

Calling IBM i Programs

Program Calls

Profound.js allows you to call any existing IBM i programs, including programs written in CL, RPG, COBOL, and C. You can even call interactive programs, such as programs that use a green-screen interface or programs that use RPG Open Access to display a Rich User Interface. When a green-screen program is called, the green-screen interface is converted to HTML5 on-the-fly. This capability is provided by [Genie](#).

The calls will maintain a standard IBM i call stack. You can code these calls using a familiar top-down business programming paradigm, without having to code JavaScript asynchronous callbacks. Profound.js will wait for the called program to complete (even when a user interface is involved) without blocking the Node.js event loop. The call is then gracefully returned to Node.js processing. This capability is provided through [Fibers](#).

Calls to programs are made using the [pjs.call\(\)](#) API. For example:

```
pjs.call("PROGRAM");
```

Parameters

Passing parameters is very simple with Profound.js because of support for [Strongly typed fields](#). You can simply define a parameter field using the IBM i data type expected by the program you are calling. For example:

```
// Define Parameters
pjs.define("customerId", { type: "char", length: 8, initialValue: "10000123" });
pjs.define("mode", { type: "char", length: 10, initialValue: "DISPLAY" });

// Call Program
pjs.call("CUST01R", customerId, mode);
```

Parameters can be passed by reference (both input and output), meaning that the called program can change the values of fields defined within your Node.js code.