**Green Pace Developer: Security Policy Guide Template**



# Green Pace Secure Development Policy

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## Overview

Software development at Green Pace requires consistent implementation of secure principles to all developed applications. Consistent approaches and methodologies must be maintained through all policies that are uniformly defined, implemented, governed, and maintained over time.

## Purpose

This policy defines the core security principles; C/C++ coding standards; authorization, authentication, and auditing standards; and data encryption standards. This article explains the differences between policy, standards, principles, and practices (guidelines and procedure): [Understanding the Hierarchy of Principles, Policies, Standards, Procedures, and Guidelines](https://www.linkedin.com/pulse/understanding-hierarchy-principles-policies-standards-wally-beddoe/).

## Scope

This document applies to all staff that create, deploy, or support custom software at Green Pace.

## Module Three Milestone

### Ten Core Security Principles

| **Principles** | Write a short paragraph explaining each of the 10 principles of security. |
| --- | --- |
| 1. ValidateInput Data | Ensure that all input data is validated to prevent malicious input, such as SQL injection or intentional buffer overflow. This helps protect systems from unexpected behavior or security breaches caused by poorly validated data. |
| 1. Heed Compiler Warnings | Pay attention to compiler warnings and resolve them as they can highlight vulnerabilities or coding mistakes. Ignoring them may lead to security issues or instability in the program. |
| 1. Architect and Design for Security Policies | Design systems with security in mind from the start by incorporating security policies into the architecture. This approach ensures that vulnerabilities are minimized during the development phase. Catching the bugs early can be a huge time save for the project as a whole. |
| 1. Keep It Simple | Avoid unnecessary complexity in program code and system design. Simple systems are easier to develop, debug, and maintain, leading to less hidden vulnerabilities. |
| 1. Default Deny | Set all permission systems in the program to deny access by default. In doing this, each user will have restricted access unless explicitly granted access. |
| 1. Adhere to the Principle of Least Privilege | Grant users and systems the minimum access necessary to perform their tasks. This limits the potential damage from accidental misuse or malicious activities. |
| 1. Sanitize Data Sent to Other Systems | Sanitize all data before sending it to other systems to prevent injection attacks and ensure compatibility. Proper sanitization protects against exploiting vulnerabilities in the target system. |
| 1. Practice Defense in Depth | Implement multiple layers of security so that even if one layer fails, others will still protect the system. There is a balance that can be struck with this practice. Implement enough defenses to ensure safety without hurting user experience or program performance. |
| 1. Use Effective Quality Assurance Techniques | Incorporate multiple layers of testing, like code reviews, static analysis, and penetration testing, to help identify and fix vulnerabilities early in the development phase. This principle helps remove bugs and exploits before the program is released to production. |
| 1. Adopt a Secure Coding Standard | Follow secure coding standards to ensure consistency and reduce the risk of vulnerabilities being present in the program. This helps contribute to the building of secure and bug-free software. |

### C/C++ Ten Coding Standards

Complete the coding standards portion of the template according to the Module Three milestone requirements. In Project One, follow the instructions to add a layer of security to the existing coding standards. Please start each standard on a new page, as they may take up more than one page. The first seven coding standards are labeled by category. The last three are blank so you may choose three additional standards. Be sure to label them by category and give them a sequential number for that category. Add compliant and noncompliant sections as needed to each coding standard.

#### Coding Standard 1

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| **Data Type** | [STD-001-CPP] | Do not read uninitialized memory |

| **Noncompliant Code** |
| --- |
| “In this noncompliant code example, an uninitialized local variable is evaluated as part of an expression to print its value, resulting in undefined behavior.” (Pincar, 2023d) |
| #include <iostream>    void f() {  int i;  std::cout << i;  } |

| **Compliant Code** |
| --- |
| “In this compliant solution, the object is initialized prior to printing its value.” (Pincar, 2023d) |
| #include <iostream>    void f() {    int i = 0;    std::cout << i;  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
| --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
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#### Coding Standard 2

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| **Data Value** | [STD-002-CPP] | Do not define a C-style variadic function |

| **Noncompliant Code** |
| --- |
| “This noncompliant code example uses a C-style variadic function to add a series of integers together. The function reads arguments until the value 0 is found. Calling this function without passing the value 0 as an argument (after the first two arguments) results in undefined behavior. Furthermore, passing any type other than an int also results in undefined behavior.” (Saks, 2023) |
| #include <cstdarg>    int add(int first, int second, ...) {  int r = first + second;  va\_list va;  va\_start(va, second);  while (int v = va\_arg(va, int)) {  r += v;  }  va\_end(va);  return r;  } |

| **Compliant Code** |
| --- |
| “In this compliant solution, a variadic function using a function parameter pack is used to implement the add() function, allowing identical behavior for call sites. Unlike the C-style variadic function used in the noncompliant code example, this compliant solution does not result in undefined behavior if the list of parameters is not terminated with 0. Additionally, if any of the values passed to the function are not integers, the code is ill-formed rather than producing undefined behavior.” (Saks, 2023) |
| #include <type\_traits>    template <typename Arg, typename std::enable\_if<std::is\_integral<Arg>::value>::type \* = nullptr>  int add(Arg f, Arg s) { return f + s; }    template <typename Arg, typename... Ts, typename std::enable\_if<std::is\_integral<Arg>::value>::type \* = nullptr>  int add(Arg f, Ts... rest) {  return f + add(rest...);  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

#### Coding Standard 3

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| **String Correctness** | [STD-003-CPP] | Guarantee that storage for strings has sufficient space for character data and the null terminator |

| **Noncompliant Code** |
| --- |
| “Because the input is unbounded, the following code could lead to a buffer overflow.” (Pincar, 2023a) |
| #include <iostream>    void f() {  char buf[12];  std::cin >> buf;  } |

| **Compliant Code** |
| --- |
| “The best solution for ensuring that data is not truncated and for guarding against buffer overflows is to use std::string instead of a bounded array, as in this compliant solution.” (Pincar, 2023a) |
| #include <iostream>  #include <string>    void f() {  std::string input;  std::string stringOne, stringTwo;  std::cin >> stringOne >> stringTwo;  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

#### Coding Standard 4

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| **SQL Injection** | [STD-004-JAV] | Normalize strings before validating them |

| **Noncompliant Code** |
| --- |
| “The Normalizer.normalize() method transforms Unicode text into the standard normalization forms described in Unicode Standard Annex #15 Unicode Normalization Forms. Frequently, the most suitable normalization form for performing input validation on arbitrarily encoded strings is KC (NFKC) .  This noncompliant code example attempts to validate the String before performing normalization.” (Mohindra, 2024) |
| // String s may be user controllable  // \uFE64 is normalized to < and \uFE65 is normalized to > using the NFKC normalization form  String s = "\uFE64" + "script" + "\uFE65";    // Validate  Pattern pattern = Pattern.compile("[<>]"); // Check for angle brackets  Matcher matcher = pattern.matcher(s);  if (matcher.find()) {  // Found black listed tag  throw new IllegalStateException();  } else {  // ...  }    // Normalize  s = Normalizer.normalize(s, Form.NFKC); |

| **Compliant Code** |
| --- |
| “This compliant solution normalizes the string before validating it. Alternative representations of the string are normalized to the canonical angle brackets. Consequently, input validation correctly detects the malicious input and throws an IllegalStateException.” (Mohindra, 2024) |
| String s = "\uFE64" + "script" + "\uFE65";    // Normalize  s = Normalizer.normalize(s, Form.NFKC);    // Validate  Pattern pattern = Pattern.compile("[<>]");  Matcher matcher = pattern.matcher(s);  if (matcher.find()) {  // Found blacklisted tag  throw new IllegalStateException();  } else {  // ...  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

#### Coding Standard 5

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| **Memory Protection** | [STD-005-CPP] | Do not access freed memory |

| **Noncompliant Code** |
| --- |
| “In this noncompliant code example, s is dereferenced after it has been deallocated. If this access results in a write-after-free, the vulnerability can be exploited to run arbitrary code with the permissions of the vulnerable process. Typically, dynamic memory allocations and deallocations are far removed, making it difficult to recognize and diagnose such problems.” (Pincar, 2023f) |
| #include <new>    struct S {  void f();  };    void g() noexcept(false) {  S \*s = new S;  // ...  delete s;  // ...  s->f();  } |

| **Compliant Code** |
| --- |
| “In this compliant solution, the dynamically allocated memory is not deallocated until it is no longer required.” (Pincar, 2023f) |
| #include <new>    struct S {  void f();  };    void g() noexcept(false) {  S \*s = new S;  // ...  s->f();  delete s;  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
| --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

#### Coding Standard 6

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| **Assertions** | [STD-006-C] | Incorporate diagnostic tests using assertions |

| **Noncompliant Code** |
| --- |
| “This noncompliant code example uses the assert() macro to verify that memory allocation succeeded. Because memory availability depends on the overall state of the system and can become exhausted at any point during a process lifetime, a robust program must be prepared to gracefully handle and recover from its exhaustion. Consequently, using the assert() macro to verify that a memory allocation succeeded would be inappropriate because doing so might lead to an abrupt termination of the process, opening the possibility of a denial-of-service attack.” (Seacord, 2018) |
| char \*dupstring(const char \*c\_str) {  size\_t len;  char \*dup;    len = strlen(c\_str);  dup = (char \*)malloc(len + 1);  assert(NULL != dup);    memcpy(dup, c\_str, len + 1);  return dup;  } |

| **Compliant Code** |
| --- |
| “This compliant solution demonstrates how to detect and handle possible memory exhaustion:” (Seacord, 2018) |
| char \*dupstring(const char \*c\_str) {  size\_t len;  char \*dup;    len = strlen(c\_str);  dup = (char\*)malloc(len + 1);  /\* Detect and handle memory allocation error \*/  if (NULL == dup) {  return NULL;  }    memcpy(dup, c\_str, len + 1);  return dup;  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
| --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

#### Coding Standard 7

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| **Exceptions** | [STD-007-CPP] | Handle all exceptions |

| **Noncompliant Code** |
| --- |
| “In this noncompliant code example, neither f() nor main() catch exceptions thrown by throwing\_func(). Because no matching handler can be found for the exception thrown, std::terminate() is called.” (Ballman, 2023) |
| void throwing\_func() noexcept(false);    void f() {  throwing\_func();  }    int main() {  f();  } |

| **Compliant Code** |
| --- |
| “In this compliant solution, the main entry point handles all exceptions, which ensures that the stack is unwound up to the main() function and allows for graceful management of external resources.” (Ballman, 2023) |
| void throwing\_func() noexcept(false);    void f() {  throwing\_func();  }    int main() {  try {  f();  } catch (...) {  // Handle error  }  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
| --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

#### Coding Standard 8

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| Container Usage | [STD-008-CPP] | Guarantee that container indices and iterators are within the valid range |

| **Noncompliant Code** |
| --- |
| “This noncompliant code example shows a function, insert\_in\_table(), that has two int parameters, pos and value, both of which can be influenced by data originating from untrusted sources. The function performs a range check to ensure that pos does not exceed the upper bound of the array, specified by tableSize, but fails to check the lower bound. Because pos is declared as a (signed) int, this parameter can assume a negative value, resulting in a write outside the bounds of the memory referenced by table.” (Pincar, 2023b) |
| #include <cstddef>    void insert\_in\_table(int \*table, std::size\_t tableSize, int pos, int value) {  if (pos >= tableSize) {  // Handle error  return;  }  table[pos] = value;  } |

| **Compliant Code** |
| --- |
| “In this compliant solution, the parameter pos is declared as size\_t, which prevents the passing of negative arguments.” (Pincar, 2023b) |
| #include <cstddef>    void insert\_in\_table(int \*table, std::size\_t tableSize, std::size\_t pos, int value) {  if (pos >= tableSize) {  // Handle error  return;  }  table[pos] = value;  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
| --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

#### Coding Standard 9

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| Expression Evaluation | [STD-009-LLL] | Do not depend on the order of evaluation for side effects |

| **Noncompliant Code** |
| --- |
| “In this noncompliant code example, i is evaluated more than once in an unsequenced manner, so the behavior of the expression is undefined.” (Pincar, 2023c) |
| void f(int i, const int \*b) {  int a = i + b[++i];  // ...  } |

| **Compliant Code** |
| --- |
| “This example is independent of the order of evaluation of the operands and can each be interpreted in only one way.” (Pincar, 2023c) |
| void f(int i, const int \*b) {  ++i;  int a = i + b[i];  // ...  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
| --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

#### Coding Standard 10

| **Coding Standard** | **Label** | **Name of Standard** |
| --- | --- | --- |
| File Iinput/Output | [STD-010-CPP] | Do not alternately input and output from a file stream without an intervening positioning call |

| **Noncompliant Code** |
| --- |
| “This noncompliant code example appends data to the end of a file and then reads from the same file. However, because there is no intervening positioning call between the formatted output and input calls, the behavior is undefined.” (Pincar, 2023e) |
| #include <fstream>  #include <string>    void f(const std::string &fileName) {  std::fstream file(fileName);  if (!file.is\_open()) {  // Handle error  return;  }    file << "Output some data";  std::string str;  file >> str;  } |

| **Compliant Code** |
| --- |
| “In this compliant solution, the std::basic\_istream<T>::seekg() function is called between the output and input, eliminating the undefined behavior.” (Pincar, 2023e) |
| #include <fstream>  #include <string>    void f(const std::string &fileName) {  std::fstream file(fileName);  if (!file.is\_open()) {  // Handle error  return;  }    file << "Output some data";    std::string str;  file.seekg(0, std::ios::beg);  file >> str;  } |

**Note: Stop here for the milestone. Complete this section for Project One in Module Six.**

| **Principles(s):** [Name the principle and explain how it maps to this standard.] |
| --- |

**Threat Level**

| **Severity** | **Likelihood** | **Remediation Cost** | **Priority** | **Level** |
| --- | --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

**Automation**

| **Tool** | **Version** | **Checker** | **Description Tool** |
| --- | --- | --- | --- |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

### Defense-in-Depth Illustration

This illustration provides a visual representation of the defense-in-depth best practice of layered security.



## Project One

There are seven steps outlined below that align with the elements you will be graded on in the accompanying rubric. When you complete these steps, you will have finished the security policy.

### Revise the C/C++ Standards

You completed one of these tables for each of your standards in the Module Three milestone. In Project One, add revisions to improve the explanation and examples as needed. Add rows to accommodate additional examples of compliant and noncompliant code. Coding standards begin on the security policy.

### Risk Assessment

Complete this section on the coding standards tables. Enter high, medium, or low for each of the headers, then rate it overall using a scale from 1 to 5, 5 being the greatest threat. You will address each of the seven policy standards. Fill in the columns of severity, likelihood, remediation cost, priority, and level using the values provided in the appendix.

### Automated Detection

Complete this section of each table on the coding standards to show the tools that may be used to detect issues. Provide the tool name, version, checker, and description. List one or more tools that can automatically detect this issue and its version number, name of the rule or check (preferably with link), and any relevant comments or description—if any. This table ties to a specific C++ coding standard.

### Automation

Provide a written explanation using the image provided.



Automation will be used for the enforcement of and compliance to the standards defined in this policy. Green Pace already has a well-established DevOps process and infrastructure. Define guidance on where and how to modify the existing DevOps process to automate enforcement of the standards in this policy. Use the DevSecOps diagram and provide an explanation using that diagram as context.

[Insert your written explanations here.]

### Summary of Risk Assessments

Consolidate all risk assessments into one table including both coding and systems standards, ordered by standard number.

| Rule | Severity | Likelihood | Remediation Cost | Priority | Level |
| --- | --- | --- | --- | --- | --- |
| STD-001-CPP | High | Unlikely | Medium | High | 2 |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
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| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

### Create Policies for Encryption and Triple A

Include all three types of encryption (in flight, at rest, and in use) and each of the three elements of the Triple-A framework using the tables provided***.***

* 1. Explain each type of encryption, how it is used, and why and when the policy applies.
  2. Explain each type of Triple-A framework strategy, how it is used, and why and when the policy applies.

Write policies for each and explain what it is, how it should be applied in practice, and why it should be used.

| 1. **Encryption** | **Explain what it is and how and why the policy applies.** |
| --- | --- |
| Encryption at rest | [Insert text.] |
| Encryption in flight | [Insert text.] |
| Encryption in use | [Insert text.] |

| 1. **Triple-A Framework\*** | **Explain what it is and how and why the policy applies.** |
| --- | --- |
| Authentication | [Insert text.] |
| Authorization | [Insert text.] |
| Accounting | [Insert text.] |

**\***Use this checklist for the Triple A to be sure you include these elements in your policy:

* User logins
* Changes to the database
* Addition of new users
* User level of access
* Files accessed by users

### Map the Principles

Map the principles to each of the standards, and provide a justification for the connection between the two. In the Module Three milestone, you added definitions for each of the 10 principles provided. Now it’s time to connect the standards to principles to show how they are supported by principles. You may have more than one principle for each standard, and the principles may be used more than once. Principles are numbered 1 through 10. You will list the number or numbers that apply to each standard, then explain how each of these principles supports the standard. This exercise demonstrates that you have based your security policy on widely accepted principles. Linking principles to standards is a best practice.

**NOTE:** Green Pace has already successfully implemented the following:

* Operating system logs
* Firewall logs
* Anti-malware logs

The only item you must complete beyond this point is the Policy Version History table.

## Audit Controls and Management

Every software development effort must be able to provide evidence of compliance for each software deployed into any Green Pace managed environment.

Evidence will include the following:

* Code compliance to standards
* Well-documented access-control strategies, with sampled evidence of compliance
* Well-documented data-control standards defining the expected security posture of data at rest, in flight, and in use
* Historical evidence of sustained practice (emails, logs, audits, meeting notes)

## Enforcement

The office of the chief information security officer (OCISO) will enforce awareness and compliance of this policy, producing reports for the risk management committee (RMC) to review monthly. Every system deployed in any environment operated by Green Pace is expected to be in compliance with this policy at all times.

Staff members, consultants, or employees found in violation of this policy will be subject to disciplinary action, up to and including termination.

## Exceptions Process

Any exception to the standards in this policy must be requested in writing with the following information:

* Business or technical rationale
* Risk impact analysis
* Risk mitigation analysis
* Plan to come into compliance
* Date for when the plan to come into compliance will be completed

Approval for any exception must be granted by chief information officer (CIO) and the chief information security officer (CISO) or their appointed delegates of officer level.

Exceptions will remain on file with the office of the CISO, which will administer and govern compliance.

## Distribution

This policy is to be distributed to all Green Pace IT staff annually. All IT staff will need to certify acceptance and awareness of this policy annually.

## Policy Change Control

This policy will be automatically reviewed annually, no later than 365 days from the last revision date. Further, it will be reviewed in response to regulatory or compliance changes, and on demand as determined by the OCISO.

## Policy Version History

| Version | Date | Description | Edited By | Approved By |
| --- | --- | --- | --- | --- |
| 1.0 | 08/05/2020 | Initial Template | David Buksbaum |  |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |
| [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] | [Insert text.] |

## Appendix A Lookups

### Approved C/C++ Language Acronyms

| Language | Acronym |
| --- | --- |
| C++ | CPP |
| C | CLG |
| Java | JAV |

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