

Letters from the Trenches



Integrating Advantage CA-Ideal Using HostBridge

From the HostBridge Archive

Advantage CA-Ideal allows you to develop terminal-oriented applications for CA-Datacom quickly and easily. Each screen of an application derives from panel definitions that act as templates for screen layout. These panel definitions contain names for every input field, but these names are lost when Advantage CA-Ideal generates terminal output. HostBridge includes a panel processor that analyzes Advantage CA-Ideal panel definitions and extracts the names for each field in a panel. The basic architecture for Advantage CA-Ideal support appears below.

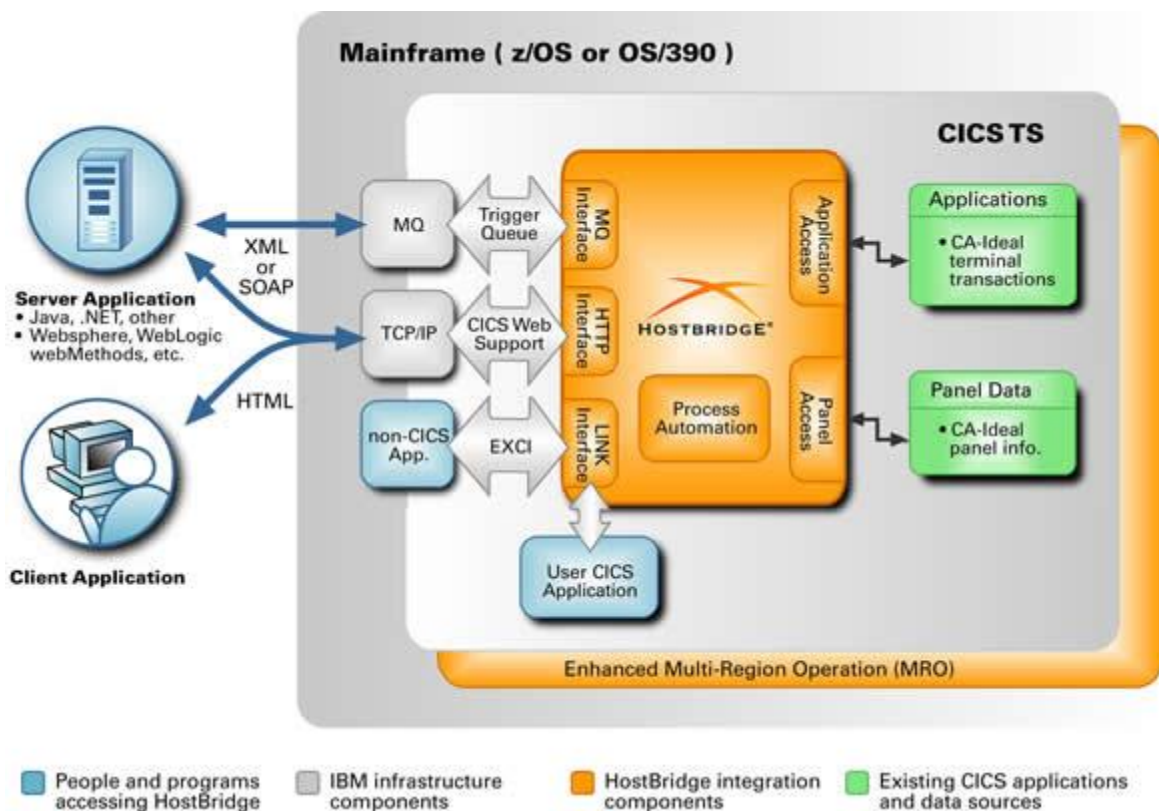


Figure 1. Advantage CA-Ideal architecture

Assume you need to access information contained on an Advantage CA-Ideal screen such as the one shown below.

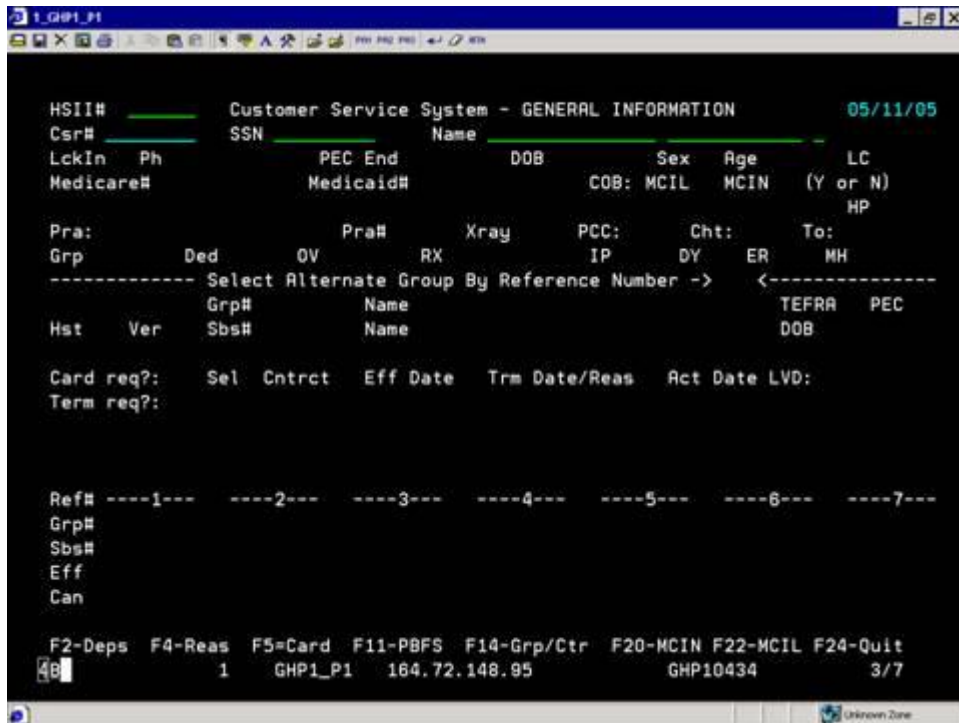


Figure 2 . Sample Advantage CA-Ideal application screen

In the screen, notice the “HSII#” field with the value “_____.” Figure 2 shows how HostBridge displays the CICS data in XML after an external application sends an HTTP request with the following format:

```

http://company.com:[port]/hostbridge?
HB_ENTRY=[transaction] &HB_FIELD_RENAME=1
  
```

In the URL above, the “port” is a port you assign to HostBridge under CICS Web Support (CWS) and “transaction” is the name of the transaction you want to execute. The HB_FIELD_RENAME command tells HostBridge to include the Advantage CA-Ideal panel field names in the XML output. For our purposes, assume the transaction name is “MGET.” Below is the HostBridge output sent back to the requesting application after executing the transaction.

```

<?xml version="1.0" standalone="yes" ?>
<hostbridge sysid="TPT1" build_date="Mar 28 2005 10:56:06">
  <token>3664ef41</token>
  <timestamp>20050511211707</timestamp>
  <status>
    <response>0</response>
    <desc>ok</desc>
  </status>
  <parameters>
    <tranid>MGET</tranid>
    <entry>mget</entry>
    <userid>RACFUSR</userid>
  </parameters>
  <fields count="118">
    <field name="P1HSII#" index="0">
      <name len="8">P1HSII#</name>
      <value maxlen="6" len="6">_____</value>
      <attr byte="40" justify="n" disp="y" prot="n" num="n"
        int="n" mdt="n" />
    </field>
    ...
    <field name="P1MESSAGE" index="0">
      <name len="10">P1MESSAGE</name>
      <value maxlen="79" len="62">Consumer number 0000MGET
        invalid, please enter a valid number.</value>
      <attr byte="f8" justify="n" disp="y" prot="y" num="y"
        int="y" mdt="n" />
    </field>
  </fields>
  <cursor type="pos" pos="166" row="3" col="7">166</cursor>
  <copyright info="HostBridge Copyright 20002005 HostBridge
    Technology, U.S. Patent Pending" />
</hostbridge>

```

Figure 3. Sample XML output

The field names P1HSII and P1MESSAGE are the names that the Advantage CA-Ideal developers used when they created the application panels. HostBridge lets developers interact with Advantage CA-Ideal applications using these field names, not field locations on a screen. Therefore, if mainframe developers make changes to their applications by adding or removing fields on a screen, the changes will not affect web applications. This saves time and money for development staff and reduces the chances that users will receive errors when they access your web applications.

Advantage CA-Ideal continues to provide rapid development of mainframe applications. HostBridge allow companies with legacy applications built using Advantage CA-Ideal to protect their investments by integrating those applications with other enterprise applications. Using industry standards such as XML, SOAP, and JavaScript, HostBridge allows web developers to use existing skills and knowledge to build the integration framework, while shielding mainframe Advantage CA-Ideal developers from integration projects because HostBridge does not require changes to the legacy applications.

For more information, read our white paper “SOA and Web Services for Advantage CA-Ideal” and read the case study on Group Health Cooperative. Or, call us at 1-866-XML-CICS (965-2427).

Tech Notes

This section answers common technical questions.

Q. If we upgrade from CICS TS 1.3 to 2.2 or higher, do we need to make any changes to our HostBridge installation?

A. HostBridge operates perfectly well whether you run CICS TS 1.3 or higher. However, HostBridge takes advantage of new features within each new version CICS.

When running under CICS TS 2.2 or higher, HostBridge uses the LINK3270 interface. This interface requires you to create, define, and install the DFHBRNSF file (this file is used in the assignment and management of facility tokens across regions). Follow the steps documented on pages 45-47 of the External Interfaces Guide for TS 2.2.