



**DAS** DEPARTMENT OF ADMINISTRATIVE SERVICES

STATEWIDE PROCEDURE

	<b>NUMBER</b> 107-004-010_PR	<b>SUPERSEDES</b> Policy #107-004-010 September 8, 2008
	<b>EFFECTIVE DATE</b>	<b>PAGE NUMBER</b> Pages 1 of 2
	<b>REVIEWED DATE</b>	
<b>Division</b> <b>Enterprise Information Services (State CIO)</b>	<b>REFERENCE</b> ORS 276A.230, 276A.233, 276A.236 Oregon Accounting Manual 10.50.00.PO, 10.50.00.PR, 15.55.00, 15.60.10 Statewide Policy 107-004-010	
<b>Policy Owner</b>  Cyber Security Services		
<b>SUBJECT</b> Information Technology Asset Inventory and Management (Software)	<b>APPROVED SIGNATURE</b>	

**PURPOSE**

This procedure outlines the methods and timeframes that state agencies will use to manage, collect, and report their information technology (IT) software asset information.

**APPLICABILITY**

Refer to the Information Technology Asset Inventory and Management Policy (107-004-010) for applicability of this procedure.

**FORMS/EXHIBITS/INSTRUCTIONS**

- Attachment A: IT Asset Inventory – Mandatory Attributes Tables
- Attachment B: Business process categories
- Attachment C: Transmittal form
- Attachment D: Software Lifecycle Plan Template

**DEFINITIONS**

Refer to the Information Technology Asset Inventory and Management Policy (107-004-010) for definitions.

**PROCEDURE – IT ASSET MANAGEMENT**

<b><u>RESPONSIBILITY</u></b>	<b><u>STEP</u></b>	<b><u>ACTION</u></b>
Agency Head	1.	Appoints Agency ITAM Coordinator. (name is provided with annual inventory submission).

<b><u>RESPONSIBILITY</u></b>	<b><u>STEP</u></b>	<b><u>ACTION</u></b>
Agency ITAM Coordinator	2.	Develops IT software asset lifecycle replacement plan. (Attachment D) <ul style="list-style-type: none"> <li>As applicable, follow industry and manufacturer best practices and schedule.</li> </ul>
	3.	Email IT software asset lifecycle replacement plan to the policy area Assistant State CIO (ASCIO). Refer to the ASCIO webpage for contact information. <a href="https://www.oregon.gov/eis/Pages/assistant-state-cios.aspx">https://www.oregon.gov/eis/Pages/assistant-state-cios.aspx</a>  Email IT software asset lifecycle replacement plan when submitting annual inventory.

### **PROCEDURE – INVENTORY, DATA COLLECTION, REVIEW AND REPORTING**

<b><u>RESPONSIBILITY</u></b>	<b><u>STEP</u></b>	<b><u>ACTION</u></b>
Agency ITAM Coordinator	1.	Ensure a unique asset number / identifier is assigned to each acquired software asset. If an asset identifying number is not assigned, EIS will assign a unique identifier when the asset is added to the enterprise asset management tool.
	2.	Add IT software asset to the IT Asset Inventory capturing information for mandatory data elements. (Attachment A – Table 1 and Table 2).
	3.	Annually conduct inventory of capital and non-capital IT software assets.
	4.	Annually submit inventory to EIS using the current enterprise tool. Required inventory data elements to submit are detailed in Attachment A - Table 1: Data Elements Required to Submit

### **PROCEDURE – SOFTWARE LICENSING**

<b><u>RESPONSIBILITY</u></b>	<b><u>STEP</u></b>	<b><u>ACTION</u></b>
Agency ITAM Coordinator	1.	Manages and ensures agency compliance with software licensing agreements.

## Attachment 1: Mandatory Software Inventory Attributes

**Table 1: Data Elements Required to Submit**

<u>Field Name</u>	<u>Type</u>	<u>Valid Values</u>	<u>Description</u>
Agency ID	Number	See description	Agency Number (DAS=10700, DHS=10000, ODOT=73000,etc.)
Application Name	Text	See description	Commonly used application name, and acronym if used. Example: Public Record Request Management System (PRRM)
Application Description	Text	See description	Brief description of the application purpose and use
Application Type	List	<ul style="list-style-type: none"> <li>• 3rd. Party Custom Developed</li> <li>• Commercial off the Shelf (COTS)</li> <li>• Internally Developed</li> </ul>	Classification to determine how an application was developed and delivered to the organization
Live	Date	See description	Date application went live(Retirement date: see below)
Lifecycle Phase	List	<ul style="list-style-type: none"> <li>• Implementing</li> <li>• Live</li> <li>• Phasing Out</li> <li>• Retired</li> </ul>	A field used to classify where an application is in its lifecycle
Service Level	List	<ul style="list-style-type: none"> <li>• Platinum</li> <li>• Gold</li> <li>• Silver</li> <li>• Bronze</li> </ul>	Classification to establish the level of importance that the application has for the organization as a whole (its fix-on-fail priority)
Business Owner Name	Selection	See description	Named business owner/steward who has ultimate responsibility for ensuring the system meets business needs and priorities; cannot be the same as the technical owner name
Technical Owner Name	Selection	See description	Named technical owner/steward who ensure business and technical priorities are implemented as determined through governance processes; cannot be the same as the business owner name
User Base	List	<ul style="list-style-type: none"> <li>• 1</li> <li>• 2-50</li> <li>• 50-200</li> <li>• 200-500</li> </ul>	Classification to determine how many users are using the application

<u>Field Name</u>	<u>Type</u>	<u>Valid Values</u>	<u>Description</u>
		<ul style="list-style-type: none"> <li>• 500+</li> </ul>	
Hosting Type	Selection	<ul style="list-style-type: none"> <li>• SaaS</li> <li>• Cloud</li> <li>• On-premise</li> <li>• Hybrid</li> <li>• 3rd Party</li> <li>• Desktop</li> </ul>	<p>The Hosting Type field is used to classify how the application is hosted and managed within your organization. Hosting Type has a few different options because there are many different ways applications can be hosted.</p> <ul style="list-style-type: none"> <li>• <b>SaaS</b> (very similar to the application type) represents that an application is managed wholly by the SaaS developer. This indicates that the SaaS developer controls and manages where the application is hosted, how it is hosted, its availability and uptime, and all of the infrastructure maintenance.</li> <li>• <b>Cloud</b> (IaaS/PaaS) represents that infrastructure aspects of the application are deployed in a Cloud environment such as AWS, Azure, GCP, etc. This indicates that infrastructure maintenance and availability are handled by the cloud provider.</li> <li>• <b>On-premise</b> represents that the infrastructure aspects of the application are located and managed entirely by your organization.</li> <li>• <b>Hybrid</b> represents the infrastructure aspects of the application has some elements that are located and managed by your organization on-premise and some elements are hosted in a cloud/managed environment.</li> <li>• <b>3rd Party</b> represents that the infrastructure aspects of the application are wholly managed and maintained by a 3rd party provider or managed service provider (MSP).</li> <li>• <b>Desktop</b> represents an application that runs in a local desktop environment and doesn't have dedicated infrastructure outside of the desktop.</li> </ul>
Retirement Date	Date		(See "Live" Row Above) date application will retire

**Table 2: Additional Data Elements Required to Track**

<u>Field Name</u>	<u>Type</u>	<u>Valid Values</u>	<u>Description</u>
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Asset ID	Text	<ul style="list-style-type: none"> <li>• See description</li> </ul>	Assigned unique asset ID (property tag number for physical assets)
Software Type	Selection	<ul style="list-style-type: none"> <li>• Operating Systems</li> <li>• Productivity Software</li> <li>• Security Software</li> <li>• Customer Software</li> <li>• Application Software</li> <li>• System Software</li> </ul>	
Business Process Category / Business Purpose (CIS v8.0 Safeguard 2.1)	Selection	See Attachment 2	Select the “best-fit” category for the application purposes.
Business Criticality	Selection	<ul style="list-style-type: none"> <li>• Mission Critical</li> <li>• Business Essential</li> <li>• Important</li> <li>• Minor</li> <li>• User Productivity</li> <li>• Historical</li> </ul>	<p>Reference ISO 22301 (Business Continuity Management Systems); Mission Critical should be listed in the agency Disaster Recovery Plan</p> <ul style="list-style-type: none"> <li>• <b>Mission Critical:</b> Essential to business operation or to the organization, and failure or disruption of mission critical factors will result in serious impact on business operations; should be identified in the agency Disaster Recovery Plan</li> <li>• <b>Business Essential:</b> A system essential to business operations or to the organization, yet failure or disruption will not result in a serious impact on business operations</li> <li>• <b>Important:</b> Business functions and processes won’t stop the business from operating in the near-term but have a longer-term impact if they’re missing or disabled</li> <li>• <b>Minor:</b> Business processes dealing with small, recurring issues or functions not missed in the near-term and will need to be recovered over the longer-term</li> <li>• <b>User Productivity:</b> Productivity software (sometimes called personal productivity software or office productivity software) is application software dedicated to producing information, such as document, presentations, worksheets, databases, charts, graphs, digital paintings, electronic music and digital video</li> <li>• <b>Historical:</b> system used for archival or reference purpose</li> </ul>

Recovery Time Objective (RTO)	Selection	<ul style="list-style-type: none"> <li>• Critical: Immediate or near-immediate recovery (seconds to minutes)</li> <li>• High Priority: Recovery within a few hours (up to 2-4 hours)</li> <li>• Moderate Priority: Recovery within one business day (8-24 hours)</li> <li>• Low Priority: Recovery within several days (1-7 days)</li> </ul>	Maximum acceptable time that a system, application, or business process can be offline after a disaster or disruption before causing significant harm to the organization; reference ISO 22317 (Business Impact Analysis) to categorize systems and define RTO requirements tailored to each system's criticality
Recovery Point Objective (RPO)	Selection	<ul style="list-style-type: none"> <li>• Critical: Near-zero or no data loss (seconds to minutes)</li> <li>• High Priority: Limited data loss (up to 15 minutes to 1 hour)</li> <li>• Moderate Priority: Data loss of up to 4-24 hours is acceptable</li> <li>• Low Priority: Data loss greater than 24 hours is acceptable</li> </ul>	Maximum acceptable amount of data loss measured in time; indicates how far back in time the data should be recoverable to meet the business' tolerance for data loss; reference ISO 22317 (Business Impact Analysis) to categorize systems and define RPO requirements tailored to each system's criticality
User Type	(Multi-) Selection	<ul style="list-style-type: none"> <li>• Public: Widely accessible to anyone with access to the internet</li> <li>• External / Internal (Hybrid): Mixed use by agency and external organizations</li> <li>• External: Primarily used by external organizations</li> <li>• Internal (agency only): Used only within the agency</li> <li>• Missing Data: Unknown or requiring further review</li> </ul>	Select the "best-fit" option for description the user base of the software

Server Name (required if DCS hosted) <b>LEVEL 3 Data</b>	Text	See description	<b>This is a required field if the server is hosted by Data Center Services.</b> The name assigned to the physical server or virtual machine used by Data Center Services as identified within the Ivanti Service manager. This field will be used to link the application to the platforms supporting it for future monitoring, incident management, and change management. Insert Not-Applicable if the application is an externally hosted or on-premise application.
Data Classification Level	Selection	<ul style="list-style-type: none"> <li>• Level 1: Public</li> <li>• Level 2: Limited</li> <li>• Level 3: Restricted</li> <li>• Level 4: Critical</li> </ul>	See Statewide IT Policy 107-004-050 (Information Asset Classification) for definitions.
Regulated Data Considerations (required if Level 3 or Level 4)	Text	<ul style="list-style-type: none"> <li>• OCITPA (Oregon Consumer Identity Theft Protection Act)</li> <li>• HIPAA (Protected Health Information)</li> <li>• CJIS (Criminal Justice Information)</li> <li>• IRS Publication 1075 (Federal Tax Information)</li> <li>• FERPA (certain education records)</li> <li>• PCI (payment card data)</li> <li>• SSA (Social Security Administration)</li> <li>• FISMA (Federal Information Security Modernization Act)</li> <li>• MARS -E (Minimum Acceptable Risk Standards for Exchanges)</li> <li>• ACH Transfers</li> <li>• None</li> <li>• Other</li> </ul>	
Software Publisher (CIS v8.0 Safeguard 2.1)	Text	See description	Name of the vendor that publishes the software
Software Title (CIS v8.0 Safeguard 2.1)	Text	See description	Name of software as marketed by the vendor

Programming language	Text	See description	Language used to develop and maintain the software
Database	Selection	<ul style="list-style-type: none"> <li>• SQL</li> <li>• MySQL</li> <li>• Microsoft SQL Server</li> <li>• Microsoft Azure SQL Database</li> <li>• Oracle</li> <li>• DB2</li> <li>• Microsoft Access</li> <li>• Other</li> </ul>	Type of database on which the data is stored
Data Ownership	Selection	<ul style="list-style-type: none"> <li>• Agency owns</li> <li>• Service owns</li> <li>• Shared</li> </ul>	
Responsibility for administration of users	Selection	<ul style="list-style-type: none"> <li>• Vendor</li> <li>• Agency</li> <li>• EIS</li> <li>• Other</li> </ul>	
Responsibility for administration of updates/maintenance	Selection	<ul style="list-style-type: none"> <li>• Vendor</li> <li>• Agency</li> <li>• EIS</li> <li>• Other</li> </ul>	
Login Required	Selection	<ul style="list-style-type: none"> <li>• Automatic</li> <li>• Manual</li> <li>• None</li> </ul>	<p>Automatic – application login is controlled through controlled credentials by way of automatic means – e.g. SSO, AD, LDAP</p> <p>Manual – Application requires unique credentials to be logged in manually by the user</p> <p>None – no credentials are required to access and use the application</p>
MFA Required	Selection	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	Application requires at least two authentication methods from different types of credentials to verify a user's identify for a login
AI Components	Selection	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	
System of Record	Selection	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	
US hosted only	Selection	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	

		<ul style="list-style-type: none"> <li>Unknown</li> </ul>	
Overseas access	Selection	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> <li>Unknown</li> </ul>	
Third Party Audits / Certifications	Selection	<ul style="list-style-type: none"> <li>GovRAMP</li> <li>FedRAMP</li> <li>CSA Star</li> <li>HITRUST CSF</li> <li>ISO 27001</li> <li>SOC 2 Type 2</li> <li>HITRST</li> <li>PCA</li> <li>Other</li> </ul>	
License Required	Selection	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	Is a license required for the application.
Renewal Date	Date	See description	Date of contract renewal or license renewal
Software Version	Text	See description	<p>Product -specific version number related to a commercial product or package</p> <p>Custom – Denote the underlying version of the development environment for custom applications (e.g. VB6, .NET Framework 4.8, Java SE 7, etc.)</p>
Software Edition	Text		
Publisher SKU	Text		
Agreement Type	Selection	<ul style="list-style-type: none"> <li>Enterprise License Agreement</li> <li>Unlimited License</li> <li>Subscription</li> <li>Freeware</li> <li>Open Source</li> </ul>	
Vendor Supported Version	Text	See description	The latest supported version by the vendor
License Level	Text		
License Count	Number		
Unit Cost	Number		
Subscription Billing Frequency	Selection	<ul style="list-style-type: none"> <li>Monthly</li> <li>Quarterly</li> <li>Annually</li> </ul>	

		<ul style="list-style-type: none"> <li>Enterprise Subscription Period</li> </ul>	
Vendor Support	Selection	<ul style="list-style-type: none"> <li>Normal</li> <li>Extended</li> <li>Other</li> </ul>	
End of Life Date	Date		
End of Support Date	Date		
Retirement reason	Text		
Notes	Text		

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## Attachment 2: Business Process Categories

Business Process Categories	Description
<b>Application Development</b>	Tools that enable application developers to develop software, manage backlogs, revisions, releases, and collaborate with other developers
<b>Application / Licensing / Permitting</b>	A system that assists external organizations or individuals applying or requesting approval, authorization or resources, and agencies with issuing, tracking, and renewing permits, licenses for regulated activities.
<b>Business Intelligence (BI)</b>	An application utilizing a range of data analytic tools that are designed to analyze and manage data related to trends and predicative outcomes
<b>Case Management</b>	A system handling transaction, service, investigation or response that is “opened” and “closed” over a period of time to achieve resolution of a problem, claim, request, proposal, development, or other complex activity.
<b>Collaboration / Public Engagement</b>	An information system used to facilitate efficient sharing of data, documents, files, information, and knowledge between teams and employees in an organization.
<b>Contracts / Procurement</b>	Automated procurement process that helps manage selecting and managing vendors, purchasing goods and services, and tracking deliverables
<b>Customer Relationship Management</b>	A class of applications that combine the information associated with customer communications management and customer information management to provide a single source of information about customers and prospective customers.
<b>Data Collection / Analysis / Reporting</b>	Tools used for collecting data, performing analysis by producing, interpreting, and present data for a wide range of business purposes
<b>Data Extract / Load / Transfer</b>	Tools that provide a data integration process combining data from multiple data sources into a single consistent data store that is loaded into a data warehouse or other target system; including electronic data interchange (EDI) and automated data collection
<b>Document Management</b>	Applications that track all documents, sent externally and used internally, in a single repository. Such applications are used for archiving and can also support collaboration among employees in in an organization.
<b>eCommerce</b>	Systems that support the activity of electronically buying or selling of products on online services or over the Internet used for mobile commerce, electronic funds transfer, and online transaction processing systems.
<b>Economic Development</b>	Applications used in support of planning and tracking the growth of the economy and enhancing the prosperity and quality of life for all residents
<b>Education / Learning</b>	Applications whose primary purpose is associated with teaching or self-learning, encompassing functions such as maintaining standards related to course content, learning objectives, teaching practices, and reference information systems
<b>Employee Benefits</b>	Pension / Retirement
<b>Employment</b>	Systems related to employment operations such as Benefits Payouts, Career Development, Case Management, Client Intake, Collections, Eligibility Determination and Labor Statistics
<b>Engineering / CAD (Computer-Aided Design)</b>	An application to help create, modify, analyze, or optimize a design in a digital format that can be tested and stored entirely on computer systems
<b>Enterprise Resource Planning</b>	Integrated application suite combining various forms or modules that handle business processes commonly associated with back-office system
<b>Event Management</b>	Any system that assesses and manages all aspects of an event, including registration, marketing, engagement, integrations, physical planning and preparation, reporting and analytics
<b>Facility Management</b>	Applications used to manage repair, maintain, monitor, and access control of buildings and occupants including surveillance video and badging access control systems
<b>Financial Management</b>	Applications that include Accounting, Budget, Comprehensive or Multi-Purpose FMS, Financial Reports, Payment Processing, Time & Leave Management, Financial Reporting, and Tax Reporting
<b>Fleet Management</b>	Applications that monitor the status and performance of its mobile assets, as well as tracks and monitors the maintenance of fleet of vehicles
<b>General Office Tools</b>	Office productivity tools such as a word processor, spreadsheet, email, a calendar, contact database, presentation software, and web browser; May include simple database applications, note-taking tool, and imaging applications
<b>GIS (Geographic Information System) / Mapping</b>	Systems that create, manage, analyzes, and maps all types of data integrating location data (where things are) with all types of descriptive information (what things are like there).

<b>Grants Management</b>	The system processes and methods used to oversee grants from grant seekers and grant makers from pre-award research through post-award grant closeout
<b>Healthcare</b>	Applications covering areas such as Behavioral Health, Disease Outbreak Surveillance, Emergency Medical, Environment Management, Family Health, Health Related Quality Assurance and Control, Physical Health, and Vital Events Management
<b>Human Capital/Resource Management</b>	A suite of applications supporting the human resources department. Modules typically include applicant tracking, recruiting, benefit selection, payroll (or an interface to payroll in the general ledger), and performance evaluation tracking
<b>Information Security</b>	Applications programs designed to protect computer files, operating systems, and program software, particularly on computers that are connected to networks or are otherwise subject to attack from outside locations
<b>Intranet</b>	Systems whose purpose is to help employees securely communicate with each other, to store information, and to help collaborate on work-related documentation
<b>Inventory / Asset Management</b>	A system used to record and track inventory or assets from procurement to disposal and monitoring the asset use and maximize the asset lifecycle
<b>Legal</b>	Applications specifically used by Legal for Case Management, Research, eDiscovery, Scheduling, Contract, and Document Management
<b>Multimedia</b>	Creativity tools that produce videos and audio recordings for content creation, marketing communication materials, and other visuals
<b>Natural Resources</b>	Systems designed to allow decision makers in natural resource management to develop new decision support tools to address new tasks through recombination of existing data resources and analytical tools (models and inference engines for example).
<b>Point-of-Sale</b>	A system that supports all modes of payment, including cash and other transactions management, sales reporting, and facilitating payment processing
<b>Project / Resource Planning</b>	Tools that provide information to project managers and team members on status, tasking and other planning or controls for projects, programs or portfolios
<b>Public Safety</b>	Applications that support the welfare and protection of the general public such as Corrections (Case Management, Health Services, Intake), Enforcement, Parole, Emergency Management, Search and Rescue
<b>Record Management</b>	Management of records throughout the records-life cycle including the systematic and efficient control of the creation, maintenance, and destruction of the records along with the business transactions associated with them
<b>Reference / Knowledge Base</b>	Applications designed for quick retrieval of focused information, as well as tools that create, organize, and manage self-service content
<b>SCADA / IoT</b>	Supervisory Control and Data Acquisition (SCADA); Internet of Things (IoT); Application that automatically control other machines, or monitoring and remotely controlling geographically widely distributed processes connected via network
<b>Social Services</b>	Systems that provide assistance to individuals and families in need. Child Welfare, Application Intake, Benefit Delivery, Case Management, Claims Management, Eligibility Determination, and Income Verification
<b>Supply Chain Management</b>	Systems that enable the efficient handling the ordering and flow of goods from suppliers of raw material, products, and services suppliers
<b>System Administration</b>	Tools used by users with elevate system authority to monitor, maintain, configure, and modify data within an application to ensure secure and efficient operations
<b>Technical Support</b>	Tools and/or utilities used to perform diagnostic or remedial activities in connection with hardware or software maintenance and operations
<b>Ticket Tracking</b>	Support applications that process and catalog requests such as a call centers systems tracking issues, item fulfillment, response performance, and resolution metrics related to customer inquires
<b>Transportation</b>	Applications supporting transportation infrastructure and related systems including highways, bridges, park and ride lots, transit stations, transportation management systems, intelligent vehicle highway systems, and other ground transportation systems
<b>Unified Communications:</b>	Application technologies that provide or support voice, messaging or video conferencing - phone, cellular, mobile device management (MDM), and SMS
<b>Web Portal</b>	Specially designed website that often serves as the single point of access for information and can be considered a library of categorized content with search navigation, personalization, notification and information integration

<b>Workforce Management</b>	Application(s) that analyzes, evaluates, and optimizes the workforce such as payroll and benefits, time and attendance, performance management, work scheduling, as well as recruiting and talent acquisition
<b>Other</b>	All other applications that are outside the categories listed

**Attachment C: Software Asset Information Transmittal**

**TO:** [ Policy Area Assistant State CIO ]

**FROM:** [ Agency Name ]

**FOR:** Year ending Month ##, 20##

**1. The following checked items are transmitted with this certification:**

- [ ] Agency IT Software Asset Inventory
- [ ] Agency IT Software Asset Lifecycle Plan

**2. Agency certification of accuracy and completeness**

I certify that to the best of my knowledge, the transmitted information accurately and completely reflects the agency’s IT software inventory and lifecycle planning for the calendar year noted above, and this information agrees with the agency’s actual inventory.

In addition, I certify that to the best of my knowledge, any differences between the inventory transmitted and the actual inventory have been communicated in writing.

\_\_\_\_\_  
Signature of agency IT leadership

\_\_\_\_\_  
Name of agency IT leadership

\_\_\_\_\_  
Signature of agency head

\_\_\_\_\_  
Name of agency head

**Attachment D: Software Lifecycle Plan**

Software Name	Additional Qualifier	Start Date	End of Life	End of Support	Targeted Replacement Date	Estimated Cost	Funding Source	Risks / Mitigating Support

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