NASA Technology Transfer System

Peter B. Tran & Takeshi “Tek” Okimura
Advanced Information Technologies (AIT) Group
NASA’s Technology Transfer System (NTTS)

NTTS is the IT infrastructure for the Agency’s Technology Transfer (T2) program containing 60,000+ technology portfolio supporting all ten NASA field centers and HQ. It is the enterprise IT system for facilitating the Agency’s technology transfer process, which includes reporting of new technologies (e.g., technology & invention disclosures – NF1679), protecting intellectual properties (e.g., patents), and commercializing technologies through various technology licenses, software releases, spinoffs, and success stories using custom built workflow, reporting, data consolidation, integration, and search engines.


General Public T2 Web Assets:
https://technology.nasa.gov/
https://software.nasa.gov
https://invention.nasa.gov
https://quicklaunch.nasa.gov
https://icb.nasa.gov

NASA Internal Reporting Assets:
https://ntts.arc.nasa.gov
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.
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.
### NTTS Database

- **Database is backbone to NASA’s Technology Transfer IT infrastructure.**
- **Database contains over 15 data modules to manage and track tech transfer activities:**
- **NTTS Database also supports NASA’s two core mechanisms to transfer technologies:**
  - Software Release and Patent Licensing
Releasing NASA Software

SRS: Software Release System

- 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

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.

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

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

Find…

Request…

Sign & Receive
Marketing Patented Technologies

TOPS: Technology Opportunity Sheet

- 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.

NETMARK
An advanced XML database integration technique for managing unstructured documents

National Aeronautics and Space Administration

Information Technology and Software

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 access.
- Adoptable - meets query-based composition of environments that support help and help protocols.
- Secure - limits query results to the information that users and groups have permission to access.
- Custom - includes customizable templates for tabular query workflows in diverse applications.

www.nasa.gov

technology_solution
Digital 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

- 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 increases transparency into tech transfer efforts and shows impact the program is making across the nation.
General Public Links

- T2 Portal
  [https://technology.nasa.gov](https://technology.nasa.gov)

- Patent Portfolio
  [https://technology.nasa.gov/patents](https://technology.nasa.gov/patents)

- iPad App
  [https://technology.nasa.gov/app](https://technology.nasa.gov/app)

- Dashboard
  [https://technology.nasa.gov/dashboard](https://technology.nasa.gov/dashboard)

- Software Catalog
  [https://software.nasa.gov](https://software.nasa.gov)

- Electronic NTR
  [https://invention.nasa.gov](https://invention.nasa.gov)