

Digital Solution Group Applies KISS to Systems Integration

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I was recently chatting with an ex-military retiree that is now serving as a greeter at a national retail chain, and we got into the basics of how one is instructed to **salute an officer**. Being an Air Force veteran myself, I recalled that the military instructors used the KISS (**Keep It Simple Stupid**) method to instruct us new recruits on how to **salute an officer**.

The process applied was to answer the following questions. **Why? What? When? and How?**

WHY: To show respect to an officer of the Air Force;

WHAT: To perform the required salute;

WHEN: An officer enters a room or approaches when outdoors;

HOW: *The hand and wrist are straight [simple];*

The elbow inclined slightly forward, and the upper arm is raised to be horizontal [again simple];

With the palm facing down, the tip of the right forefinger should meet the rim of the headgear visor to the right of the right eye or the outer rim of the glasses (in my case) or the right edge of the right eyebrow [just plain simple];

Once contact is made, snap the arm back to its position along the side in the position of attention [keeping it simple].

The same holds true for the delivery of **Systems Integration**. **Digital Solution Group** uses the same **KISS** method when it comes to defining the steps for integrating two (or more) systems. This method is to:

*Establish “**why**” information is exchanged;*

*Determine “**what**” information supports the “**why**”;*

*Define “**when**” information should be exchanged; and finally*

*Design “**how**” information should be exchanged.*

Applying the **Why, What, When, and How** method is repeatable for every systems integration, with each step being a checkpoint on whether the next step is required. If we were to apply this to the integration of a **PLM** (Product Lifecycle Management) system and an **ERP** (Enterprise Resource Planning) system, we would increment through these steps as:

WHY: The design / development of products occurs in PLM (in conjunction with CAD) and the production of products occurs in ERP. Therefore, select Product *information* in PLM have to be entered into ERP for production of those select Products to be executed [simple];

WHAT: All Products that are to be produced need to be passed from PLM to ERP. The Product *information* that is required by ERP include the Product ID, Product Name, Product Description, Primary Material, etc. [equally simple];

WHEN: Products that achieve a development status of *Approved* in PLM [again simple];

HOW: Any Product that achieves an *Approved* status triggers an event in PLM that:

(1a) reads the Product *information*;

(1b) forms it into a json message structure that includes the ERP address; and

(1c) passes it to the *middleware service*.

The middleware service:

(2a) **reads** the json message and ERP address;

(2b) determines what **mapping** is required to ensure that the PLM based Product *information* is “understandable” by the ERP **API** (Application Programming Interface);

(2c) **transforms** the *information* from PLM to an ERP acceptable format;

(2d) **transfers** the transformed json message structure to the ERP system.

Though each of these steps becomes more and more technical, the basis by which each step is executed is quite simple. This same KISS approach to Systems Integration (WHY, WHAT, WHEN, and HOW) should always be applied to any manner of data exchange and **always in that sequence**.

One might say ... *duh* ... but there are situations occurring right now where the **WHAT** and the **HOW** of systems integration are being discussed prior to defining the **WHY** and is OFTEN RESULTING in a limited or negative *Return on Investment*.

Systems Integration example: Automating the passing of **Supplier** data from PLM to ERP when there are *only a handful* of new Suppliers per calendar quarter. **Resulting in** overinvesting in a systems integration when compared to manual reentry.

Military example: Saluting the mirror in a room without officers. **Resulting in** wasted energy; unless you are practicing ...

In other instances, the **WHEN** is fogged in ambiguity and the **HOW** is developed in a way that does not meet the need (**WHY**) of the business, resulting in not achieving the benefits / results expected.

Systems Integration example: Automating the passing of Product *information* of all Approved products from PLM to ERP **but doing so** in a **nightly** (or worse, weekly) **batch run** instead of doing so as it occurs. **Resulting** in a loss on production / time-to-market gains.

Military example: Saluting an officer after s/he passes. Resulting in the officer commanding that the airman “give me 20 pushups”.

Digital Solution Group **guarantees ALL** systems integrations because we ensure that the **WHY** of **EVERY** systems integration is fully defined; that the **WHAT** is fully profiled; that the **WHEN** offers the greatest benefit addressing the WHY and the WHAT; and that the **HOW** is defined to not only achieve the goals of the WHY, but to also ensure the most effective means of data transformation / transaction.

Contact Digital Solution Group for a **no-cost assessment** of your current systems integrations along with an analysis of what systems should be integrated profiling the Why, What, When, and How to achieve the greatest return on investment.

This is our **mission**; our **promise**; our **guarantee**.

In all things ... stay safe.

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