

Subject: Software License Management

Responsible Office: OCIO

PREFACE

July 13, 2017

P.1 Purpose

a. This NASA Interim Directive (NID) describes the procedural requirements for managing software at NASA and supports compliance with the Federal Information Technology Acquisition Reform Act (FITARA). These requirements will establish roles and responsibilities for NASA employees, support effective planning and decision making, encourage reutilization of existing software resources, ensure that NASA secures commercial off the shelf (COTS) software terms and conditions that comply with Federal Law, the Federal Acquisition Regulation (FAR), and NASA FAR Supplements, support efficient software spending by balancing the need for flexibility versus cost, and promote the effective management of software during the software license management lifecycle phases.

b. This directive establishes and provides guidance for the seven NASA software license management lifecycle phases: 1) Planning and Strategic Sourcing, 2) Request & Requisition, 3) Procurement, 4) Reception and Deployment, 5) Management and Maintenance, 6) Retirement and Re-use and 7) Disposal.

P.2 Applicability

a. This directive is applicable to NASA Headquarters and NASA Centers, including Component Facilities and Technical and Service Support Centers. This directive applies to the Jet Propulsion Laboratory (JPL) (a Federally Funded Research and Development Center (FFRDC)) and other contractors only to the extent specified or referenced in applicable contracts.

b. In this directive, all mandatory actions (i.e., requirements) are denoted by statements containing the term “shall.” The terms: “may” or “can” denote discretionary privilege or permission, “should” denotes a good practice and is recommended, but not required, “will” denotes expected outcome, and “are/is” denotes descriptive material.

c. In this directive, all document citations are assumed to be the latest version unless otherwise noted.

d. This directive is applicable to the following:

(1) COTS software and software licenses types, including but not limited to perpetual licenses, software maintenance, term licenses, subscription, shareware, software as a service (SaaS), open source, freeware, and demonstration/trial software; and

(2) modified commercial-off-the-shelf software (MOTS).

- a. This directive applies to existing as well as new, modified, or enhanced software and software licenses, and the associated software license agreement.
- b. In this directive, the term “software license” is used to denote all of the types of license agreements governing items listed in d (1) and d (2) above.
- c. The term “software purchase” includes acquisition of shareware, SaaS, open source, freeware, and demonstration/trial software and the associated software license agreement.
- d. This directive does not apply to Highly Specialized Information Technology, as defined in NPR 2800.1. Highly Specialized Information Technology is to be managed per the requirements of NPR 7150.2.

P.3 Authority

- a. Federal Information Technology Acquisition Reform Act (FITARA)
- b. Megabyte Act of 2016
- c. Federal Information Security Modernization Act of 2014 (FISMA), 44 U.S.C. § 3551, et seq.
- d. OMB Memo M-16-12, “Category Management Policy 16-1: Improving the Acquisition and Management of Common Information Technology: Software Licensing”
- e. NPD 2540.1 Personal Use of Government Office Equipment Including Information Technology
- f. NPD 2800.1 Managing Information Technology
- g. NPR 2810.1 Security of Information Technology
- h. NPR 7120.5 NASA Space Flight Program and Project Management Requirements
- i. NPR 7120.7 NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements
- j. NPR 7120.8 NASA Research and Technology Program and Project Management Requirements
- k. NASA FAR Supplement (NFS) 1807.70 Enterprise License Management Team (ELMT) Program

P.4 Applicable Documents and Forms

Section 508 of the Rehabilitation Act of 1973, Pub. L. 105-220, 29 U.S.C. § 794(d).
 FAR 51.101, Contractor Use of Government Supply Sources
 FAR 52.251-1, Government Supply Sources
 FAR 52.512-4, Contract Terms and Conditions – Commercial Items
 NFS 1804.73 Procurement Request policy

NFS 1807.70 Enterprise License Management Team (ELMT) Program
NFS 1812.4 Unique Requirements Regarding Terms And Conditions For Commercial Items
NFS 1839.2 Electronic and Information Technology (Sept 2015)
NFS 1852.227-86 Commercial Computer Software—license (Apr 2015)
OMB Memo: Security Authorization of Information Systems in Cloud Computing Environments, Dec 8, 2011
OMB Memo: Transition to IPv6, September 28, 2010
NIST 800-146 Cloud Computing Synopsis and Recommendations
NIST 800-37 Risk Management Framework
NIST 800-53 Security and Privacy Controls for Federal Information Systems and Organizations
NPD 2540.1 Personal Use Of Government Office Equipment Including Information Technology
NPR 2800.1 Managing Information Technology
NPR 2800.2 Electronic and Information Technology Accessibility
NPR 2830.1 NASA Enterprise Architecture Procedures
NPR 2810.1 Security Of Information Technology
NPR 2830.1 NASA Enterprise Architecture Procedures
NPR 2841.1 Identity, Credential, and Access Management
NPR 9420.1 Budget Formulation
NPR 7150.2 NASA Software Engineering Requirements
NPR 7120.5 NASA Space Flight Program And Project Management Requirements
NPR 7120.7 NASA Information Technology And Institutional Infrastructure Program And Project
NPR 7120.8 NASA Research And Technology Program And Project Management Requirements
NASA Standard (STD) 2804 Minimum Interoperability Software Suite
Procurement Class Deviation (PCD) 15-03A: Class Deviation to NFS 1839 and 1852, Restrictions on Acquiring Moderate Or High-Impact Information Technology Systems
Procurement Notice (PN) 16-10 Revisions of NFS 1811.002 and 1811.101-70 Ensuring Internet Protocol Version 6 (IPv6) Compliance In Acquiring Information Technology, May 11, 2016
Cloud requirements and the Federal Risk and Authorization Management Program (FedRAMP)
NASA Purchase Card Procedures and Instructions (Dec 16, 2016)
NASA Mission Focus Review (MFR) 137 Waiver, and IT Server and storage consolidation waiver Form 50-208NS
NASA Form (NF) 1707, Special Approvals and Affirmations for Requisitions
NASA IT Security Handbooks

P.5 Measurement/Verification

In order to determine if responsible offices follow the requirements specified in this NID, the Agency Software Manager (ASM), with the support of Center CIOs or their designees, will direct periodic software true-ups, self-audits and reconcile vendor maintenance invoices and payments to ensure that NASA is effectively managing existing software licenses and purchasing software in accordance with this directive.

P.6 Cancellation

None.

Chapter 1. Software License Management

1.1 General

1.1.1 This directive establishes the goals and objectives of the software license management program. This directive provides guidance for NASA's management of software licenses that establishes a comprehensive software inventory, regularly tracks and maintains software licenses, tracks software maintenance and cost, improves NASA security posture, and eliminates unnecessary costs, duplication, and waste.

1.1.2 Only software that is properly licensed and approved for use may be installed on, or accessed by, NASA computer systems, including personal computers (PCs), mobile devices, and physical and virtual servers. This requirement also applies to open source, freeware, shareware, and demonstration/trial software.

1.1.3 All software approved for use by the Agency is subject to the software publisher's license agreement. That agreement typically restricts how, and to whom, the software may be distributed.

1.1.4 Only software that has received approval by the Agency or Center CIO and acquired through proper procurement processes may be installed on, or accessed by, NASA computer systems.

1.1.5 This directive is applicable to any purchases of software made by entering into a new contract, exercising an option, consenting to a subcontract (e.g., Other Direct Cost – ODC under an existing contract), issuing a task or delivery order, or making a purchase using a government-wide purchase card or any other method of procurement.

1.2 Training

NASA personnel involved in software license management are required to complete the NASA Software Management training. The NASA ASM ensures that the personnel involved in software license management (e.g., general counsel, procurement, Center IT Asset Managers, system administrators, and technical support) are trained in relevant software management topics, such as intellectual property and software contracts, license negotiations, license compliance laws, regulations, software audits, security planning, configuration management, provisional services (i.e., SaaS), IPv6, funding, funds control, and Section 508 compliance. The NASA OCIO, in coordination with the Office of Procurement and the NASA Shared Services Center (NSSC), will host informational workshops and conduct training to ensure that all NASA employees performing software license management functions are educated on NASA's software license management policy.

1.3 The lifecycle

The software license management lifecycle at NASA consists of 7 stages: 1) Planning and Strategic sourcing, 2) Request & Requisition, 3) Procurement, 4) Receipt and Deployment, 5) Management and Maintenance, 6) Retirement and Re-use and 7) Disposal. These stages are discussed in Chapter 3 of this directive.



Figure 1, NASA Software License Management Lifecycle

Chapter 2. Roles and Responsibilities

2.1 The NASA Chief Information Officer (CIO) shall:

- a. Sponsor and oversee the NASA's software license management policy.
- b. Identify and remove impediments to effective and efficient software license management.
- c. Issue software license management policy and guidance.
- d. Perform oversight of software license procurements with the Office of Procurement.
- e. Develop and maintain a NASA business process for software asset management.
- f. Appoint the ASM.

2.2 The ASM shall:

- a. Regularly track and maintain software licenses to assist the Agency in implementing decisions throughout the software license management lifecycle.
- b. Provide role-based training relevant to software license management to NASA software users. The roles in the training include, but are not limited to, users, contracting officers, project/program managers, Center CIOs, financial managers, and purchase card holders.
- c. Coordinate and communicate audit activities to Agency organizations such as the Office of General Counsel, Office of Inspector General, Office of Procurement, Office of the Chief Financial Officer, and Mission Support Directorate.
- d. Oversee development of software license management policies, plans, programs, publications, and procedures.
- e. Develop metrics and conduct analysis of the effectiveness and efficiency of the software license management process.
- f. Develop and maintain a training and outreach program to improve software license management awareness and acceptance.
- g. Host informational workshops and conduct training to ensure that all NASA employees are aware of NASA's software license management policy to include negotiations, laws, regulations, contract terms and conditions.

- h. Work with Center IT Asset Managers (ITAMs) to manage software licenses to ensure there is no duplication of license maintenance.

2.3 The Center CIOs shall:

- a. Establish auditable procedures to ensure that all software purchases acquired and installed on, or accessed by, NASA computing systems adhere to NASA's Software License Management Policy.
- b. Prior to software license purchase, follow the requirements defined in Chapter 3 to ensure that software acquired at the Center is approved for installation on NASA hardware or in a cloud environment, and
 - (1) is licensed;
 - (2) will be used in accordance with applicable licenses; and
 - (3) is managed and tracked.
- c. Provide guidance to the Center for testing, securing, configuring, deploying, using, managing, and tracking the software's lifecycle.
- d. Designate a Center ITAM and alternate, responsible for managing software license management.
- e. Ensure that ITAMs and other personnel responsible for supporting software license management complete the NASA Software License Management training.

2.4 The Center ITAMs shall:

- a. Support the software license management lifecycle at their Center.
- b. Validate and coordinate Center/Program requirements.
- c. Work with the ASM to manage software licenses to ensure there is no duplication of license maintenance.
- d. Serve as a Center manager for managing all software.
- e. Implement or facilitate Center/Mission Directorate (MD) asset management procedures to track and manage acquired software.
- f. Work with Center customers and CIO staff to identify software requirements and consolidation opportunities.
- g. Implement internal controls to assure that software purchases are properly authorized, funded, and managed and follow the Agency defined requirements in Chapter 3.
- h. Coordinate and communicate all Center level software audit activities to the Center CIO, ASM, the Center Office of Procurement and the Center Chief Counsel.

- i. Support the ASM for audit activities; serve as the Center software audit technical monitor; and facilitate timely audit responses from the Center Technical Point of Contact (POC).
- j. Track and conduct reviews of Center inventories for accuracy and assist with monitoring software license compliance with the terms and conditions of the software agreements.

2.5 The Software License Requestor shall:

- a. Coordinate with the Center ITAM when purchasing software.
- b. Identify and record the Technical POC for the purchased software.
- c. Develop the required documentation to support the software license purchase in accordance with existing Federal and NASA policies outlined in this directive.
- d. Coordinate with the Information System Owner (ISO) for the security plan that will cover the software.
- e. Obtain funding approval for procurement of the license and any associated costs.

2.6 The Technical POC shall:

- a. Be responsible for testing, securing, configuring, deploying, using, managing, and tracking the software's lifecycle.
- b. Coordinate with the Center CIO, Center IT Security, Center Enterprise Architect, and Center ITAM while managing and tracking the software lifecycle.
- c. In the event of an audit, respond to requests for information and report license usage information to Center CIO or designee.
- d. When a Technical POC leaves, provide an alternate contact.
- e. Notify the Center property accountant of all acquisitions, and changes in status, of software meeting NASA's asset capitalization criteria.

Chapter 3. Requirements for Software License Management Cycle

3.1 Planning and Strategic Sourcing

3.1.1 Informed planning and strategic sourcing activities ensure that license purchases are in accordance with NASA FAR Supplement 1807.70 and with the NASA Strategic Sourcing Plan. During this phase of the lifecycle, the requestor is required to document the software license purchase in accordance with investment management lifecycle processes expressed in NPR 2830.1, NASA Enterprise Architecture Procedures, and NPR 9420.1, Budget Formulation. The requestor is also required to provide this documentation for instances of all open source, freeware, shareware, or demonstration/trial software that is intended to be deployed within NASA that may not have an initial acquisition cost.

The requestor shall document a description of the software purchase, the purpose it serves, an overview of financial data including historical Agency or Center software spend analysis and total cost of ownership analysis, technical requirements, review of Federal and NASA compliance policies (see section 3.1.3), review of software license terms/compliance requirements, and market analysis. The requestor will include ongoing maintenance costs in all software license purchase decisions. The documentation shall also include all supporting artifacts to demonstrate how the software purchase aligns with the referenced policies.

3.1.2 A software purchase shall be the best option in terms of cost, availability and requirements. New purchases shall be made after first evaluating the availability and functionality of other software already licensed by NASA. If software licenses or maintenance have already been purchased and are available from the NASA inventory, the requestor is required to obtain the designated software from the NASA inventory (see 3.4 Receipt and Deployment and 3.6 Retirement and Re-use). The requestor shall seek recommendations from their Center CIO or designee regarding the availability of software in the NASA inventory.

3.1.3 The Center CIO or designee shall facilitate the review of the software purchase prior to the request/requisition phase to ensure compliance to the following Federal and NASA policies that include but are not limited to:

- a. Appropriate Use
 - (1) NPD 2540.1 Personal Use Of Government Office Equipment Including Information Technology
 - (2) NPR 2800.1 Managing Information Technology
- b. Section 508 Electronic and Information Technology (EIT) Accessibility Standards.
 - (1) The requirements identified in EIT policies apply to EIT acquired, developed, maintained, and used by NASA for the use of NASA employees, employees of other Federal agencies, and the public. Section 508 requires Federal agencies' electronic and information technology be accessible to individuals with disabilities. Centers are required to comply with:
 - (2) NPR 2800.2 Electronic and Information Technology Accessibility

- (3) NFS 1839.2 Electronic and Information Technology (Sept 2015)
- c. Federal and NASA Security Requirements
 - (1) Federal Information Security Modernization Act of 2014 (FISMA), 44 U.S.C. § 3551, et seq.
 - (2) NPR 2810.1 Security Of Information Technology
 - (3) NASA IT Security Handbooks
 - (4) NIST 800-37 Risk Management Framework
 - (5) NIST 800-53 Security and Privacy Controls for Federal Information Systems and Organizations
 - (6) NASA STD 2804 Minimum Interoperability Software Suite
 - (7) Procurement Class Deviation (PCD) 15-03A: Class Deviation to NFS 1839 and 1852, Restrictions On Acquiring Moderate Or High-Impact Information Technology Systems
 - (8) Cloud requirements and the Federal Risk and Authorization Management Program (FedRAMP)
 - (9) OMB Memo: Security Authorization of Information Systems in Cloud Computing Environments, Dec 8, 2011
 - (10) NIST 800-146 Cloud Computing Synopsis and Recommendations
 - (11) FedRamp - <https://www.fedramp.gov>
 - (12) NPR 2841.1 Identity, Credential, and Access Management
- d. Software License Management Lifecycle
 - (1) NPR 2830.1 NASA Enterprise Architecture Procedures
 - (2) NPR 7120.5 NASA Space Flight Program And Project Management Requirements
 - (3) NPR 7120.7 NASA Information Technology And Institutional Infrastructure Program And Project Management Requirements
 - (4) NPR 7120.8 NASA Research And Technology Program And Project Management Requirements
 - (5) NPR 7150.2 NASA Software Engineering Requirements
 - (6) NPR 9420.1 Budget Formulation
- e. Internet Protocol Version 6
 - (1) OMB Memo: Transition to IPv6, September 28, 2010
 - (2) PN 16-10 Revisions of NFS 1811.002 and 1811.101-70 Ensuring Internet Protocol Version 6 (IPv6) Compliance In Acquiring Information Technology, May 11, 2016
 - (3) FAR 11.002(g)
- f. Software Coordination and Commercial Licensing Terms
 - (1) NFS 1807.70 Enterprise License Management Team (ELMT) Program
 - (2) NFS 1852.227-86 Commercial Computer Software—license (Apr 2015)
 - (3) NFS 1812.4 Unique Requirements Regarding Terms And Conditions For Commercial Items
 - (4) FAR 52.212-4, Contract Terms and Conditions – Commercial Items
- g. NASA Purchase Card Procedures and Instructions (Dec 16, 2016) – https://search.nssc.nasa.gov/servlet/sm.web.Fetch/NASA_P-Card_Procedures_Instructions_12-16-16.pdf?rhid=1000&did=5783952&type=released

h. NF 1778 Mission Focus Review (MFR) 137 Waiver Form

In addition, the requestor shall identify and record the Technical POC who will be responsible for testing, securing, configuring, deploying, using, managing, and tracking the software's lifecycle. In the event of an audit, this Technical POC will be responsible for reporting license usage information to the Center CIO or designee. If the Technical POC or any other required information is not provided to the Center CIO or designee, the proposed software purchase will be deemed non-compliant. The requestor shall not secure any software until all approvals have been obtained and appropriately documented to demonstrate the targeted software purchase complies with the referenced Federal and NASA policies.

3.1.4 Once the Center CIO or designee has confirmed the software purchase complies with the referenced Federal and NASA policies and provided concurrence, the requestor shall initiate a request/requisition for the CIO approved software purchase.

3.2 Request/Requisition

3.2.1 The Request/Requisition process is the next phase in the software license management lifecycle. The requestor initiates the formal request to obtain the software once the Center CIO or designee has confirmed the software purchase complies with the referenced Federal and NASA policies. This request process is applicable to any method of software acquisition that includes, but is not limited to, entering into a new contract, exercising an option, consenting to a subcontract (e.g., Other Direct Cost – ODC under an existing contract), issuing a task or delivery order, or making a purchase using a government-wide purchase card. This process may involve obtaining additional approvals beyond the Center CIO or designee at the Center or Agency level.

The requestor or Technical POC is responsible for obtaining the additional approvals. A NASA Form (NF) 1707, Special Approvals and Affirmations for Requisitions, must be used to document additional approvals. The completed NF 1707 and any additional special approvals or affirmations required must be electronically attached to the requisition. If the initiator is funding the software purchase with a procurement request (PR), the initiator shall initiate the request in accordance with NASA FAR Supplement (NFS) 1804.73, Procurement Request Policy.

In accordance with NPR 9250.1, the requestor shall prepare NASA Form (NF) 1739, Capitalization Determination Form, and submit the NF 1739 to the Center Office of the Chief Financial Officer (OCFO) prior to the software purchase.

3.3 Procurement

3.3.1 The Procurement phase is the process by which the software purchase is obtained through the NASA acquisition process, securing software with a government-wide purchase card, exercising an option through an existing contract, consenting to a subcontract (e.g., Other Direct Cost – ODC under an existing contract), or issuing a task or delivery order, or any other method of procurement.

3.3.2 Centers are required to include NFS 1852.227-86 Commercial Computer Software License in all software agreements and comply with NFS 1812.4 Unique Requirements Regarding Terms and Conditions for Commercial Items.

3.3.3 The procurement phase begins when all approvals in the Request/Requisition process have been finalized.

3.4 Receipt and Deployment

3.4.1 Receipt and deployment activities include validating the software order that occurred during the procurement phase, revalidating the Technical POC (who will be responsible for testing, securing, configuring, deploying, using, managing, and tracking the software's lifecycle), entering the asset information in the Center IT inventory, testing, securing, configuring, and deploying the asset in accordance with Federal and NASA policies; and in accordance with the terms and conditions of the software license agreement.

3.4.2 The Center where the Technical POC resides is considered to be the Center where the software is tracked within the Center's software inventory.

3.4.3 The Technical POC will capture information that demonstrates "proof of ownership" when the software is acquired. The information will be entered into the Center software inventory:

1. Licensor name and address
2. Licensee name and address
3. Date of license agreement
4. Contract Number and other reference numbers of related documents (Attachments, Price Lists, EULAs, etc.) that specify all Terms and Conditions
5. Type of license (e.g., perpetual, term, subscription, SaaS, etc.)
6. Products or applications licensed, including release level and other identification information
7. Individual product cost (this should reflect NASA's final negotiated line item pricing by product)
8. Maintenance cost (if applicable)
9. Estimated realized cost avoidance by product (in accordance with NASA's strategic sourcing Plan)
10. Restrictions on use
11. Number and type of users (or processors or other unit of measure)
12. Type of IT system the software (e.g., desktop, laptop, server, mobile device, etc.)
13. System security plan supporting the software/hardware
14. Audit provision (self-audit or other)
15. Organization(s) that the software is supporting
16. Data location (e.g., cloud or NASA premises)

3.4.4 After the software has been entered into the Center software inventory, the Center CIO or designee is responsible for ensuring the Technical POC maintains the security management and information in the inventory throughout the software's lifecycle.

When software meeting the NASA's capitalization criteria is received, the Technical POC shall notify the Center property accountant and provide all necessary information to support recording it as an asset in NASA's financial management system. The capitalization criteria for internal use software is specified in NPR 9250.1.

3.4.5 When a Technical POC accepts a software license, the user acknowledges that they understand and are responsible and accountable for the license terms throughout the software's lifecycle. The responsibilities could include: tracking the license procurement, tracking the receipt and deployment, reporting on usage, tracking the software lifecycle, software purchase and maintenance costs, estimated cost avoidance, supporting the product and any related product audits, reporting on location and changes to ownership of the license, reporting when the license is no longer needed or no longer in use and available for re-use, and reporting when the product is a candidate for disposal.

3.5 Management and Maintenance

3.5.1 After the software has been purchased and received, there are a number of activities the Technical POC is required to address in order to manage and maintain the license. Management activities include inventory/counting, monitoring usage (if applicable), managing contracts for maintenance and support, and monitoring age and configuration of any supporting IT infrastructure (e.g., desktop, laptop, server, mobile device, etc.). Maintenance activities include adding and changing configurations, repairing devices, security patches, version updates, compatibility with NASA-STD-2804 Minimum Interoperability Requirements, and relocating equipment and software. In this phase of the software lifecycle process, the Technical POC shall maintain the software and associated IT infrastructure in accordance with Federal policies and procedures, NASA policies and procedures, and the terms and conditions of the software license agreement.

3.5.2 If the Technical POC is no longer responsible for the software because they have left the Center or have been reassigned, the Technical POC must provide a replacement Technical POC to manage the lifecycle of the software. If no alternate is provided, the Center CIO or designee will be designated as the Technical POC until a new Technical POC has been designated.

3.5.3 Throughout the use of the software license, the Technical POC will maintain information regarding software updates, user changes, and license expiration dates within the Center inventory. The Center CIO or designee will ensure that the Center inventory is kept up to date and accurate and will institute an internal true-up, vulnerability management review, and self-audit process to validate the currency of the Center inventory and to proactively monitor license utilization to the compliance terms expressed in the software agreement.

3.5.4 In the event of a licensing audit, Centers will use the following order of escalation:

- (1) Center CIO or designee
- (2) Agency Software Manager
- (3) Center Procurement, and
- (4) Center Chief Counsel.

3.6 Retirement and Re-use

3.6.1 Software re-use and recycling are the activities of reclaiming and reallocating unused software (i.e., dormant software). Retirement can also be predicated upon unresolved vulnerabilities being discovered. Retirement should be considered for software that is beyond end-of-life and no longer supported by the software publisher. If software is not being used, and there are users in another part of the organization who need access to this software, then the applications must be uninstalled from the one set of machines and re-installed on the other. Wiping software from computers in storage also frees up software for reallocation and reduces the audit or true-up liability (See Digital Media Sanitization ITS-HBK 2810. 11-02).

3.6.2 Software recycling is the process of reclaiming software from retired hardware. After NASA acquires the software, it will be regularly evaluated to ensure that it is still necessary and in use. If the software is no longer in use, there are two options. The license can be retired or it can be put into a pool for future re-use.

The Technical POC shall promptly notify the Center Property Accountant of any changes in the status of capitalized software (e.g., retirement, re-use, or disposal). Changes in the status of capitalized software must be documented in NASA's financial records.

3.6.3 When software needs to be retired, the Technical POC, in coordination with the Center CIO or designee, will ensure that a number of tasks are completed:

- (1) Inform the Center CIO or designee about their plans to retire the software,
- (2) Stop the software on all running instances (i.e., delete the software from Center IT infrastructure), and
- (3) Update the Center Inventory to reflect the retired status of the software.

3.6.4 When software needs to be moved to a pool for re-use, the Technical POC shall perform the following tasks:

- (1) Inform the Center CIO or designee about their plans to transfer the software to the re-use pool,
- (2) Stop the software on all running instances (i.e., delete the software from Center IT infrastructure),
- (3) Update the Center inventory to reflect the updated status of the software and ensure other supporting information is current, and
- (4) Notify the Center CIO or designee of the availability of the license.

3.6.5 Regardless of the software being either in a retired or reuse status, the Technical POC is still responsible for supporting all audit activities until the referenced software has been transferred to another organization or disposed. Once the transfer of the re-use has occurred, the full responsibility of the software lifecycle is with the recipient of the re-used/transferred software and a new Technical POC is assigned.

3.7 Disposal

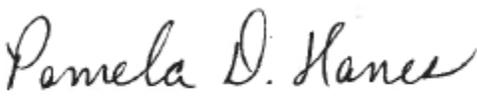
3.7.1 Disposal activities for licensed software operating on NASA computing systems include removing assets from service, deleting storage contents, disassembling components for reuse, surplus equipment, terminating / closing out contracts, disposing of equipment, and removing asset from active inventory.

3.7.2 After the Technical POC has determined that the software is no longer needed and it has been retired, the Technical POC will take steps to dispose of the software in accordance to existing Federal and NASA policies and procedures.

3.7.3 When IT resources are retired, the Technical POC will ensure that the data is sanitized using the NASA media sanitization process (Digital Media Sanitization ITS-HBK 2810. 11-02).

3.7.4 Disposal activities for SaaS (i.e., used but not operated on NASA computing systems) is when the Technical POC has determined that the SaaS is no longer needed and is planning to terminate the SaaS license agreement and discontinuing payment constitutes disposal. Depending on the particular product, it may be possible to terminate the agreement immediately; in other cases, the only option may be to terminate the SaaS agreement at the end of the licensing period. Once the SaaS license has been terminated, the SaaS vendor will de-provision access by eliminating the associated username and password. If any “helper” agents were installed on the NASA computing system to facilitate the use of the SaaS product, the agents should be removed by the Technical POC. Every cloud user should be aware that they are responsible for making any copies of their data held in the cloud application should they want to retain a copy of the data. Once the SaaS vendor de-provisions access, the data will no longer be available for copying.

3.7.5 When disposal of any capitalized software occurs the technical POC shall promptly notify the Center Property Accountant. The disposal must be recorded in NASA’s financial records.

for 
Renee P. Wynn
Chief Information Officer

Attachment A. Definitions

Commercially Off-the-Shelf (COTS) Software – “Commercial-Off-The-Shelf” solutions, as opposed to custom-developed solutions, are typically readily available and ready for use as purchased. COTS software is frequently prepackaged (shrink-wrapped) and fully functional without need for custom programming additions or system integration.

Dormant software – Software that is not used or managed on a consistent basis. This is software that is typically associated with the Retirement and Reuse phase of the software license management lifecycle.

Freeware – Software that is proprietary and that is available for use at no monetary cost. In other words, freeware may be used without payment but may usually not be modified, re-distributed or reverse-engineered without the author's permission.

Helper Agents – Software downloaded to a NASA computing system that is used in conjunction with SaaS would be subject to the same lifecycle model as any client software installed on a NASA computing system.

Perpetual License – A license that provides the user with the right to retain and use electronic files of the original program, and any appropriately acquired updates, indefinitely.

Open-Source Software – Software that provides open access to source code, and the freedom to modify it or create derivative works, without imposing technical restrictions on subsequent users.

Shareware – Software that is available free of charge and often distributed informally for evaluation, after which a fee may be requested for continued use.

Software maintenance – A set of services a Publisher can sell to a Customer for the on-going development and delivery of software bug fixes and product upgrades.

Software as a Service (SaaS) – A cloud computing service model that provides pay-for-use access to the functionality of software hosted and maintained by the provider on a centrally located server. Access is typically controlled through a secure Internet connection and Web browser. SaaS frees the user from the administrative details of having to acquire, install, maintain, and update the program on their own IT hardware.

Subscription Software – A type of software license that enables you to “pay as you go” instead of making a full outright purchase. It typically involves a fee for a rated volume of usage or a designated time period, whether that is a monthly, quarterly, or annual basis.

Support Contract -- Any NASA contract for supplies or services where the Contractor makes purchases on behalf of NASA.

Term Licenses – A software license with for a specific period of time with an end date.

True-up –The True Up process is an activity that occurs prior to software license renewals or exercising of options under a software license agreement. The True Up process compares the current software deployment to the software purchase data to revalidate and reconcile software utilization with historical software procurement data and terms and conditions, and to determine if fewer (or additional) licenses are required.

Attachment B. References

OMB Memo M-04-16, “Software Acquisition”

OMB Memo M-04-08, “Maximizing Use of SmartBuy and Avoiding Duplication of Agency Activities with the President’s 24 E-Gov Initiatives”

FAR 2005-014, “Federal Acquisition Regulation; FAR Case 2005-014, SmartBUY Pages 61603 - 61605 [FR DOC # 07-5405]

FAR 52.212-4 Contract Terms and Conditions—Commercial Items. (May 2015)

NASA Shared Services Center Service Delivery Guide NSSDG-5139-0001: Enterprise License Management Team Process Actions

NASA Guidelines for Use of IT Contracts for Supporting End User Services (Update to MFR#137 and MFR#7)

Federal Software Licenses: Better Management Needed to Achieve Significant Savings Government-Wide, US Government Accountability Office, GAO-14-413

ISO/IEC 19770 International Standards for Software Asset Management Processes

NFS 1813.301-79 —SUPPORTING FEDERAL POLICIES, REGULATIONS, AND NASA PROCEDURAL REQUIREMENTS

NFS 1852.237-72—ACCESS TO SENSITIVE INFORMATION (JUN 2005)

NFS 1852.237-73—RELEASE OF SENSITIVE INFORMATION (JUN 2005)