

Welcome to the DRAMA Clinics 2025 - Edition 2!

Vitali Braun

ESA ESOC

13/06/2025

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→ THE EUROPEAN SPACE AGENCY

In drama, the characters develop the story...



Vitali Braun



Xanthi Oikonomidou



Philippe Meyers

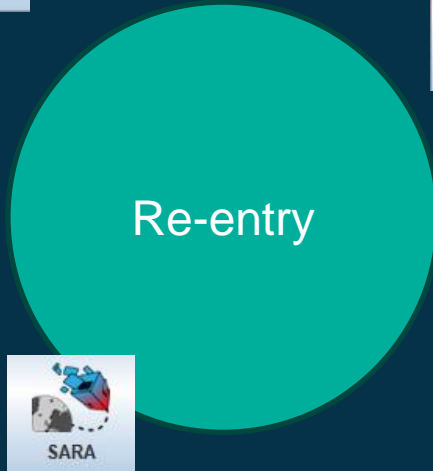


Stijn Lemmens

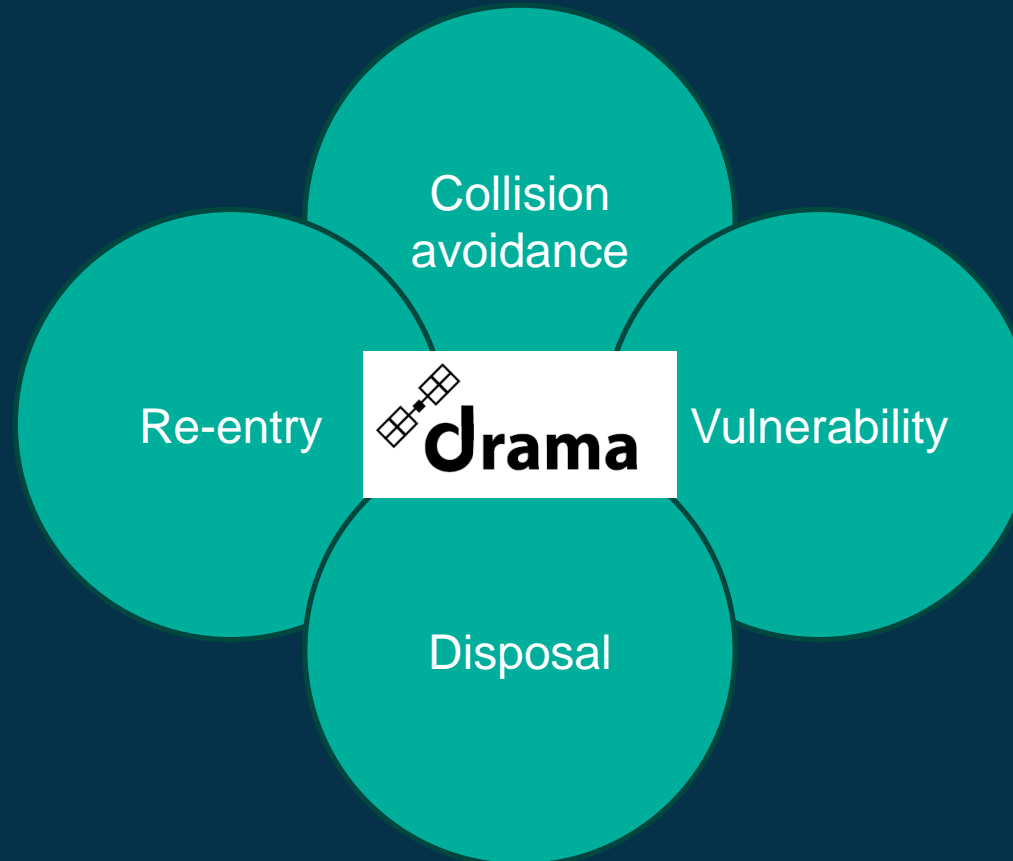


... but what's the “clinic” part?

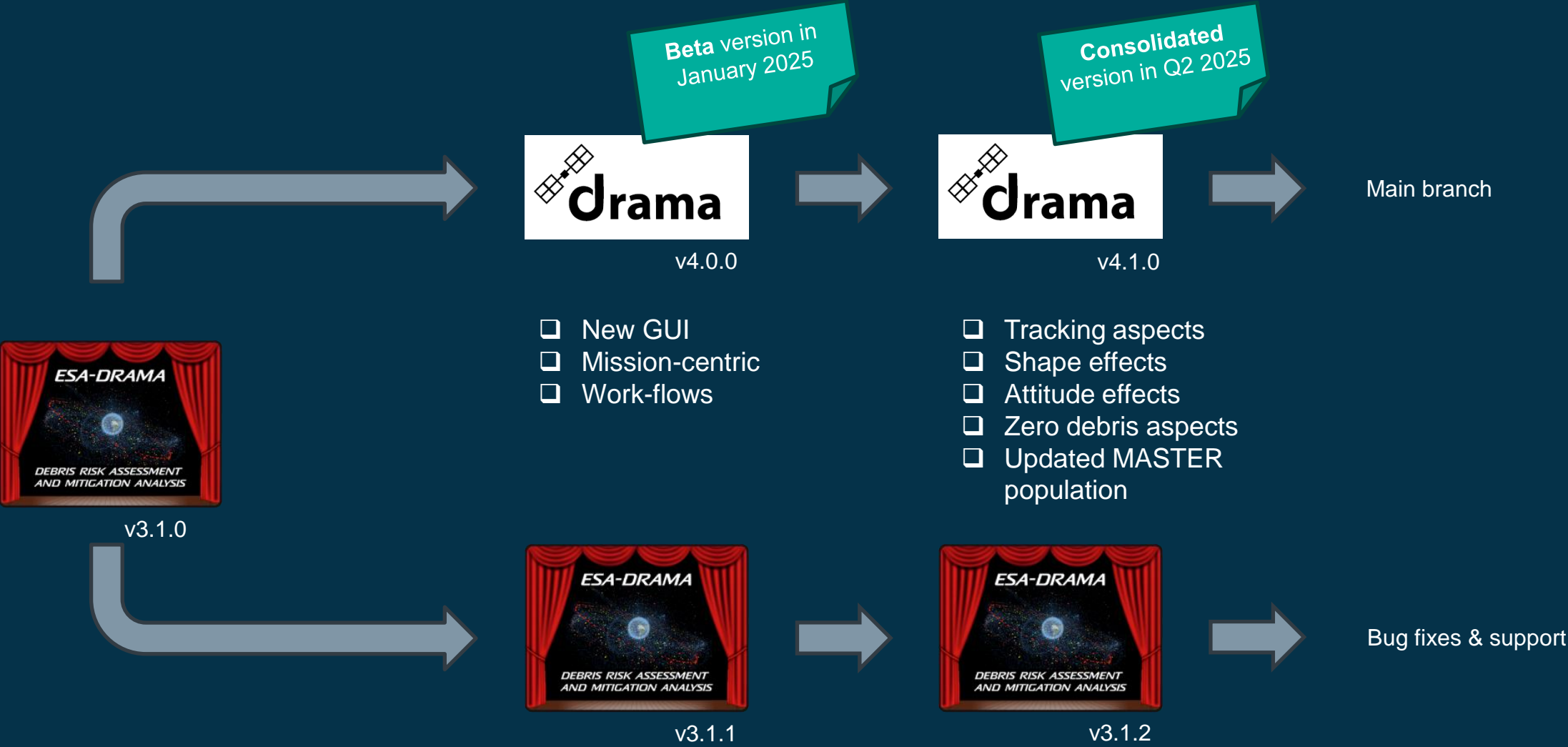
“Question everything, learn something, answer nothing.”



“Question everything, learn something, answer nothing.”



DRAMA – Roadmap



Drama does not just walk into your life... (1/3)



Space Debris User Portal

https://sdup.esoc.esa.int



DRAMA

Documentation

Document	File size	Link
Final Report DRAMA-2.0.0	3.5 MiB	DRAMA-2.0.0-Final-Report.pdf
Final Report DRAMA-3.0.0	5.2 MiB	DRAMA-3.0.0-Final-Report.pdf
Software User Manual	2.5 MiB	DRAMA-Software-User-Manual.pdf
Technical Note ARES	2.9 MiB	Technical-Note-ARES.pdf
Technical Note MIDAS	723.4 KiB	Technical-Note-MIDAS.pdf
Guideline on Collision Avoidance (ARES)	760.2 KiB	DRAMA-ARES-Collision-Avoidance-Verification.pdf

Training and Tutorials

Name	File size	Link
Basic - Calliope	690.1 KiB	DRAMA-Hands-On-Calliope.pdf
Medium - Melpomene	1.2 MiB	DRAMA-Hands-On-Melpomene.pdf
Melpomene Project Files	7.7 MiB	melpomene-tutorial-303.zip

nk
tup_DRAMA-3.1.1_linux-x64.run
tup_DRAMA-3.1.1_windows.exe
tup_DRAMA-3.1.1_osx.dmg

Drama does not just walk into your life... (2/3)



Space Debris User Forum

<https://debris-forum.sdo.esoc.esa.int/>



📌 DRAMA Development Roadmap

drama, dmf

Vitali Braun

4 Sep 2023

The list below collects desired upgrades and requested features for future developments of the DRAMA software. Feel free to comment and discuss them here directly, but also to suggest any new items of interest to you.

The below roadmap items may be picked up during dedicated development studies or internal upgrades and we will update here with an associated schedule as soon as it is available.

🔒 Example Scripts for Performing Monte Carlo Analyses using SARA

HowTo

This is the first time Daniele Bella has posted — let's welcome them to our community!

Daniele Bella

1 May 2023

Calculating the SRA and DRA (Safety and Declared Reentry Areas) for a mission, as well as the on-ground casualty risk, is an important part of a controlled reentry's safety analysis. One of the ways that it can be computed is through the use of a Monte Carlo simulation.

Though the DRAMA GUI provides a "Monte Carlo Analysis" mode, this is in reality a parametric analysis, without randomised parameters. However, it is possible to use DRAMA for "true" randomised Monte Carlo analyses using the DRAMA python package and some scripting. In order to show how this could be performed, and how each of the major parameters of a SARA run can be randomised, we created a set of example scripts. These were designed to be used as a reference and/or starting point during the development of more complex and comprehensive calculations: they are thus heavily commented and feature simplified algorithms, for the sake of

Drama does not just walk into your life... (3/3)

Trainings & Support

❑ ESA Academy Space Debris Training Course

❑ Contact us: space.debris.support@esa.int

Apply by June 23!



10:00	Welcome & Introduction		S013
10:15	Collision avoidance & population modelling (ARES & MASTER)		S013
11:05	Coffee break		
11:30	Re-entry modelling & risk assessments (SARA)	Small debris risk & vulnerability assessments (MIDAS)	S211
12:20	Short break		
12:30	DRAMA 4.x Q&A (incl. trackability & brightness assessments)	Disposal analyses (OSCAR)	S211

