

Universal Display Files

What is a Universal Display File?

A Universal Display File is a display file that an RPG program can use to create dynamic text output. The output can be transmitted to a client via HTTP or written to a stream file on the IBM i Integrated File System (IFS).

For example, Universal Display Files can be used to create:

- A program that produces dynamic HTML content for a web browser.
- A web service that outputs an XML or JSON document to a client program via HTTP.
- A plain text, XML, JSON, or CSV document on the IFS.

How Does It Work?

Universal Display File Editor

Profound UI's Universal Display File Editor allows you to embed display file field references into a text document. Document sections can be organized into record formats. The RPG program can then construct a dynamic document by writing records to the display file. The output of the Universal Display File editor is DDS code which defines the record formats and fields for RPG. The static content is also embedded into the DDS source and display file object, allowing for easy integration with existing change management systems and procedures.

The screenshot shows the Profound UI Universal Display File Editor. The main window displays HTML code for a form with fields for character, decimal, date, time, timestamp, and indicator. A dialog box titled 'Bind Bound Field to a Program Field' is open, showing a table with columns for Field Name, Data Type, and Length. The 'in_char' field is selected, with Data Type 'Character' and Length '256'. The dialog also includes 'Field Formatting' options like 'Trim Leading Spaces', 'Trim Trailing Spaces', 'Right Justify and Blank Fill', and 'Right Justify and Zero Fill', along with a 'Text Transform' dropdown set to 'None'. On the right, the 'Field Properties' panel for 'in_char' shows 'bound field' and 'description'.

Universal Display File Handler

An RPG program communicates with a Universal Display File using IBM's Open Access for RPG. Open Access is a feature of the RPG compiler and runtime (since IBM i 6.1) that allows an alternate software component (called an Open Access Handler) to process file I/O operations for RPG.

Profound UI's Universal Display File Handler processes the RPG program's WRITE and READ operations on a Universal Display File, writing the results to an HTTP response, or an IFS file.

Universal Display File Web Connector

The Universal Display File web connector allows you to map a URL on the Profound UI HTTP server to a call to an RPG program on the IBM i. When called from the Web Connector, any output that the RPG program WRITES to a Universal Display File will be sent to the client in the HTTP response. HTTP query and POST input is provided to the RPG program for READ operations.

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