THE INNOVATION CATALYST

AUGUST 2021

RETURN OF THE COFFEE BREAK: SOFTWARE RELEASE

It's back! The Strategic Partnerships Office (SPO) initiative to connect with Goddard's innovator community resumed Thursday, August 19th. This session of The Coffee Break featured presentations from SPO Chief, Darryl Mitchell, and Software Release Authority Concierge, Staci Steward. Together, Darryl and Staci provided an overview of the software release process, including points of contact and specific procedures innovators undertake to release software for production use.

If you missed the opportunity to attend this installment, but wish to learn more, please contact Jessica Birnberg (jessica.h.birnberg@nasa.gov) to obtain access to the recording.

The next installment of The Coffee Break, scheduled for September 21st from 1:00 p.m. - 2:00 p.m., will highlight partnerships. Check Goddard Dateline for additional information. In the meantime, please browse SPO's collection of software release information below!

SOFTWARE RELEASE PROCESS OVERVIEW

Software comprises more than 30 percent of all reported NASA innovations. Through the software release process, Goddard-developed software can help enable projects

THE COFFEE BREAK: PARTNERSHIPS

WHEN:
SEPTEMBER 21st
1:00 P.M. -2:00 P.M.

WHERE: MICROSOFT TEAMS

WHO: STRATEGIC PARTNERSHIPS OFFICE

QUESTIONS: JESSICA BIRNBERG (JESSICA.H.BIRNBERG@NASA.GOV)

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across the United States. Software release is a complex process that requires multiple levels of review, including export control and commercialization assessment. By congressional mandate, these steps represent necessary and important actions that help NASA software meet all legal requirements and engineering standards.

SPO is here to help innovators navigate the process and clear any hurdles to releasing software packages. This guide outlines key steps to take. However, keep in mind every software has unique attributes. If in doubt, contact Staci Steward (staci.l.steward@nasa.gov) for guidance.

INNOVATOR'S ROLE IN SOFTWARE RELEASE

In contrast to hardware development efforts, software may seem nebulous and intangible. Nevertheless, software products are still considered intellectual property, even if they consist of code instead of circuits and wires. NASA wants to protect Agency-developed intellectual property while promoting use of NASA-developed software by collaborators. To achieve Agency goals and objectives, NASA-developed software must undergo the rigorous release process prior to distribution or dissemination to users.

At various steps throughout the software release process, innovators can act to facilitate approval. Click here for ways you can help SPO get your software where it needs to go.

COPYRIGHT LICENSES AND SOFTWARE

NASA frequently uses patents to protect its intellectual property (IP), but in some circumstances, other types of IP protection might be more appropriate such as copyrights. According to the U.S. Patent and Trademark Office, a copyright is "a form of protection provided by U.S. law to the authors of 'original works of authorship' fixed in any tangible medium or expression." Since the subject matter of copyright casts a wide net, it applies to various forms of IP. There are special cases where NASA might use a copyright instead of a patent to protect IP and distribute it outside the agency. Read on to learn more!

COMPARE AND CONTRAST: SOFTWARE RELEASE VS. NEW TECHNOLOGY REPORTING

Have you written new code recently that you would like to share? SPO is here to help. NASA has a robust catalog of more than 800 software programs available for download. All software programs in the catalog have undergone NASA's software release process, a system which seeks to protect NASA's intellectual property and ensure all software packages meet NASA's policies and guidelines. The software release process begins when an innovator submits a New Technology Report (NTR) for a new application. While new technology reporting and software release share some similarities, they are also quite different in terms of their objectives. Click here to read about these two SPO-led processes.

NEXT INNOVATOR HOUR: SEPTEMBER 14th

The Innovator Hour is an initiative to connect Goddard innovators with SPO representatives or technology and agreement managers in a one-on-one setting. Sign up for an Innovator Hour time slot and get one-on-one time with SPO. Topics for discussion may include NTR submission, software release, patenting, licensing, and partnerships. Reserve your spot today! To sign up for the next session on Tuesday, September 14th please click here. Time slots include: 1:00 p.m. to 1:20 p.m., 1:20 p.m. to 1:40 p.m., and 1:40 p.m. to 2:00 p.m.

DON'T MISS: THE SUMMER EDITION OF THE SPARK MAGAZINE IS HERE! FOLLOW THE LINK TO LEARN MORE ABOUT SMALLSAT MISSIONS AT GODDARD, NEW SMALLSAT TECHNOLOGIES, AND RIDESHARE OPPORTUNITIES.

MAKE SPACE FOR YOUR MENTAL HEALTH: SELF ACCEPTANCE

According to Harvard University, self-acceptance is defined as "an individual's acceptance of all of his/her attributes, positive or negative." It includes "body acceptance, self-protection from negative criticism, and believing in one's capacities."

We tend to be our own harshest critics, and while sometimes a sense of objective criticism can help us grow, too much negativity can impact mental and physical health.

Experts recommend cultivating a strong sense of self-awareness and self-regulation to combat this. When you are having overly critical or negative thoughts about yourself, try reminding yourself of your positive attributes. Speak to yourself as you would any other person: with respect and kindness.

TECH TRANSFER TRIVIA

GUESS THE PATENT DRAWING

How much do you know about NASA technology transfer? Find out with our monthly quiz!

Q *What does "STTR" stand for?*

> **A. Small Technology Transfer Research**

> **B. Supporting Technology Transfer Recipients**

> **C. Small Business Technology Transfer**

> **D. Science and Technology Teaching Resources**

Q ***True or False****: "IP" is short for "investor potential."*

> **A. True**

> **B. False**

Q *What does "TM" stand for?*

> **A.** Technology Manager

> **B.** Technology Moderator

> **C.** Technology Modifier

> **D.** Technology Magician

CDS API DISTRIBUTION PACKAGE

101 — CDS API
* PROGRAMMING LIBRARY
  – EXTENDED UTILITIES
  – BASIC UTILITIES
* REST INTERFACE

102 — COMMAND-LINE INTERFACE

103 — SAMPLE PROGRAM
* MAS DEMO
* PS DEMO

100 —

104 — TEST UTILITIES
* MAS ROBUSTNESS TESTS
* PS ROBUSTNESS TESTS
* SYSTEM ROBUSTNESS TESTS

105 — BUILD UTILITIES
* MAKE
* ANT
* MAVEN

106 — SERVICE INTEGRATION UTILITIES
* ADAPTER TEMPLATES
* REST TEMPLATES
* ADAPTER LIBRARY
  – ESGF
  – OPENDAP
  – WPS

107 — DOCUMENTATION
* README
* CONFIGURATION GUIDE
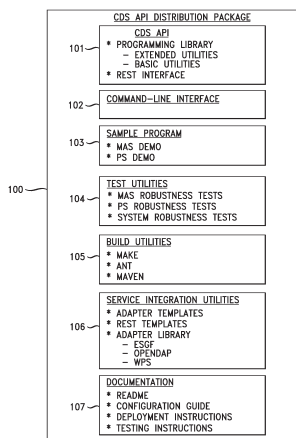* DEPLOYMENT INSTRUCTIONS
* TESTING INSTRUCTIONS

FIG. 1

CLUE ONE: This suite of patented technologies combines the power of high-performance computing, storage-side analytics, and web APIs to improve customer access to Goddard climate data.

CLUE TWO: The patent for this technology was granted in 2016.

CLUE THREE: This technology was invented by John L. Schnase, Daniel Q. Duffy, and Glenn S. Tamkin, with others contributing to associated patents.

+ WANT TO KNOW THE ANSWERS?

[Click here](#) for Tech Transfer Trivia and [here](#) for Guess The Patent Drawing.
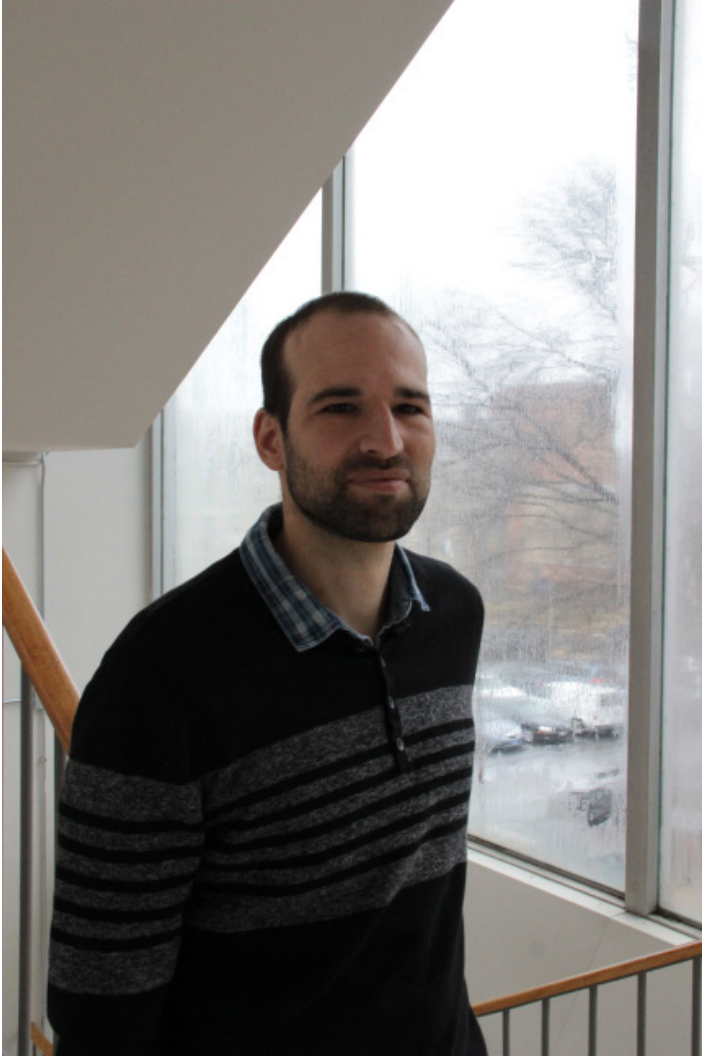
TECHNOLOGY MANAGER Q&A
JOSHUA LEVINE

WHAT ARE YOU CURRENTLY WORKING ON? CAN YOU SHARE A PART OF YOUR WORK YOU FIND REALLY EXCITING?

One of the more exciting assignments I am working on is licensing parts of Goddard's satellite servicing (now On-Orbit Servicing, Assembly, and Manufacturing) portfolio to industry in hopes that one day Goddard's designs will become the industry standard. This is very exciting as Goddard technology may be at the heart of a burgeoning and maturing field. Standardized parts are cheaper than custom parts, which equates to cost savings for future missions. Also, standard interfaces ease collaboration between government and commercial satellites; thus fostering partnerships. Another benefit is the reduction of custom engineering work to further reduce costs. All this occurs while supporting our local (United States) space industry.

IF AN INVENTOR APPROACHED YOU WITH AN IDEA FOR A COMMERCIAL APPLICATION FOR THEIR TECHNOLOGY, WHAT WOULD YOU TELL THEM?

I would give them this line often quoted by Hillary Clinton: "It takes a village." The analogy is apt because many innovators feel as though their innovation is their child. However, it is a child with lots of legal baggage. Also, this child grows up fast, meaning that at the end of the day, the innovation might change in ways never initially expected. However, it will always have the innovator's original idea at its heart.

WHAT IS YOUR FAVORITE GODDARD TECHNOLOGY AND WHY?

I like that you are asking me to play favorites. My answer is somewhat of a moving target. I am interested in whatever innovation the innovator finds interesting. The energy and passion I feel from the innovators are palpable and make me really want to work with them to develop their technology. Dealing with the engineers and scientists at Goddard really fuels my positive feedback loop.

WHAT WOULD YOU LIKE GODDARD'S INVENTORS TO KNOW ABOUT TECHNOLOGY TRANSFER?

First off, I would like all Goddard inventors to know that the Strategic Partnerships Office exists! Secondly, Goddard by its very nature works on niche market ideas. If the technology were already available commercially, we would buy it. As a result, there may not be a need in the market – yet. However, as time marches on, we see that Goddard can be somewhat of an oracle as ideas develop before they become mainstream.