AGP email GP help

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1. What does the package contain?

- Toolbox for pro

- Help file

2. What is geoprocessing?

ArcGIS Pro | Other versions| Help archive

Geoprocessing is a framework and set of tools for processing geographic and related data. The comprehensive suite of geoprocessing tools can be used to perform spatial analysis or manage GIS data in an automated way. Geoprocessing is for everyone that uses ArcGIS Pro. Whether you are a new or advanced user, geoprocessing will likely be an essential part of your day-to-day work.



Geoprocessing is used to automate GIS tasks and for modeling and analysis.

A typical geoprocessing tool performs an operation on a dataset such as a feature class, raster, or table, and creates a resulting output dataset. For example, the Buffer tool takes features as input, creates buffer areas around the features to a specified distance, and writes those buffer areas to a new output dataset.

Additional resources from ESRI that will help you.

What is geoprocessing?

Geoprocessing quick tour

Customize ArcGIS Pro with geoprocessing tools

What is ModelBuilder?

ModelBuilder Add and connect data and tools and modify elements

Create a model tool

Use ModelBuilder

Run a model in ModelBuilder

3. How to use?

• Add to project: To use the tool, you first need to add it to your ArcGIS Pro project. Using the attachment sent to the email, unzip the toolbox and then add to your project.

Add an existing toolbox to a project

You can add an existing toolbox to the catalog's **Toolboxes** container 😑. This allows you to access the toolbox without browsing to a folder or database.

• C	open the A	dd Toolbox browse dialog box by using any of the following methods:
On th	e ribbon	Click the Insert tab. In the Project group, click Toolbox and click Add Toolbox .
In the	Conte nts pane of a catalo g view	Click Toolboxes 🔁. On the ribbon, click the Catalog tab. In the Create group, click Add 🕂 and click Add Toolbox 🛱.
In the	Catalo g pane	On the Project tab, right-click Toolboxes and click Add Toolbox

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• Browse to and select one or more toolboxes on your local computer, on a network computer, or in a file geodatabase.

Click OK.

The toolbox appears in the **Toolboxes** container in the **Catalog** pane and the **Contents** pane of a catalog view.

You can also add a toolbox to a project using the following methods:

In the Catalog pane, a catalog view, or the Content s pane of a catalog view	 Browse to a toolbox, right-click it, and click Add To Project +. Browse to a toolbox, select it, and drag it to the Toolboxes container in the Catalog pane or the Contents pane of a catalog view. 	ie
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In File Explorer	Browse to a toolbox, select it, and drag it to the Catalog pane or the Contents pane of a catalog view. It appears in the Toolboxes container 🔁.
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- **Open ArcGIS Pro in a new or existing project:** You can either start a new project or open an existing one, depending on your specific needs.
- Open the catalog: In ArcGIS Pro, the Catalog pane is where you manage your data, tools, and

projects.



- **Select right mouse button:** Right-click on the toolbox to access its functions.
- From the menu, point to add toolbox: In the context menu, you can choose to add the toolbox to your project.

Add Toolbox						[×
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 Computer 					Fo	lder		•
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🔺 💻 This PC					Fo	older		2
D 3D Objects		~			Fo	lder		: v
<			<				>	
	Name ProE	mail	atbx		Toolboxes (/	All Types)		•
						ОК	Cancel	

You navigate to the once archived tool: Once you've added the toolbox, you can locate the specific tool you want to use.



- Add to project: If you want to make it easier to access frequently used tools, you can copy the contents of the toolbox to your own toolbox within the project.
- Configure Parameters for Sending Test Email:



- Right-click to select "Test Sending Emails" and go to Properties.
- Choose Parameters. To receive emails, fill in the login_email with the email address used during the subscription. This email address will be validated for sending emails.

Tool Properties: Test Sen	ding	Emails								C) X
General	Def	ine the script t	ool parameter	s							
Parameters		Label	Name	Data Type	Type	Direction	Category	Filter	Dependency	Default	t
Execution	: 0	my_text	my_text	String	Required	Input				"Subscription is	working"
Validation	1	login_email	login_email	String	Required	Input				user@gisgp.com	n
	: *			String	Required	Input					
			t corint to als								-
	Le	am more abou	it script tools								
									[ОК	Cancel

Without a valid email, an error will occur in the GP message.

Geoprocessing	~	џ	×
Test Sending Emails			\oplus
Parameters Environments			?
my_text			_
"Subscription is not working"			
login_email			
test@gisgp.com			
۲	Ru	n	~
 Test Sending Emails completed. View Details Open History 			×
Catalog Geoprocessing			

To view details, select "View Detail."

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```
×
 Test Sending Emails (ProEmail)
Started: Today at 17:41:15
Completed: Today at 17:41:17
Elapsed Time: 2 Seconds
                                                                                    Þ
Parameters Environments Messages (5)
1 🔺 😣
Start Time: 17 November 2023 17:41:15
test@gisgp.com
message: Subscription is working
utf-8
Request was successful.
{'message': 'Email is login and sent to test@gisgp.com. Body: The tool is blocked
by: Email address is not subscribed, to subscribe, simply visit www.gisgp.com'}
Succeeded at 17 November 2023 17:41:17 (Elapsed Time: 2.11 seconds)
```

With a valid email, the message will confirm to check your mailbox for the sent email.

Started: Today at 17:44:12 Completed: Today at 17:44:15 Elapsed Time: 3 Seconds Parameters Environments Messages (5) Start Time: 17 November 2023 17:44:12 user@gisgp.com message: Subscription is working utf-8 Request was successful. {'message': 'Email is login and sent to user@gisgp.com. Body: GP task: \n <html>\n <body>\n \n \n </br></br></br></br></br></br></br></br></br></br></body></html>	Test Sending Emails (ProEmail)	×
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<pre>Start Time: 17 November 2023 17:44:12 user@gisgp.com message: Subscription is working utf-8 Request was successful. {'message': 'Email is login and sent to user@gisgp.com. Body: GP task: \n <html>\n <body>\n \n \n </br></body></html></pre>		
user@gisgp.com message: Subscription is working utf-8 Request was successful. {'message': 'Email is login and sent to user@gisgp.com. Body: GP task: \n <html>\n <body>\n \n (br>message: Subscription is working\n \n </img </body>\n </html> \n '} Succeeded at 17 November 2023 17:44:15 (ELapsed Time: 2.62 seconds)	Start Time: 17 November 2023 17:44:12	
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utf-8 Request was successful. {'message': 'Email is login and sent to user@gisgp.com. Body: GP task: \n <html>\n <body>\n \n dr> (html>\n soc=" alt="Image">\n </body>\n </html> \n '} Succeeded at 17 November 2023 17:44:15 (ELapsed Time: 2.62 seconds)	message: Subscription is working	
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Succeeded at 17 November 2023 17:44:15 (Elapsed Time: 2.62 seconds)	<pre>solver: subscription is working/p/p/n src=" alt="Image">\n</pre>	VSRØIAr
	Succeeded at 17 November 2023 17:44:15 (Elapsed Time: 2.62 seconds)	

You should check your mailbox for the sent email

All Unr	ead	By Date ∽ ↑	Email	subscription to gisgp.com		
✓ Today ArcGIS G Email subse GP task:	P toolbox m ription to gisg		AG GP task:	ArcGIS GP toolbox message <mailtrap@ To user@gisgp.com</mailtrap@ 	★ 5 < →	•••• 17:44
ArcGIS G Email subso GP task:	P toolbox m ription to gisgp	17:13				
ArcGIS G Email subso GP task:	P toolbox m ription to gisgp	16:57	message:	Subscription is working		

4. How is it used in a model?

On the **ModelBuilder** tab, click **Insert > Tools**, and add geoprocessing tools and model-specific**By selecting the toolbox through the catalog in Pro:** Open ArcGIS Pro and navigate to the Catalog pane. Here, you can browse your file system or network for the toolbox and add it to your project. **Select the script:** From the toolbox





Copy it to the model you want to send emails to: Drag and drop the script into your model workspace.





Connect it to the last operation in the model by dragging the arrow: To define the sequence of operations in your model, connect the email script to the previous



tools or processes in your model. You do this by connecting the arrows or lines between them.

- Select gp_management
- **Validate:** After creating your model, validate it to ensure there are no errors or issues.
- **Save:** Don't forget to save your model in your project.

4. How are parameters configured?

- Check the parameters with the properties selection of the script: To configure the script's parameters, access its properties. Here, you can specify things like input and output paths, email addresses, and other settings.
- By default, the model is associated with the email address specified in its subscription: The script may have default settings for certain parameters, including the email address. You can use these defaults or change them as needed.



• You can include additional parameters from model properties: Depending on the script and your model's requirements, you may be able to add or modify parameters.



- Select Double click to add custom text messages
- Write text messages



• The email parameter is mandatory for the job: If sending emails is a key function of the tool, the email parameter is crucial, and you must provide a valid email address.

5. How to test geoprocessing?

• Complete the steps of "How to use in a model" and configure the



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	DemoModel	\oplus
	Parameters Environments	?
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	ne_10m_rivers_north_america	× 🧰
	The input has a selection. Records to be processed: 1	Q
	۲	Run 🗸
	Bookmarks Geoprocessing Catalog	

parameters: Set up your model following the steps mentioned earlier.

• Save the pattern: Save your model configuration so that you can easily reuse it.



• **Just run it:** Execute the model, and it will perform the geoprocessing tasks.

	🕞 Run	~
0	DemoModel completed. View Details Open History	×
Bookn	narks Geoprocessing Catalog	

- Geoprocessing is finish:
- You should receive a notification email: If your geoprocessing model involves sending emails, you should receive a notification email as configured. This confirms that the tool executed successfully.

Email subscription to gisgp.com
To: user@gisgps.com
Create 1 mile river buffer Succeeded at 12 Oct 2023 17:24:50 (Elapsed Time: 0,14 seconds)

Configuration in a Workflow

- Repeat email address settings for the other two geoprocessing steps.
- About SendEmailBasic:



Select Properties and, in the Parameters section, change the email address to a valid one.

Tool Properties: SendEn	nailBa	asic									\times
General	Def	Define the script tool parameters									
Parameters		Label	Name	Data Type	Type	Direction	Category	Filter	Dependency	Default	
Execution	: 0	my_text	my_text	String	Optional	Input			. ,		
Validation	11	login_email	login_email	String	Required	Input				user@gisgp.com	
	: 2	gp_mana	gp_management	[String,Fe	Required	Input					
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About myScript:

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SendEmailBasic	
Test Sending Emails	
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Select Properties, change the email address, and set the path to the active toolbox.

Tool Properties: mySo	cript										\Box \times
General	De	Define the script tool parameters									
Parameters		Label	Name	Data Type	Type	Direction	Category	Filter	Dependency	Default	
Execution	: 0) my_toolbox	y_toolbox	Toolbox	Required	Input				C:\GISProject\Request\ProEma	ail.atbx
Validation	1	login_email	gin_email	String	Required	Input				user@gisgp.com	
	*			String	Required	Input					
	Le	earn more abo	< compute script too	ls							>
										OK	Cancel

You also need to make one additional setting to use the myScript tool: indicate the path to the active toolbox. This refers to the toolbox loaded into the project. This step is necessary to auto-populate the path in the future. Select the folder on the right and set the path to the toolbox.

Default	
C:\GISProject\Request\ProEmail.atbx	
user@gisgp.com	

• You can use multiple toolbox copies, specifying the path for each Pro project.

Using the Email Notification Tool in Practice:

- Embed your geoprocessing in "myModel" to get status notifications.
- Select "Edit" on myModel.

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		🔺 💼 ProEmail.at	tbx	
<u>O</u> pen		M	odel	
Ed <u>i</u> t		ode	el	
<u>B</u> atch		Edit	+	
Add To Pro	oject Favorites	Edit the source of the	tool.	

 Now, build your new geoprocessing, or if you already have one built, copy it into ProEmail.atbx. Then, pass it inside myModel. For example, suppose you want to embed an already implemented model to track its execution and receive an email with the execution status. Please note that 'Upload files'—selected to illustrate the example—is not contained in this package

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Project Portal Computer Favorites	≡
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🔺 🔤 ProEmail.atbx	
Per DemoModel	
₽° myModel	
I myScript	
🗐 SendEmailBasic	
🗐 Test Sending Emails	
🔺 💼 Upload_files.atbx	
➢□ Upload files	

Build or copy your geoprocessing into ProEmail.atbx and pass it inside myModel.

🗐 Test S	ending Emails	
🔺 🏛 Upload	<u>O</u> pen	
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	🖺 <u>С</u> ору	Ctrl+C

Paste the sample model

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The model has been transferred. ~ 4 × Catalog Project Portal Computer Favorites \equiv (\in) h Search Project Q \sim 🖻 📷 Maps 🔺 📻 Toolboxes Default.atbx 🔺 💼 ProEmail.atbx DemoModel Ҏ myModel 🗐 myScript SendEmailBasic Test Sending Emails F 눧 Upload files

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 Now, we're going to embed it in myModel. If there is previous content in myModel, highlight it and select 'Cut.' Now, copy 'Upload files' or drag and drop it into the myModel window.



- If necessary, update the model parameters.
- Validate and save myModel (do not execute it).
 ModelBuilder



Important do not execute myModel !!!

Running the model myScript

• MyScript is always executed; this is because all the validation, message interception, and email notification logic are in myScript. Model myModel is a container in which your geoprocessing models or tools are embedded. Let's run myScript and review the output. With a double wedge, we open myScript; there is no need to change the parameters as we have already set them in the previous steps. If there is still a mismatch in the parameters, please check the previous steps.

4	🧃 Toolboxes
	🖻 💼 Default.atbx
	🔺 💼 ProEmail.atbx
	➢ DemoModel
	눧 myModel
	🗐 myScript
	🗐 SendEmailBasic
	📳 Test Sending Emails
	🔤 Upload files

- Verify the email address for comprehensive execution details.
- Important: The unusable emails from the image user@gisgp.com, it is for illustration only.

Geoprocessing		~ 7 ×
\odot	myScript	\oplus
Parameters Environm	ents	?
my_toolbox ProEmail.atbx login_email user@gisgp.com		
		▶ Run →
Catalog Geoprocessing		

• Open myScript and RUN it.



Sample Messages

myScript (ProEmail)

Started: Today at 14:55:21 Completed: Today at 14:55:43

Elapsed Time: 22 Seconds

Parameters Environments Messages (8)

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Let's check the email address. The email contains all the details regarding the execution of the model.



• If you want to use new geoprocessing, you can create a new project with a copy of the toolbox. Be sure to redirect the path in the tools to the new location of ProEmail.atbx.

How to handling Errors in geoprocessing

- Receive notifications for geoprocessing errors.
- Run myScript with a model containing an error.
- Check the email for error details.

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Geoprocessing v 4	×
🕞 myScript 🤆	Ð
Parameters Environments (?
my_toolbox	
ProEmail.atbx	
login_email	
user@gisgp.com	
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	_
🕞 Run	~
myScript completed.	
View Details Open History	×
Catalog Geoprocessing History	

The bug is contained in the built-in geoprocessing; let's take a look.



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We also observe the described parameters, start time and date, and the error that occurred in the email.



• This way, you can be notified promptly in case of non-working geoprocessing and make the necessary corrections immediately.

Successful Geoprocessing:

• Create a new project with a copy of the toolbox for new geoprocessing.

For Questions

- Visit the website, see the FAQ section www.gisgp.com
- Fill out the form on the site or use support@gisgp.com