

ArcGIS Pro: Performance- und Diagnosetools

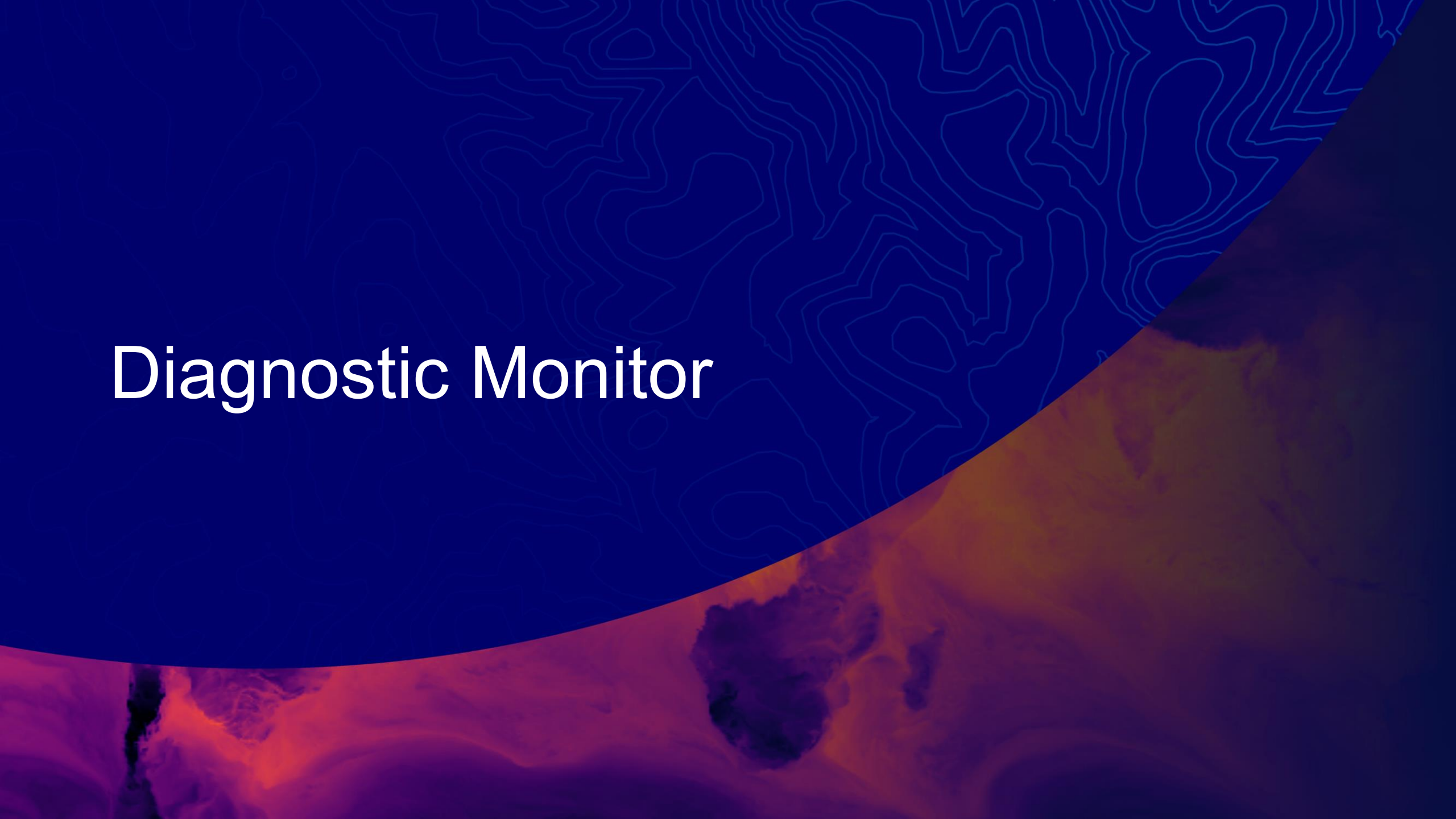
Clemens Naderer

*2026 ESRI USER CONFERENCE AUSTRIA
– powered by SynerGIS*

Agenda

- Diagnostic Monitor
- Analyze Map
- PerfTools
- PAT – Performance Assessment Tool
- Fragen

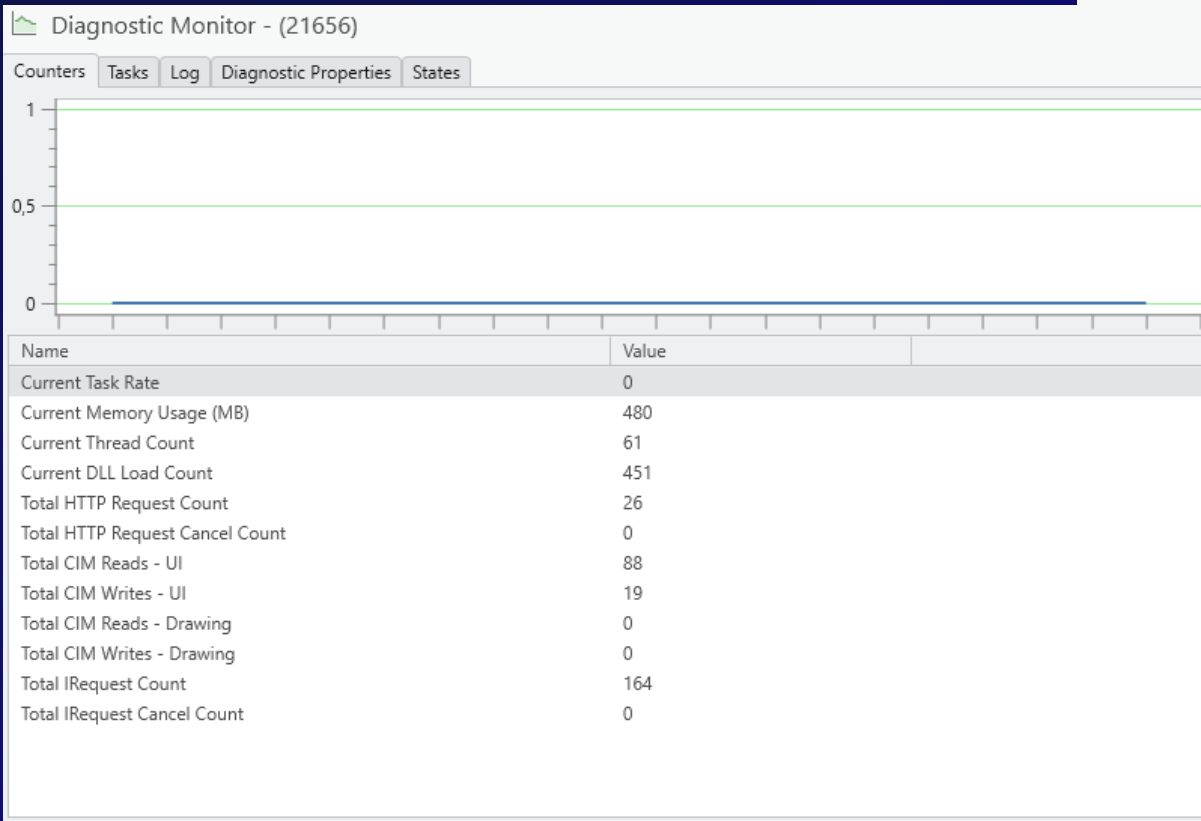
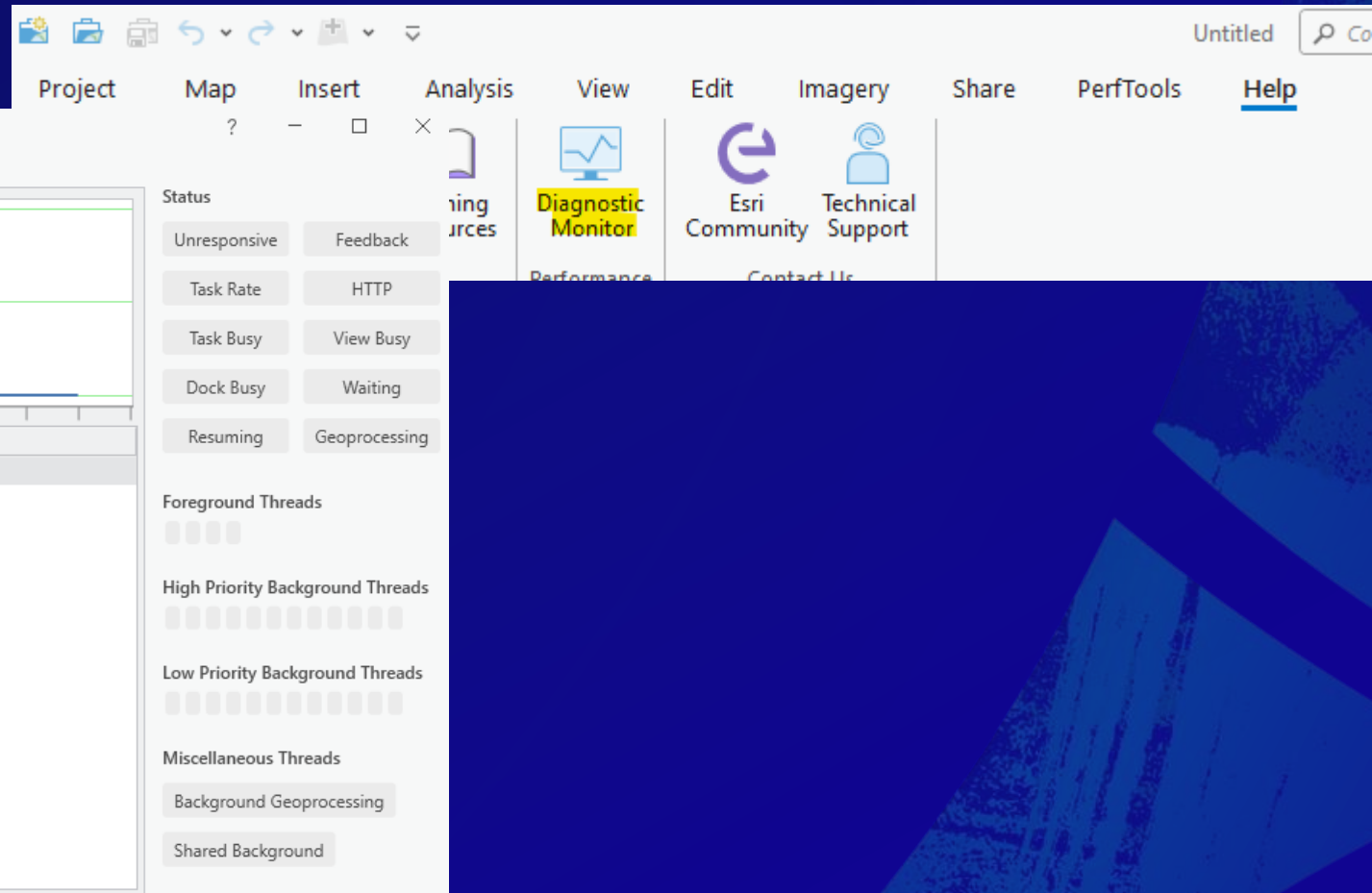
Diagnostic Monitor

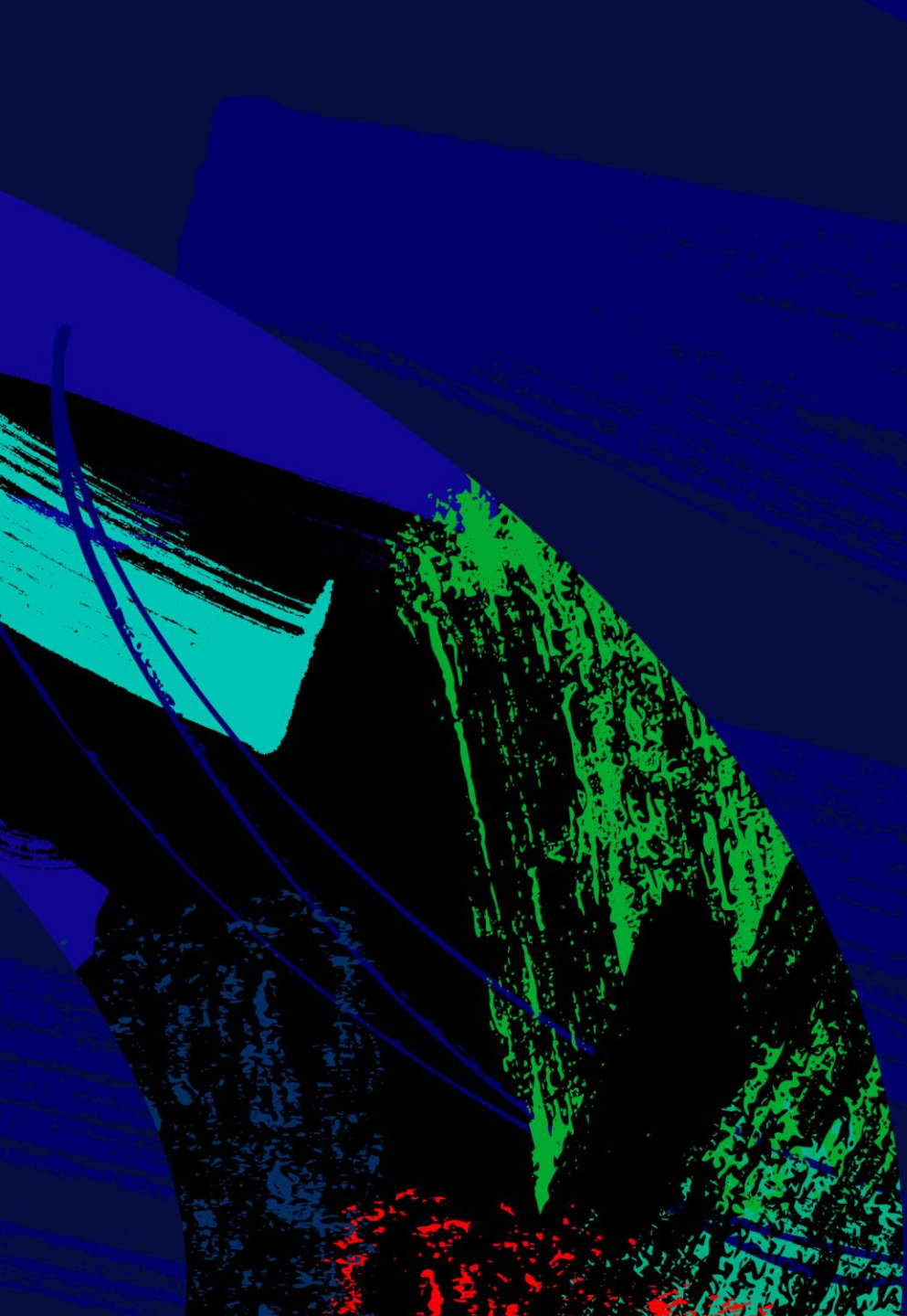


Diagnostic Monitor

Einfacherer Zugriff ab ArcGIS Pro 3.1

- Existiert lange nur mit Tastenkombi STRG+ALT+M
- Seit ArcGIS Pro 3.1 im Hilfe-Ribbon





Diagnostic Monitor

Identify Performance Probleme

Ungeneralisierte (700k Vertices) vs. Generalisierte Daten (7.000 Vertices)

- Siehe Lesezeit aus der Datenbank – gelb
- Siehe Layer-Draw-Time – orange

Diagnostic Monitor - (23616)

Counters Tasks Log Diagnostic Properties States

Filter: × ☒ Warnings ☒ Information ☒ Debug 75 Events

Time	Type	Thread	Entry	Elapsed (ms)	Function
So Nov. 12 14:15:38.988	Info	51d4: Aux CIM worker thread	Symbol Drawing (Batch)	24	Map.Draw
So Nov. 12 14:15:38.988	Info	51d4: Aux CIM worker thread	Symbol Drawing (Batch), Update Labeling	0	Map.Draw
So Nov. 12 14:15:38.988	Info	51d4: Aux CIM worker thread	Updating Labeling Feature Cache	0	Map.Draw
So Nov. 12 14:15:38.988	Info	51d4: Aux CIM worker thread	Data Access	12	Map.Draw
So Nov. 12 14:15:38.988	Info	51d4: Aux CIM worker thread	End of layer draw: UnGeneralized	38	Map.Draw
So Nov. 12 14:15:38.988	Info	51d4: Aux CIM worker thread	Number of features drawn: 0	0	Map.Draw
So Nov. 12 14:15:38.988	Info	51d4: Aux CIM worker thread	Symbol Drawing	0	Map.Draw
So Nov. 12 14:15:38.988	Info	51d4: Aux CIM worker thread	Execute Query	0	Map.Draw
So Nov. 12 14:15:38.966	Debug	51d4: Aux CIM worker thread	Database: C:\Data\DevSummit2023\ArcGI	15	Geodatabase.Cursor
So Nov. 12 14:15:38.966	Debug	51d4: Aux CIM worker thread		0	Geodatabase.Cursor
So Nov. 12 14:15:38.965	Debug	51d4: Aux CIM worker thread		12	Geodatabase.Cursor
So Nov. 12 14:15:38.950	Debug	51d4: Aux CIM worker thread	Database: C:\Data\DevSummit2023\ArcGI	0	Geodatabase.Cursor
So Nov. 12 14:15:38.950	Info	51d4: Aux CIM worker thread	Beginning of layer draw: UnGeneralized	0	Map.Draw
So Nov. 12 14:15:38.900	Info	2da0: Main CIM worker threa	GraphicViewMap Suspend.	0	
So Nov. 12 14:15:38.900	Info	2da0: Main CIM worker threa	GraphicViewMap Resume.	0	
So Nov. 12 14:15:38.900	Info	2da0: Main CIM worker threa	GraphicViewMap Resume.	0	

< Event time="So Nov. 12 14:15:38.966" type="Debug" thread="51d4: Aux CIM worker thread" elapsed="15" function="Geodatabase.Cursor" code="EndCursor">
Database: C:\Data\DevSummit2023\ArcGISProToolsforDiagnosingIssuesandTroubleshooting\Demo\DiagnosticMonitor\VGD.gdb
SQL: SELECT Shape, OBJECTID FROM Staatsgebiet
Spatial Filter: esriSpatialRelIntersects
Search Geometry Envelope: (-358895,418683, -932,195893, 358895,418683, 716858,641473)
Number of rows returned: 1
</Event>

Diagnostic Monitor - (23616)

Counters Tasks Log Diagnostic Properties States

Filter: × ☒ Warnings ☒ Information ☒ Debug 31 Events

Time	Type	Thread	Entry	Elapsed (ms)	Function
So Nov. 12 14:21:01.293	Debug	2da0: Main CIM worker threa	mapURL: CIMPATH=map/map.json	2	Mapping.FeatureCache
So Nov. 12 14:21:01.291	Debug	2da0: Main CIM worker threa	DataConnections to Cache: 0	0	Mapping.FeatureCache
So Nov. 12 14:21:01.290	Info	3f80: unnamed	GraphicView GeoFeatures Loaded.	0	
So Nov. 12 14:21:01.290	Info	3f80: unnamed	GraphicView DrawingComplete.	0	
So Nov. 12 14:21:01.206	Info	51d4: Aux CIM worker thread	Symbolizing	0	Map.Draw
So Nov. 12 14:21:01.206	Info	51d4: Aux CIM worker thread	Symbol Drawing (Batch)	8	Map.Draw
So Nov. 12 14:21:01.206	Info	51d4: Aux CIM worker thread	Symbol Drawing (Batch), Update Labeling	0	Map.Draw
So Nov. 12 14:21:01.206	Info	51d4: Aux CIM worker thread	Updating Labeling Feature Cache	0	Map.Draw
So Nov. 12 14:21:01.206	Info	51d4: Aux CIM worker thread	Data Access	0	Map.Draw
So Nov. 12 14:21:01.206	Info	51d4: Aux CIM worker thread	End of layer draw: Generalized	10	Map.Draw
So Nov. 12 14:21:01.206	Info	51d4: Aux CIM worker thread	Number of features drawn: 0	0	Map.Draw
So Nov. 12 14:21:01.206	Info	51d4: Aux CIM worker thread	Symbol Drawing	0	Map.Draw
So Nov. 12 14:21:01.206	Info	51d4: Aux CIM worker thread	Execute Query	0	Map.Draw
So Nov. 12 14:21:01.198	Debug	51d4: Aux CIM worker thread		0	Geodatabase.Cursor
So Nov. 12 14:21:01.198	Debug	51d4: Aux CIM worker thread	Database: C:\Data\DevSummit2023\ArcGI	1	Geodatabase.Cursor
So Nov. 12 14:21:01.198	Debug	51d4: Aux CIM worker thread		0	Geodatabase.Cursor

< Event time="So Nov. 12 14:21:01.198" type="Debug" thread="51d4: Aux CIM worker thread" elapsed="1" function="Geodatabase.Cursor" code="EndCursor">
Database: C:\Data\DevSummit2023\ArcGISProToolsforDiagnosingIssuesandTroubleshooting\Demo\DiagnosticMonitor\VGD.gdb
SQL: SELECT Shape, OBJECTID FROM Staatsgebiet_250
Spatial Filter: esriSpatialRelIntersects
Search Geometry Envelope: (-358895,418683, -932,195893, 358895,418683, 716858,641473)
Number of rows returned: 1
</Event>

Status

Unresponsive Feedback

Task Rate HTTP

Task Busy View Busy

Dock Busy Waiting

Resuming Geoprocessing

Foreground Threads

High Priority Background Threads

Low Priority Background Threads

Miscellaneous Threads

Background Geoprocessing

Shared Background

Map.Draw im Detail

- Ungeneralisiert (700k Vertices)

Time	Type	Thread	Entry	Elapsed (ms)	Function	Code
Mon Nov 13 22:36:08.106	Info	5030: Aux CIM worker thread	Beginning of layer draw: UnGeneralized	0	Map.Draw	Layer.DrawBegin
Mon Nov 13 22:36:08.142	Info	5030: Aux CIM worker thread	Execute Query	0	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:36:08.142	Info	5030: Aux CIM worker thread	Symbolizing	0	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:36:08.142	Info	5030: Aux CIM worker thread	Data Access	12	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:36:08.142	Info	5030: Aux CIM worker thread	Updating Labeling Feature Cache	0	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:36:08.142	Info	5030: Aux CIM worker thread	Symbol Drawing (Batch)	21	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:36:08.142	Info	5030: Aux CIM worker thread	Symbol Drawing (Batch), Update Labeling	0	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:36:08.142	Info	5030: Aux CIM worker thread	Symbol Drawing	0	Map.Draw	FeatureLayer.Draw.Symbol
Mon Nov 13 22:36:08.142	Info	5030: Aux CIM worker thread	Number of features drawn: 0	0	Map.Draw	FeatureLayer.Draw.Feature
Mon Nov 13 22:36:08.142	Info	5030: Aux CIM worker thread	End of layer draw: UnGeneralized	36	Map.Draw	Layer.DrawEnd

- Generalisiert (7k Vertices)

Time	Type	Thread	Entry	Elapsed (ms)	Function	Code
Mon Nov 13 22:38:57.691	Info	5030: Aux CIM worker thread	Beginning of layer draw: Generalized	0	Map.Draw	Layer.DrawBegin
Mon Nov 13 22:38:57.702	Info	5030: Aux CIM worker thread	Execute Query	0	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:38:57.702	Info	5030: Aux CIM worker thread	Symbolizing	0	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:38:57.702	Info	5030: Aux CIM worker thread	Data Access	0	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:38:57.702	Info	5030: Aux CIM worker thread	Updating Labeling Feature Cache	0	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:38:57.702	Info	5030: Aux CIM worker thread	Symbol Drawing (Batch)	9	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:38:57.702	Info	5030: Aux CIM worker thread	Symbol Drawing (Batch), Update Labeling	0	Map.Draw	FeatureLayer.Draw.Render
Mon Nov 13 22:38:57.702	Info	5030: Aux CIM worker thread	Symbol Drawing	0	Map.Draw	FeatureLayer.Draw.Symbol
Mon Nov 13 22:38:57.702	Info	5030: Aux CIM worker thread	Number of features drawn: 0	0	Map.Draw	FeatureLayer.Draw.Feature
Mon Nov 13 22:38:57.702	Info	5030: Aux CIM worker thread	End of layer draw: Generalized	11	Map.Draw	Layer.DrawEnd

Labeling

Normal vs. Boundary – Generalisiert vs. Ungeneralisiert

- Boundary – Generalized vs. UnGeneralized

Di Nov. 18 22:56:48.849	Info	0	3e0c: Aux CIM worker thread	End of labeling phase (labeling and label	340	Map.Draw	Labeling.End	
Di Nov. 18 22:56:48.849	Debug	0	3e0c: Aux CIM worker thread	drawing of labels	15	Map.Draw		
Di Nov. 18 22:56:48.849	Info	0	3e0c: Aux CIM worker thread	Number of features drawn: 58	0			
Di Nov. 18 22:56:48.849	Info	0	3e0c: Aux CIM worker thread	Symbol Drawing	11			
Di Nov. 18 22:56:48.834	Info	0	3e0c: Aux CIM worker thread	End of MaplexLabelingService Labels Plac	324			
Di Nov. 18 22:56:48.834	Debug	0	3e0c: Aux CIM worker thread	Total number of features added to label e	319			
Di Nov. 18 22:56:48.515	Debug	0	3e0c: Aux CIM worker thread	Layer name: 'BoundaryPlacement General	5			
Di Nov. 18 22:56:48.515	Debug	0	3e0c: Aux CIM worker thread	Database: C:\Data\DevSummit2025\ArcGI	5			
Di Nov. 18 22:55:46.574	Info	0	2a08: Aux CIM worker thread	End of labeling phase (labeling and label	1539			
Di Nov. 18 22:55:46.574	Debug	0	2a08: Aux CIM worker thread	drawing of labels	18			
Di Nov. 18 22:55:46.574	Info	0	2a08: Aux CIM worker thread	Number of features drawn: 48	0			
Di Nov. 18 22:55:46.574	Info	0	2a08: Aux CIM worker thread	Symbol Drawing	14			
Di Nov. 18 22:55:46.556	Info	0	2a08: Aux CIM worker thread	End of MaplexLabelingService Labels Plac	1520			
Di Nov. 18 22:55:46.556	Debug	0	2a08: Aux CIM worker thread	Total number of features added to label e	1493			
Di Nov. 18 22:55:45.063	Debug	0	2a08: Aux CIM worker thread	Layer name: 'BoundaryPlacement UnGene	27			
Di Nov. 18 22:55:45.062	Debug	0	2a08: Aux CIM worker thread	Database: C:\Data\DevSummit2025\ArcGI	26			

- Normal – Generalized vs. UnGeneralized

Di Nov. 18 23:04:04.313	Info	0	26f4: Aux CIM worker thread	End of labeling phase (labeling and label	134	Map.Draw	Labeling.End	
Di Nov. 18 23:04:04.313	Debug	0	26f4: Aux CIM worker thread	drawing of labels	4	Map.Draw		
Di Nov. 18 23:04:04.313	Info	0	26f4: Aux CIM worker thread	Number of features drawn: 21	0	Map.Draw	FeatureLayer.Draw.Feature	
Di Nov. 18 23:04:04.313	Info	0	26f4: Aux CIM worker thread	Symbol Drawing	3			
Di Nov. 18 23:04:04.308	Info	0	26f4: Aux CIM worker thread	End of MaplexLabelingService Labels Plac	129			
Di Nov. 18 23:04:04.308	Debug	0	26f4: Aux CIM worker thread	Total number of features added to label e	125			
Di Nov. 18 23:04:04.183	Debug	0	26f4: Aux CIM worker thread	Layer name: 'RegularPlacement - Genera	4			
Di Nov. 18 23:04:04.183	Debug	0	26f4: Aux CIM worker thread	Database: C:\Data\DevSummit2025\ArcGI	4			
Di Nov. 18 23:03:28.912	Info	0	5810: Aux CIM worker thread	End of labeling phase (labeling and label	143			
Di Nov. 18 23:03:28.911	Debug	0	5810: Aux CIM worker thread	drawing of labels	5			
Di Nov. 18 23:03:28.911	Info	0	5810: Aux CIM worker thread	Number of features drawn: 21	0			
Di Nov. 18 23:03:28.911	Info	0	5810: Aux CIM worker thread	Symbol Drawing	3			
Di Nov. 18 23:03:28.906	Info	0	5810: Aux CIM worker thread	End of MaplexLabelingService Labels Plac	137			
Di Nov. 18 23:03:28.906	Debug	0	5810: Aux CIM worker thread	Total number of features added to label e	123			
Di Nov. 18 23:03:28.783	Debug	0	5810: Aux CIM worker thread	Layer name: 'RegularPlacement - Ungene	14			
Di Nov. 18 23:03:28.782	Debug	0	5810: Aux CIM worker thread	Database: C:\Data\DevSummit2025\ArcGI	14			

Attribute rules - Basic

Calculation Constraint Validation

Add Rule Columns Filter

	Order	Rule Name	Description	Subtype	Field	Min Pro Release	Min Enterprise Release
▼ Immediate	2 Rule(s)						
1	JustNow	JustNow	<All>	CalcField	2.1	10.6	
2	GetState	GetState	<All>	StateName	2.3	10.7	

```
// Set Featureclass with Fieldname to Intersect
var feat = FeatureSetByName($datastore, "Bundeslaender", ["BL"])
// Intersect and get just the first feature
var intersectFeat = First(Intersects(feat, Buffer($feature, 1)))
var state=""
// Check if there is a intersection and get Statename
if(intersectFeat == null) {state="No State found"}
else {state=text(intersectFeat.BL)}
// Return Statename
return state;
```

Diagnostic Monitor - (25416)

Counters Tasks Log Diagnostic Properties States

Filter: Attribute rule x ☒ Warnings ☒ Information ☒ Debug

Time	Type	Thread	Entry	Elapsed (ms)	Function	Code
Sun Nov 12 23:39:20.961	Debug	2038: Main CIM worker threa	Attribute rule execution complete: {"Class	19	Geodatabase.AttributeRule	EvaluateCalculationRule
Sun Nov 12 23:39:20.960	Debug	2038: Main CIM worker threa	Attribute rule executed: {"Class name": "Ec	19	Geodatabase.AttributeRule	EvaluateCalculationRule
Sun Nov 12 23:39:20.939	Debug	2038: Main CIM worker threa	Attribute rule execution complete: {"Class	0	Geodatabase.AttributeRule	EvaluateCalculationRule
Sun Nov 12 23:39:20.934	Debug	2038: Main CIM worker threa	Attribute rule executed: {"Class name": "Ec	0	Geodatabase.AttributeRule	EvaluateCalculationRule

Attributregeln- Leistung

Die Konfiguration von Trigger-Feldern ermöglicht es, die Ausführung zu überspringen

▼ Triggering Fields

Search 

Active 

-  Shape
-  KG_NR
-  KG
-  MERIDIAN

Inactive

Diagnostic Monitor - (14284)

Counters Tasks HTTP Log (live) Diagnostic Properties States

Filter: × ☒ Warnings ☒ Information ☒ Debug

Time	Type	Thread	Entry	Elapsed (ms)
Mo Nov. 11 10:10:28.024	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	0
Mo Nov. 11 10:10:28.022	Debug	2388: Main CIM worker threa	Attribute rule execution complete: {"Class	1
Mo Nov. 11 10:10:28.021	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	1
Mo Nov. 11 10:10:28.019	Debug	2388: Main CIM worker threa	Attribute rule execution complete: {"Class	1
Mo Nov. 11 10:10:28.018	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	1
Mo Nov. 11 10:10:28.015	Debug	2388: Main CIM worker threa	Attribute rule execution complete: {"Class	0
Mo Nov. 11 10:10:28.014	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	0
Mo Nov. 11 10:10:28.012	Debug	2388: Main CIM worker threa	Attribute rule execution complete: {"Class	1
Mo Nov. 11 10:10:28.011	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	1
Mo Nov. 11 10:10:28.008	Debug	2388: Main CIM worker threa	Attribute rule execution complete: {"Class	0
Mo Nov. 11 10:10:28.008	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	0
Mo Nov. 11 10:10:28.005	Debug	2388: Main CIM worker threa	Attribute rule execution complete: {"Class	1
Mo Nov. 11 10:10:28.004	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	1
Mo Nov. 11 10:10:28.001	Debug	2388: Main CIM worker threa	Attribute rule execution complete: {"Class	1
Mo Nov. 11 10:10:28.000	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	1
Mo Nov. 11 10:10:27.997	Debug	2388: Main CIM worker threa	Attribute rule execution complete: {"Class	1
Mo Nov. 11 10:10:27.996	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	1
Mo Nov. 11 10:10:27.993	Debug	2388: Main CIM worker threa	Attribute rule execution complete: {"Class	0
Mo Nov. 11 10:10:27.992	Debug	2388: Main CIM worker threa	Attribute rule executed: {"Class name": "Kz	0

▼ Triggering Fields

Search 

Active 

-  Shape

Inactive

-  KG_NR
-  KG
-  MERIDIAN
-  GKZ

Diagnostic Monitor - (14284)

Counters Tasks HTTP Log (live) Diagnostic Properties States

Filter: × ☒ Warnings ☒ Information ☒ Debug

Time	Type	Thread	Entry	Elapsed (ms)
Mo Nov. 11 10:14:54.569	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.567	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.566	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.565	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.563	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.558	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.556	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.549	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.548	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.546	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.545	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.544	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.542	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.541	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0
Mo Nov. 11 10:14:54.539	Debug	2388: Main CIM worker threa	Skipped Executing Rule NoGeometryEdit	0

Seit ArcGIS Pro 3.3 ist Logging von HTTP-Anfragen inkludiert

Diagnostic Monitor - (11156)

Counters Tasks HTTP Log Diagnostic Properties States

Start Time	Duration (ms)	Thread	Status	URL
23:04:25	234	226c	200	https://austria.maps.arcgis.com/sharing/rest/content/items/03714c4eac0e4fca
23:04:25	203	f2c	200	https://austria.maps.arcgis.com/sharing/rest/content/items/f0c119410f5e4d54
23:04:25	281	226c	200	https://austria.maps.arcgis.com/sharing/rest/content/items/a650ff23785b4ff9t
23:04:25	219	f2c	200	https://austria.maps.arcgis.com/sharing/rest/content/items/7ac83bff30ea49c0
23:04:25	219	3874	200	https://austria.maps.arcgis.com/sharing/rest/content/items/f8cf1a4115b94166
23:04:25	218	4650	200	https://austria.maps.arcgis.com/sharing/rest/content/items/83fcab56ac614266
23:04:25	235	4584	200	https://austria.maps.arcgis.com/sharing/rest/content/items/bc68233b448b4a3
23:04:25	375	3494	200	https://austria.maps.arcgis.com/sharing/rest/content/items/4aa1788830fd4ad
23:04:25	234	4344	200	https://austria.maps.arcgis.com/sharing/rest/content/items/664410ae6cb643d
23:04:24	187	3198	200	https://austria.maps.arcgis.com/sharing/rest/search?q=group%3a5e45c7a20d
23:04:24	125	3198	200	https://austria.maps.arcgis.com/arcgisuris.xml
23:04:24	172	3198	200	https://austria.maps.arcgis.com/sharing/rest/community/groups?f=json&q=tit
23:04:24	187	3198	200	https://austria.maps.arcgis.com/sharing/rest/search?q=group%3aebc8857d4b
23:04:24	359	4344	200	https://austria.maps.arcgis.com/sharing/rest/content/items/0281b25f75b24ca
23:04:24	218	f2c	200	https://austria.maps.arcgis.com/sharing/rest/content/items/ad9925aed1f04a2
23:04:24	218	226c	200	https://austria.maps.arcgis.com/sharing/rest/content/items/da21f8d16bcd4bd
23:04:24	640	6de0	200	https://austria.maps.arcgis.com/sharing/rest/content/items/752cb7f283f340dC
23:04:24	625	3874	200	https://austria.maps.arcgis.com/sharing/rest/content/items/84f9f68a3b6e4f68
23:04:24	625	455c	200	https://austria.maps.arcgis.com/sharing/rest/content/items/a96591b8e18a408
23:04:24	485	4584	200	https://austria.maps.arcgis.com/sharing/rest/content/items/6cf42d6ad9e3480i
23:04:24	485	4650	200	https://austria.maps.arcgis.com/sharing/rest/content/items/e68ff0b5a0f84cfd
23:04:24	500	3494	200	https://austria.maps.arcgis.com/sharing/rest/content/items/d0ee2af09e834c5c
23:04:24	625	6d1c	200	https://austria.maps.arcgis.com/sharing/rest/content/items/34a7f521276a40d
23:04:24	656	1390	200	https://austria.maps.arcgis.com/sharing/rest/content/items/79da6e264b6d4aC
23:04:24	625	5c38	200	https://austria.maps.arcgis.com/sharing/rest/content/items/7f6ae34b6cf749cd

Project Map Insert Analysis View Edit Imagery Share PerfTools Help

Clipboard Navigate

Contents

Drawing Order

2D Basemap

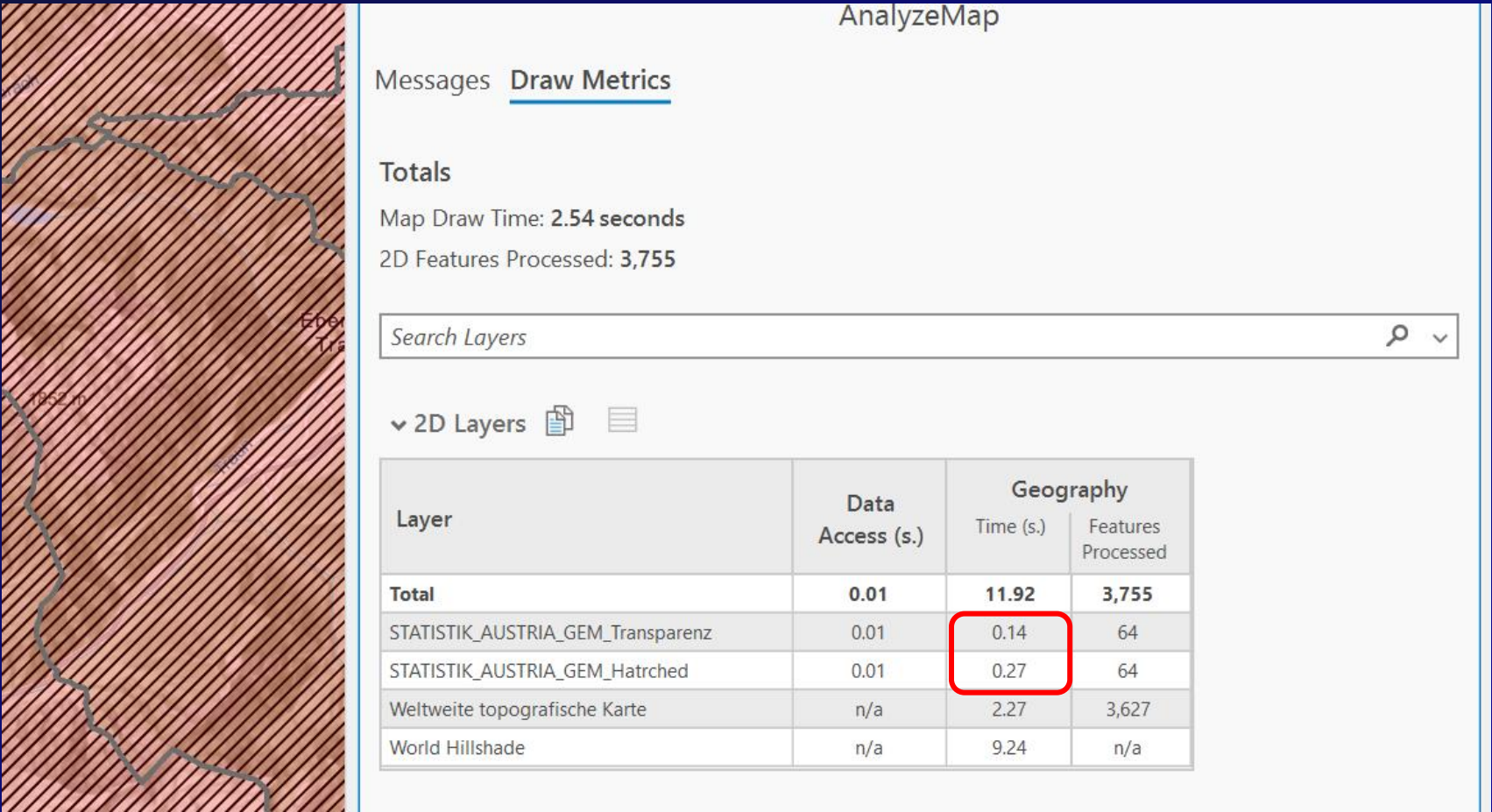
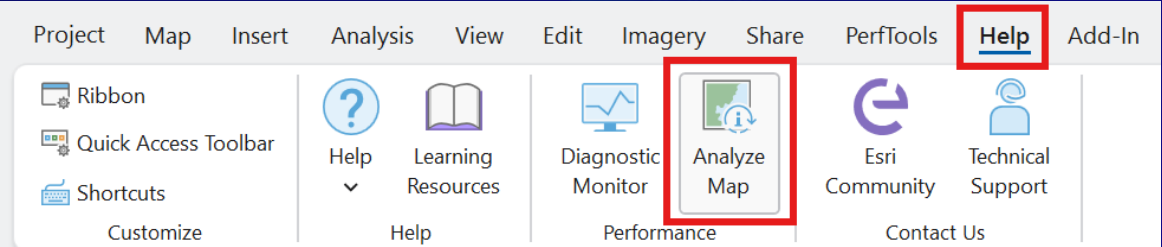
Bilddaten Dunkelgrauer Hintergrund Hellgrauer Hintergrund

Imagery Hybrid Meere Meere

Navigation OpenStreetMap OpenStreetMap

Analyze Map

Performance der Kartendarstellung analysieren



ArcGIS Pro Perftools

Ein Add-In

PerfTools Add-in

- Umfassendes, skriptbares Performance-Test-Tool für Pro
 - Automatisiert gängige GIS-Aufgaben
 - Ebenen zur Karte hinzufügen
 - Neuzeichnen (Schwenk/Zoomen)
 - Editieren
 - Räumliche Auswahl
 - Ausführung von GP-Tools
- Neueste Version(Build 280) – <https://links.esri.com/perftools-addin>
 - Unterstützt alle aktuellen Pro 2.x- und 3.x-Versionen
 - Teil des PAT (Performance Assessment Tool)
- Internationalization (I18N) Information:
 - Non-English Windowsinstallationen sollten englische (US) regionale Einstellungen für korrekte Ausführung aktivieren.
- Support Hinweis:
 - *Disclaimer: Dieses Add-in wird von Esri Support Services nicht unterstützt; alle Fragen oder Rückmeldungen zu PerfTools sollten an PerfTools weitergeleitet werden perfqatools@esri.com*

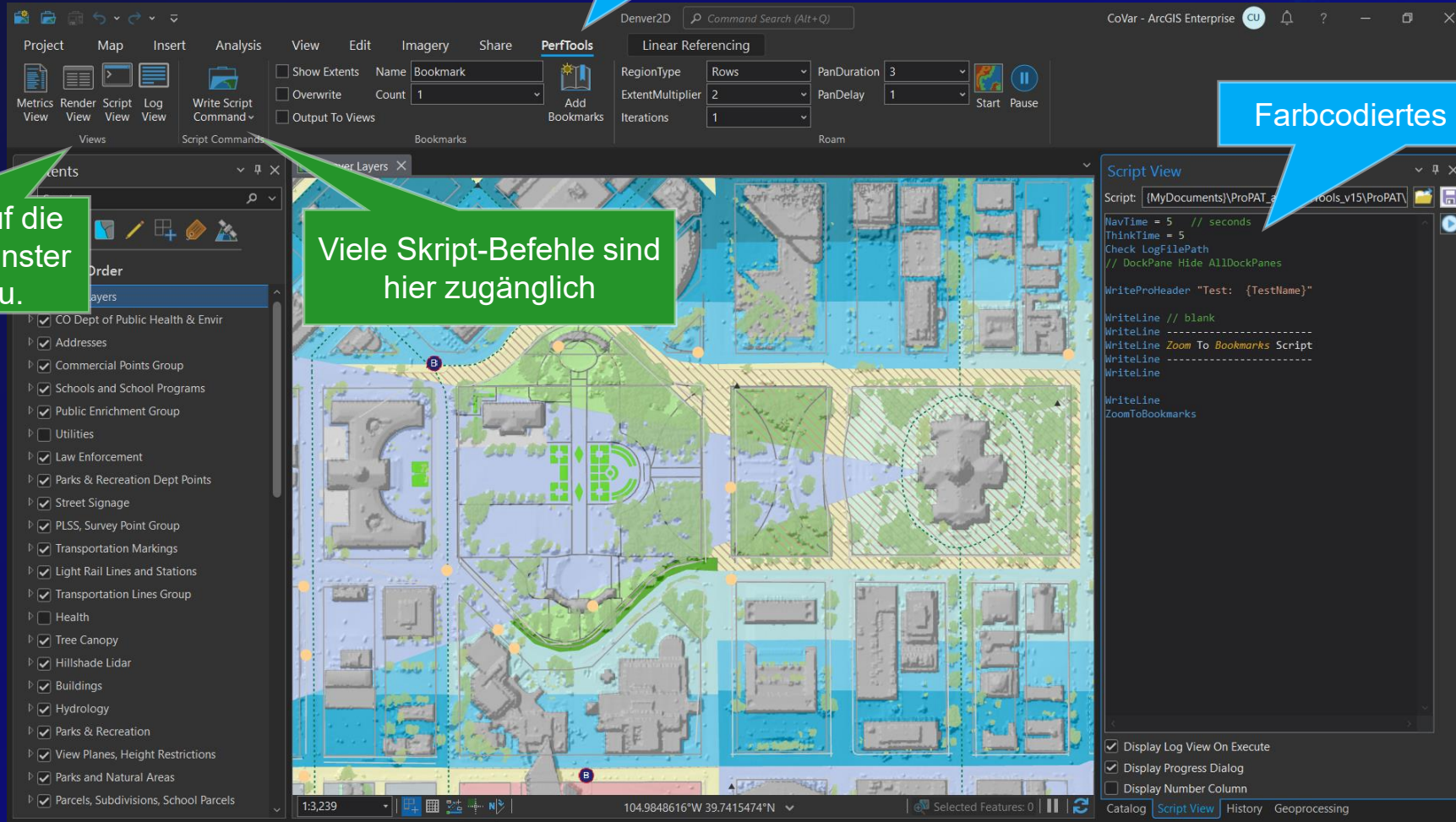
PerfTools Add-in

Zugänglich über Ribbon

Farbcodiertes Skriptfenster

Hier greifen Sie auf die Hauptansichten/-fenster von PerfTools zu.

Viele Skript-Befehle sind hier zugänglich



PerfTools wird standardmäßig in **Documents\ArcGIS\AddIns\ArcGISPro\PerfTools** installiert.



Demo: PerfTools

PerfTools Umfassende Dokumentation

- Eine PDF mit vollständiger Dokumentation und detaillierter Skriptsyntax wird automatisch im PerfTools-Ordner installiert, wenn Pro nach der Installation erstmals gestartet wird

INSTALLING PERFTOOLS FOR ALL USERS

If needed, *PerfTools* can be installed for all users on a computer. You may want to do this if there are custom command assemblies to be used by all users and you don't want to require each user to install the custom command assemblies to run tests.

To install *PerfTools* for all-users:

1. If not already installed in your personal location, double-click the *PerfTools.esriAddIn* file to install it in your personal location.

Personal Documents install folder:
(%USERPROFILE%) \Documents \ArcGIS \AddIns \ArcGISPro \PerfTools

For example:
C:\Users\denny\Documents \ArcGIS \AddIns \ArcGISPro \PerfTools

2. **MOVE** (don't just copy) the installed *PerfTools* folder from the personal location to a shared location, such as (%PUBLIC%) \Documents \PerfTools.

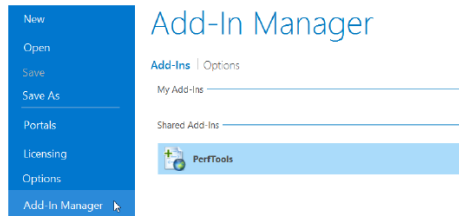
For example, MOVE this *PerfTools* folder:
C:\Users\denny\Documents \ArcGIS \AddIns \ArcGISPro \PerfTools

To this shared location (must be accessible to all intended users):
C:\Users\Public\Documents \PerfTools

3. Edit the *RegForAllUsers.reg* file to indicate the shared location in Step 2. If you don't have the *RegForAllUsers.reg* file, create a text file containing the following lines.

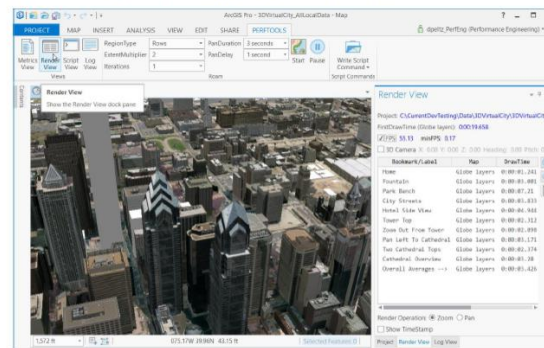
```
Windows Registry Editor Version 5.00
[HKEY_LOCAL_MACHINE\SOFTWARE\ESRI\ArcGISPro\Settings\Add-In Folders]
; The location of the add-in directory must be available to all users
"C:\Users\Public\Documents\PerfTools"=""
```

4. When the *RegForAllUsers.reg* file has the desired shared location, merge it into the registry by double-clicking the *RegForAllUsers.reg* file.
5. Verify the all-users registration by starting *ArcGIS Pro* and checking the *Add-In Manager* to verify that *PerfTools* is shown as a shared Add-In and that it is loaded from the expected location on the right side of the dialog.



THE RENDER VIEW

Click the **Render View** button on the *PERFTOOLS* group to display the *Render View* dock pane.



Clicking the **Zoom To All Bookmarks** button  **Render Operation: Zoom** or **Pan To All Bookmarks** button  **Render Operation: Pan** causes the *RenderViewMode.BookmarksTest()* method to start. This method starts zooming (*MapView.Active.ZoomToAsync(bookmark)*) or panning (*MapView.Active.PanToAsync(bookmark)*). After the last draw complete occurs, the next bookmark is zoomed or panned, until all bookmarks in the project have been iterated.

Pan To All Bookmarks can be scripted with the command: [PanToBookmarks](#)

Zoom To All Bookmarks can be scripted with the command: [ZoomToBookmarks](#)

Pan To A Single Bookmark can be scripted with the command: [PanToBookmark](#)

Zoom To A Single Bookmark can be scripted with the command: [ZoomToBookmark](#)

You can generate one of these script commands (see [Automatically Generating Script Lines](#)).

DETAILED COMMAND SUMMARY

Hint: For a quick summary for whichever *PerfTools* version you have installed, you can execute a "ListAllUsage" (or just "LAU") command in the *Script View* dock pane. The output is shown in the *Log View* dock pane. You can obtain usage for a single command by executing the command followed with */?*, for example: *Upload /?*

ALL COMMAND USAGE

Commands as of *PerfTools* version: 3.0.0.258
See *PerfTools_for_ArcGIS_Pro.pdf* for more detail

ListAllUsage

...Usage: ListAllUsage[LAU] (no arguments)

List all supported command usage.

ActivateMap

...Usage: ActivateMap[AN [=] "map_name"]

Example1: ActivateMap "Presidential Election 2012"

Example2: an "Election 2012"

Remarks: Active the given map_name if it is not already the active map.
map_name is NOT case-sensitive.

AddBookmark(s)

...Usage: AddBookmark(s)[ABN(S) ["bookmark_name"] [, number] [, overwrite] // overwrite existing bookmarks
[, "mapname"] // add bookmarks to this map

Example1: AddBookmark "bookmark_name" // add one bookmark named "bookmark_name"
Example2: AddBookmark "test_bookmark", 4, overwrite // add 4 bookmarks, overwriting any existing

Example3: abm 10 // add 10 bookmarks using the default "Bookmark" base name

Example4: abm // add one bookmark named "Bookmark1"

Remarks: Add a specified number of randomly-placed bookmarks of a given base name with a count appended to each, e.g., "Bookmark1", "Bookmark2", "Bookmark3", etc.
All arguments are optional and may be specified in any order. Pass 'overwrite' to overwrite existing bookmarks. An error occurs if an existing bookmark of the same name is attempted to be added.

If adding bookmarks to a multiple-map project, you can specify "mapname" to indicate which map to add the bookmarks. If not specified, bookmarks are added to the active map.

AddLayer

...Usage: AddLayer[ALVR "datauri" // required 1st arg - fully-qualified URI or path
[, "mapname"] // created if not found; active map assumed if not passed
[, "groupname"] // created if not found
[, Basemap.Enum] // default: Basemap.ProjectDefault
[, false] // do not zoom to layer after adding it

Example1: AddLayer "C:\Data\MyFile\008.gdb\Census" // FileGDB feature class
Example2: alvr "C:\Data\MyFile\008.gdb\DEM" // FileGDB RasterDataset
Example3: alvr "\\Machine\SharedFolder\MySpatialData.shp" // shape file
Example4: alvr "\\Machine\SharedFolder\imagery.tif" // image file
Example5: alvr "(CD)\Connections\MySDEConnection.sde\Roads" // SDE feature class
Example6: alvr "(CD)\Data\Files.lyrx" // layer file

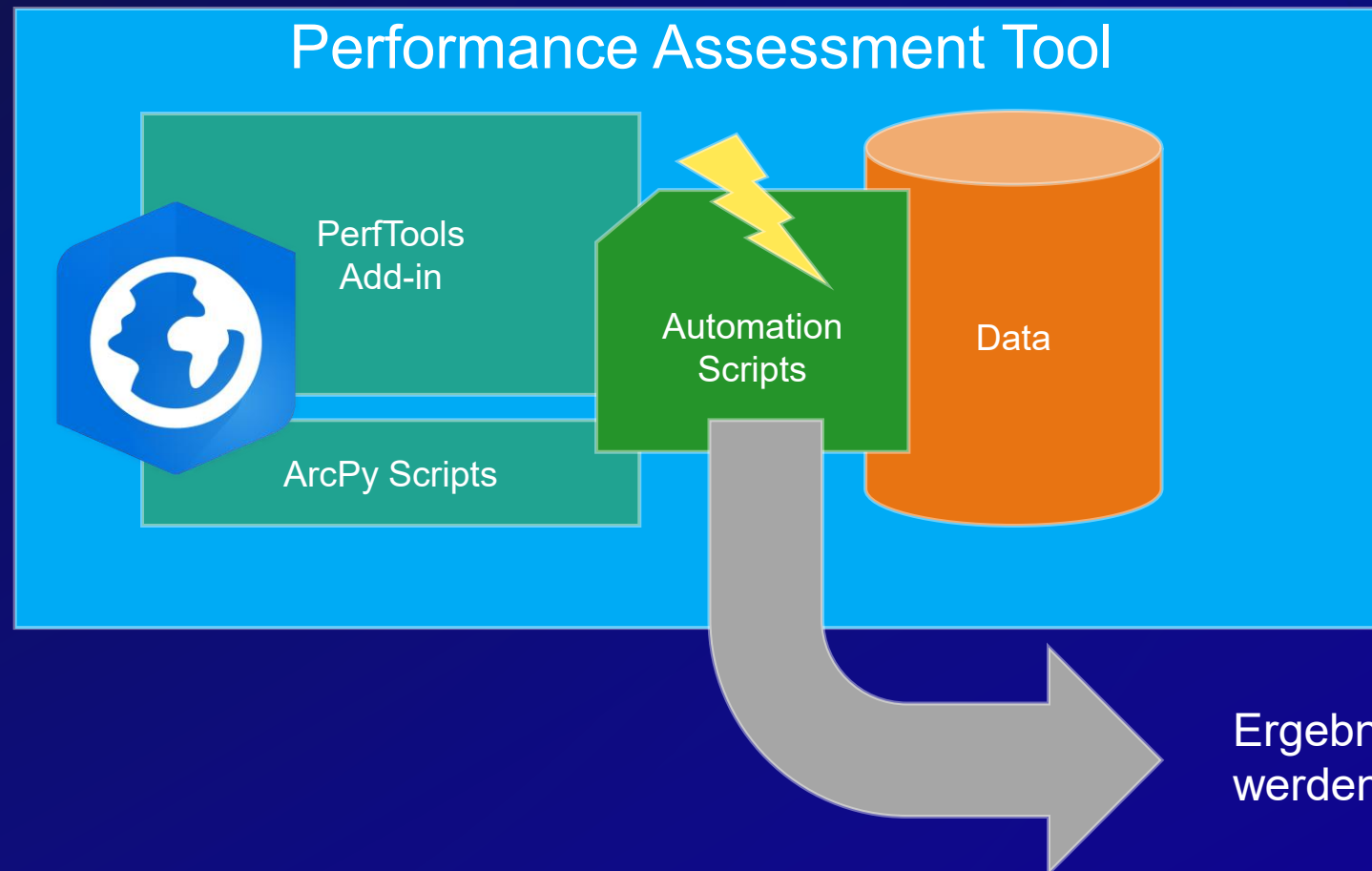
PAT-Tool

ArcGIS Pro Performance Assessment Tool

ArcGIS Pro Performance Assessment Tool (PAT)

- Automatisiertes Benchmarking-Tool für ArcGIS Pro
- Bewertet, wie Ihr PC gängige GIS-Aufgaben anhand von vordefinierten Workflows und Daten ausführt:
 - 2-D/3-D Rendering
 - Editing
 - Projection
 - GP tools
 - Spatial analysis (mit CUDA Support)
- Verwendet das PerfTools-Add-in und ArcPy, um ArcGIS Pro zu automatisieren
- Gibt Gesamtergebnis als CSV-Datei aus, Details in Textdateien
- Latest release (v18) - <https://links.esri.com/propat-tool>
 - Supports Pro 2.7.x – 3.x
 - Erhöhte Stabilität
 - Enthält jetzt auch Fehler während der Ausführung in der Logdatei

Wie das Performance Assessment Tool funktioniert



ArcGIS Pro Performance Assessment Tool (PAT) Test Levels

Level	Description	Benchmark Execution Time Average (Range) in minutes
1	Concise test of map rendering and GP analysis	2.8 (2.5 – 3.3)
2	More in-depth test of 3-D rendering, editing, projection, and GP tasks	8 (4 – 15)
3	Set of GP analysis and 3-D visibility tests for more thoroughly exercising CPU/GPU*. These tests are command-line only and no ArcGIS Pro window will appear during execution	20 (10 – 39)

PAT Ergebnisse

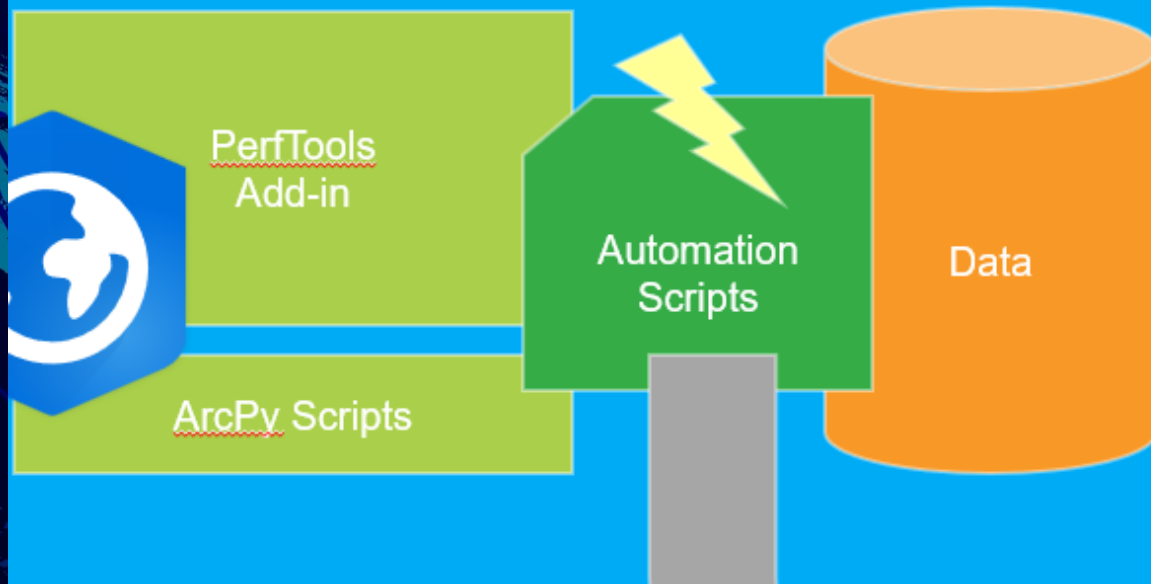
CSV Output:

Test Run	Level 1	Level 2	Level 3	Platform Type	Platform Version	CPU Type	RAM	GPU1	GPU2	ProVersion
AllLevels_Oct-17-2022_210308	3.513	8.784	27.202	Windows	10.0.19042	Intel64 Family 6 Model 94 Stepping 3, GenuineIntel	16 GB	NVIDIA Quadro M1000M	Intel(R) HD Graphics 530	3.0.2

Level	Description	Benchmark Execution Time Average (Range) in minutes
1	Concise test of map rendering and GP analysis	2.8 (2.5 – 3.3)
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Wir speichern auch einzelne Logs für jeden Test UND ein Systeminfo.txt (grundlegendes HW-Inventar).

Performance Assessment Tool



PAT-Tool

Run it & Compare Machines

Maschinen / Hardware vergleichen

- Run 1 – Intel i9-8850HK, 2.6 GHz, 6 Core, internal NVMe
- Run 2 – Intel i9-8850HK, 2.6 GHz, 6 Core, external USB 3.0 SSD
- Run 3 – Intel Xeon W-2133, 3.6 GHz, 6 Core, SSD 500 GB
- Run 4 – Intel Xeon W-2133, 3.6 GHz, 6 Core, SSD 1 TB
- Run 5 – Intel Xeon W-2133, 3.6 GHz, 6 Core, S-ATA-Disk

Level 1	Level 2	Level 3	Platform Type	Platform Version	CPU Type	RAM	GPU1	GPU2	ProVersion
2.646	5.797	12.956	Windows	10.0.22631	Intel64 Family 6 Model 158 Stepping 10, GenuineIntel	64 GB	Intel(R) UHD Graphics 630	NVIDIA Quadro P2000	3.2
2.795	5.989	15.579	Windows	10.0.22631	Intel64 Family 6 Model 158 Stepping 10, GenuineIntel	64 GB	Intel(R) UHD Graphics 630	NVIDIA Quadro P2000	3.2
3.403	6.58	14.928	Windows	10.0.19045	Intel64 Family 6 Model 85 Stepping 4, GenuineIntel	32 GB	Microsoft Remote Display A	Citrix Indirect Display Adap	3.2
3.073	6.885	14.702	Windows	10.0.19045	Intel64 Family 6 Model 85 Stepping 4, GenuineIntel	32 GB	Microsoft Remote Display A	Citrix Indirect Display Adap	3.2
3.003	7.15	16.29	Windows	10.0.19045	Intel64 Family 6 Model 85 Stepping 4, GenuineIntel	32 GB	Microsoft Remote Display A	Citrix Indirect Display Adap	3.2

Vergleiche Disks

Gleicher Rechner, aber anderer Speicherort der Daten

Storage of Data	Level 1	Level 2
System SSD	2.7	7.2
Storage SSD over Fileshare	4.8	7.8
Azure BLOB	9.2	9.8

ArcGIS Pro Hardware Anforderungen

<https://doc.esri.com/de/arcgis-pro/latest/get-started/arcgis-pro-system-requirements.html>



Auf dieser Webseite ist die Möglichkeit eines automatischen Systemchecks vorhanden.



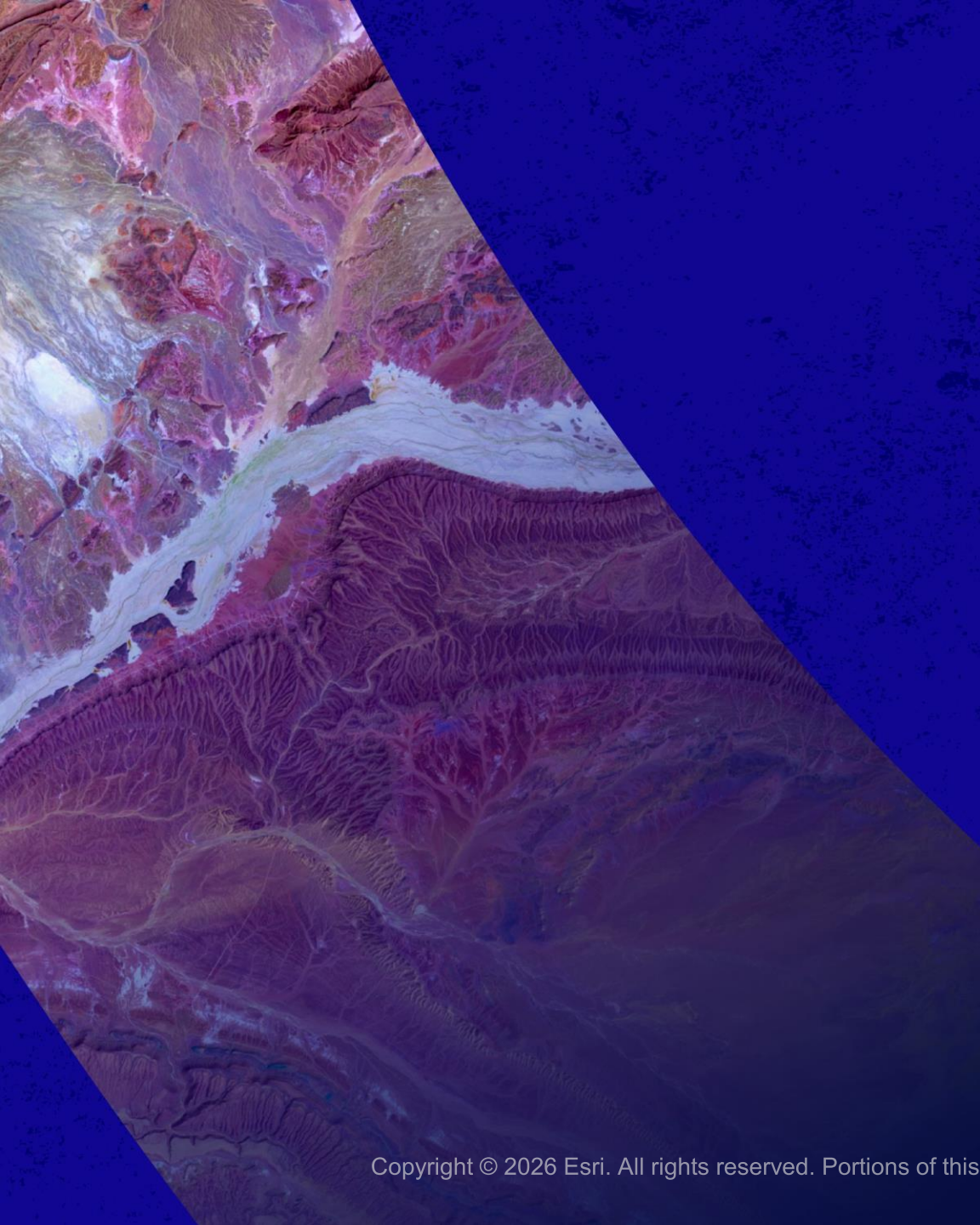
ArcGIS Pro 3.7

Congratulations, your system passes the Recommended requirements!

✓ Minimum ✓ Recommended

 Computer Requirements ✓ Pass

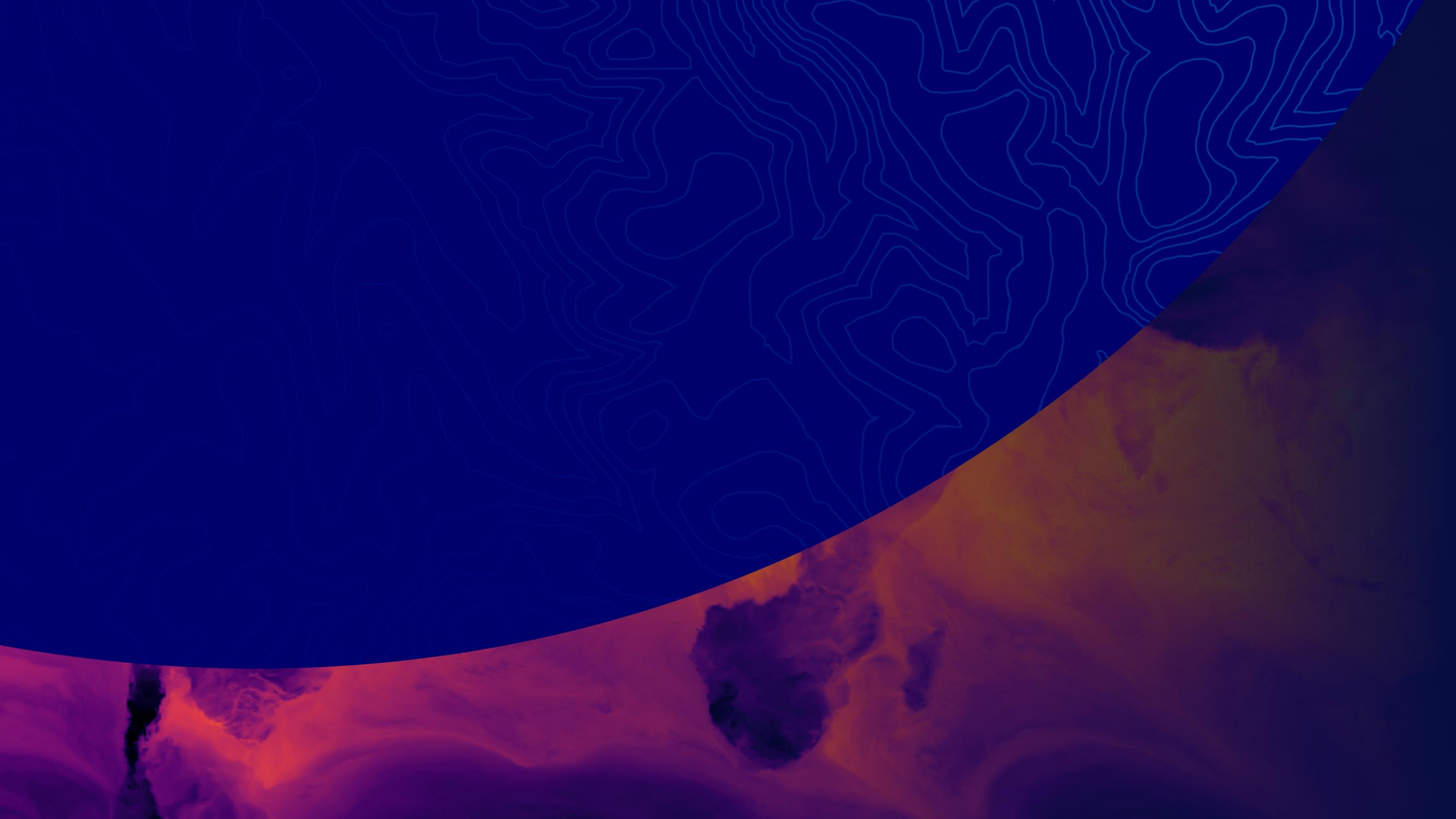
Result	Name	Requirements	Your System
✓	CPU	Hyperthreaded dual core	AMD Ryzen 7 8845HS w/ Radeon 780M Graphics
i	CPU Speed	Information	5.1 GHz
✓	RAM	8 GB	32 GB
✓	Video Card	DirectX 11 feature level 11.0, Shader Model 5.0, OpenGL 4.3 with 512 MB RAM	NVIDIA RTX 2000 Ada Generation Laptop GPU
✓	Dedicated Video RAM	512 MB	8.0 GB



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An aerial photograph of a river valley, showing a winding river and surrounding terrain. The image is partially covered by a large blue diagonal overlay that extends from the bottom left towards the top right.

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Im Anschluss

[Add Presentation Title]

The background is split into two main sections. The upper section is a solid dark blue with a pattern of thin, white, irregular contour lines, resembling a topographic map. The lower section is a curved area showing a sunset or sunrise sky with soft, blended colors of orange, yellow, and purple. The text '[Add section title]' is centered in the blue area.

[Add section title]

[Add topic]

- [Add subtopic]
- [Add subtopic]
- [Add subtopic]

[Add “Quote”]

[Name]



Demo: [Add
demo title]



Demo: [Add demo title]

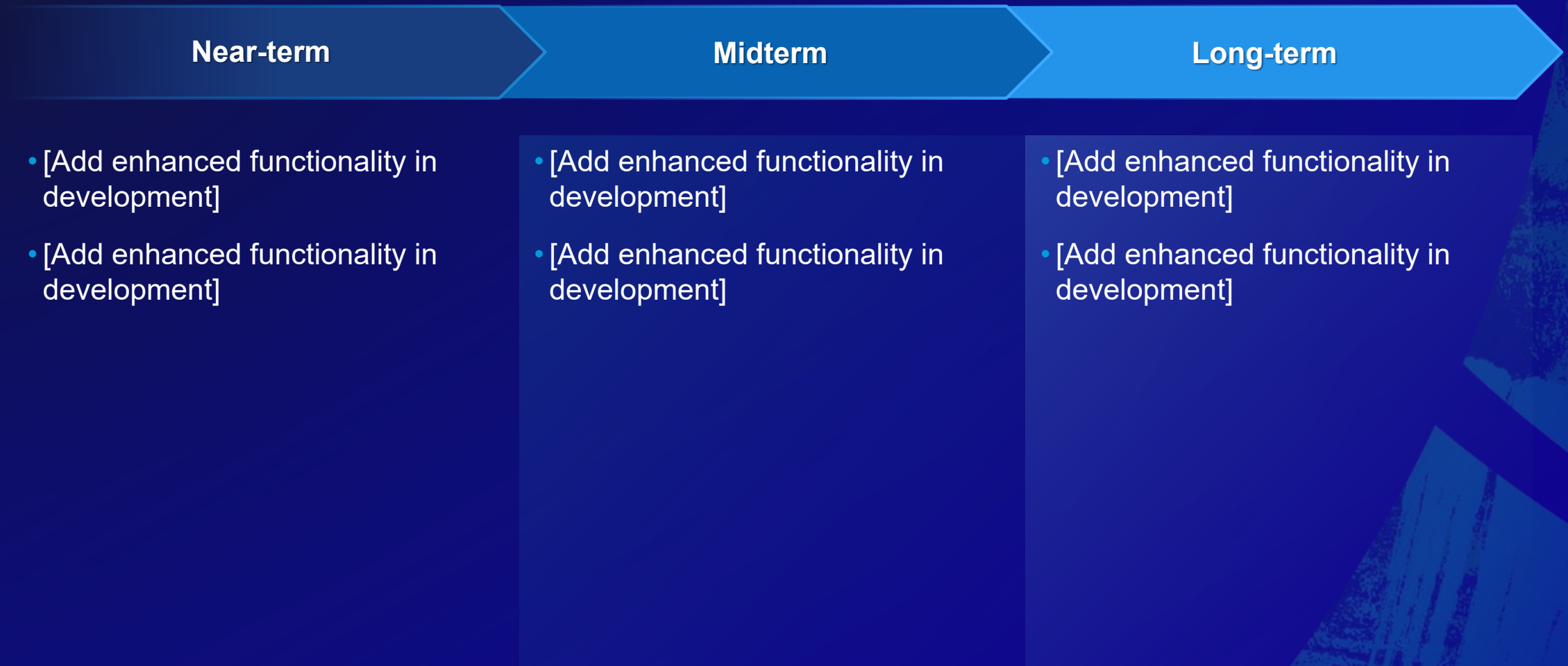
Acknowledgments

- [Add acknowledgment]
- [Add acknowledgment]
- [Add acknowledgment]

What is [add product name, capability, or technology]?

- [Add simple description of product, capability, or technology]
 - [Add capability]
 - [Add capability]
 - [Add capability]

[Add product or solution name] road map



What's new with [add product or solution name]?

- [Add enhanced functionality]
- [Add enhanced functionality]
- [Add new functionality]
- [Add new functionality]

[Add product name] vision and strategy

- [Add subtopic]
- [Add subtopic]
- [Add subtopic]

What is [add feature]?

- [Add simple description of application or solution type]
 - [Add capability]
 - [Add capability]
 - [Add capability]

[Add topic]

Currently available	Changes coming
• [Add existing functionality A] • [Add existing functionality B]	• [Add enhanced functionality A in development] • [Add enhanced functionality B in development]

[Add topic]

Currently available

[Replace with visual of existing functionality]

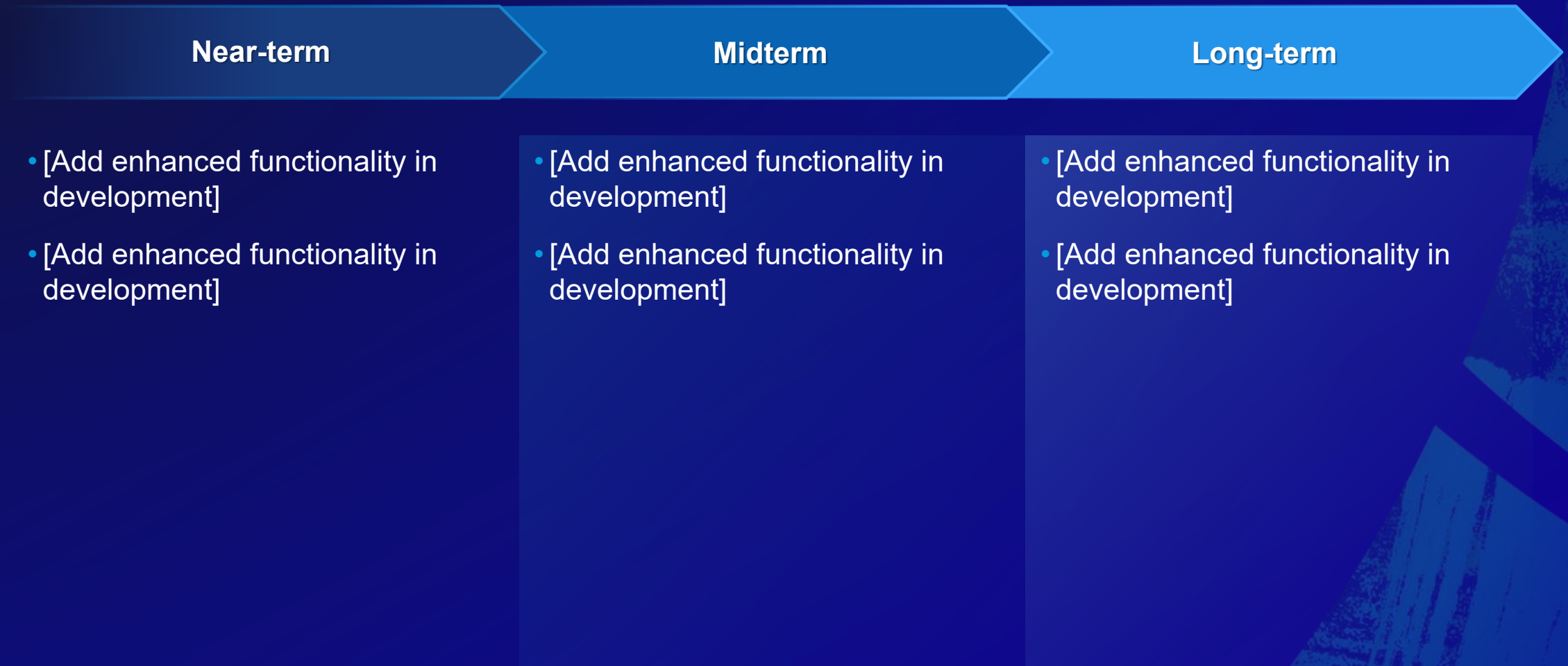
[Add optional caption]

Changes coming

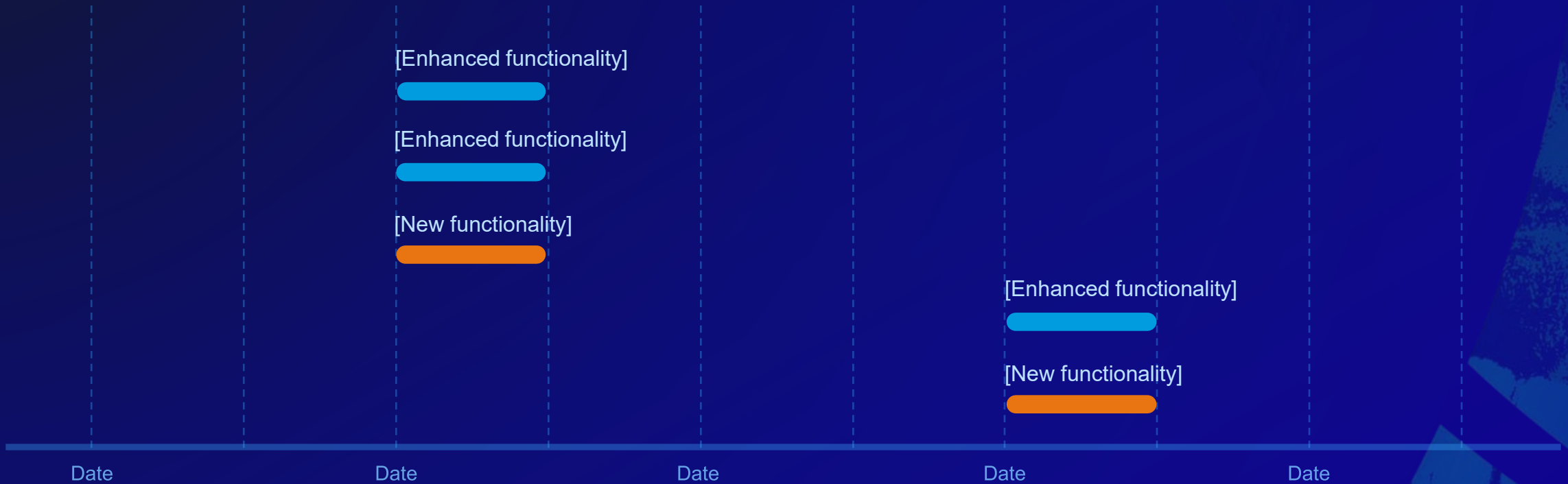
[Replace with visual of enhanced functionality]

[Add optional caption]

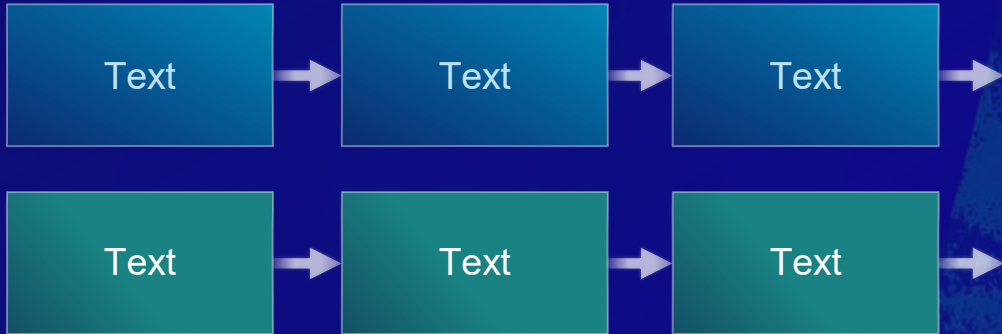
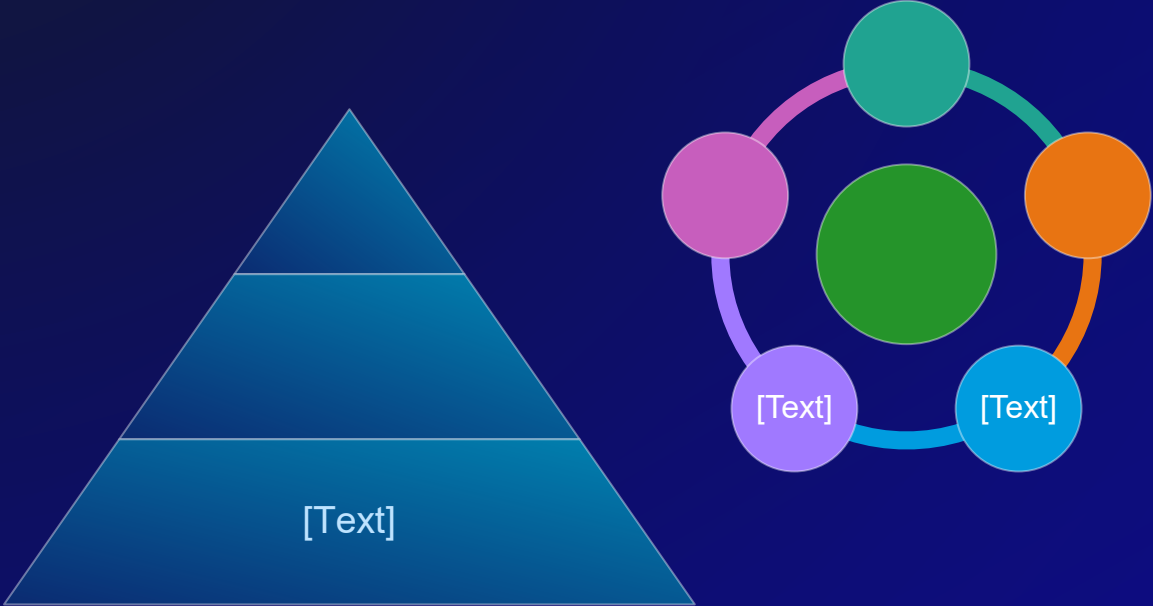
[Add product or solution name] road map



[Add product name] release schedule



Color suggestions



Use copy/paste formatting

to apply these color options



Solids



Gradients

Code color suggestions

Description of developer code [insert code]

For additional diagram options, see the [Diagrams, Tables, and Timelines template](#)