• BIM Support
• Symbology

Data Visualization

Effects

Power Lines

3D Symbols

Symbology

Smart Mapping

BIM as Scene Layers

Edge Rendering

Mobile Scene Packages

Mobile

Augmented Reality / VR

Underground

Lidar

City Modeling

Extrusion
Spatial Analysis and Data Science

Many Improvements
- Functionality
- Scalability
- Accessibility

Charting
- Balanced Zones
- 3D Interpolation (EBK)
- Calendar Heat Map
- Scatter Plot Matrix
- Data Clock

Spatial Statistics
- Logistical Regression
- Forest-based Classification and Regression

Raster Functions
- Floodplain Delineation
- River Classification
- DEM Error

Improved Processing
- Tool History to Models
- Models to Python
- Hosted Python Notebooks
- Deep Learning
- Enterprise Pro
- Scalable GeoAnalytics
Hosted Python Notebooks For Integration, Modeling and Automation

Integrating Distributed Services and Data . . .
. . . The World of Open Science & Big Data

ArcGIS

Notebook Server

Data Stores / Lakes

Organizes
• Code
• Data
• Visualization
• Documentation

Ready-to-use Code Notebook Gallery and Code Snippets

Integrating Distributed Services and Data . . .
. . . The World of Open Science & Big Data

ArcGIS

Notebook Server

Data Stores / Lakes

ArcGIS Analytic Servers
(Image, GeoAnalytics, Spatial)

Open Science Libraries

Providing Notebooks as Items . . .
. . . and ArcPy Geoprocessing as a Service
Imagery: A Comprehensive System for Imagery and Remote Sensing

New
- Image Cube Support
- Deep Learning Tools

Image Management
- Image Mosaics
- Dynamic Image Cube
- Pre-Processed
- Time (Multi-Dimensional Raster)

Image Analyst
- Image Server

Map Production
- Pixel Editing
- Drone2Map
- DTM Generation
- (Multi-Spectral) Ortho Mapping

Analysis
- Raster Processing Functions
- Segmentation
- Pixel Classification
- Object Detection

Deep Learning Tools
- Training

Visualization & Exploitation
- Full Motion Video
- Structured Observations

Oriented Imagery
- Stereo Feature Capture

Imagery
- Rich Content
- All Types & Formats
Imagery Exploitation Web-Based Structured Observation Management

Excalibur

Search & Discover

Exploitation
Ortho & Oblique Viewing
Feature ID
Measurement

Analytics
On-the-Fly Processing

Project Tasking & Management

Delivering Next Generation Imagery Workflows
Real-Time Analytics

Integrating Sensor Networks and IoT

Supporting High-Velocity Data Streams
Tracking, Monitoring and Alerting

Improved

- Performance
- Scalability
- Resiliency
- Cloud Connectors
- Actuation

Situational Awareness
Analytics
Alerting

Sensors
GeoEvent Server
GeoAnalytics Server

Vehicles
Assets
Environment

Real-Time Data

Collapsing the Time from Measurement to Decision Making
ArcGIS Products

Solutions

Pro

Developer

Online

Enterprise

ArcGIS

Providing the Foundation for Geospatial Infrastructure
ArcGIS Online Complete Mapping and Location Platform

New and Improved
- User Types
- Search
- Large Organization Administration
- Configurable Basemaps (Vector Feature Tiles)
- Smart Mapping Styles
- 3D
- New StoryMaps

Coming
- New Map Viewer
- Bulk User & Item Management
- Org-to-Org Collaboration
- Tracking
- Notebooks
- Hosted Imagery
- IoT Integration

Content
- 2D / 3D

World’s Largest Mapping and Data-Sharing Ecosystem

- 7+ Million Users
- Billions of Maps
- 25 Million Items
- 150k Open Datasets
ArcGIS Pro Professional GIS

Pro 2.4

Advanced Mapping, Visualization, Editing and Analysis

Improvements
- Utility Management
- Faster Startup
- Editing Tools
- Catalog Preview
- Definition Expressions
- Contingent Attributes

New
- Reports
- Dimensions
- Spell Check
- Publish to Server
- Deep Learning
- Parcel Management

Coming
- Offset Printing
- More Parallel Processing
- Voxel Support

ArcGIS Pro

ArcMap

Apps
ArcGIS Pro Extensions: Integrating Focused Capabilities

- Spatial Analyst
- Geostatistical Analyst
- Image Analyst
- 3D Analyst
- Network Analyst
- Data Reviewer
- Workflow Manager
- Data Interoperability
- LocateXT
- New
LocateXT  New Pro Extension

- Extract from unstructured data
- Coordinates
- Dates
- Attributes
- Locations
- Geoprocessing tools
ArcGIS Enterprise Comprehensive GIS for Your Organization

Runs in Commercial Clouds, Private Clouds and in Your Own Infrastructure

New and Improved
• User Types
• Reduced Memory (95%)
• Bulk Publishing
• Webhooks
• Hosted Python Notebooks
• Sites
• Machine Learning & AI

Coming
• Containerization
• Microservices
• Large Organization Management
• Intelligent Search

Enterprise Data Management, Mapping, Analysis and Collaboration

Monitor

Sites

Sharing & Collaboration

Discovery & Analytics

Data Management

Admin DevOps

Mapping & Visualization
ArcGIS Enterprise Architecture

Modular and Massively Scalable
- Specialized Servers
- Independently Scalable
- Flexible Deployment

10.7.1 Dramatically Reduces Memory Requirements
- More Services
- Less Memory

Providing
- Alerts & Warnings
- Root Cause Analysis
- Performance Reporting

GIS Server
- Portal
- Image Server
- GeoEvent Server
- GeoAnalytics Server
- Notebook Server

Monitor

Easy to Setup and Administer
ArcGIS User Types Provides Flexible Licensing

Delivering Powerful Capabilities Across Your Organization

Viewer  Editor  Field Worker  Creator  GIS Professional

Viewing  Editing  Authoring, Mapping & Analysis

For Enterprise and Online
ArcGIS Solution Templates

Ready-to-Use Industry Configurations

- Popular (500K Downloads)
- Extensive (450+)
- Open Source
- Fully Supported
- Free

Helping Users Realize Value Quickly . . .
ArcGIS App Builders Enabling Everyone to Build Apps

Web AppBuilder

- New Widgets
- Infographics
- Visibility
- Simple and Powerful
- 700,000+ Web Apps Created and Deployed

Experience Builder (in Beta Soon)

- Integrated 2D / 3D
- Next Generation
- Mobile First
- No Programming Required
- JavaScript 4.x

New

App Management
Esri Geo-Enabled Systems
Directly Supporting Focused Workflows

Indoors
Indoor Mapping

Hub
Engagement

Mission
Awareness and Collaboration (Coming)

Business Analyst
Business Intelligence

Urban
Urban Planning

Esri Geospatial Cloud
Indoors: An Enterprise Mapping System for Operations and Mobility

Stakeholders:
- Business Owners
- Operators
- Employees
- Visitors

GIS for Asset, Space and Building Management... In a Single System

Operations
- Safety & Security
- Emergency Management
- Problem Reporting
- Asset Management

Portfolio Management
- Buildings
- Infrastructure

Wayfinding
- Employee Routing
- Indoor Positioning
- Public Kiosk
- Tracking

Data Management
- System of Record
- CAD / BIM
- Floor Plan Integration

3D Maps

Floor Plans

Workplace Analytics

New
Hub System for Enabling Community Engagement

Connecting Organizations & Communities of Interest

Initiatives
- Website
- Apps & Content
- Engagement Tools
- Crowdsourcing

Open Data
- Multiple Formats
- Open APIs
- Maps & Charts

Organize Communities
- Identities and Groups
- Sharing Data
- Events and Discussions
- Participation / Feedback

Stakeholders
- Governments
- Communities
- Universities
- NGOs
- Citizens
- Staff

Performance Reporting
- Open Data
- Event Calendars
- Surveys
- Initiatives
- Team Management

FREE Event Calendars
Urban System for Planning and Managing Urban Development

Transforming Planning Operations and Design

Enabling Smart Cities

Projects
- Buildings
- Infrastructure

Plans
- Land Use
- Zoning
- Overlays

Indicators
- Baseline
- Suitability
- Impact Models

Stakeholders
- Government
- AEC
- Real Estate
- Citizens
- NGOs

Create Planning Scenarios

Immersive

Report and Engage

Track and Evaluate Projects

Visual, Analytic & Interactive
Mission System for Geospatial Collaboration and Awareness

Supporting Operations and Management . . . End-to-End

Mission Planning
Define Area
Assign People
Provision Data

Tactical Situational Awareness
Peer-to-Peer Communication
Location Tracking
Chat & Messaging

Mission Management
Monitor Activities
Engage Team

Stakeholders
- Emergency Responders
- Security Operations
- Law Enforcement
- Humanitarian Aid

Mission Manager Web App

Mobile Responder App

• Emergency Responders
• Security Operations
• Law Enforcement
• Humanitarian Aid

Coming 2020
What’s Next

Continuous Improvements

Incremental Releases

2018
10.6
Pro 2.1

2019
10.6.1
Pro 2.3
10.7
Pro 2.4

2020
10.7.1
Pro 2.5
10.8
Pro 2.5

Business Analytics
Terrain Editing
Edge Computing
Predictive Analysis
Location Tracking
Mission Management

Microservices
Big Data
Volumetric Data

Spatiotemporal
Real-Time

IoT
Situational Awareness

Augmented Reality
3D Effects

Data Science
SaaS

AI
Machine Learning

BIM
Link Analytics

High Fidelity 3D
Unstructured Data

Edge Computing
Voice Assisted Capture

3D
Voxels

IoT
Situational Awareness

Big Data
Volumetric Data

Data Science
SaaS

AI
Machine Learning

BIM
Link Analytics

High Fidelity 3D
Unstructured Data

Edge Computing
Voice Assisted Capture

3D
Voxels

What’s Next

Continued Focus on Quality, Performance and Innovation