

National Aeronautics and Space Administration



# NASA TECH TRANSFER

BRINGING NASA TECHNOLOGY DOWN TO EARTH



## NASA Technology Transfer System

Tek Okimura

August 2017



# NASA Technology Transfer System



A scalable enterprise infrastructure supporting the entire T2 organization and beyond.



## Information Collection

A scalable data architecture built to grow and adapt to changing conditions. NTTS collects information from T2 field offices, patent attorneys, innovators, companies and more.



## Workflow Automation

Automating workflow to standardize and streamline tech transfer business rules. Resulting in improved efficiency, standardized processes and reducing errors.



## Communication Automation

Constant flow of information between people in and out of the Technology Transfer Program to increase productivity.



## Reporting Automation

Provide visibility and insight into all aspects of NASA's Technology Transfer Program.

# Reporting New Technologies

## e-NTR: Electronic New Technology Reporting System



- Technology transfer tracking begins with innovators reporting new technologies.
- Built in workflow to streamline the review of new technology reports.
- Eliminate manual processing of paperwork.
- Inventions are assigned a “Case Number” to track the technology through tech transfer pipeline.

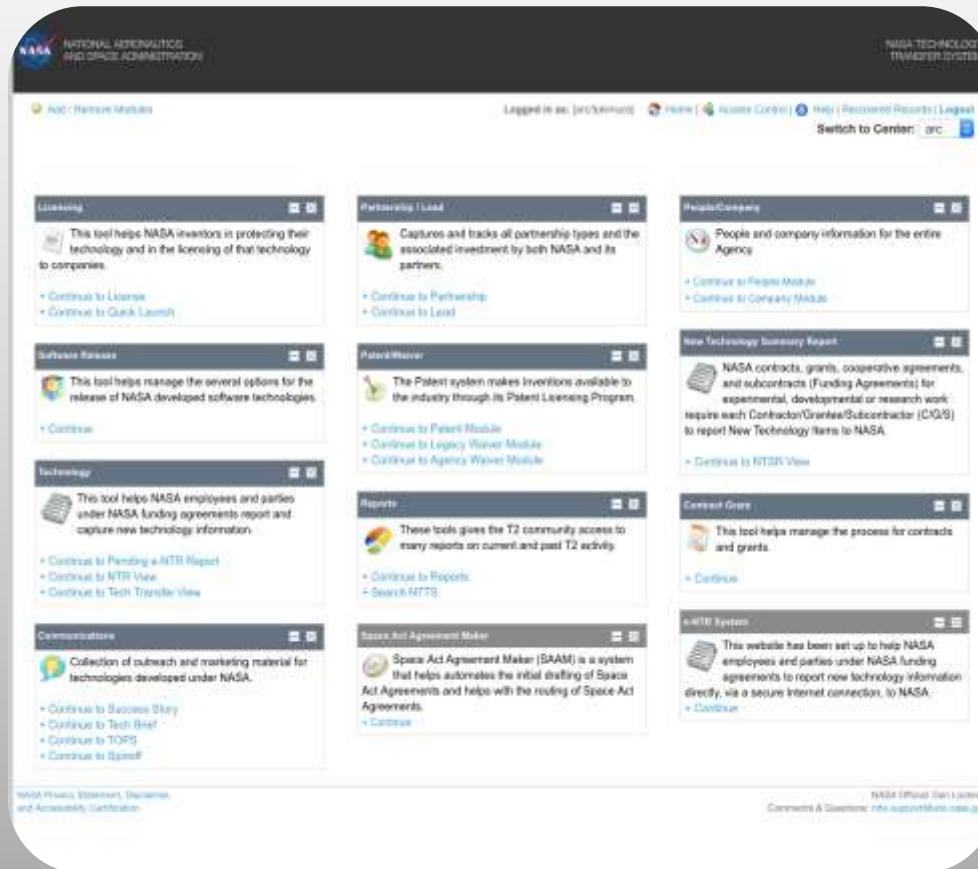
Report your NTR or NTSR





# Tracking Technologies

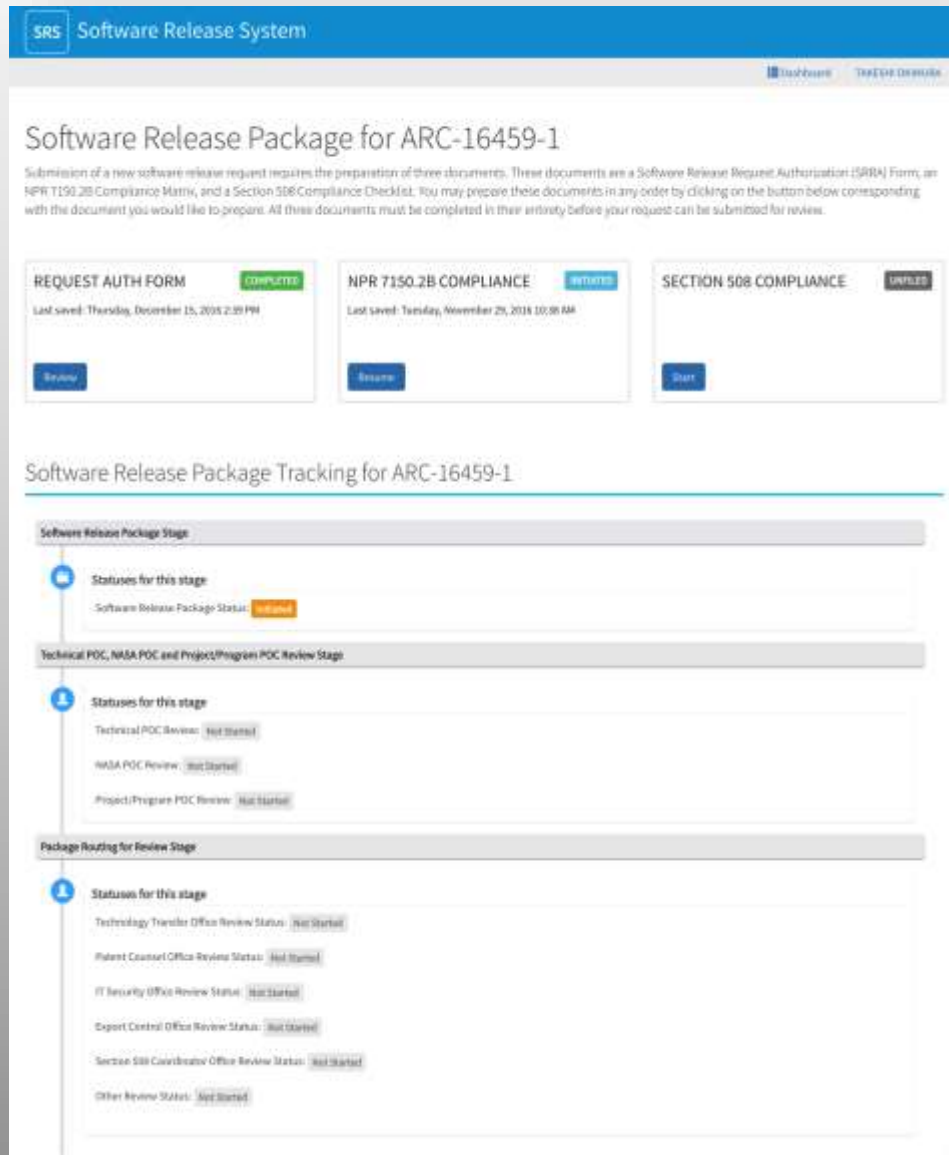
## NTTS Database System



- Backbone to NASA's Technology Transfer IT infrastructure.
- Over 15 data modules to manage tech transfer activities: **Invention Disclosure, Patent, License, Software Release, Contracts/Grants, Partnerships, Leads, Awards, Marketing, Success Stories and more.**
- Technologies are transferred via two mechanisms: software release and patent licensing

# Releasing NASA Software

## SRS: Software Release System



**SRS Software Release System**

### Software Release Package for ARC-16459-1

Submission of a new software release request requires the preparation of three documents. These documents are a Software Release Request Authorization (SRRA) Form, an NPR 7150.2B Compliance Matrix, and a Section 508 Compliance Checklist. You may prepare these documents in any order by clicking on the button below corresponding with the document you would like to prepare. All three documents must be completed in their entirety before your request can be submitted for review.

| Document               | Status    | Last Saved                           | Action |
|------------------------|-----------|--------------------------------------|--------|
| REQUEST AUTH FORM      | COMPLETED | Thursday, December 15, 2016 2:59 PM  | Review |
| NPR 7150.2B COMPLIANCE | REVIEW    | Thursday, November 29, 2016 10:36 AM | Review |
| SECTION 508 COMPLIANCE | UNFILED   |                                      | Start  |

### Software Release Package Tracking for ARC-16459-1

**Software Release Package Stage**

Statuses for this stage

- Software Release Package Status: **In Progress**

**Technical POC, NASA POC and Project/Program POC Review Stage**

Statuses for this stage

- Technical POC Review: **Not Started**
- NASA POC Review: **Not Started**
- Project/Program POC Review: **Not Started**

**Package Routing for Review Stage**

Statuses for this stage

- Technology Transfer Office Review Status: **Not Started**
- Patent Counsel Office Review Status: **Not Started**
- IT Security Office Review Status: **Not Started**
- Export Control Office Review Status: **Not Started**
- Section 508 Coordinator Office Review Status: **Not Started**
- Other Review Status: **Not Started**

- Electronic document routing system to assist in streamlining and automating agency software release process.
- Increase efficiency by routing software release requests in parallel, replacing manual, serial review process
- Improve metrics capture, allowing problems in the release process to be identified and corrected in a timely manner
- Once approved for release, Software Release Managers can release the software to the Software Catalog with the push of one button.

# Software Is Now Available for Release

## NASA's Software Catalog

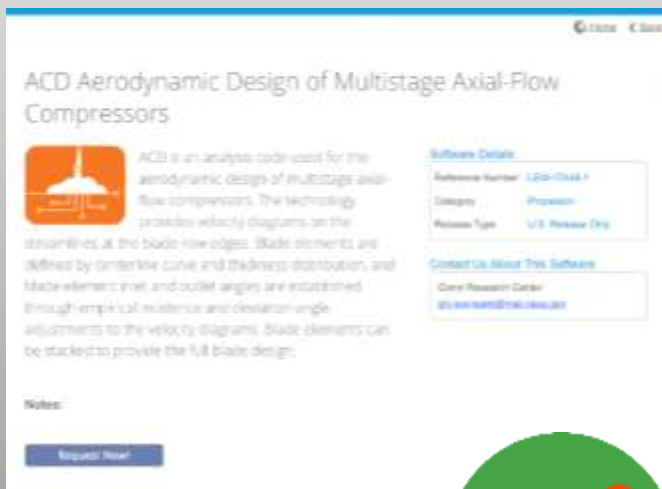


Find...

- The NASA Software Catalog site lists hundreds of software codes that users from a wide array of industries and fields of study can browse in order to answer their software needs.

Request...

- Simplified and streamlined into three steps:
  - 1) Find software that best fits your needs
  - 2) Submit a request for the software
  - 3) Sign agreement and receive software




Sign &  
Receive


- Automates the production of Software Usage Agreements, eliminating the need for managers to manually produce agreements.

# Marketing Patented Technologies

## TOPS: Technology Opportunity Sheet



National Aeronautics and Space Administration



**BENEFITS**

- Economical - eliminates the need to design, develop, and maintain expensive, highly structured relational databases, lowering both software and administrative costs
- Flexible - combines information from heterogeneous structured, semi-structured, and unstructured data sources, and enables easy and unstructured data queries
- Adaptable - enables query-based composition of environments that support http and https protocols
- Secure - limits query results to the information that users and groups have permission to access
- Custom - includes configurable databanks for tailored query workflows in diverse applications

technology solution


Information Technology and Software

### NETMARK

An advanced XML database integration technique for managing unstructured documents

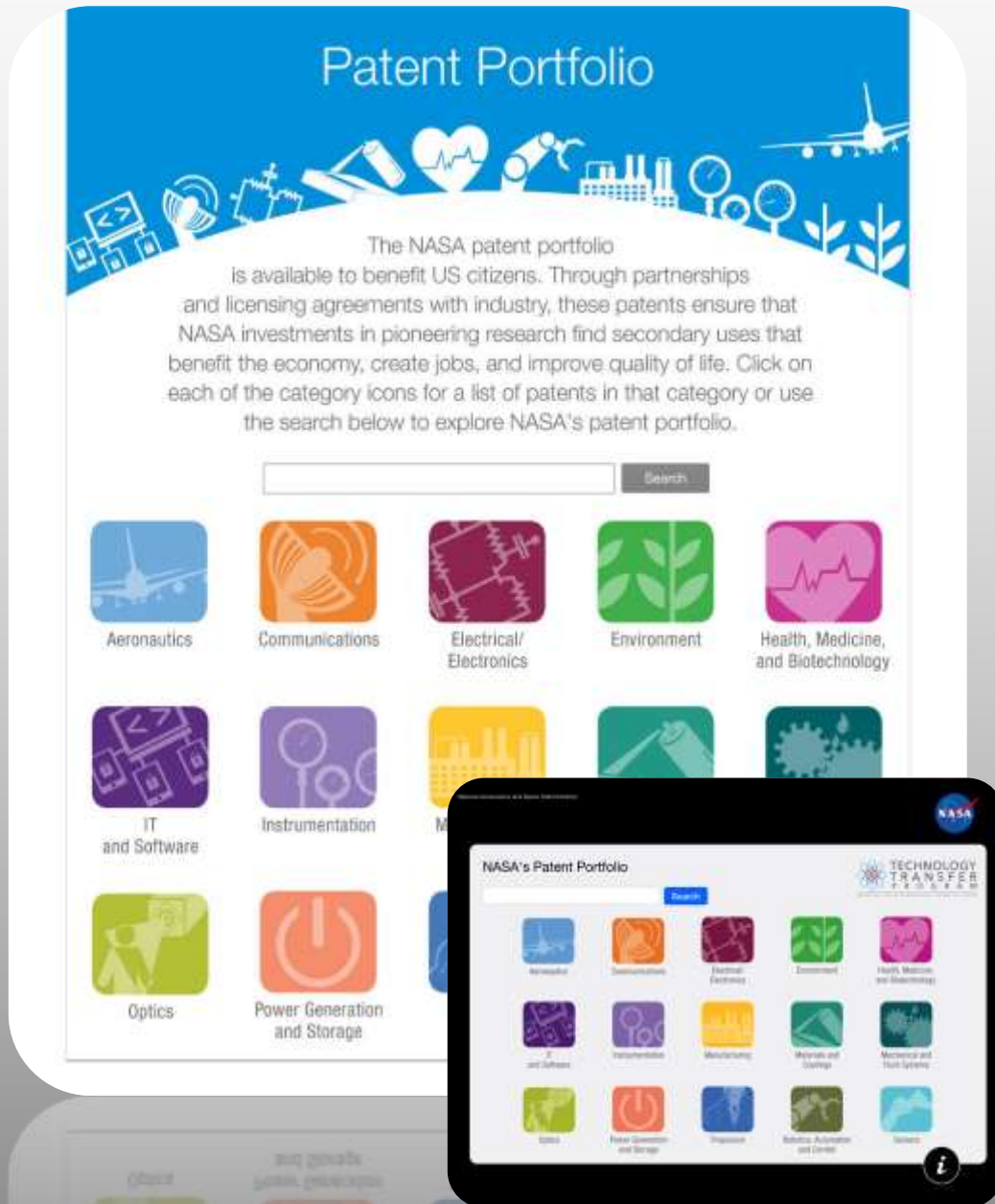
NASA's Ames Research Center offers for license its NETMARK software, a unique innovation designed to seamlessly integrate structured, semi-structured, and unstructured data and documents across enterprise organizations. Originally developed to integrate the vast quantities of complex, heterogeneous documents existing within NASA, this schema-less integration technique and framework offers a highly scalable, open enterprise database architecture that eliminates or reduces the need for database design and administration, and converts information from a wide range of data types into a single, universal data type for storage, retrieval, and content and context-sensitive query and search. A production-ready, enterprise-level application, NETMARK rapidly assimilates and retrieves gigabytes of disparate information and can be easily integrated with existing applications as well as accommodate new data formats fitting into the legacy data network while growing with evolving technologies and business practices.

www.nasa.gov



- All patented technologies now conform to the Agency patent data sheet template.
- All information is entered into the NTTS Database and data sheets are produced on the fly.
- Benefits:
  - Eliminated the need for graphic designers
  - Agency branding
  - Database driven
- All patent data sheets are automatically published to an online patent portfolio.





- **Centralized**

Offering the full agency portfolio of active patents and patents pending from 10 field centers to the public through the NASA Technology Transfer Portal at <http://technology.nasa.gov>

- **Categorized**

Entire patent portfolio sorted into 15 technology categories, ranging from robotics to manufacturing, and assessed for maturity and commercial potential.

- **Integrated**

Integrated with the NASA Technology Transfer System to automatically publish new patents daily. Integrated with the NASA Patent Portfolio iPad App to publish portfolio across various digital media.



# Applying for a License

## ATLAS: Automated Technology License Application System



TECHNOLOGY TRANSFER PROGRAM  
BRINGING NASA TECHNOLOGY DOWN TO EARTH

License Application for LEW-TOPS-56

License Type    Company Information    Technology Use    Development/Marketing Plans    Sign and Submit

First, a few questions to figure out what kind of license would work best for you.

How do you intend to use the technology?

- I want to develop a new product or service
- I want to enhance an existing product or service
- I'd like to evaluate this technology's potential for my company

Is this for a startup company that is yet to be formed or which formed within the last 12 months?

- Yes
- No

Do you want your company to have exclusive rights to this technology?

- Yes
- No

Continue

- One stop shop for companies to apply for licenses on NASA technologies
- Simple and interactive user interface to maximize user experience
- Addresses the following problems:
  - Centralized location to apply for licenses
  - Unifies and streamlines Center application processes into a single Agency process
  - Eliminate manual processing of license applications



## ■ Reporting to Innovators

Innovator Dashboard allows innovators to track the progress of his/her innovation as it goes through the technology transfer process.

## ■ Reporting to NASA & OMB

Every month, NTTS's reporting engine produces and delivers a metrics workbook reporting the status of each field center across a variety of different measures, with ten year trends and center comparisons. The same metrics are published to OMB each year.



## ■ Reporting to the Public

The T2 Portal Dashboard increase transparency into tech transfer efforts and the shows impact the program is making across the nation.