CDAO

Chief Digital & Artificial Intelligence Office

JATIC Program Objectives for Increment 3

Demo recap

We held our Program Increment 2 demo on October 4th

Here's some facts to recap…

Demo recap

- A recording can be found on our Gitlab for review and sharing
- https://gitlab.jatic.net/jatic/docs/presentations/-/blob/master/demos/20231004_JATIC_Increment_2_Demo.mp4

Demo recap

We had a peak audience of **~128**. Steady audience of **~118** from intro to ending

156	2:59 PM - 7:08 PM	4h 9m 41s	1h 7m 35s
Attended	Start and end time	Meeting duration	Average attendance time

Participants

Name	First join	Last leave	In-meeting duration	Role
DJ Jin, David CIV OSD CDAO (USA) david.jin5.civ@mail.mil	3:01 PM	4:53 PM	1h 51m 45s	Organizer
AK Kapusta, Ariel S (Ari) CTR OSD ... ariel.s.kapusta.ctr@mail.mil	3:02 PM	4:52 PM	1h 50m 36s	Presenter
TF Thayer Fisher	3:13 PM	4:52 PM	1h 38m 56s	Presenter
SS Scott Swan (ARiA)	3:14 PM	4:52 PM	1h 37m 56s	Presenter
MY Michael Yee (MIT LL)	3:15 PM	4:32 PM	1h 16m 37s	Presenter
B brian.hu (Kitware)	3:17 PM	4:52 PM	1h 35m 27s	Presenter

Demo recap

Some of the DoD organization represented included:

- CDAO (CTO, AW, RAI)
- Army (ARL, ATEC, AI2C, PEO IEW&S)
- Navy (AEA for Autonomy, NAWCAD, NIWC, NSWC Crane, PEO USC)
- Space Force (SSC)
- Air Force (AFRL)
- DARPA
- TRMC
- DISA
- DIU
- NPS
- NGA
- …

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Demo recap

We’ve had **36** registrations to our Gitlab since the increment demo

Robert Regal robert.regal.civ@us.navy.mil	0	0	Oct 04, 2023
Thomas Horan thomas.horan.2@us.af.mil	0	0	Oct 04, 2023
Logan Kaim logan.h.kaim.mil@army.mil	0	0	Oct 04, 2023
Anna Rubinstein anna.h.rubinstein@nga.mil	0	0	Oct 04, 2023
Sean Allen sean.allen.9@spaceforce.mil	0	0	Oct 04, 2023
Sumanyu Gupta sgupta@sei.cmu.edu	0	0	Oct 04, 2023

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Demo recap

- Internally, the demo provided a ‘forcing function’ for integration and collaboration

- Thanks to the teams for bearing with our fluid requirements and format during this first integrated demo
- Special thanks to:
  - Lei, Dharhas, Michael Y, Kim, and many others for the collaboration on the #increment2-demo channel
  - IBM team for switching datasets from VisDrone to xView 3 days before the demo
  - All the presenters for putting up with our nitpicking on style, language, window aspect ratios ☺

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Demo recap

- Demo highlighted the importance of **seeing** tools at work, within an operationally realistic context
- “First breakthrough” with end-users

- But … still a great amount of work to go from
  - Participants seeing tools within demo

    to

  - Adopting and using the tools within their workflows

- This increment’s program objectives focus on going beyond
  - an internal integrated demo

    to

  - a set of products, available frictionlessly to end-users

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Program Objectives - prologue

- Not all program objectives apply equally to all teams or producs

- Recommendation:
  - try to understand how the state of your product relates to the overall program context and objectives
  - From there, determine for your product the objectives are most salient

Objectives 1 + 2

1. Availability

   users can access tools on familiar platforms including github, pip, and conda

2. (Sufficient) Maturity

   robustness of features and documentation that allow for a regular user to install and use the basic functionality of a tool

Beta or MVP release

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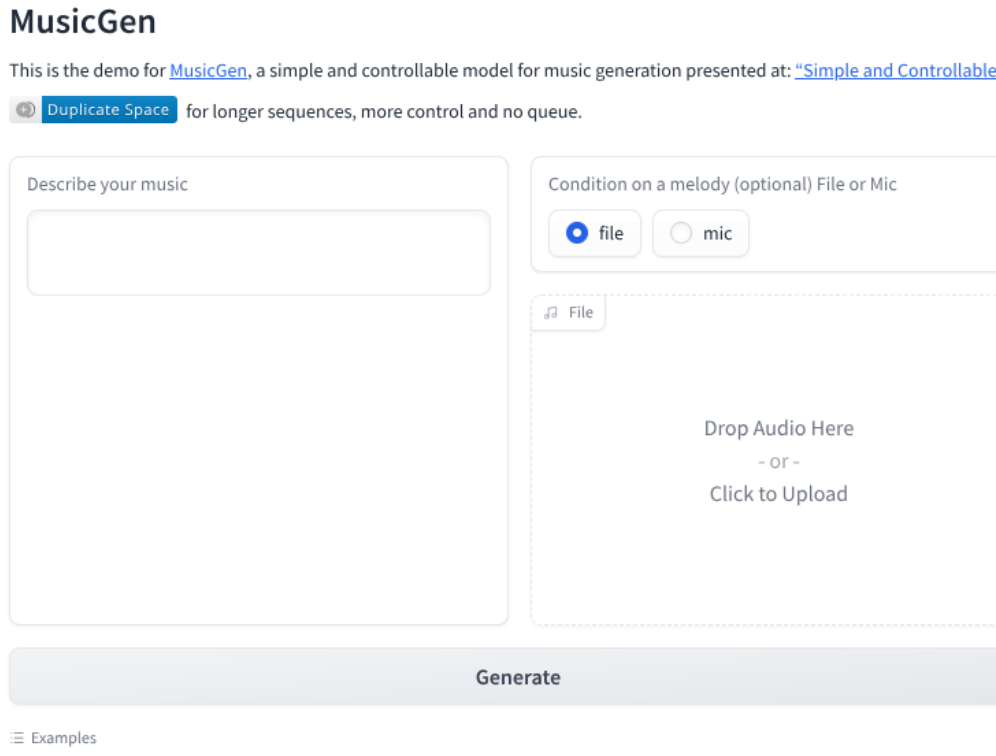
Objective 3

3. Immediacy

   even before downloading or installing, users can have an intuitive, hands-on experience with the product, immediately demonstrating its core functions and their value

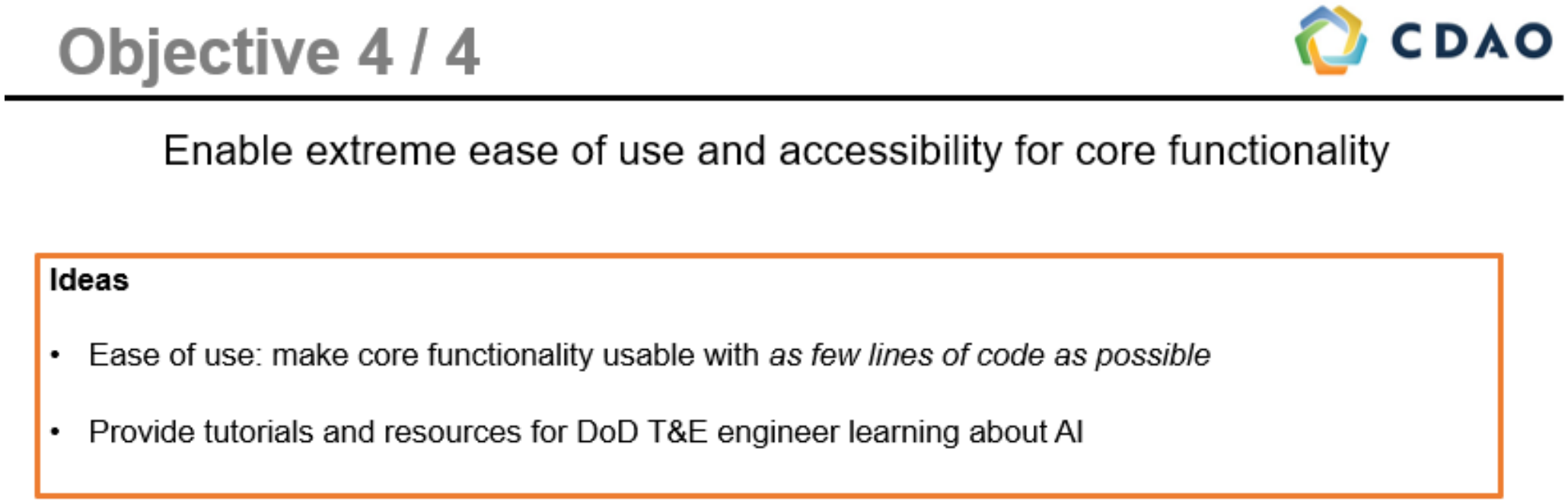
Examples / ideas:

- huggingface spaces
- colab notebooks
- sharable apps on the AI T&E platform
- …



Objective 4

4. Ease of use for core functionality



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Objective 5

Context:

- Many demo attendees provided feedback on the T&E “areas” most interesting to them, and functionality within those areas most applicable to their missions
- Examples:
  - CV classification vs object detection
  - CV images vs full motion video
  - Other domains of interest besides EO – including IR and RF
  - AI threat models and corresponding relevant adversarial attacks

5. Mission-informed

Strategic: Identify AI tasks, domains, and sub-areas of greatest user interest with engaged stakeholders

Tactical: If choosing to develop a function, consider areas on right hand side

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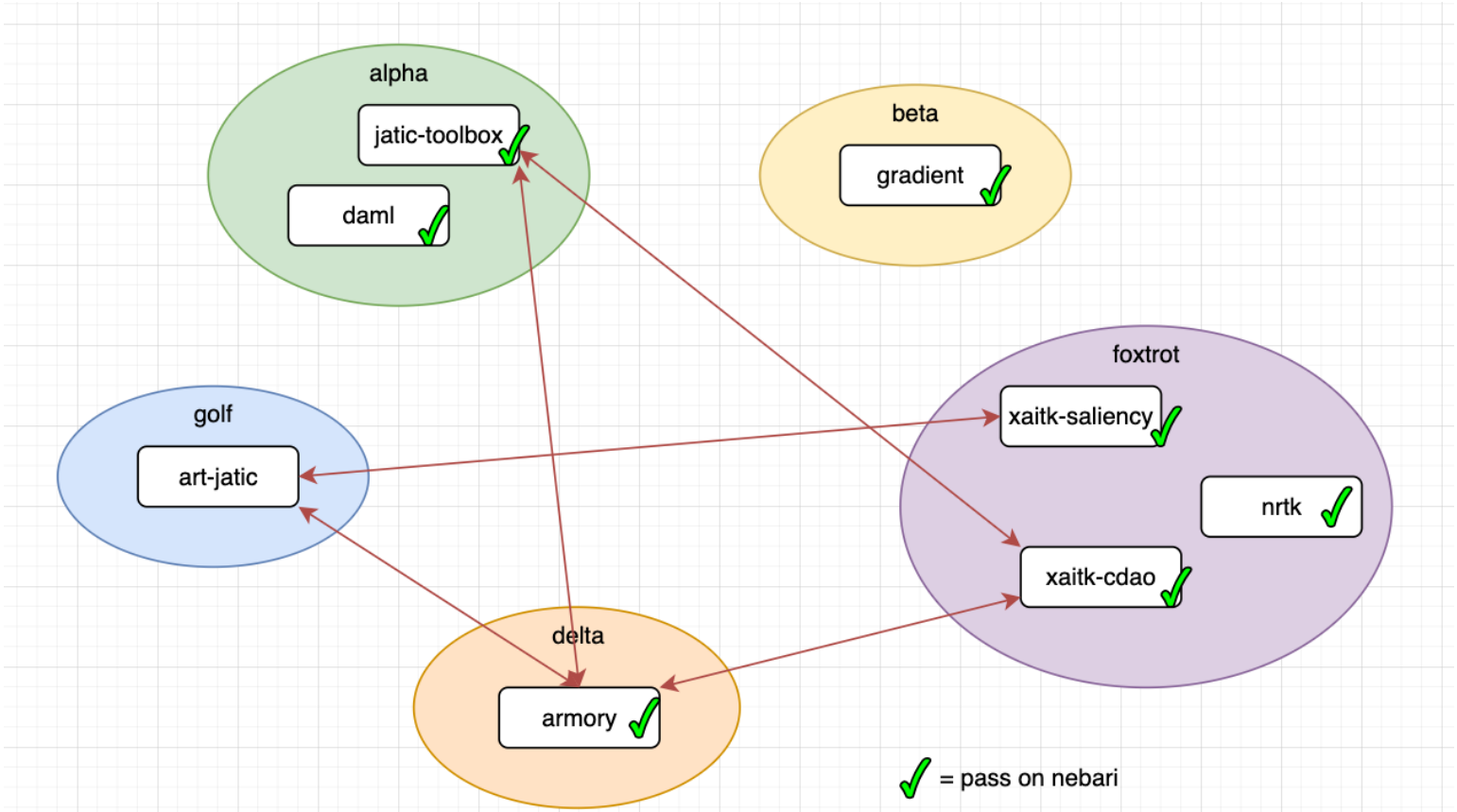
Objective 6

6. (A path towards) a single python environment

   Our demo involved a few different environments to simplify difficult integration efforts



We would like to work towards a single python environment, identifying critical blockers along the path

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Higher-level program context

- Across next quarter and year, lots of emerging partners and opportunities for JATIC
  - e.g., AUKUS, NATO

- CDAO (as an organization) also building up partnerships, including support and T&E agreements with
  - Army
  - Navy
  - IC orgs
  - …

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Higher-level program context

- Across next quarter and year – hope to have a joining of two things:
  - Greater maturity in CDAO partnerships and offerings across the DoD
  - Increasing maturity in JATIC demos and capabilities to convert these participants into users

Objectives recap

Objective	
Availability	Users can access tools on familiar platforms
(Sufficient) Maturity	Sufficient feature and documentation robustness such that users can install and run core functionality
Immediacy	Users can have immediate hands-on experience with product before installing or downloading
Ease of use for core functionality	Allow usage of core functionality with as few lines of code as possible
Mission-informed	Identify and focus on AI domains, tasks, and sub-areas of greatest user interest
(A path towards) a single python environment	Work towards a single python environment