

6ª Edición Gira Online Speakers Latam



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Ponencia:
Productivity tips for setting infrastructure-as-code with Azure Bicep

Fecha Evento Online: 02-08-2022

 **12:00 PM** Europa GMT+1

Digital Live Event:



**Organizan: Community Group Azure Latinoamérica
y Cloud Lunch & Learn**





Elkhan Yusubov

Speaker | Author | Cloud Architect
Founder at #cloudmarathoner



Elkhan is a Cloud Architect Manager, Microsoft Azure MVP and 15+ MCT with experience in cloud solutions, enterprise healthcare systems and healthcare data, and API standards (HL7 FHIR, EDI X12).

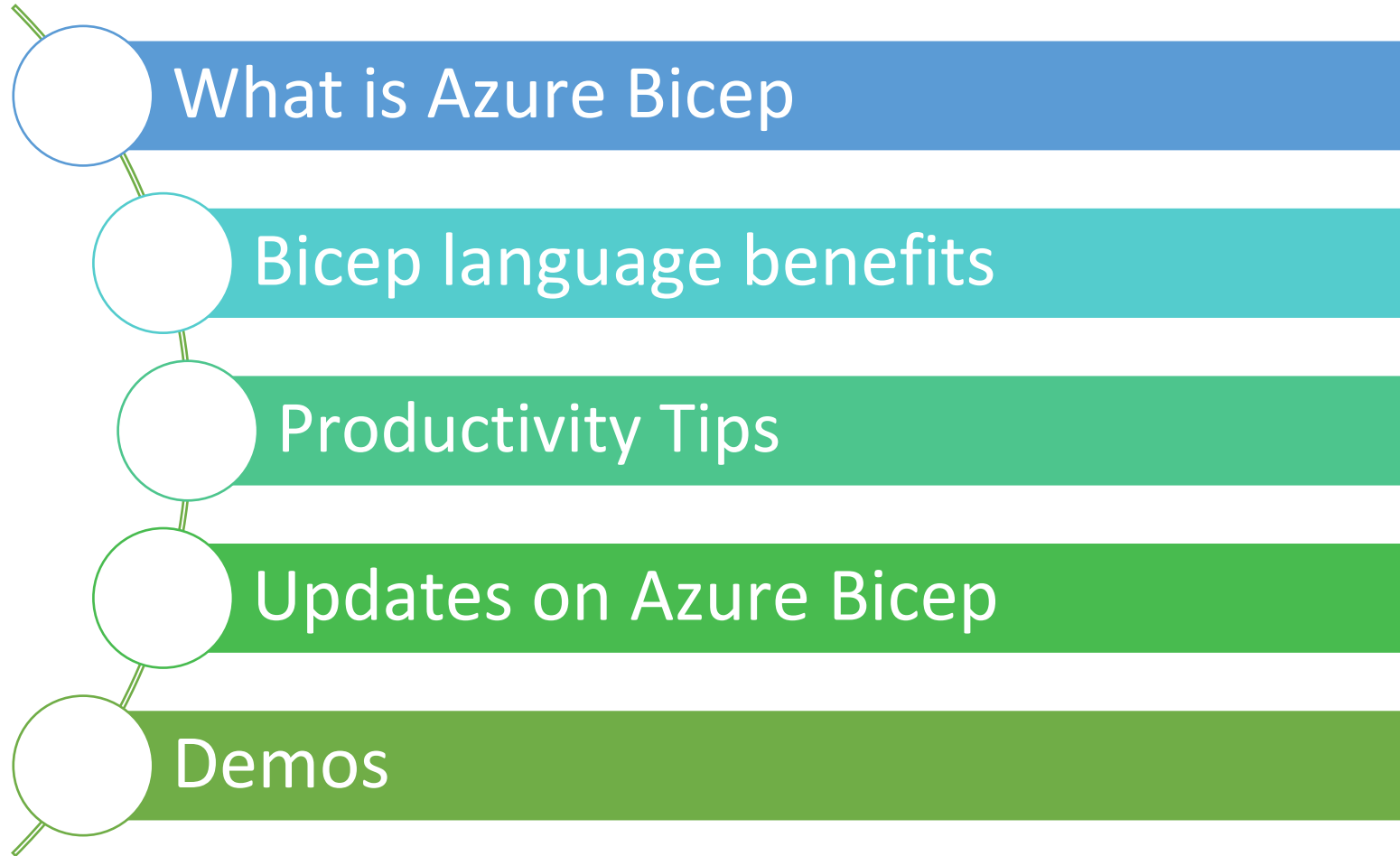
He is an active Microsoft Tech Community Contributor, Cloud Lunch and Learn Speaker and Co-Organizer, and LinkedIn instructor with interests in Architecture, DevOps & Security.

He is a frequent speaker at tech meetups and has volunteered for Give Camps, Azure Data Fest, SQL Saturdays and Microsoft community events, like this one.

And please, checkout his blog posts at Cloud Marathoner site below.

<https://theCloudMarathoner.com>   

What we will cover

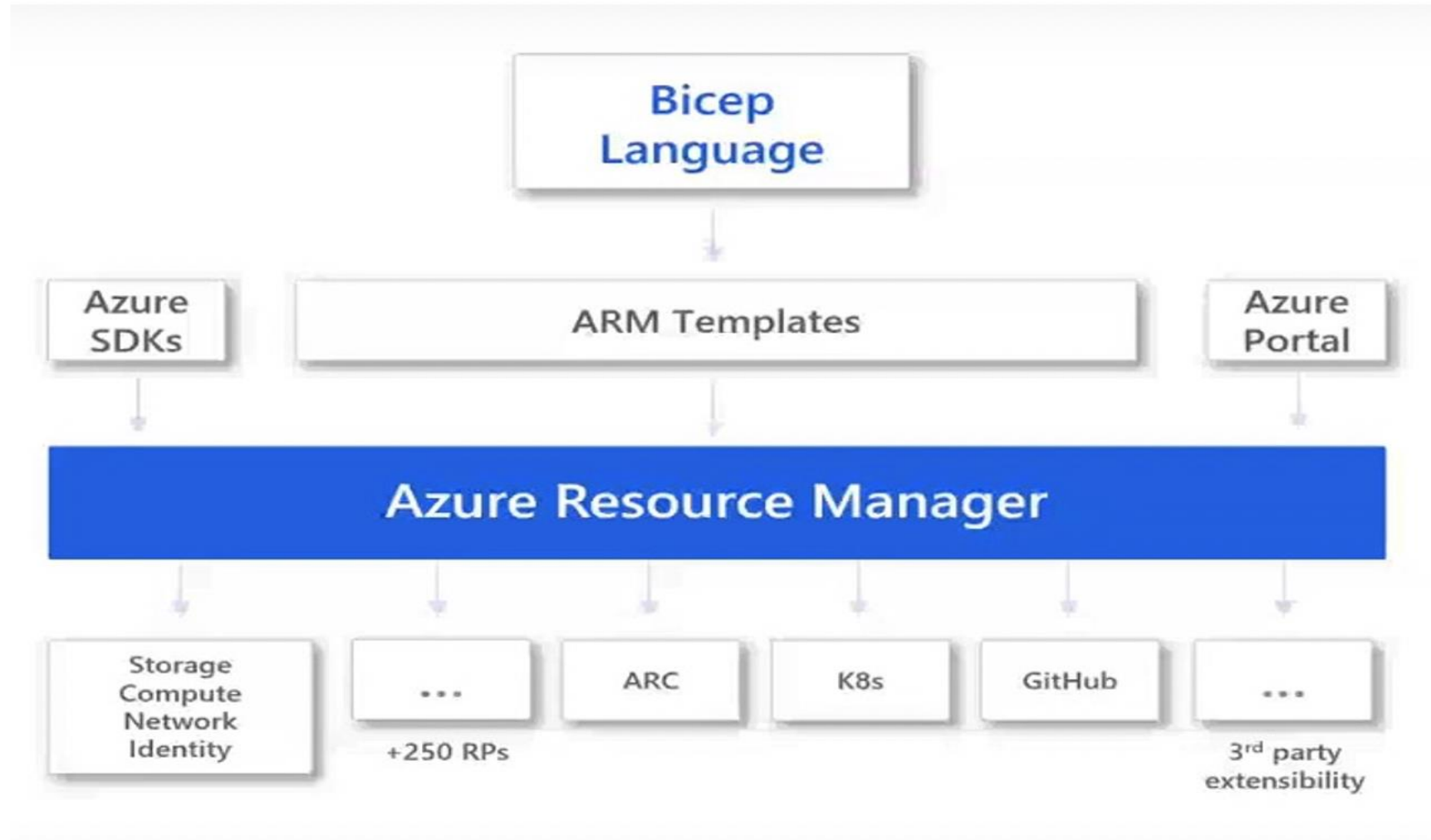


What is Azure Bicep?

- DSL for managing Azure resources
- Transparent abstraction over ARM
- Simple way to author Azure resources
- Transpiles into ARM Templates

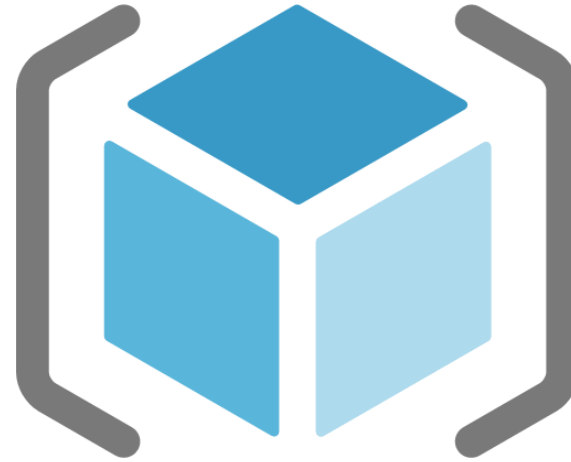


Relationship between Bicep and ARM templates



Bicep language benefits

- Easy to understand and maintain
- Day Zero support
- Transparent abstraction
- Awesome tooling in VS Code
- Clean code syntax
- Code re-use and modularity
- Deep integration with Azure
- Preflight validation
- No state management
- Production support

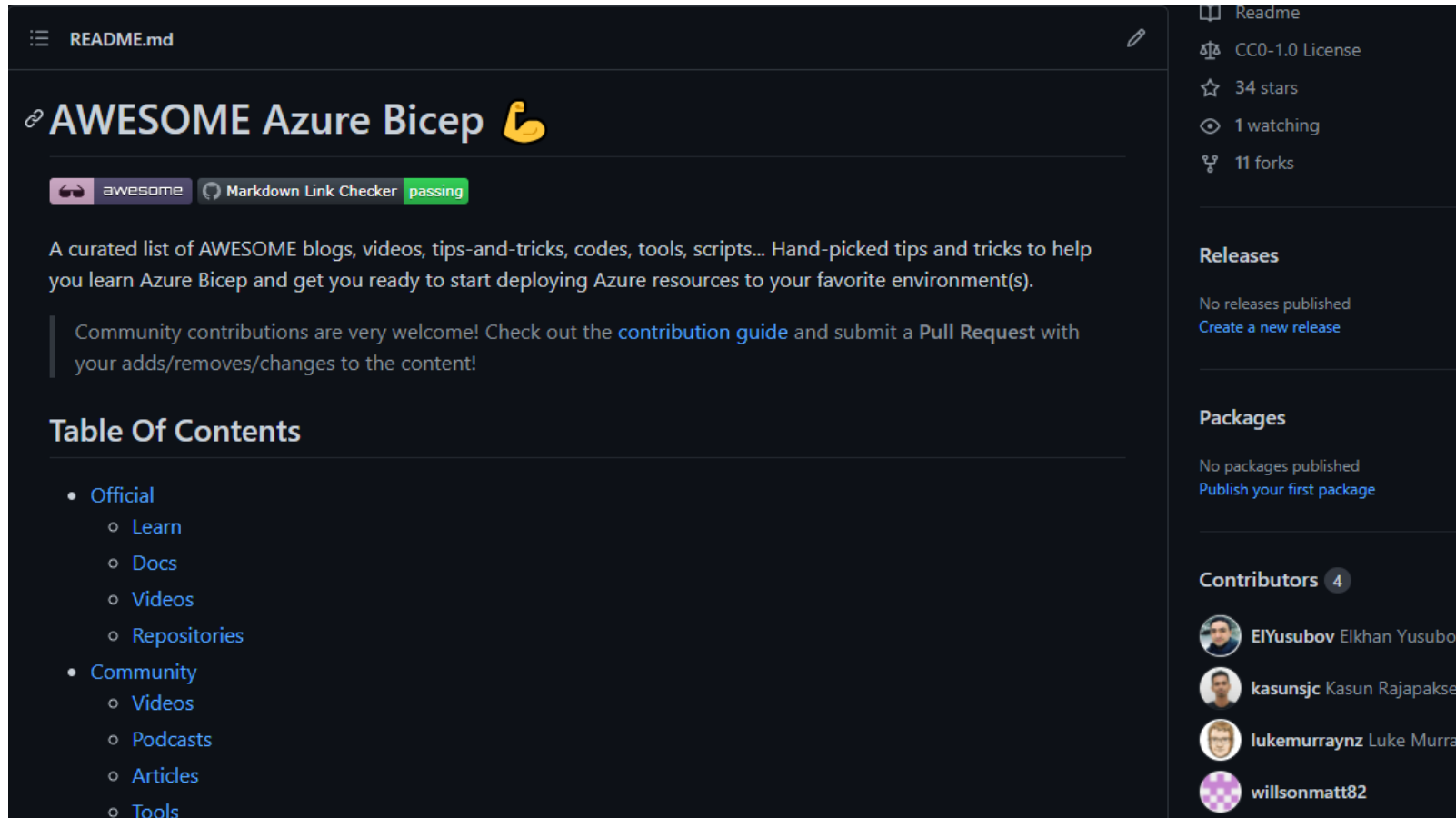


Azure Bicep evolution from 2020

- Started as alpha version in 2020
- Supported version: v0.3.1
- Latest version: v0.8.9
- Expected version v1.0 TBD 😊

```
PS C:\Work\Learn-Bicep> az bicep list-versions
[
  "v0.8.9",
  "v0.8.2",
  "v0.7.4",
  "v0.6.18",
  "v0.6.11",
  "v0.6.1",
  "v0.5.6",
  "v0.4.1318",
  "v0.4.1272",
  "v0.4.1124",
  "v0.4.1008",
  "v0.4.613",
  "v0.4.451",
  "v0.4.412",
  "v0.4.63",
  "v0.4.1",
  "v0.3.539",
  "v0.3.255",
  "v0.3.126",
  "v0.3.1",
  "v0.2.328",
  "v0.2.317",
  "v0.2.212",
  "v0.2.59",
  "v0.2.14",
  "v0.2.3",
  "v0.1.226-alpha",
  "v0.1.223-alpha",
  "v0.1.37-alpha",
  "v0.1.1-alpha"
]
```

How to start with Azure Bicep?



The screenshot shows the README.md file for the 'AWESOME Azure Bicep' repository. The title is 'AWESOME Azure Bicep' with a yellow bicep emoji. Below the title, there are two badges: 'awesome' and 'Markdown Link Checker passing'. The text describes a curated list of blogs, videos, tips-and-tricks, codes, tools, and scripts to help learn Azure Bicep. It also mentions that community contributions are welcome and provides a link to the contribution guide. A 'Table Of Contents' section lists the following items:

- Official
 - Learn
 - Docs
 - Videos
 - Repositories
- Community
 - Videos
 - Podcasts
 - Articles
 - Tools

On the right side of the README, there is a sidebar with the following information:

- Readme
- CC0-1.0 License
- 34 stars
- 1 watching
- 11 forks
- Releases: No releases published, [Create a new release](#)
- Packages: No packages published, [Publish your first package](#)
- Contributors 4
 - ElYusubov El Khan Yusubov
 - kasunsjc Kasun Rajapakse
 - lukemurraynz Luke Murray
 - willsonmatt82



Azure Bicep First Look video course



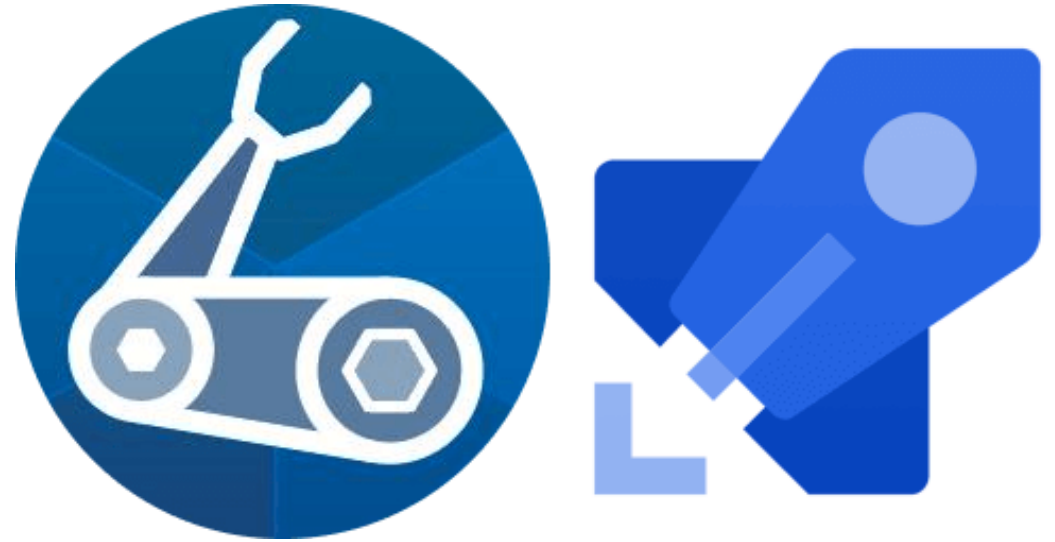
VS Code & Bicep configuration file

- What is Bicep config file ?
- Why you need one ?
- How is it organized (analyzer) ?
- What are the default configurations ?

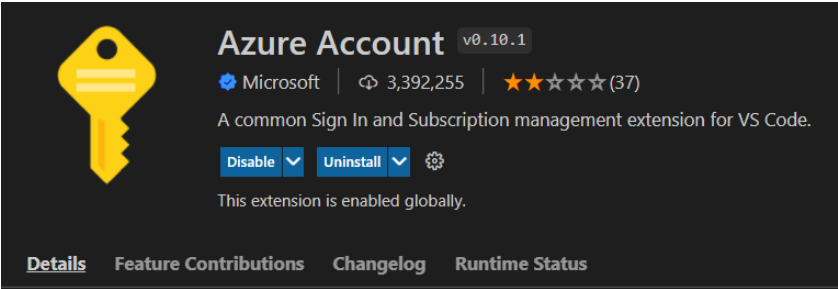
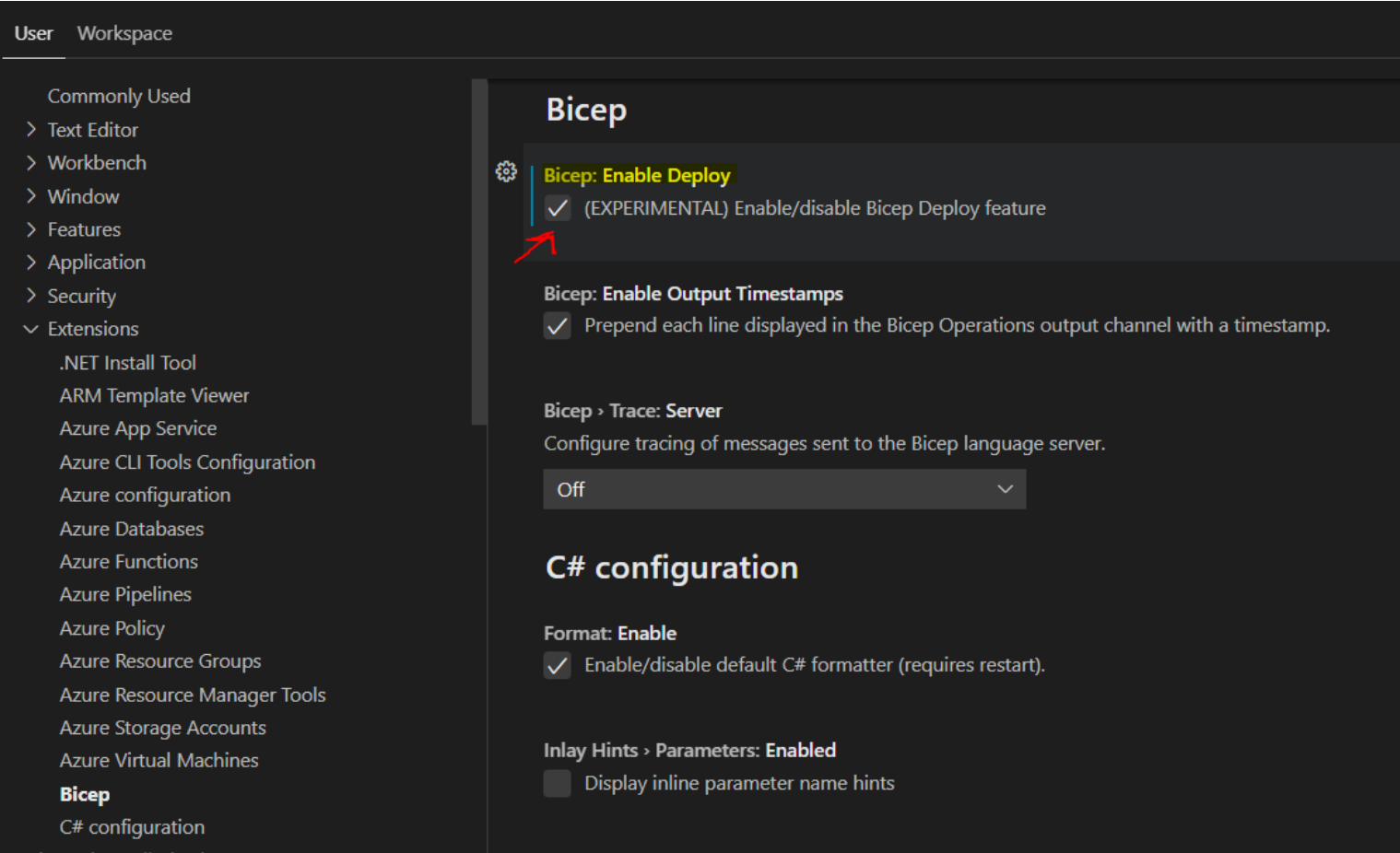


Productivity Tips

- Bicep Public & Private Registry
- Deploy a Bicep file from VS Code
- Bicep Visualizer
- Code snippets
- Auto generated parameters in VS Code

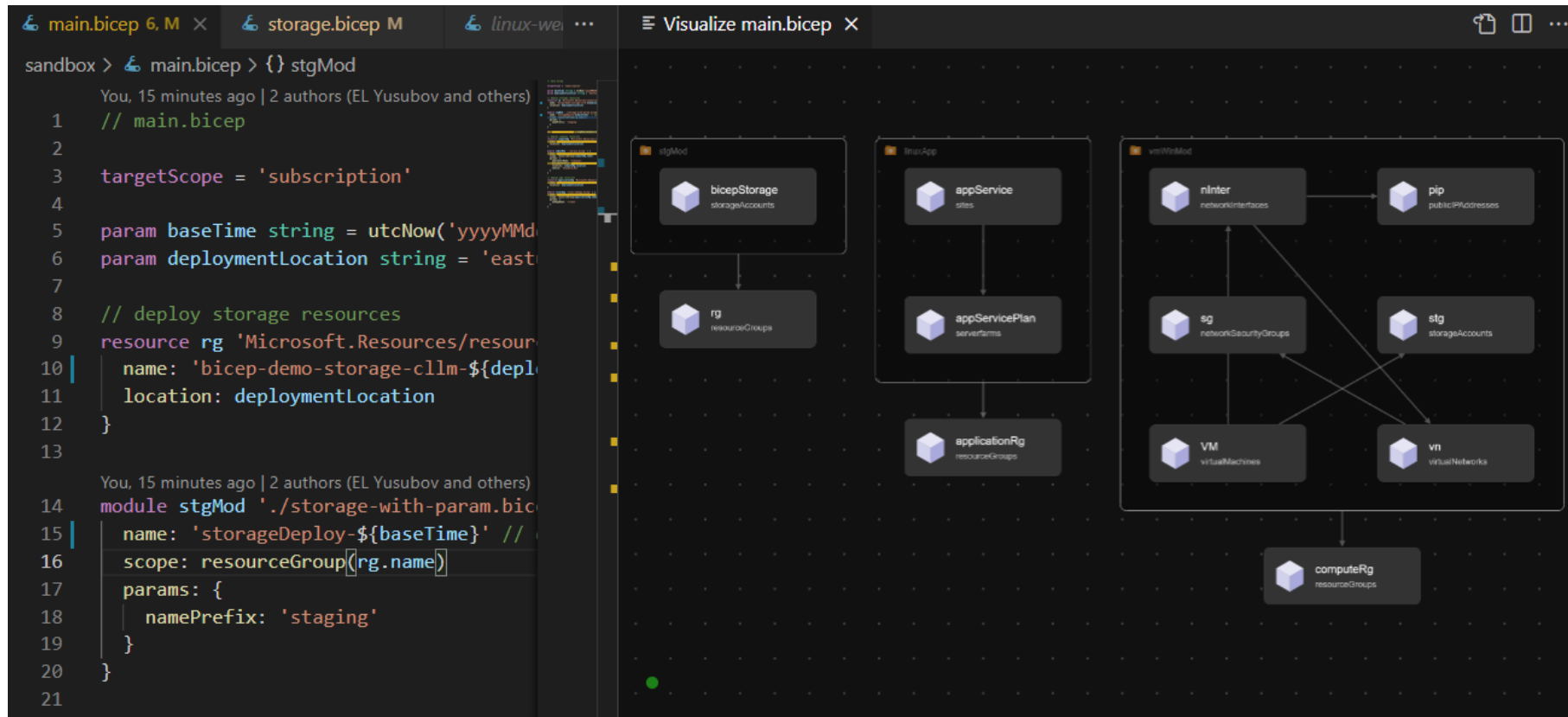


Deploy a Bicep file from VS Code



Bicep file visualizer

Visualized Bicep file resources



Azure Bicep IaC best practices



Demos

```
2-deploy-param-storage.bicep 1, M  {} bicepconfig.json X
{} bicepconfig.json > {} analyzers > {} core > {} rules > {} secure-parameter-default
You, 3 weeks ago | 1 author (You)
1  {
2    "analyzers": {
3      "core": {
4        "enabled": true,
5        "verbose": true,
6        "rules": {
7          "no-hardcoded-env-urls": {
8            "level": "warning"
9          },
10         "no-unused-params": {
11           "level": "warning"
12         },
13         "no-unused-vars": {
14           "level": "error"
15         },
16         "prefer-interpolation": {
17           "level": "warning"
18         },
19         "secure-parameter-default": {
20           "level": "error"
21         },
22         "simplify-interpolation": {
23           "level": "warning"
24         }
25       }
26     }
27   }
```

TERMINAL DEBUG CONSOLE PROBLEMS 3 OUTPUT

```
9  @description('Azure region to deploy all resources')
10 @allowed([
11   'eastus'
12   'eastus2'
13   'westus'
14   'westus2'
15 ])
16 param environment: string
17
18 param environment string
19
20 resource myResourceGroup 'Microsoft.Resources/resourceGroups@2021-04-01'
```

Parameter "environment" is declared but never used. bicep core(

View Problem No quick fixes available

You, a minute ago • Uncommitted changes

Automating with GitHub workflow

The screenshot shows a GitHub repository page for 'Elyusubov / Learn-Bicep'. The 'Actions' tab is selected, displaying a workflow run for 'Merge pull request #77 from Elyusubov/development'. The workflow is titled 'deploy-main-site #47' and has a green checkmark indicating success. The run was triggered via a push 12 hours ago by Elyusubov, with commit hash adf046c on the main branch. The total duration of the run is 1m 46s. On the left, a 'Jobs' section lists three jobs: 'lint', 'validate', and 'deploy', all with green checkmarks. The main area shows the workflow graph for 'main.deployment.yaml' on push, with a sequence of jobs: 'lint' (17s) and 'validate' (16s) running in parallel, followed by 'deploy' (1m 6s).

Elyusubov / Learn-Bicep Public

<> Code Issues 1 Pull requests Actions Projects 1 Wiki Security 12 Insights Settings

✓ Merge pull request #77 from Elyusubov/development deploy-main-site #47

Summary

Jobs

- ✓ lint
- ✓ validate
- ✓ deploy

Triggered via push 12 hours ago

ELYusubov pushed -> adf046c main

Status: Success

Total duration: 1m 46s

Artifacts: —

main.deployment.yaml

on: push

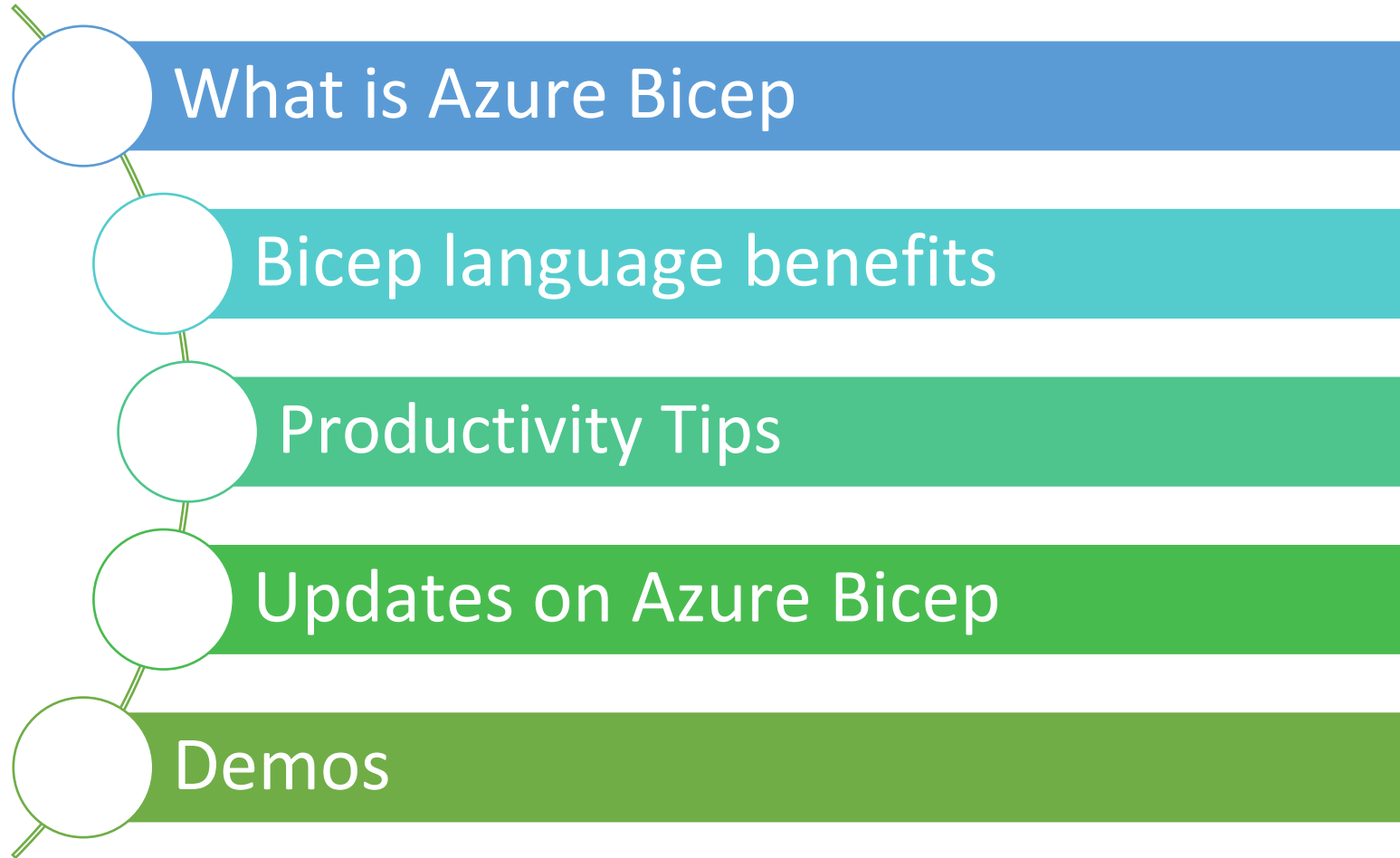
lint 17s

validate 16s

deploy 1m 6s



What we have covered



What is next?

Learn Bicep – GitHub



Azure Bicep – First Look course 🎧



Bicep Project - GitHub



AWESOME Azure Bicep 📖 - GitHub



Thank you !



<https://giraspeakerslatam-us.azurewebsites.net/>

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